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data report 9301

Ibsen, Lars Bo; Bødker, Lars Bødker

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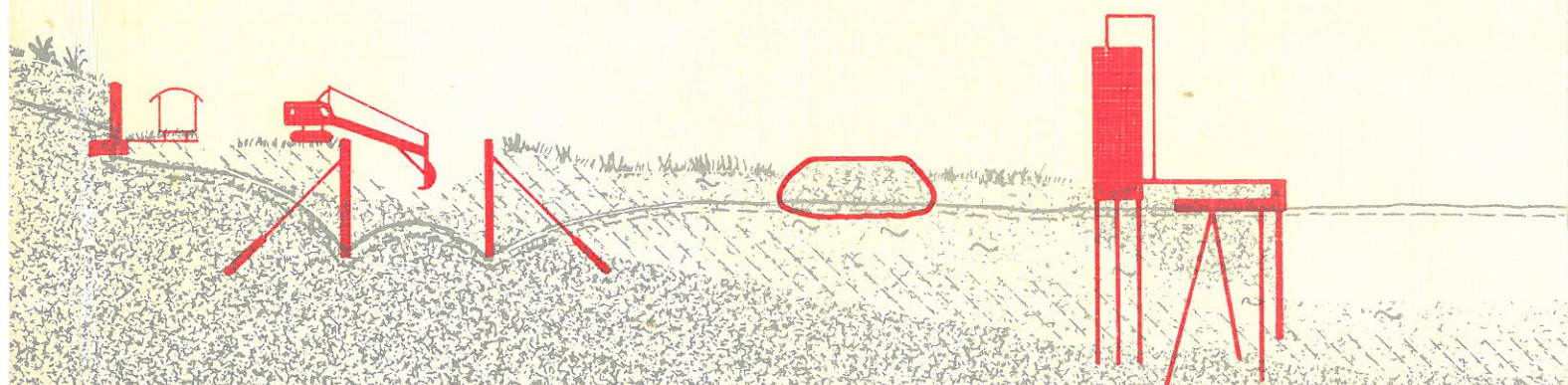
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DATA REPORT 9301

Baskarp Sand No 15

Lars Bo Ibsen & Lars Bødker
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DATA REPORT 9301

Baskarp Sand No 15

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List of symbols.

Latin letters

d	= diameter of grain
d_{10}	= 10% fractile
d_{50}	= 50% fractile
d_{60}	= 60% fractile
d_s	= grain density
e	= void ratio
e_0	= void ratio before test
e_f	= void ratio at failure
e_{\max}	= maximum void ratio
e_{\min}	= minimum void ratio
I_D	= density index
p	= mean stress = $1/3(\sigma_1+2\sigma_3)$
q	= deviatoric stress = $1/2(\sigma_1-\sigma_3)$
S_w	= saturation
'	= effective stress

Greek letters

ε	= strain
ε_1	= vertical strain
ε_v	= volumetric strain = $\varepsilon_1+2\varepsilon_3$
ε_p	= shear strain = $2/3(\varepsilon_1-\varepsilon_3)$
σ	= stress
σ_1	= vertical stress
σ_3	= confining pressure
'	= effective stress
γ	=
ψ	=

Introduction.

The Soil Mechanics Laboratory has started performing tests with a new sand, Baskarp No 15. Baskarp No 15 is a graded sand from Sweden. The shapes of the largest grains are round, while the small grains have sharp edges. The main part of Baskarp No 15 is quarts, but it also contains feldspar and biotit. Mainly the sand will be used for tests concerning the development of the theory of building up pore pressure in sand, L.B Ibsen 1993.

For the classification of the sand the performed tests are :

- Sieve test
- Grain density, d_s
- Maximum, e_{max} , and minimum, e_{min} , void ratio

To determine the strength parameters of Baskarp No 15 some drained and undrained triaxial tests have been performed using the Danish Triaxial Cell. The Danish Triaxial Cell prescribes smooth pressure heads and specimens with equal height and diameter. Three series with I_D equal to 0.01, 0.51 and 0.80 have been performed.

Classification of the sand.

From the sieve test following parameters have been determined /Hedegaard et al., 1993/ :

- $d_{50} = 0.14$ mm
- $d_{60}/d_{10} = 1.78$

The distribution of the grains is illustrated in figure 1.

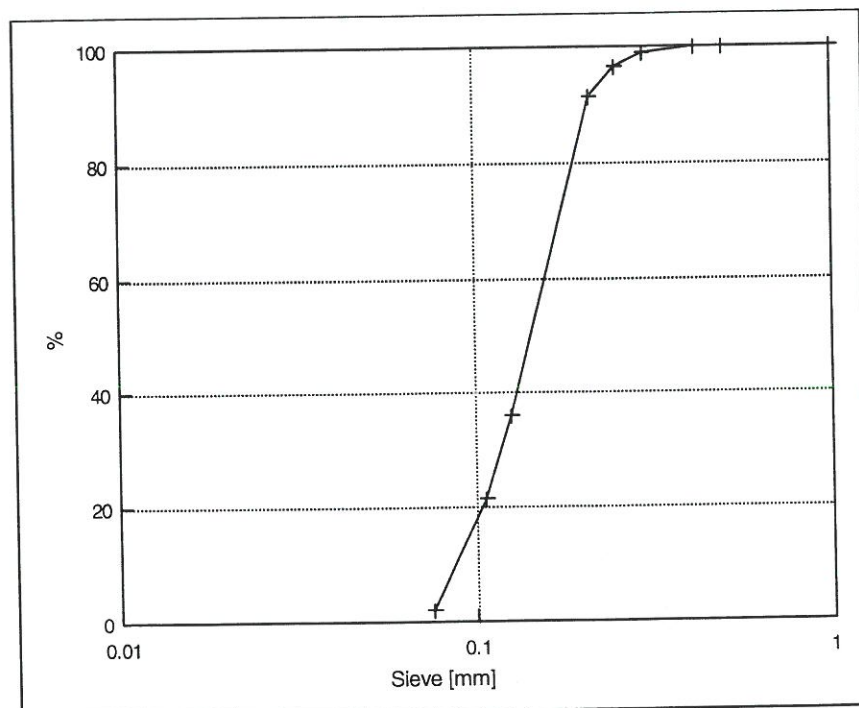


Figure 1 Distribution of grains for Baskarp No 15.

To make sure that the sand is dry, when it is kept in the laboratory, a test has been made to check the water content. It has been measured to 0.035 %, which means that the sand is dry. The grain density, maximum and minimum void ratios have been determined to /Hedegaard et al., 1993/ :

$$d_s = 2.64$$

$$e_{\max} = 0.858$$

$$e_{\min} = 0.549$$

All the tests have been performed according to the standard procedures used in the laboratory.

Triaxial tests.

To investigate the strength parameters of the sand three series of drained and undrained triaxial tests have been performed. Together with strength parameters also deformation parameters have been investigated. The three series are performed with three different void ratios going from a very loose specimen to medium dense specimen.

Besides the strength parameters at failure also the parameters to describe the characteristic state will be investigated. This state is defined as $\delta\varepsilon_v = 0$, and is called the characteristic line, CL.

The tests are performed in the Soil Mechanics Laboratory, and the dimension of the cylindrical specimen is height = 70 mm and diameter = 70 mm. Creating homogeneous stress and deformation conditions in the specimen also smooth pressure heads are used.

Drained triaxial tests.

The performed drained tests are listed in table 1, where the testnumber, void ratio and stress level are typed.

Stress level, σ_3' [kPa]	Void ratio, $e = 0.85$	Void ratio, $e = 0.70$	Void ratio, $e = 0.61$
5	9301_19	9301_26	9301_12
10	9301_17	9301_24	9301_11
20	9301_13	9301_25	9301_10
40	9301_16	9301_22	9301_04
80	9301_14	9301_20	9301_02
160	9301_15	9301_21	9301_03
320	9301_18	9301_27	9301_05-9301_07
640	9301_30	9301_28	9301_08
800	9301_31	9301_29	9301_32

Table 1 Testnumbers for the performed drained tests with void ratios from 0.61 to 0.85 and stress levels from 5 to 800 kPa.

The three tests with $e=0.61$ and $\sigma_3'=320$ kPa are because of the specimen slipped out just before failure for the tests 9301_05 and 9301_06.

The main results from the performed tests are listed in the following tables. To each test series two tables are connected. One for values at failure and one for values at $\delta\varepsilon_v = 0$.

BASKARP No 15

Test series CD, $I_D=0.01$				Values at failure					
Test No	e_o	e_f	S_w	σ_3' kPa	p' kPa	q' kPa	ε_1 %	ε_v %	ε_p %
9301_19	0.85	0.88	0.96	5.1	13	22	16.69	-1.67	17.24
9301_17	0.86	0.89	1	10.1	23	39	16.57	-1.99	17.23
9301_13	0.85	0.86	1.02	20.2	41	62	12.02	-0.9	12.32
9301_16	0.85	0.88	0.94	40	79	110	17.38	-1.58	17.9
9301_14	0.84	0.86	1.06	80.1	148	202	15.96	-0.87	16.25
9301_15	0.85	0.85	0.99	160.1	280	360	14.58	-0.03	14.59
9301_18	0.85	0.85	0.98	320	554	701	14.38	0.17	14.32
9301_30	0.86	0.85	0.95	640.2	1,096	1,368	15.21	0.19	15.15
9301_31	0.85	0.82	1.01	800	1,383	1,748	17.21	1.19	16.92

Table 2.a Values at failure for Baskarp No 15 with I_D equal to 0.01.

Test series CD, $I_D=0.01$				Values at $\delta\varepsilon_v=0$					
Test No	e_o	e_f	S_w	σ_3' kPa	p' kPa	q' kPa	ε_1 %	ε_v %	ε_p %
9301_19	0.85	0.88	0.96	5.1	7	6	0.15	0.01	0.15
9301_17	0.86	0.89	1	10.1	14	10	0.15	0.01	0.15
9301_13	0.85	0.86	1.02	20.2	35	43	2.02	0.1	1.99
9301_16	0.85	0.88	0.94	40	66	79	2.45	0.12	2.41
9301_14	0.84	0.86	1.06	80.1	133	159	3.51	0.49	3.35
9301_15	0.85	0.85	0.99	160.1	261	303	4.96	0.15	4.91
9301_18	0.85	0.85	0.98	320	523	609	5.78	0.85	5.5
9301_30	0.86	0.85	0.95	640.2	1,033	1,180	6.39	0.86	6.11
9301_31	0.85	0.82	1.01	800	1,354	1,661	10.43	1.42	9.96

Table 2.b Values at the characteristic state, CL, for Baskarp No 15 I_D equal to 0.01.

Test series CD, $I_D=0.51$				Values at failure					
Test No	e_0	e_f	S_w	σ_3' kPa	p' kPa	q' kPa	ϵ_1 %	ϵ_v %	ϵ_p %
9301_26	0.7	0.75	0.99	5	14	28	5.62	-2.57	6.47
9301_24	0.7	0.75	0.98	10.1	27	50	6.74	-3.41	7.87
9301_25	0.7	0.75	0.99	20	46	78	7.11	-3.1	8.13
9301_22	0.7	0.76	1.04	40.1	93	160	9.63	-3.52	10.79
9301_20	0.71	0.74	0.97	80.1	164	253	6.68	-1.94	7.32
9301_21	0.7	0.73	1.02	160	325	495	7.32	-1.89	7.94
9301_27	0.7	0.73	0.94	320	645	974	6.54	-1.67	7.09
9301_28	0.7	0.72		640.1	1,244	1,811	9	-1.53	9.5
9301_29	0.7	0.72	1.01	800.2	1,529	2,188	9.18	-1.14	9.56

Table 3.a Values at failure for Baskarp No 15 with I_D equal to 0.51.

Test series CD, $I_D=0.51$				Values at $\delta\epsilon_v=0$					
Test No	e_0	e_f	S_w	σ_3' kPa	p' kPa	q' kPa	ϵ_1 %	ϵ_v %	ϵ_p %
9301_26	0.7	0.75	0.99	5.1	8	7	0.14	0.02	0.13
9301_24	0.7	0.75	0.98	10	13	10	0.07	0.01	0.07
9301_25	0.7	0.75	0.99	20	30	29	0.31	0.04	0.3
9301_22	0.7	0.76	1.04	40.1	68	83	0.5	0.08	0.47
9301_20	0.71	0.74	0.97	80.1	133	158	0.94	0.15	0.89
9301_21	0.7	0.73	1.02	160	267	322	1.26	0.22	1.19
9301_27	0.7	0.73	0.94	320	530	629	1.06	0.15	1.01
9301_28	0.7	0.72		640	1,062	1,267	2.5	0.3	2.4
9301_29	0.7	0.72	1.01	799.9	1,339	1,618	3.05	0.38	2.92

Table 3.b Values at the characteristic state, CL, for Baskarp No 15 I_D equal to 0.51.

Test series CD, $I_D=0.80$				Values at failure					
Test No	e_o	e_r	S_w	σ_3' kPa	p' kPa	q' kPa	ϵ_1 %	ϵ_v %	ϵ_p %
9301_12	0.62	0.68	1	5	20	45	5.02	-4.13	6.38
9301_11	0.61	0.66	1.05	10.1	32	64	4.27	-3.24	5.34
9301_10	0.61	0.67	1.08	20.1	54	102	5.16	-3.65	6.36
9301_04	0.61	0.66	1.07	39.9	103	189	5.6	-3.5	6.76
9301_02	0.61	0.63		100.3	237	412	6.16	-1.22	6.56
9301_03	0.61	0.66	0.99	160.7	371	632	5.97	-2.69	6.86
9301_05	0.61		1.11	320.2		1,218			
9301_06	0.62		0.96	320.2		1,218			
9301_07	0.62	0.66	0.96	320.1	726	1,218	6.14	-2.53	6.97
9301_08	0.62	0.65	1.08	640.2	1,390	2,251	7.6	-2.21	8.33
9301_32	0.61	0.65	1.05	800.2	1,705	2,714	8.3	-1.97	8.95

Table 4.a Values at failure for Baskarp No 15 with I_D equal to 0.80.

Test series CD, $I_D=0.80$				Values at $\delta\epsilon_v=0$					
Test No	e_o	e_r	S_w	σ_3' kPa	p' kPa	q' kPa	ϵ_1 %	ϵ_v %	ϵ_p %
9301_12	0.62	0.68	1	5	10	14	0.07	0.01	0.07
9301_11	0.61	0.66	1.05	10	17	21	0.12	0.02	0.11
9301_10	0.61	0.67	1.08	20	34	42	0.16	0.03	0.15
9301_04	0.61	0.67	1.07	39.9	72	100	0.34	0.05	0.32
9301_02	0.61	0.63		100.1	199	296	1.1	0.61	0.9
9301_03	0.61	0.66	0.99	160.4	278	352	0.79	0.13	0.75
9301_05	0.61		1.11	320.2	553	697	1.34	0.22	1.27
9301_06	0.62		0.96	320.2	555	704	1.03	0.12	0.99
9301_07	0.62	0.66	0.96	320	547	682	1	0.12	0.96
9301_08	0.62	0.65	1.08	640.1	1,079	1,316	2.14	0.23	2.06
9301_32	0.61	0.65	1.05	800.1	1,371	1,712	2.62	0.38	2.49

Table 4.b Values at the characteristic state, CL, for Baskarp No 15 I_D equal to 0.80.

The tables 2.a, 2.b, 3.a, 3.b, 4.a and 4.b will form the basis of the interpretation of the parameters to describe the strength of Baskarp No 15.

Undrained triaxial tests, $CU_{u=0}$.

The main results from the performed undrained tests are listed in the following table. The tests are performed as $CU_{u=0}$ tests that mean the tests are run with constant volume.

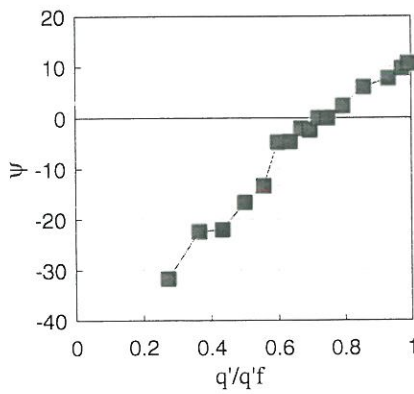
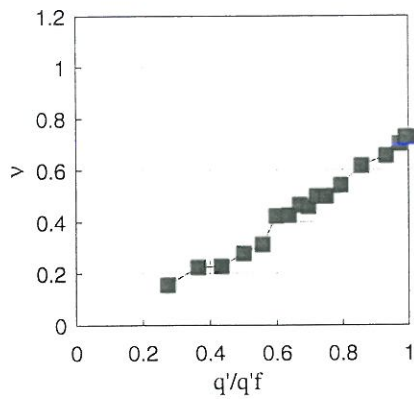
Test series $CU_{u=0}$			Values at start			Values for minimum of σ_3'					
Test No	e_0	S_w	σ_3' kPa	p' kPa	q' kPa	σ_3' kPa	p' kPa	q' kPa	ϵ_1 %	ϵ_q %	ϵ_v %
9401_03	0.61	1.19	100	99.8	0.7	64.3	110.7	139.2	0.32	0.32	0
9401_01	0.7	0.96	10	10.1	0.3	7.2	10.3	9.4	0.07	0.07	0
9401_02	0.85	1	10	10.2	0.3	5.9	9.8	11.6	0.92	0.92	0

Table 5 Characteristic values to describe the three undrained triaxial tests, $CU_{u=0}$

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	2.64	627
Calibration file	Date	Void ratio	0.608	0.669
kal4	22.10.93	Saturation		
		Dimension H mm	71.5	
		D mm	69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-100 kPa
		ϵ_1	0.000 %
		ϵ_v	0.048 %
	2. Drained compression.		
	Deformation rate:		6.1 % ph

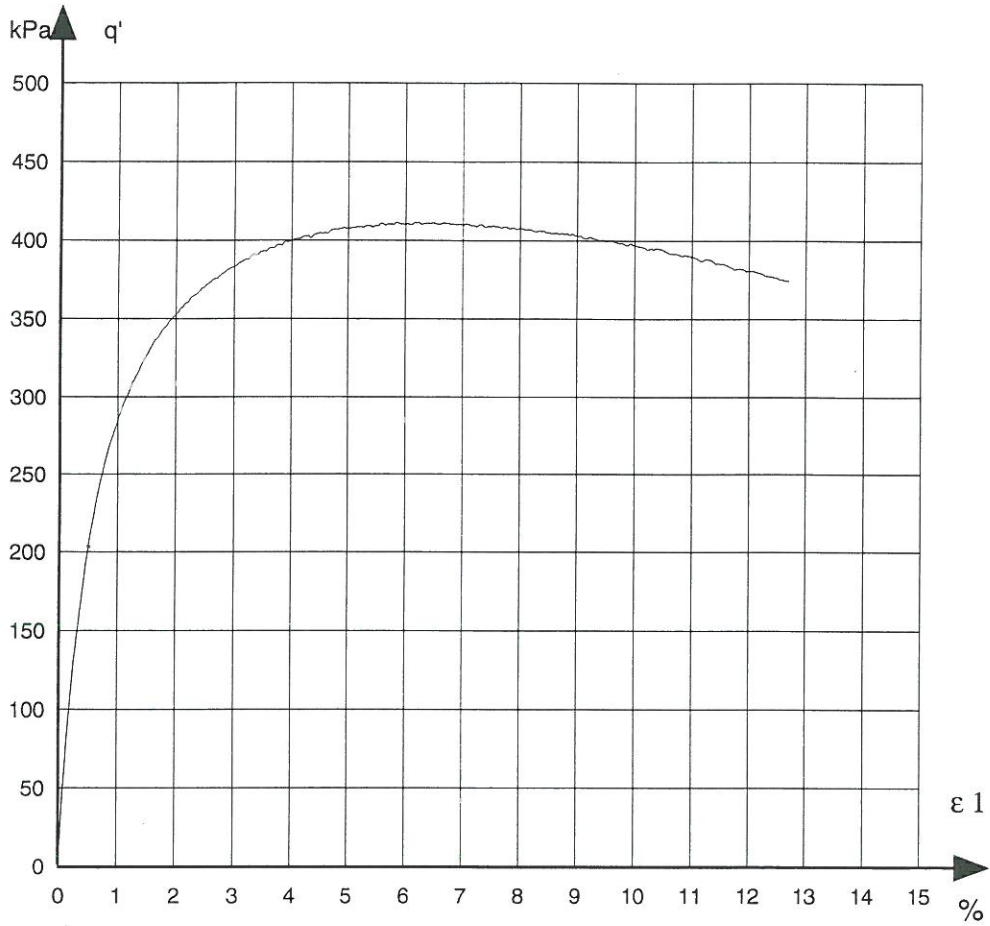
		Values at failure	Values for $\Delta\epsilon_v = 0$
Deviator stress	q'	411.56 kPa	308.10 kPa
Mean normal stress	p'	237.39 kPa	202.90 kPa
Confining pressures	σ_3	100.20 kPa	100.20 kPa
Vertical strain	ϵ_1	6.16 %	1.24 %
Volumetric strain	ϵ_v	-1.22 %	0.61 %



q'	p'	ϵ_1	ϵ_v
0.32	100.31	0.00	0.00
70.30	123.63	0.11	0.31
112.38	137.66	0.20	0.37
149.88	150.06	0.30	0.43
178.29	159.53	0.40	0.48
205.67	168.66	0.51	0.53
228.80	176.37	0.61	0.57
246.05	182.12	0.71	0.58
261.33	187.21	0.81	0.60
274.92	191.84	0.91	0.60
285.96	195.52	1.00	0.61
295.98	198.86	1.10	0.61
308.10	202.90	1.24	0.61
326.77	209.22	1.50	0.59
352.73	217.88	2.00	0.47
383.47	228.02	3.01	0.16
400.28	233.73	4.01	-0.25
407.69	236.10	5.02	-0.70
410.63	237.08	6.02	-1.15
411.56	237.39	6.16	-1.22
407.78	236.13	8.01	-2.04
397.40	232.67	10.01	-2.86
381.13	227.24	12.00	-3.53
374.08	224.89	12.70	-3.74

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark: Preparation [%] $\Delta\epsilon_1 = -0.094$ Fault by measuring saturation

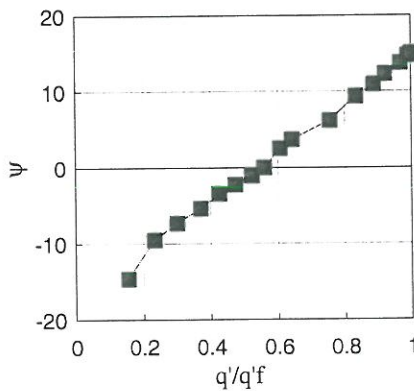
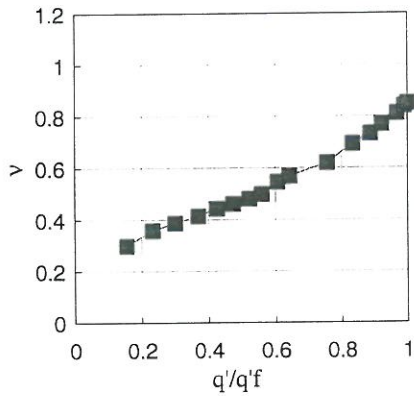


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	22.9	At failure <i>0.655</i> 0.698
		Grain density	2.64	
Calibration file	Date	Void ratio	0.612	
kal4	25.10.93	Saturation	0.99	
		Dimension H mm	71.5	
		D mm	69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-160 kPa
		ϵ_1	0.033 %
		ϵ_v	0.015 %
	2. Drained compression.		
	Deformation rate:		6.2 % ph

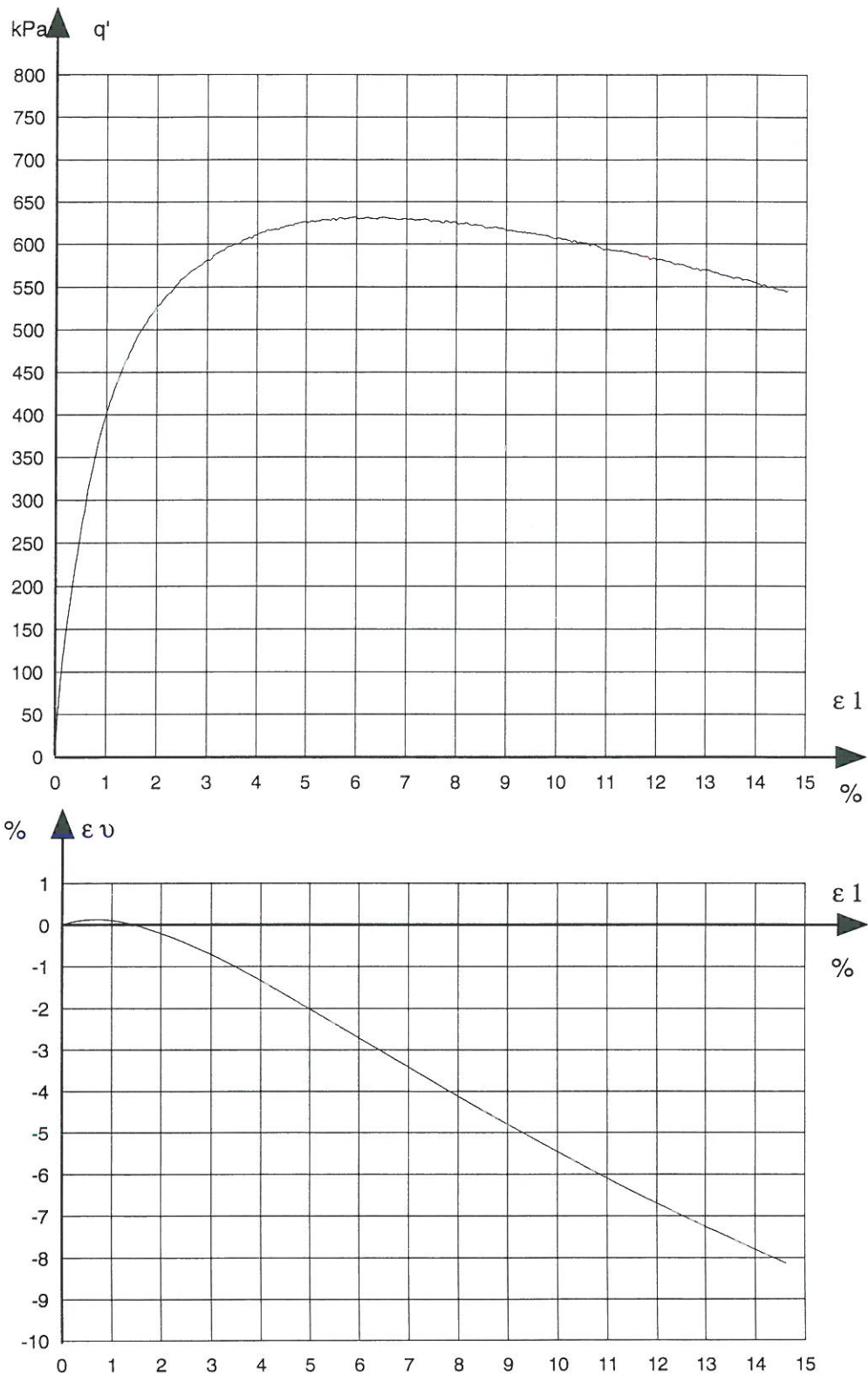
		Values at failure	Values for $\Delta\epsilon_v = 0$
Deviator stress	q'	631.62 kPa	352.42 kPa
Mean normal stress	p'	371.24 kPa	277.87 kPa
Confining pressures	σ_3	160.70 kPa	160.40 kPa
Vertical strain	ϵ_1	5.97 %	0.79 %
Volumetric strain	ϵ_v	-2.69 %	0.13 %



q'	p'	ϵ_1	ϵ_v
0.65	160.42	0.00	0.00
97.19	192.60	0.11	0.04
146.17	208.92	0.20	0.07
189.26	223.29	0.30	0.09
232.91	237.94	0.40	0.11
268.11	249.57	0.50	0.12
298.74	259.78	0.60	0.13
329.60	270.17	0.70	0.13
352.42	277.87	0.79	0.13
382.73	288.18	0.91	0.12
405.00	295.70	1.01	0.11
477.00	319.60	1.50	-0.01
526.12	335.97	2.00	-0.21
560.28	347.46	2.52	-0.45
581.78	354.53	3.02	-0.72
611.40	364.40	4.02	-1.34
625.45	369.08	5.01	-2.02
631.62	371.24	5.97	-2.69
630.50	370.87	6.02	-2.72
623.86	368.55	8.02	-4.13
605.93	362.68	10.01	-5.47
582.04	354.61	11.99	-6.69
553.64	345.15	14.03	-7.81
544.81	342.20	14.63	-8.13

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark: Preparation [%] $\Delta\epsilon_1 = 0.009$

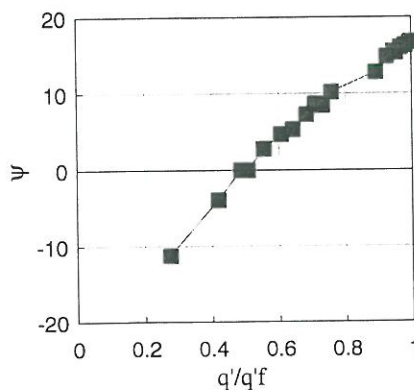
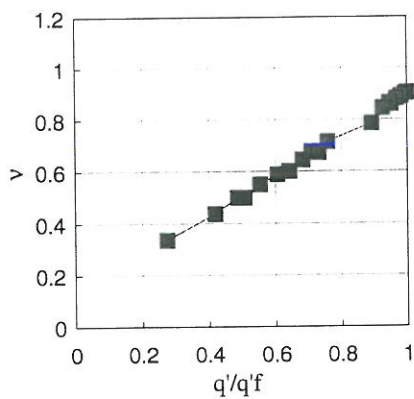


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	24.7	Before test	At failure
		Grain density	2.64		
Calibration file	Date	Void ratio	0.608		0.665 0.708
kal4	26.10.93	Saturation	1.07		
		Dimension H mm	71.5		
		D mm	69.7		

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-40 kPa
		ϵ_1	-0.067 %
		ϵ_v	-0.180 %
	2. Drained compression.		
	Deformation rate:		7.9 % ph

		Values at failure		Values for $\Delta\epsilon_v = 0$	
Deviator stress	q'	188.76	kPa	95.59	kPa
Mean normal stress	p'	102.82	kPa	71.76	kPa
Confining pressures	σ_3	39.90	kPa	39.90	kPa
Vertical strain	ϵ_1	5.60	%	0.34	%
Volumetric strain	ϵ_v	-3.49	%	0.05	%

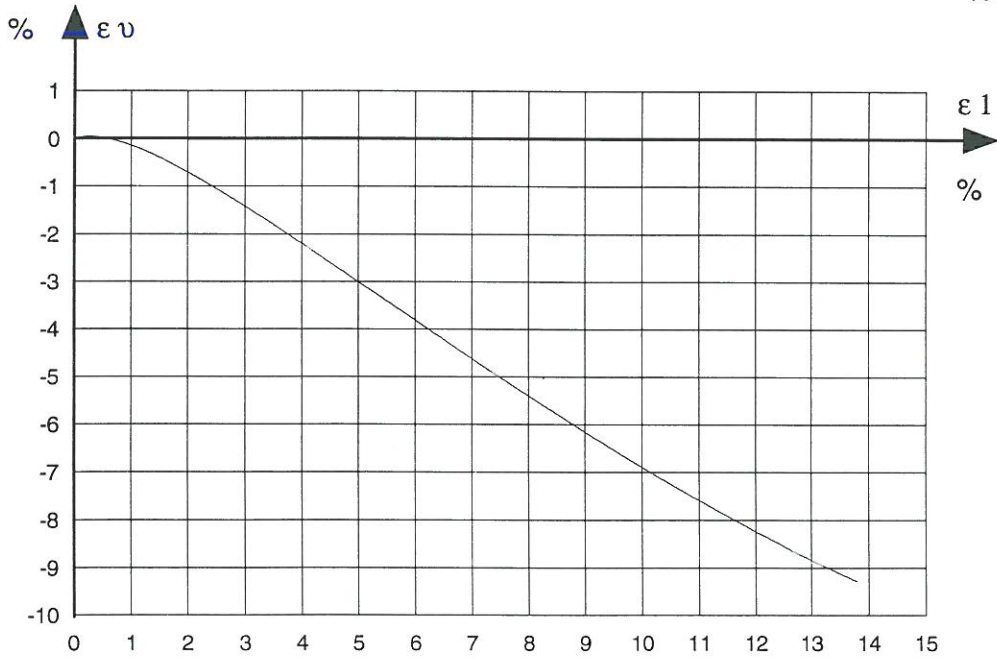
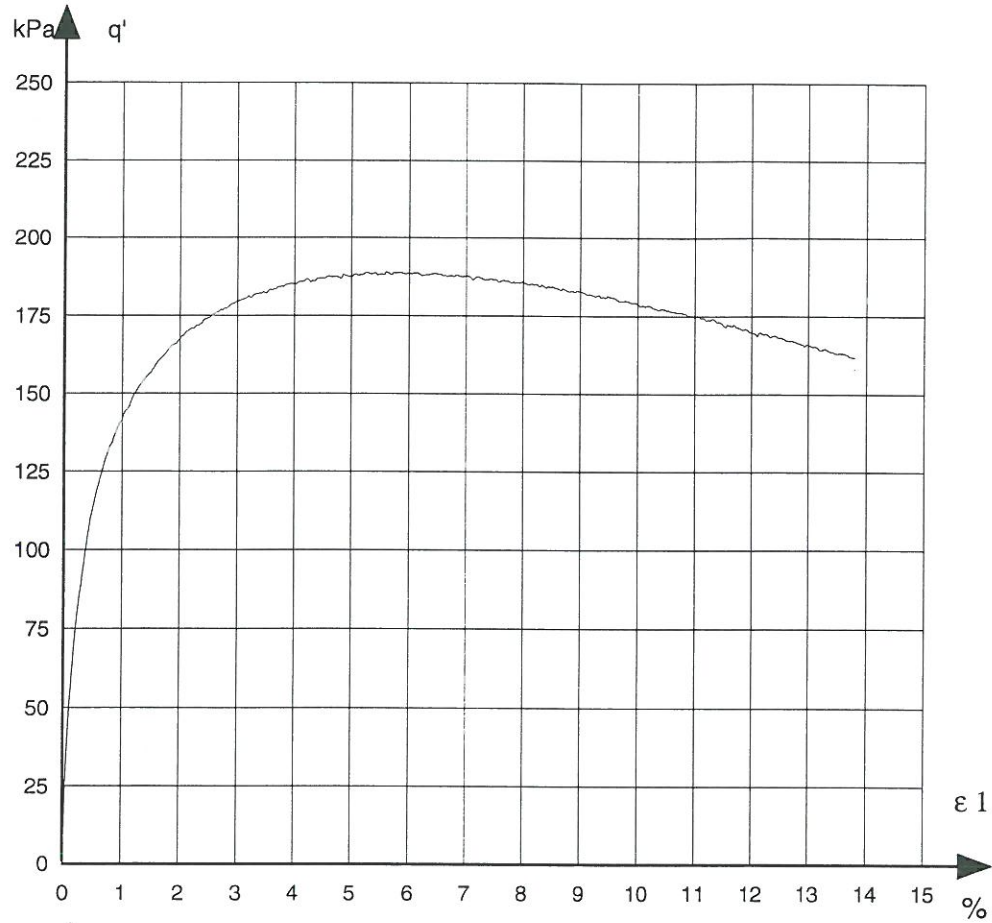


q'	p'	ϵ_1	ϵ_v
1.29	40.33	0.00	0.00
51.61	57.10	0.10	0.03
78.95	66.22	0.22	0.05
91.76	70.49	0.31	0.05
95.59	71.76	0.34	0.05
104.52	74.74	0.41	0.04
114.35	78.02	0.51	0.02
120.97	80.22	0.60	0.00
128.80	82.83	0.71	-0.03
133.74	84.48	0.82	-0.07
138.06	85.92	0.90	-0.10
142.94	87.55	1.01	-0.14
168.29	96.00	2.03	-0.72
179.63	99.78	3.02	-1.43
184.93	101.54	4.01	-2.21
188.76	102.82	5.60	-3.49
188.48	102.73	6.02	-3.83
187.58	102.43	7.03	-4.64
185.36	101.69	8.02	-5.41
182.55	100.75	9.03	-6.18
178.55	99.42	10.01	-6.90
174.66	98.12	11.01	-7.59
169.76	96.49	12.03	-8.25
161.71	93.80	13.81	-9.28

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark:		
Preparation	$\delta \epsilon_1 =$	-0.017

+

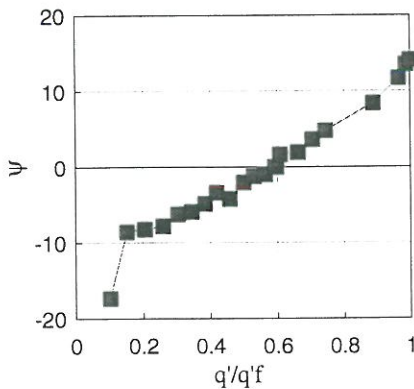
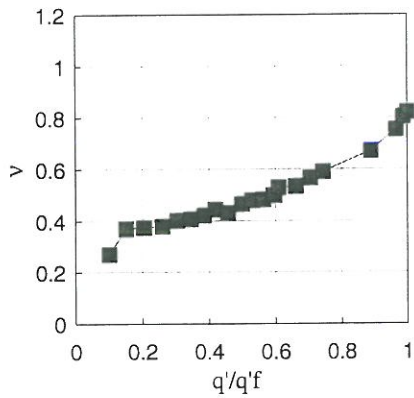


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	25.6	
Calibration file kal4	Date 28.10.93	Void ratio	2.64	0,637
		Saturation	0.608	0.679
		Dimension H mm	1.11	
		D mm	71.5	
			69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-320 kPa
		ϵ_1	0.112 %
		ϵ_v	0.352 %
	2. Drained compression.		
	Deformation rate:		5.5 % ph

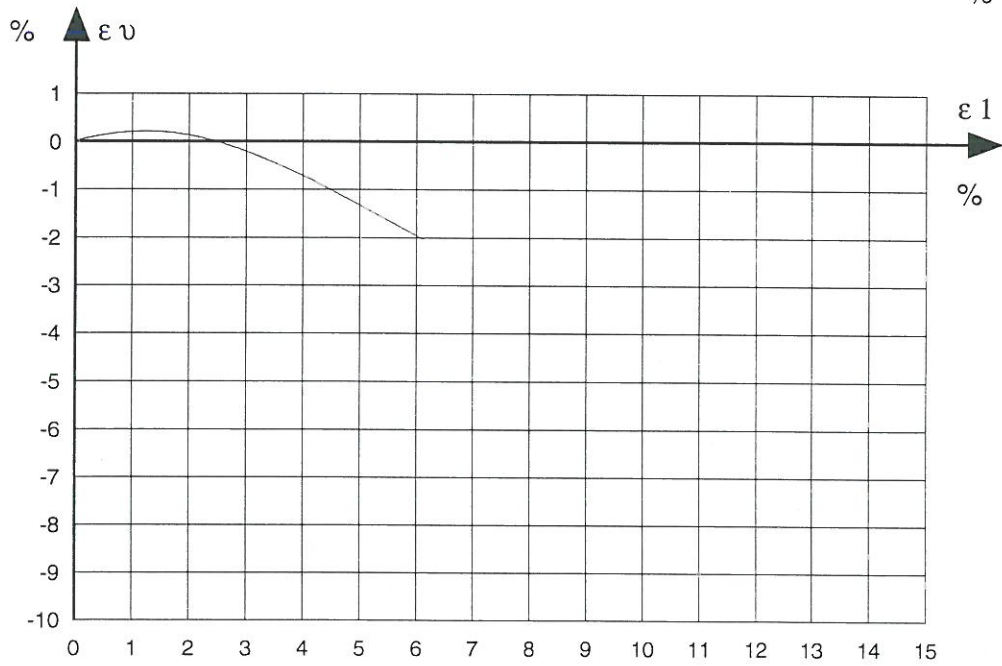
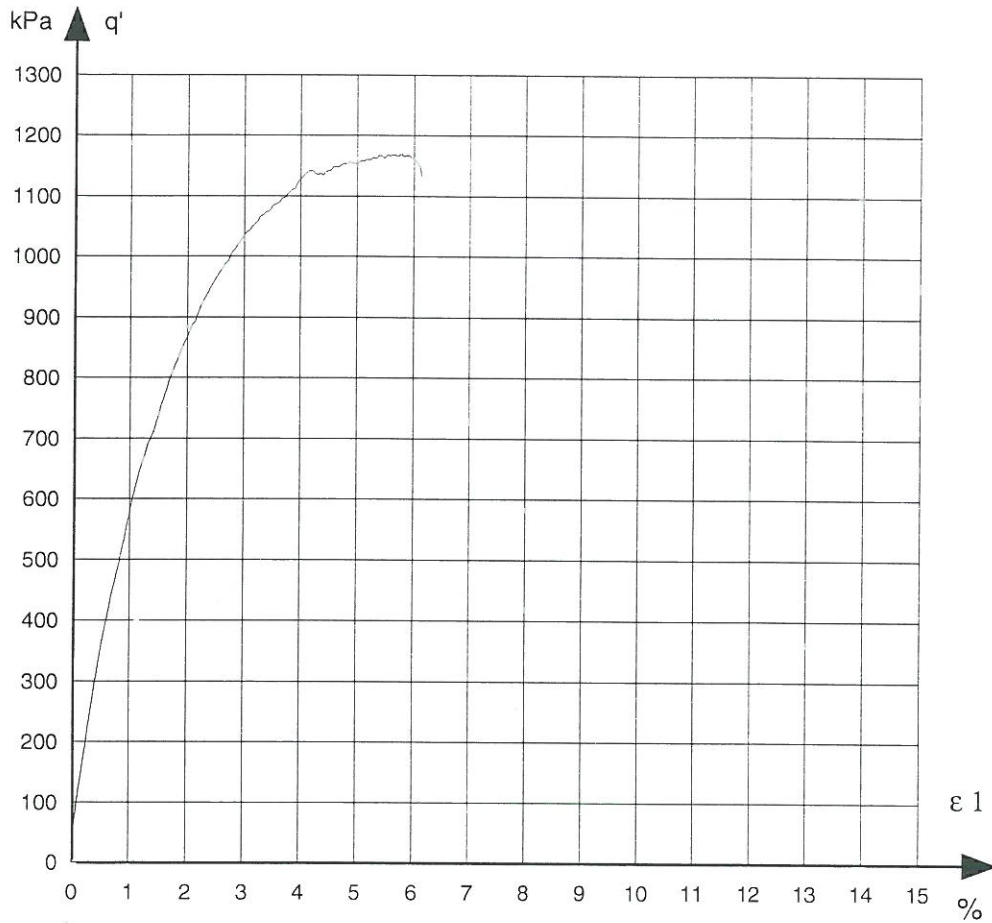
		Values at failure	Values for $\Delta\epsilon_v = 0$
Deviator stress	q'	1,168.82 kPa	696.91 kPa
Mean normal stress	p'	709.81 kPa	552.50 kPa
Confining pressures	σ_3	320.20 kPa	320.20 kPa
Vertical strain	ϵ_1	5.78 %	1.34 %
Volumetric strain	ϵ_v	-1.82 %	0.22 %



q'	p'	ϵ_1	ϵ_v
1.30	320.53	0.00	0.00
116.55	358.95	0.10	0.05
175.99	378.26	0.20	0.07
238.24	399.51	0.30	0.10
302.00	420.77	0.41	0.12
354.38	438.23	0.51	0.14
401.83	454.04	0.60	0.16
448.88	469.73	0.70	0.18
489.05	483.22	0.80	0.19
533.95	498.08	0.90	0.20
583.22	514.51	1.01	0.21
618.04	526.21	1.10	0.21
657.14	539.15	1.21	0.22
691.95	550.75	1.32	0.22
696.91	552.50	1.34	0.22
710.53	556.94	1.40	0.21
772.78	577.79	1.61	0.20
823.02	594.44	1.80	0.17
868.39	609.56	2.01	0.14
1038.18	666.26	3.02	-0.21
1128.77	700.06	4.00	-0.71
1153.78	704.79	5.01	-1.33
1168.82	709.81	5.78	-1.82
1130.42	696.91	6.14	-2.03

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark:	
Preparation	$\delta \epsilon_1 = -0.009$
Specimen slipped out.	

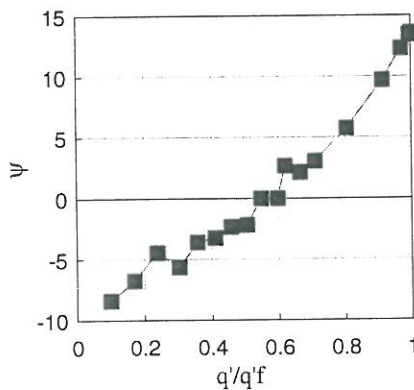
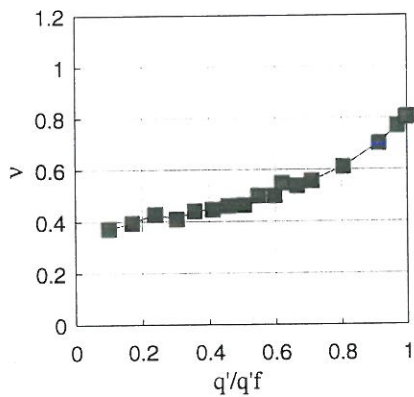


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	22.5	At failure 0.647 0.689
		Grain density	2.64	
Calibration file	Date	Void ratio	0.618	
kal4	29.10.93	Saturation	0.96	
		Dimension H mm	71.5	
		D mm	69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-320 kPa
		ϵ_1	0.048 %
		ϵ_v	0.330 %
	2. Drained compression.		
	Deformation rate:		5.6 % ph

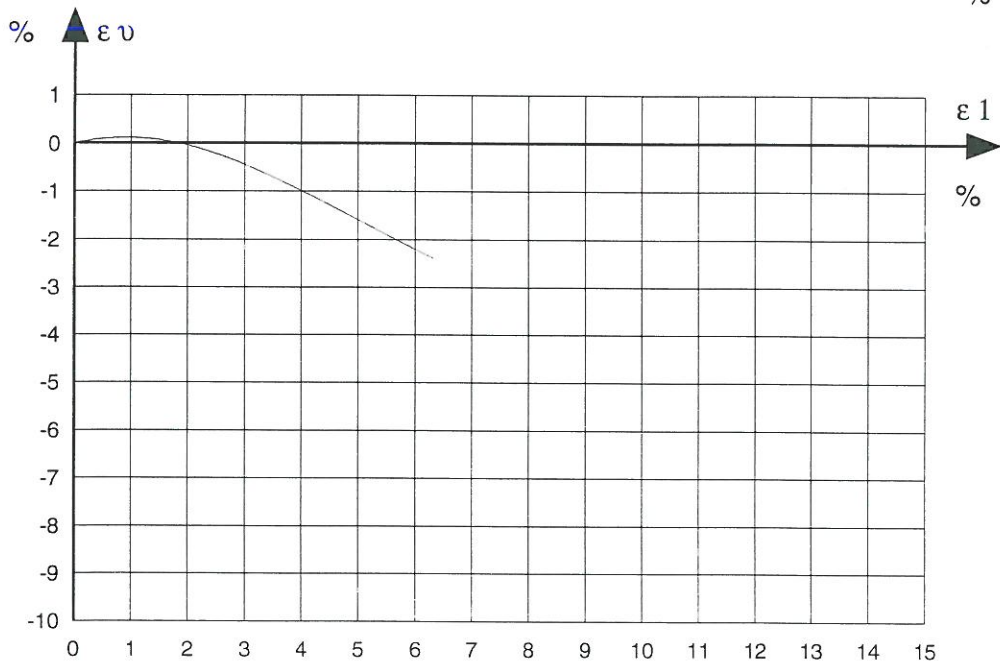
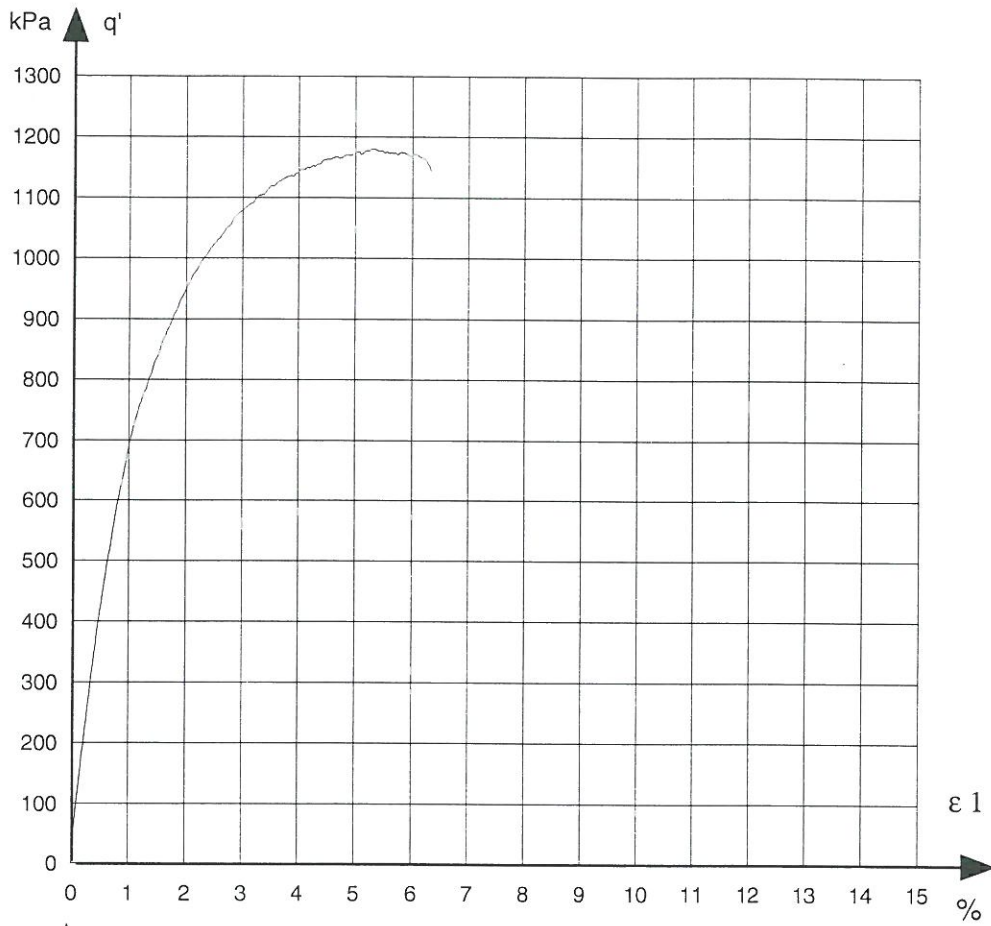
		Values at failure	Values for $\Delta\epsilon_v = 0$
Deviator stress	q'	1,180.61 kPa	704.47 kPa
Mean normal stress	p'	713.84 kPa	555.02 kPa
Confining pressures	σ_3	320.30 kPa	320.20 kPa
Vertical strain	ϵ_1	5.29 %	1.03 %
Volumetric strain	ϵ_v	-1.77 %	0.12 %



q'	p'	ϵ_1	ϵ_v
0.32	320.31	0.00	0.00
116.58	359.06	0.10	0.03
199.64	386.65	0.20	0.05
280.28	413.63	0.31	0.06
355.30	438.63	0.41	0.08
420.20	460.17	0.50	0.09
483.66	481.42	0.60	0.10
539.61	499.97	0.70	0.11
596.39	519.00	0.80	0.12
646.55	535.72	0.91	0.12
704.47	555.02	1.03	0.12
731.15	563.92	1.11	0.11
784.39	581.76	1.30	0.10
836.65	599.18	1.50	0.07
950.09	637.00	2.01	-0.04
1079.22	680.04	3.01	-0.45
1145.54	702.15	4.02	-1.00
1175.10	712.00	5.02	-1.60
1180.61	713.84	5.29	-1.77
1168.32	709.74	6.00	-2.20
1143.14	701.35	6.33	-2.39

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark:	
Preparation	$\delta \epsilon_1 = -0.039$
Specimen slipped out.	

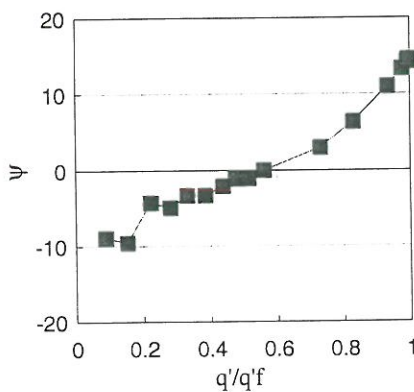
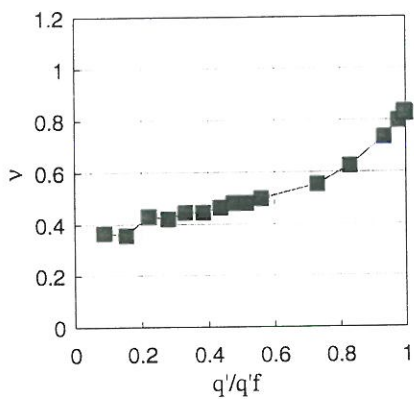


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	22.4	
Calibration file kal4	Date 01.11.93	Void ratio	2.64	0.657
		Saturation	0.616	0.700
		Dimension H mm D mm	0.96	
			71.5	
		69.7		

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-320 kPa
		ϵ_1	0.026 %
		ϵ_v	0.345 %
	2. Drained compression.		
	Deformation rate:		4.8 % ph

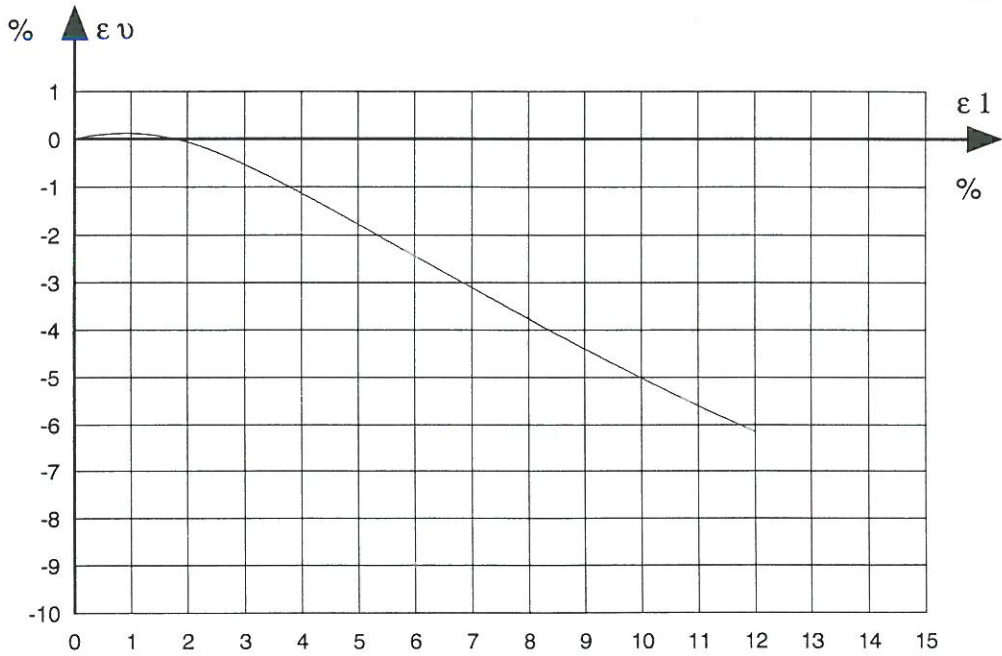
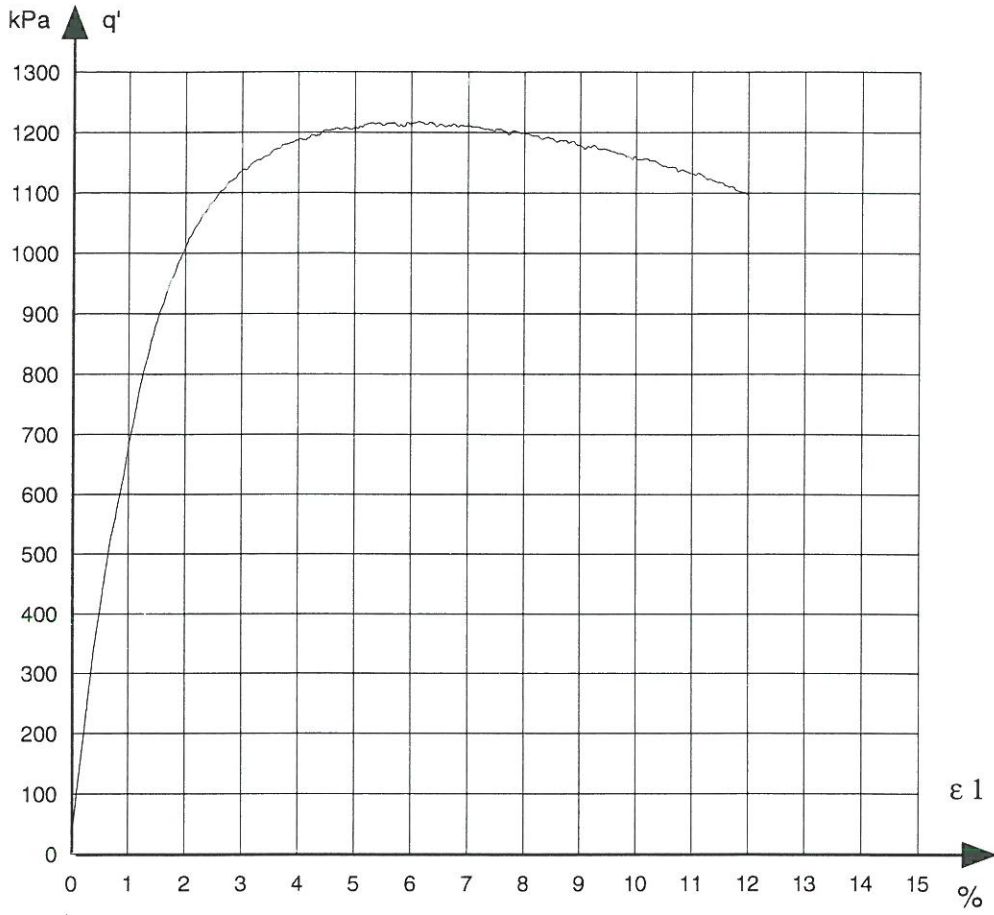
		Values at failure	Values for $\Delta \epsilon_v = 0$
Deviator stress	q'	1,217.86 kPa	681.54 kPa
Mean normal stress	p'	726.05 kPa	547.18 kPa
Confining pressures	σ_3	320.10 kPa	320.00 kPa
Vertical strain	ϵ_1	6.14 %	1.00 %
Volumetric strain	ϵ_v	-2.53 %	0.12 %



q'	p'	ϵ_1	ϵ_v
0.32	320.01	0.00	0.00
105.61	355.20	0.10	0.03
185.49	381.83	0.20	0.05
268.44	409.38	0.30	0.07
339.01	433.00	0.40	0.08
401.02	453.67	0.50	0.10
466.79	475.60	0.60	0.11
531.11	496.94	0.70	0.11
578.25	512.65	0.80	0.12
625.60	528.53	0.90	0.12
681.54	547.18	1.00	0.12
887.96	616.09	1.50	0.07
1009.05	656.45	2.00	-0.06
1136.54	698.95	2.99	-0.52
1188.72	716.24	4.00	-1.13
1208.57	722.96	5.01	-1.79
1215.13	725.14	6.00	-2.44
1217.86	726.05	6.14	-2.53
1210.74	723.68	7.00	-3.10
1198.80	719.70	8.00	-3.76
1156.51	705.60	10.01	-5.02
1096.15	685.48	11.99	-6.14
1088.75	683.02	12.02	-6.15

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark:		
Preparation	$\delta \epsilon_1 =$	-0.098

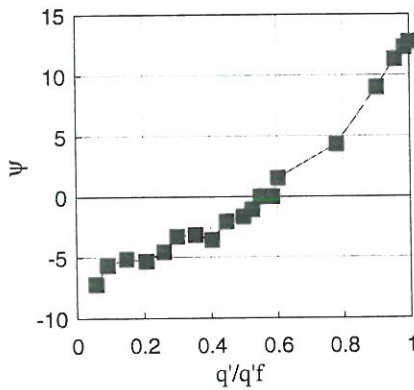
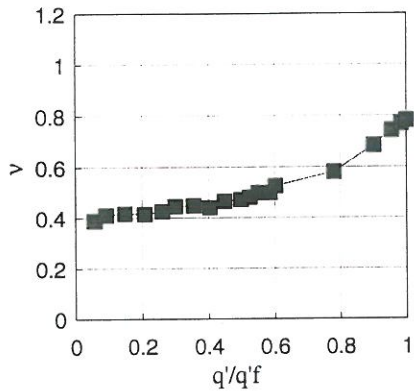


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	25.3	
Calibration file kal4	Date 02.11.93	Void ratio	2.64	0.652
		Saturation	0.617	0.695
		Dimension H mm	1.08	
		Dimension D mm	71.5	
			69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-640 kPa
		ϵ_1	0.240 %
		ϵ_v	0.597 %
	2. Drained compression.		
	Deformation rate:		5.6 % ph

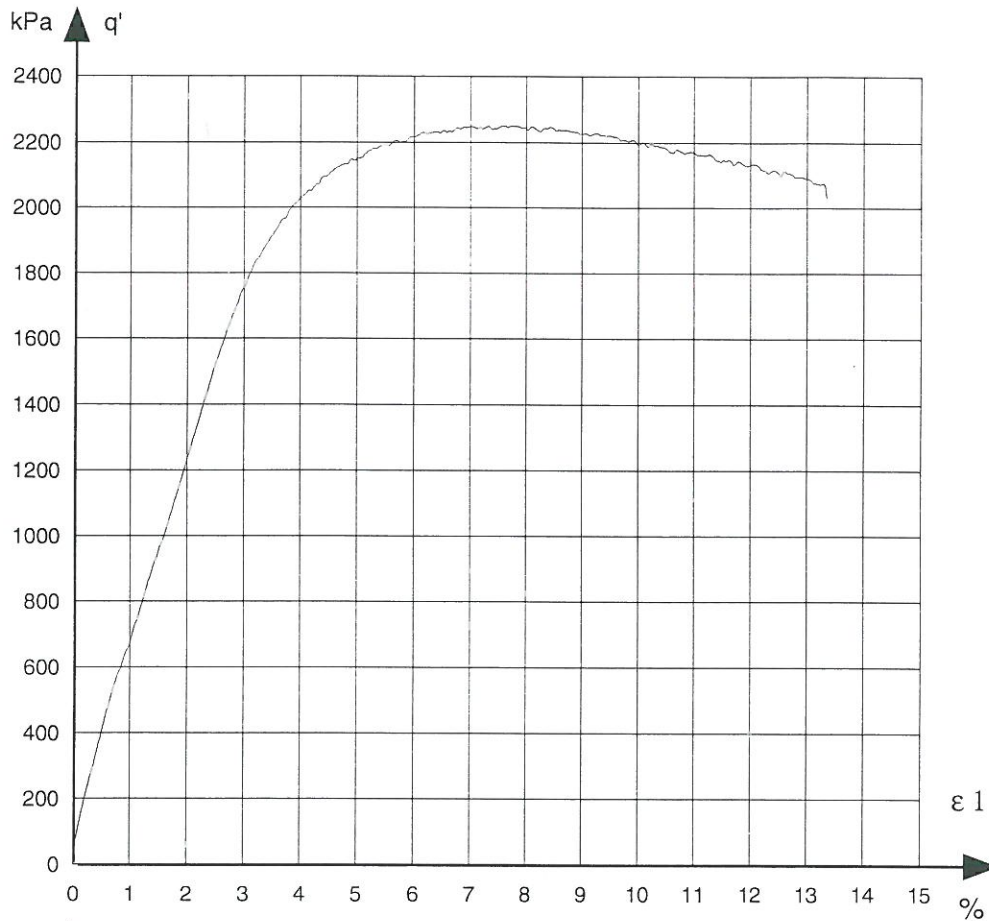
		Values at failure	Values for $\Delta \epsilon_v = 0$
Deviator stress	q'	2,250.60 kPa	1315.95 kPa
Mean normal stress	p'	1,390.40 kPa	1078.75 kPa
Confining pressures	σ_3	640.20 kPa	640.10 kPa
Vertical strain	ϵ_1	7.60 %	2.14 %
Volumetric strain	ϵ_v	-2.21 %	0.23 %



q'	p'	ϵ_1	ϵ_v
2.59	640.96	0.00	0.00
125.41	681.90	0.10	0.02
202.37	707.56	0.20	0.04
331.65	750.75	0.40	0.07
465.69	795.33	0.60	0.11
583.12	834.47	0.80	0.14
671.77	864.02	1.00	0.16
794.70	905.10	1.21	0.18
905.51	941.94	1.40	0.20
1005.37	975.22	1.61	0.22
1119.96	1013.52	1.81	0.23
1178.79	1033.03	1.91	0.23
1236.48	1052.26	2.01	0.23
1315.95	1078.75	2.14	0.23
1353.45	1091.35	2.21	0.23
1756.11	1225.57	3.00	0.10
2028.16	1316.25	4.01	-0.28
2150.98	1357.19	5.01	-0.77
2216.28	1378.96	6.02	-1.31
2249.08	1389.79	7.01	-1.87
2250.60	1390.40	7.60	-2.21
2225.89	1382.16	9.01	-3.02
2168.90	1363.17	11.01	-4.13
2028.86	1316.49	13.34	-5.34

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark: Preparation [%] $\Delta \epsilon_1 = -0.049$

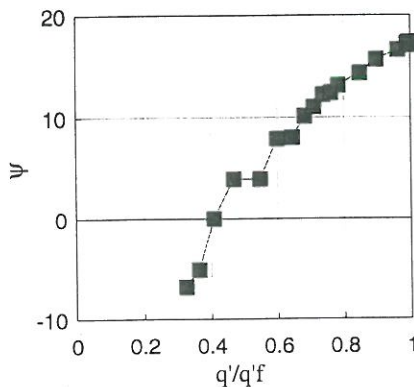
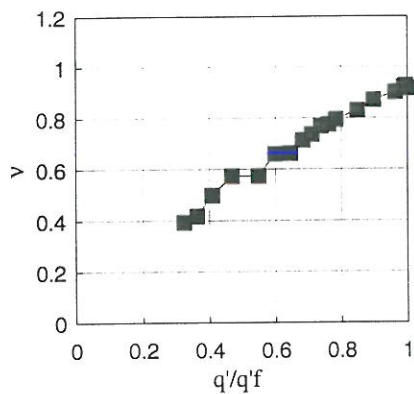


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	25	
Calibration file kal3	Date 15.11.93	Void ratio	2.64	0.667
		Saturation	0.600	0.710
		Dimension H mm	1.08	
		Dimension D mm	71.5	
			69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-20 kPa
		ϵ_1	-0.089 %
		ϵ_v	-0.231 %
	2. Drained compression.		
	Deformation rate:		4.2 % ph

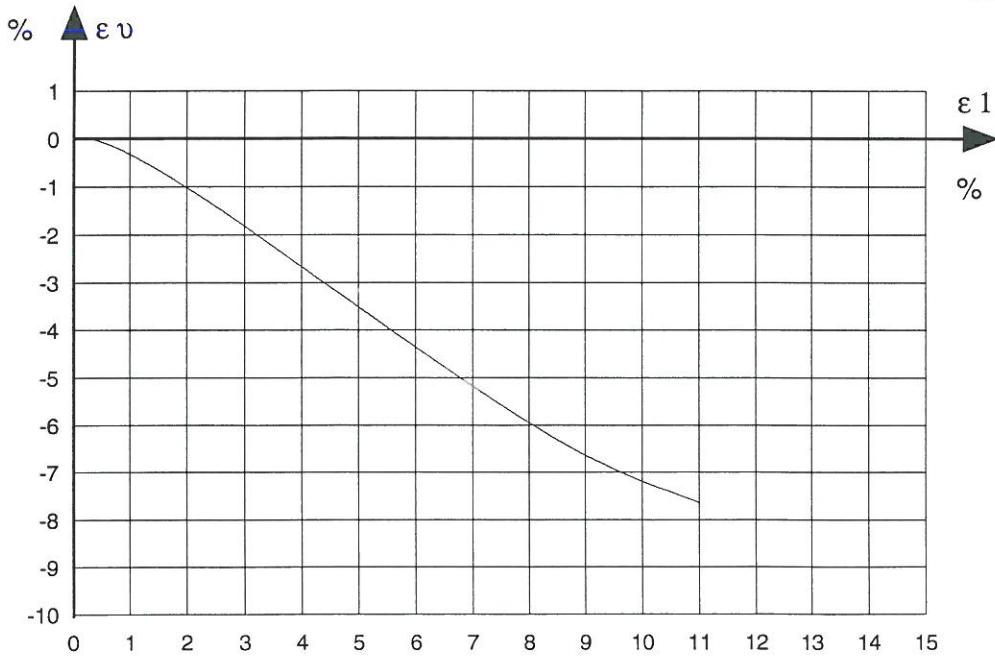
		Values at failure	Values for $\Delta\epsilon_v = 0$
Deviator stress	q'	101.90 kPa	41.49 kPa
Mean normal stress	p'	54.07 kPa	33.83 kPa
Confining pressures	σ_3	20.10 kPa	20.00 kPa
Vertical strain	ϵ_1	5.16 %	0.16 %
Volumetric strain	ϵ_v	-3.65 %	0.03 %



q'	p'	ϵ_1	ϵ_v
0.38	20.13	0.00	0.00
32.91	30.97	0.10	0.02
36.95	32.32	0.13	0.03
41.49	33.83	0.16	0.03
47.66	35.89	0.21	0.02
55.82	38.71	0.31	0.00
60.92	40.41	0.40	-0.03
65.63	41.98	0.50	-0.06
69.44	43.25	0.59	-0.10
72.22	44.17	0.69	-0.15
75.11	45.14	0.80	-0.21
77.50	45.83	0.90	-0.26
79.74	46.68	1.01	-0.32
86.40	48.90	1.51	-0.65
91.44	50.58	2.00	-1.02
98.10	52.80	3.01	-1.83
100.79	53.60	4.01	-2.67
101.25	53.85	5.01	-3.52
101.90	54.07	5.16	-3.65
100.63	53.54	6.01	-4.37
99.48	53.26	7.00	-5.18
97.15	52.48	8.00	-5.95
92.76	50.92	9.00	-6.64
83.30	47.77	10.99	-7.63

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark: Preparation [%] $\Delta\epsilon_1 = -0.025$ Specimen slipped out.

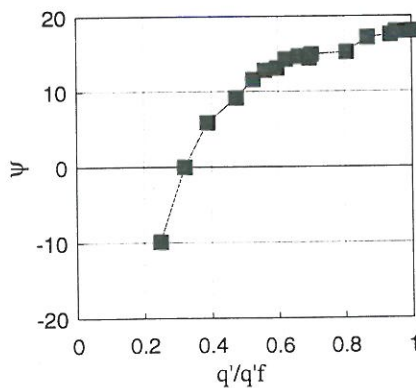
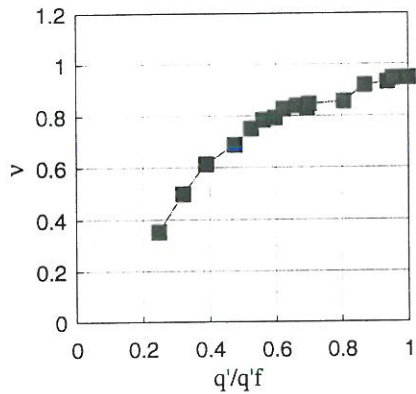


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	24.3	0.660 0.703
Calibration file	Date	Void ratio	0.608	
kal3	19.11.93	Saturation	1.05	
		Dimension H mm	71.5	
		D mm	69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-10 kPa
		ϵ_1	-0.129 %
		ϵ_v	-0.312 %
	2. Drained compression.		
	Deformation rate:		4.2 % ph

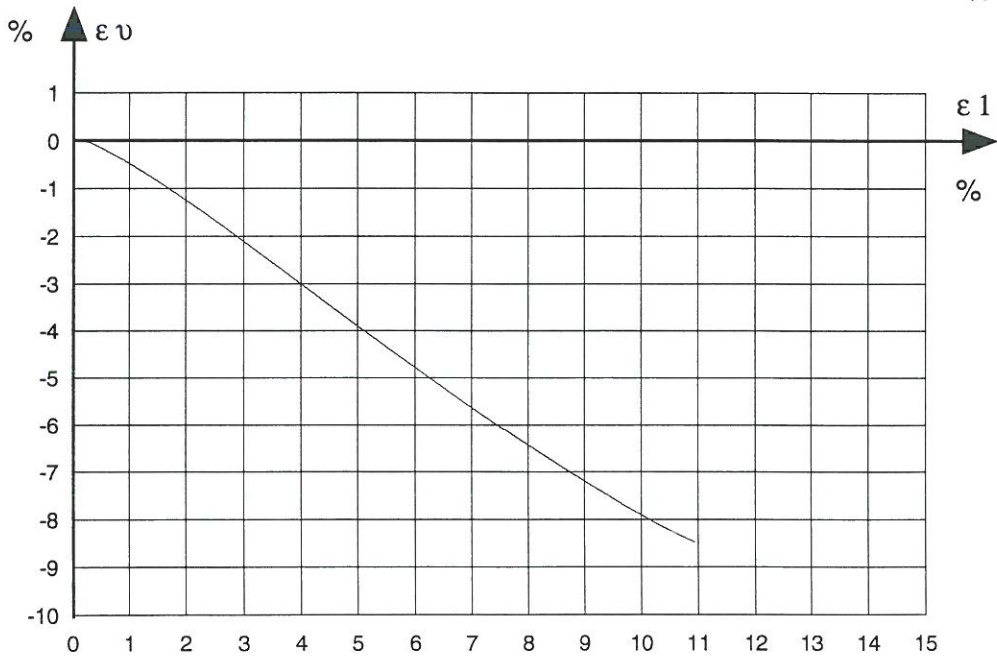
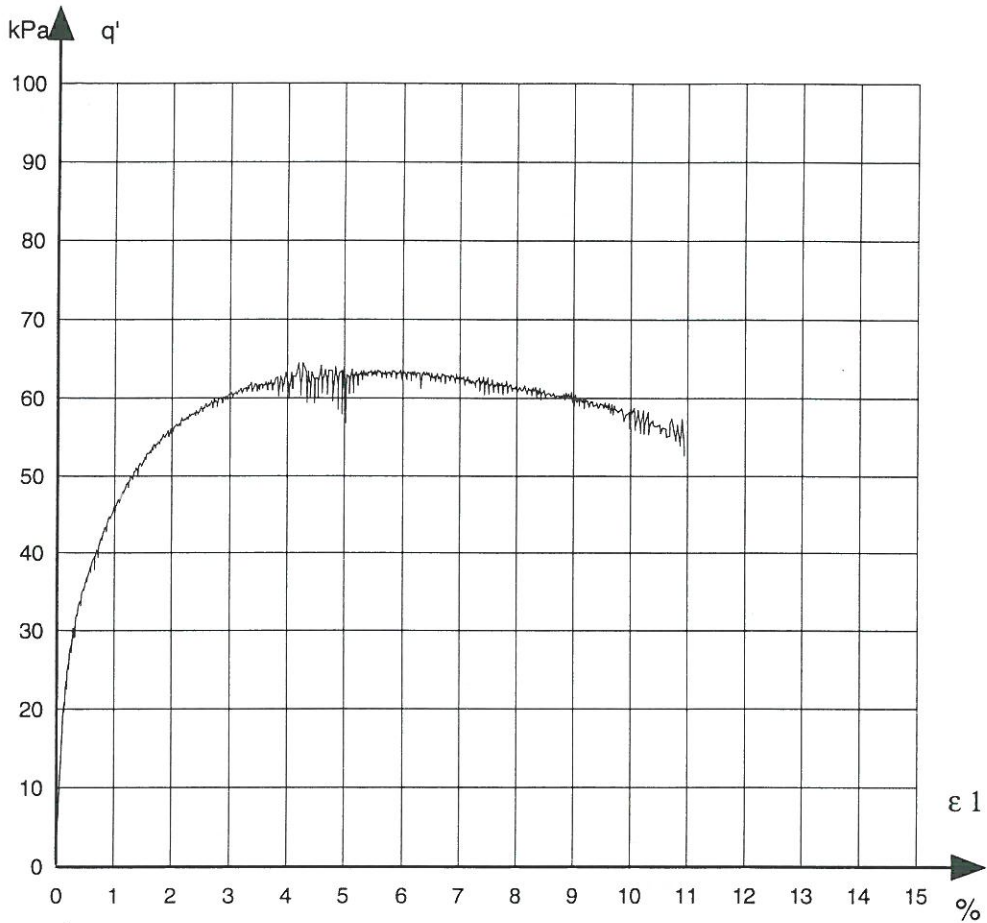
		Values at failure	Values for $\Delta\epsilon_v = 0$
Deviator stress	q'	64.47 kPa	20.62 kPa
Mean normal stress	p'	31.59 kPa	16.87 kPa
Confining pressures	σ_3	10.10 kPa	10.00 kPa
Vertical strain	ϵ_1	4.27 %	0.12 %
Volumetric strain	ϵ_v	-3.24 %	0.02 %



q'	p'	ϵ_1	ϵ_v
0.38	10.13	0.00	0.00
15.95	15.32	0.08	0.02
20.62	16.87	0.12	0.02
25.02	18.44	0.20	0.00
30.54	20.28	0.30	-0.04
33.77	21.36	0.40	-0.09
36.11	22.14	0.49	-0.14
38.44	22.91	0.59	-0.20
40.12	23.47	0.71	-0.27
42.69	24.33	0.80	-0.34
44.74	25.01	0.90	-0.40
45.16	25.05	1.00	-0.47
51.95	27.42	1.51	-0.83
56.02	28.77	2.00	-1.24
60.39	30.23	3.00	-2.11
61.47	30.49	4.02	-3.02
64.47	31.59	4.27	-3.24
61.46	30.49	5.02	-3.92
63.51	31.17	6.00	-4.78
62.65	30.98	7.01	-5.64
60.98	30.33	8.00	-6.43
59.78	30.03	9.00	-7.20
58.95	29.75	10.00	-7.90
52.51	27.50	10.95	-8.48

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark: Preparation [%] $\Delta\epsilon_1 = -0.008$ Specimen slipped out.

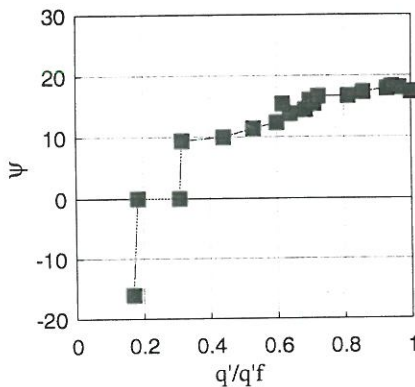
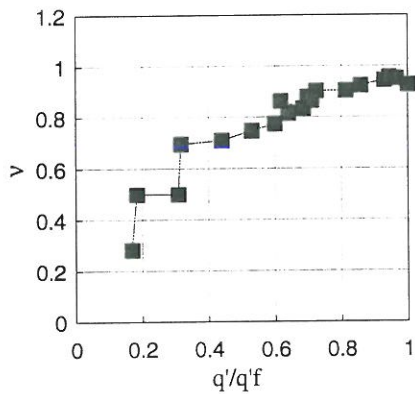


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	23.2	
Calibration file kal3	Date 30.11.93	Void ratio	2.64	0.683
		Saturation	0.616	0.726
		Dimension H mm	1	
		Dimension D mm	71.5	
			69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-5 kPa
		ϵ_1	-0.161 %
		ϵ_v	-0.220 %
	2. Drained compression.		
	Deformation rate:		4.3 % ph

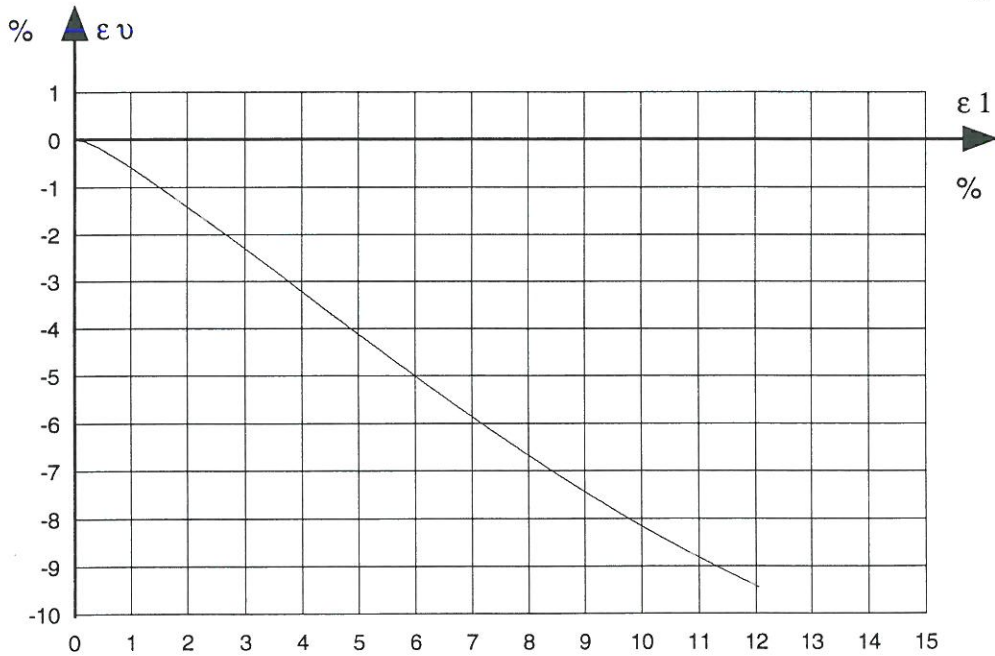
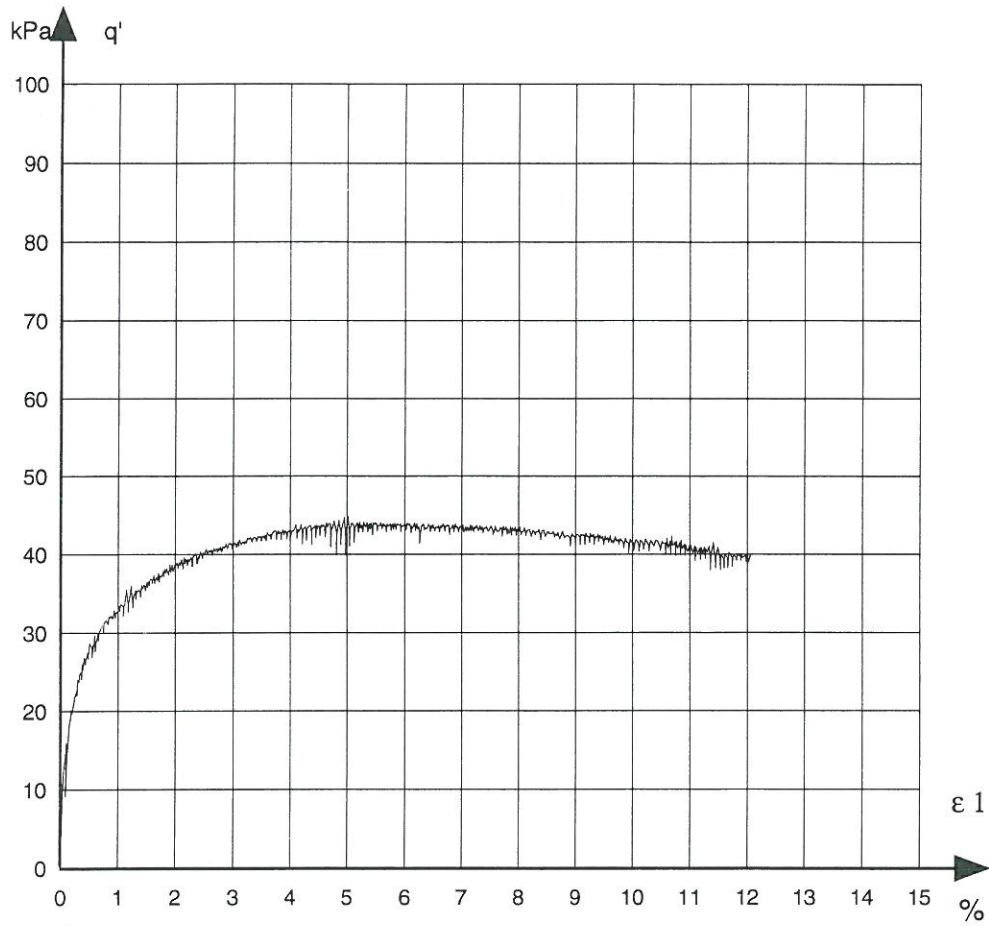
		Values at failure	Values for $\Delta\epsilon_v = 0$
Deviator stress	q'	44.88 kPa	13.81 kPa
Mean normal stress	p'	19.96 kPa	9.60 kPa
Confining pressures	σ_3	5.00 kPa	5.00 kPa
Vertical strain	ϵ_1	5.02 %	0.07 %
Volumetric strain	ϵ_v	-4.13 %	0.01 %



q'	p'	ϵ_1	ϵ_v
0.76	5.35	0.00	0.00
7.61	7.54	0.03	0.01
8.24	7.75	0.03	0.01
13.81	9.60	0.07	0.01
14.19	9.73	0.10	0.00
19.73	11.58	0.19	-0.04
23.74	12.91	0.30	-0.10
26.86	13.95	0.40	-0.15
28.70	14.57	0.50	-0.21
27.65	14.22	0.60	-0.28
30.73	15.24	0.71	-0.36
31.30	15.43	0.82	-0.44
31.88	15.63	0.90	-0.50
32.45	15.82	0.99	-0.57
36.48	17.16	1.50	-0.99
38.47	17.82	2.01	-1.41
41.71	18.90	3.00	-2.30
42.33	19.11	4.01	-3.22
43.28	19.43	4.98	-4.10
44.88	19.96	5.02	-4.13
43.34	19.45	7.00	-5.86
41.03	18.68	9.00	-7.44
39.31	18.10	11.00	-8.82
39.95	18.32	12.06	-9.44

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark: Preparation [%] $\Delta\epsilon_1 = 0.000$ No measurement during preparation
--

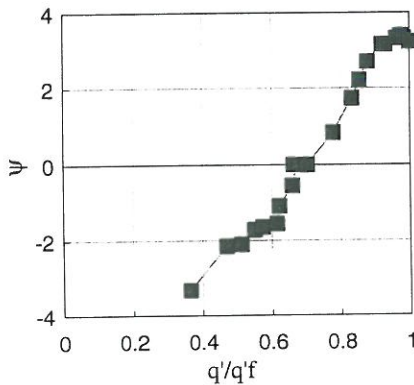
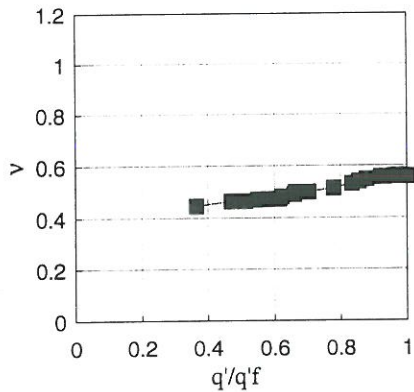


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	32.8	
Calibration file kal3	Date 06.12.93	Void ratio	2.64	0,863
		Saturation	0.846	0.911
		Dimension H mm	1.02	
			D mm	71.5
			69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-20 kPa
		ϵ_1	-0.117 %
		ϵ_v	-0.227 %
	2. Drained compression.		
	Deformation rate:		4.8 % ph

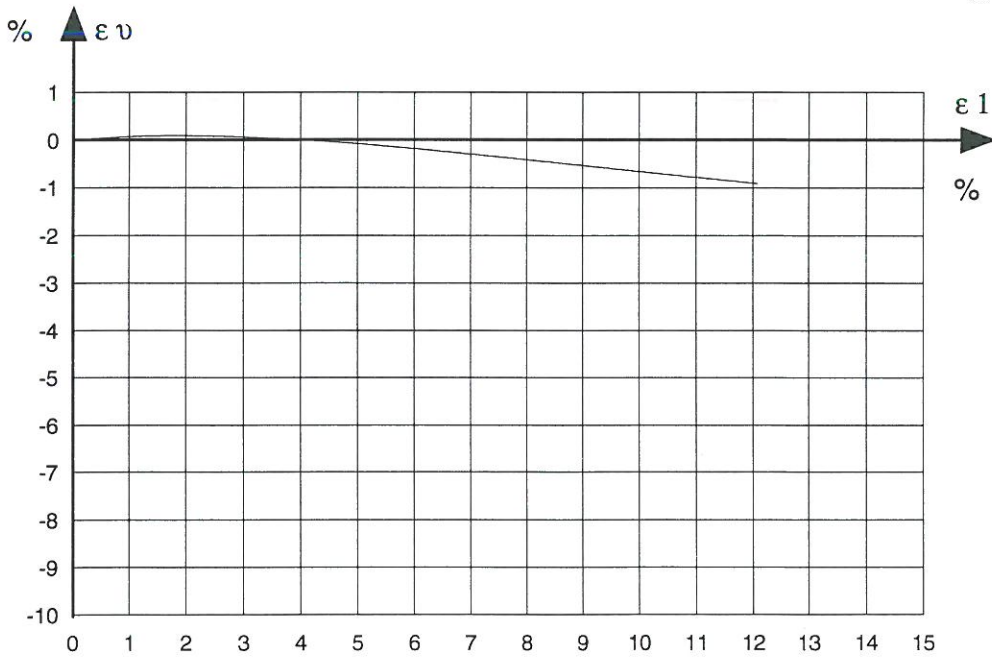
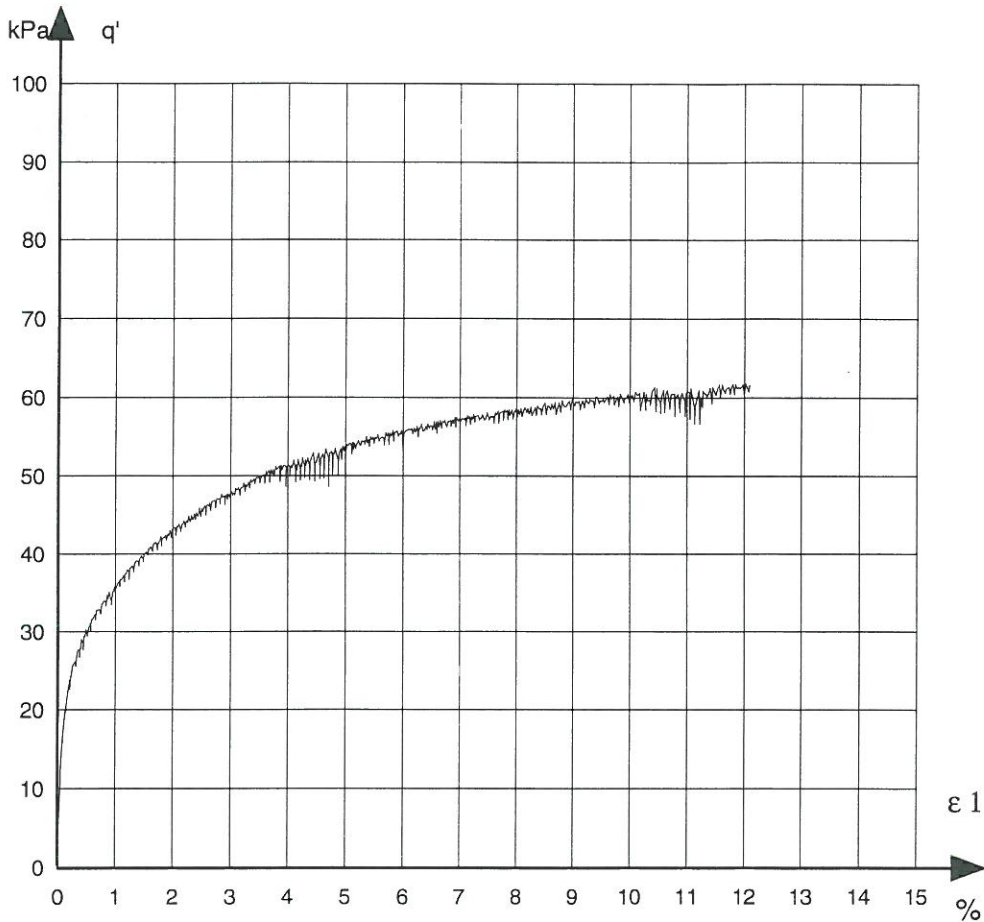
		Values at failure	Values for $\Delta \epsilon_v = 0$
Deviator stress	q'	61.77 kPa	43.37 kPa
Mean normal stress	p'	40.79 kPa	34.66 kPa
Confining pressures	σ_3	20.20 kPa	20.20 kPa
Vertical strain	ϵ_1	12.02 %	2.02 %
Volumetric strain	ϵ_v	-0.90 %	0.10 %



q'	p'	ϵ_1	ϵ_v
2.15	21.02	0.00	0.00
22.51	27.70	0.20	0.02
29.04	29.88	0.40	0.04
31.63	30.74	0.61	0.05
33.96	31.52	0.80	0.06
35.40	32.00	1.00	0.07
37.96	32.85	1.21	0.08
38.39	33.00	1.40	0.09
40.69	33.76	1.60	0.10
41.52	34.04	1.70	0.10
40.97	33.86	1.81	0.10
41.93	34.18	1.90	0.10
43.37	34.66	2.02	0.10
48.09	36.23	3.00	0.07
51.46	37.35	4.00	0.00
52.81	37.80	5.00	-0.08
54.22	38.27	6.00	-0.18
56.87	39.16	7.01	-0.29
57.47	39.36	8.01	-0.41
59.42	40.01	9.00	-0.53
60.15	40.25	10.02	-0.66
60.74	40.45	11.03	-0.78
61.77	40.79	12.02	-0.90
61.61	40.74	12.09	-0.91

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark:
Preparation [%] $\Delta \epsilon_1 = 0.329$
Preparation at 20 kPa vacuum.

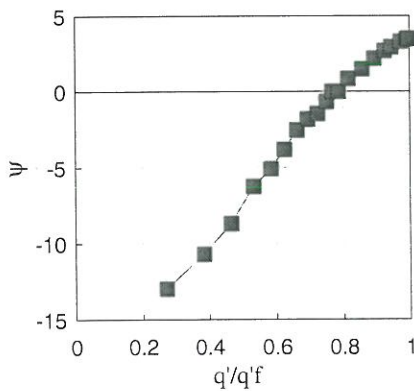
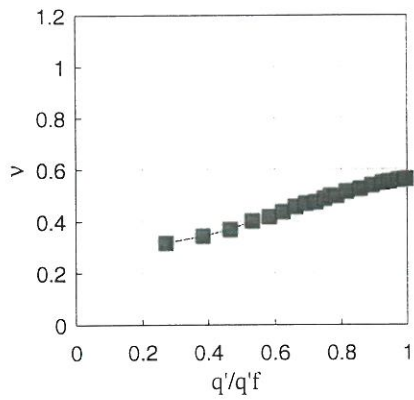


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	33.8	
Calibration file kal5	Date 07.12.93	Void ratio	2.64	0.860
		Saturation	0.844	0.908
		Dimension H mm	1.06	
		Dimension D mm	71.5	
			69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-80 kPa
		ϵ_1	-0.018 %
		ϵ_v	-0.033 %
	2. Drained compression.		
	Deformation rate:		4.2 % ph

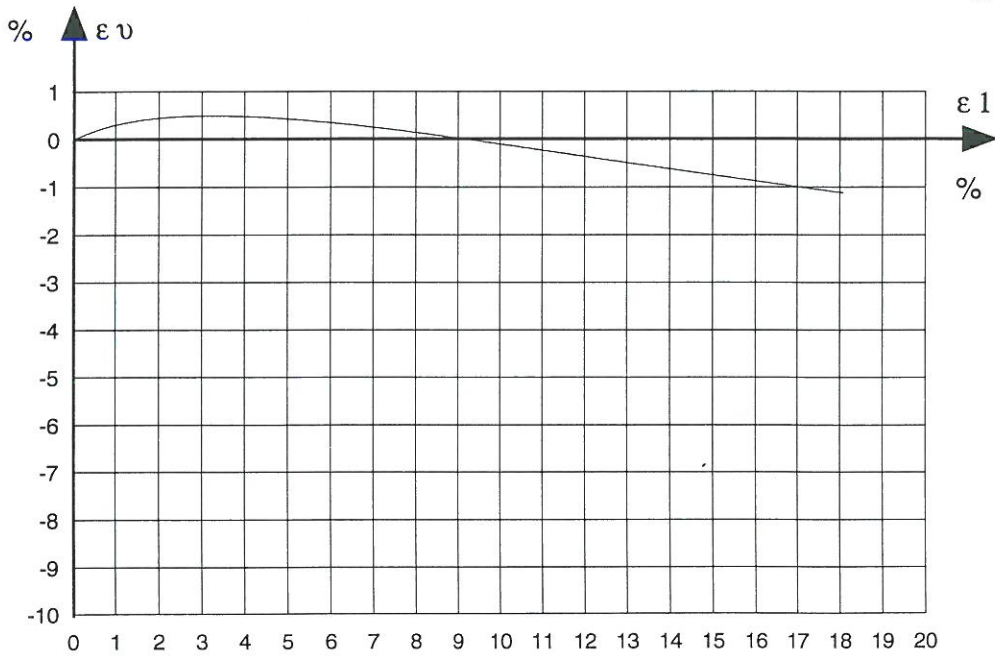
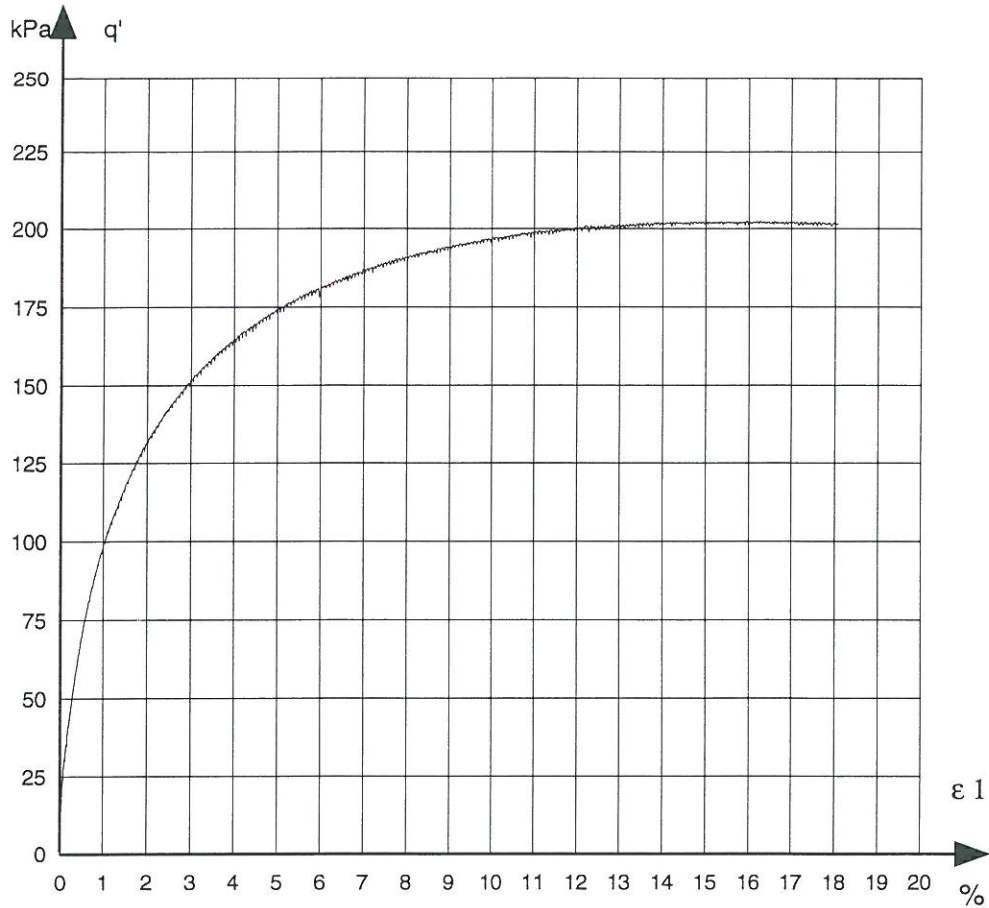
		Values at failure	Values for $\Delta \epsilon_v = 0$
Deviator stress	q'	202.39 kPa	158.89 kPa
Mean normal stress	p'	147.56 kPa	133.06 kPa
Confining pressures	σ_3	80.10 kPa	80.10 kPa
Vertical strain	ϵ_1	15.96 %	3.51 %
Volumetric strain	ϵ_v	-0.87 %	0.49 %



q'	p'	ϵ_1	ϵ_v
0.25	80.08	0.00	0.00
54.68	98.23	0.31	0.11
77.69	105.90	0.60	0.21
94.16	111.49	0.90	0.28
107.62	115.97	1.21	0.34
118.02	119.44	1.51	0.39
126.34	122.21	1.80	0.43
133.84	124.71	2.10	0.45
140.17	126.82	2.40	0.47
146.22	128.84	2.69	0.49
151.57	130.62	3.01	0.49
155.17	131.82	3.30	0.49
158.89	133.06	3.51	0.49
164.92	135.07	4.00	0.48
173.32	137.87	4.98	0.43
180.66	140.32	6.00	0.35
187.05	142.45	7.01	0.25
191.18	143.83	8.00	0.14
196.93	145.74	10.00	-0.10
200.65	146.98	11.99	-0.36
201.64	147.31	14.00	-0.62
202.39	147.56	15.96	-0.87
201.39	147.23	18.01	-1.11
201.52	147.27	18.07	-1.12

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark: Preparation [%] $\Delta \epsilon_1 = -0.063$ Preparation at 20 kPa vacuum

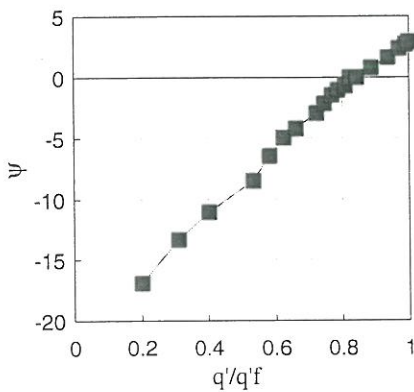
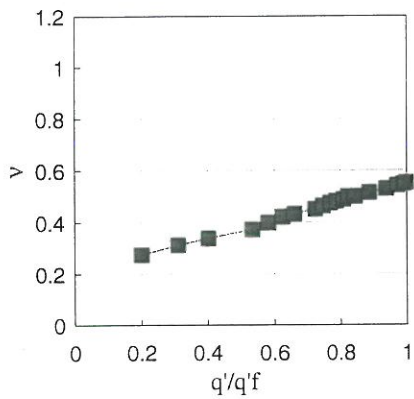


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	31.9	
Calibration file kal5	Date 09.12.93	Void ratio	2.64	0.853
		Saturation	0.853	0.901
		Dimension H mm	0.99	
			D mm	71.5
			69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-160 kPa
		ϵ_1	0.064 %
		ϵ_v	0.029 %
	2. Drained compression.		
	Deformation rate:		4.2 % ph

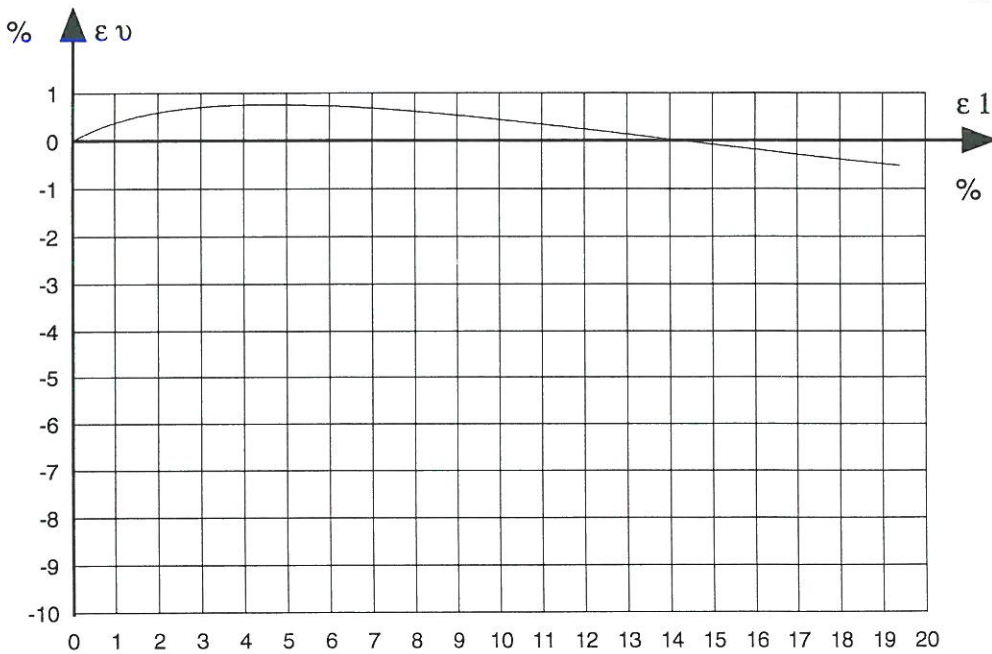
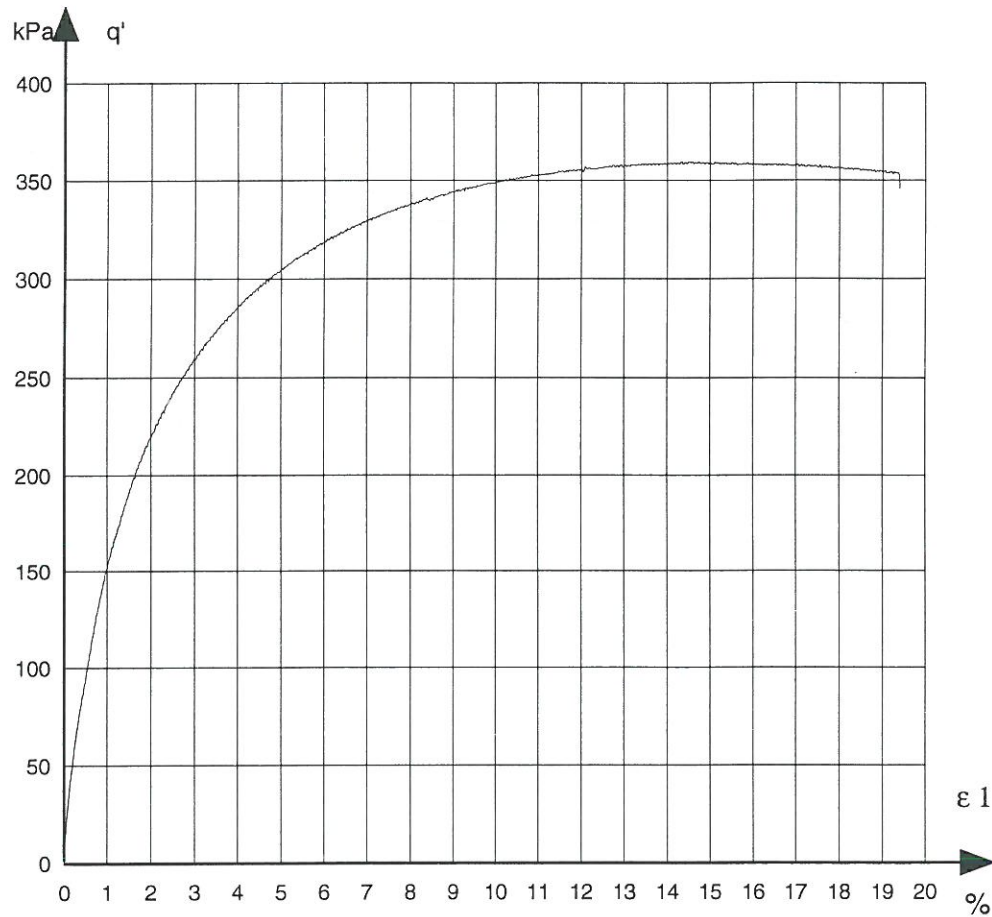
		Values at failure	Values for $\Delta\epsilon_v = 0$
Deviator stress	q'	359.56 kPa	303.11 kPa
Mean normal stress	p'	279.95 kPa	261.14 kPa
Confining pressures	σ_3	160.10 kPa	160.10 kPa
Vertical strain	ϵ_1	14.58 %	4.96 %
Volumetric strain	ϵ_v	-0.03 %	0.76 %



q'	p'	ϵ_1	ϵ_v
0.25	160.18	0.00	0.00
71.78	183.83	0.31	0.14
111.57	197.09	0.61	0.25
144.63	208.21	0.91	0.35
191.92	223.97	1.51	0.50
209.13	229.71	1.80	0.56
224.20	234.73	2.10	0.61
237.32	239.11	2.39	0.65
259.78	246.49	3.00	0.71
268.04	249.35	3.30	0.73
276.26	252.09	3.59	0.74
282.78	254.26	3.90	0.76
290.70	257.10	4.21	0.76
295.90	258.73	4.50	0.76
303.11	261.14	4.96	0.76
318.89	266.40	6.01	0.73
337.33	272.54	8.00	0.62
348.89	276.40	10.01	0.44
355.76	278.69	12.01	0.25
358.76	279.69	14.02	0.03
359.56	279.95	14.58	-0.03
358.71	279.67	16.00	-0.18
355.82	278.71	17.99	-0.38
345.36	275.12	19.40	-0.51

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark:
Preparation [%] $\Delta\epsilon_1 = 0.048$
Preparation at 30 kPa vacuum
Specimen slipped out.

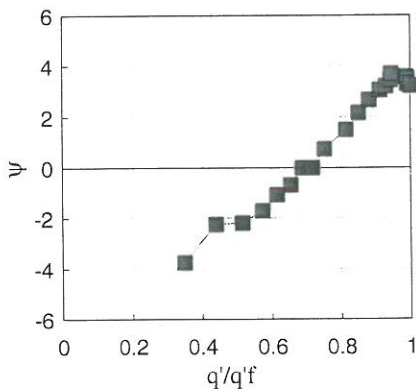
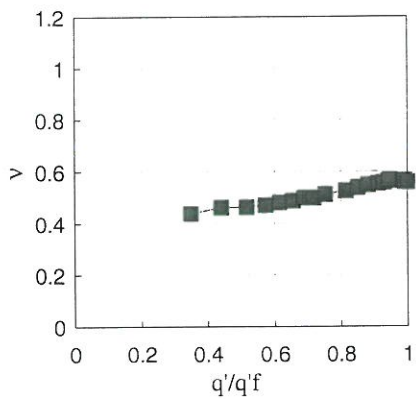


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	30.4	
Calibration file kal5	Date 12.12.93	Void ratio	2.64	0,882
		Saturation	0.853	0.93+
		Dimension H mm	0.94	
		Dimension D mm	71.5	
			69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-40 kPa
		ϵ_1	-0.083 %
		ϵ_v	-0.048 %
	2. Drained compression.		
	Deformation rate:		4.3 % ph

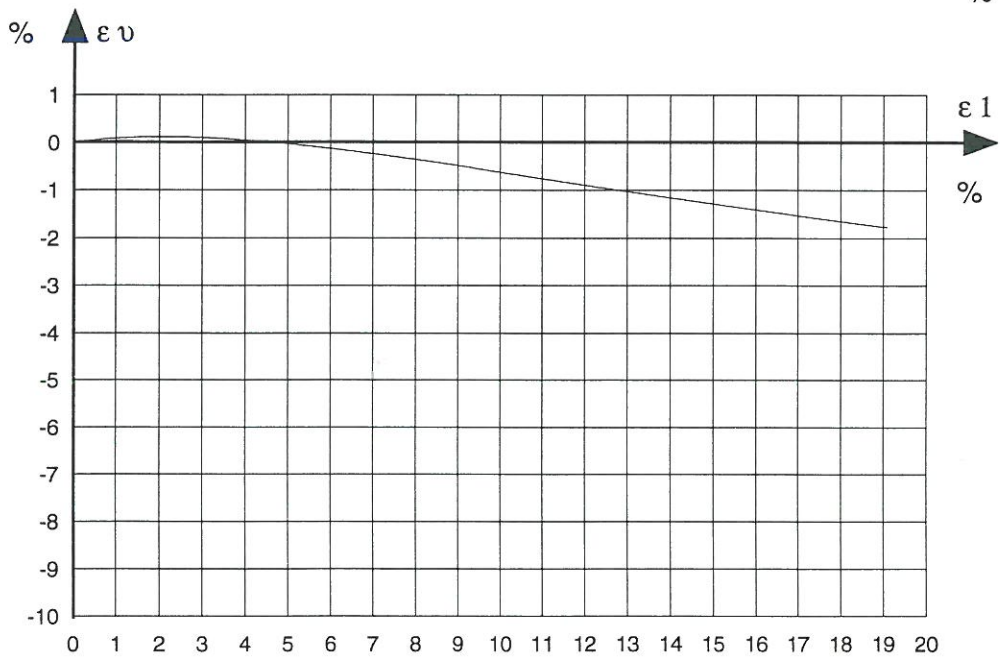
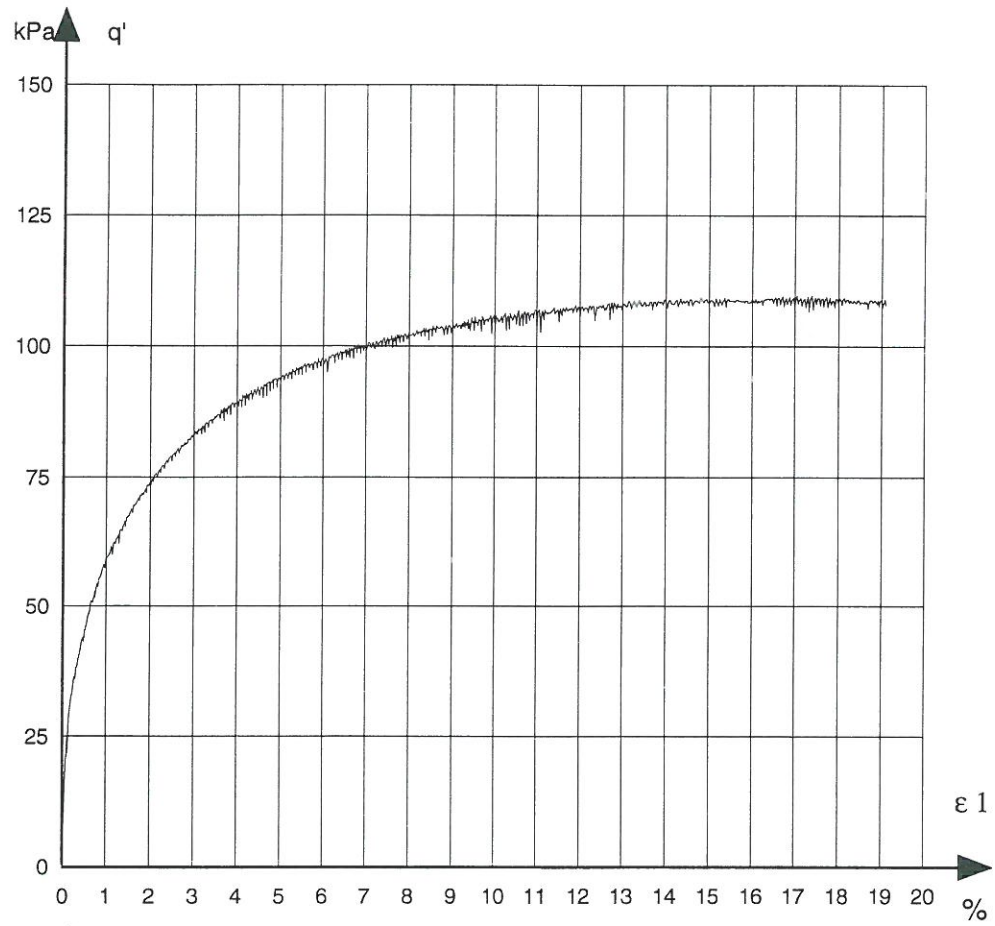
		Values at failure	Values for $\Delta\epsilon_v = 0$
Deviator stress	q'	109.73 kPa	78.70 kPa
Mean normal stress	p'	76.58 kPa	66.23 kPa
Confining pressures	σ_3	40.00 kPa	40.00 kPa
Vertical strain	ϵ_1	17.38 %	2.45 %
Volumetric strain	ϵ_v	-1.58 %	0.12 %



q'	p'	ϵ_1	ϵ_v
0.25	40.08	0.00	0.00
38.22	52.74	0.30	0.04
48.34	56.01	0.59	0.06
56.64	58.78	0.89	0.08
62.87	60.96	1.21	0.10
67.44	62.48	1.50	0.11
71.85	63.95	1.82	0.12
75.49	65.16	2.11	0.12
77.75	65.92	2.40	0.12
78.70	66.23	2.45	0.12
82.56	67.52	3.00	0.10
89.44	69.81	4.02	0.05
93.40	71.13	5.00	-0.03
96.72	72.24	6.02	-0.13
100.08	73.36	6.99	-0.24
102.00	74.00	8.02	-0.36
103.44	74.48	8.99	-0.48
103.69	74.56	11.00	-0.76
108.18	76.06	13.01	-1.03
108.70	76.23	15.03	-1.29
108.71	76.24	17.01	-1.53
109.73	76.58	17.38	-1.58
108.92	76.31	18.99	-1.76
107.86	75.95	19.09	-1.77

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark: Preparation [%] $\Delta\epsilon_1 = 0.271$ Preparation at 20 kPa vacuum

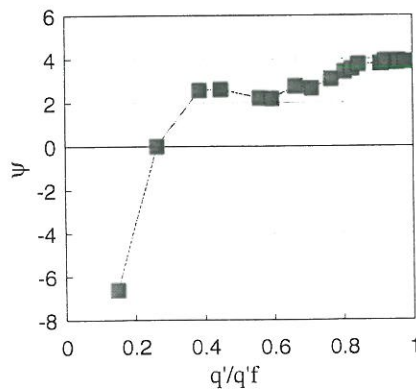
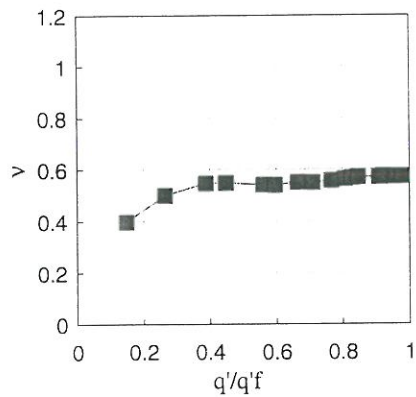


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	32.3	
Calibration file kal5	Date 13.12.93	Void ratio	2.64	0.892
		Saturation	0.855	0.941
		Dimension H mm	1	
		D mm	71.5	
			69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-10 kPa
		ϵ_1	-0.263 %
		ϵ_v	-0.608 %
	2. Drained compression.		
	Deformation rate:		4.2 % ph

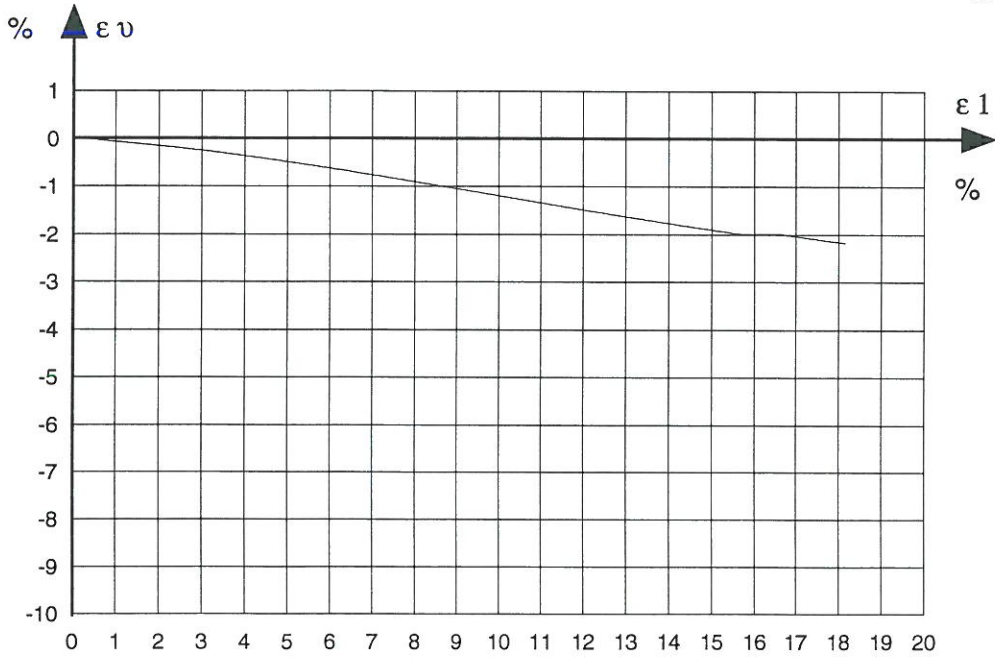
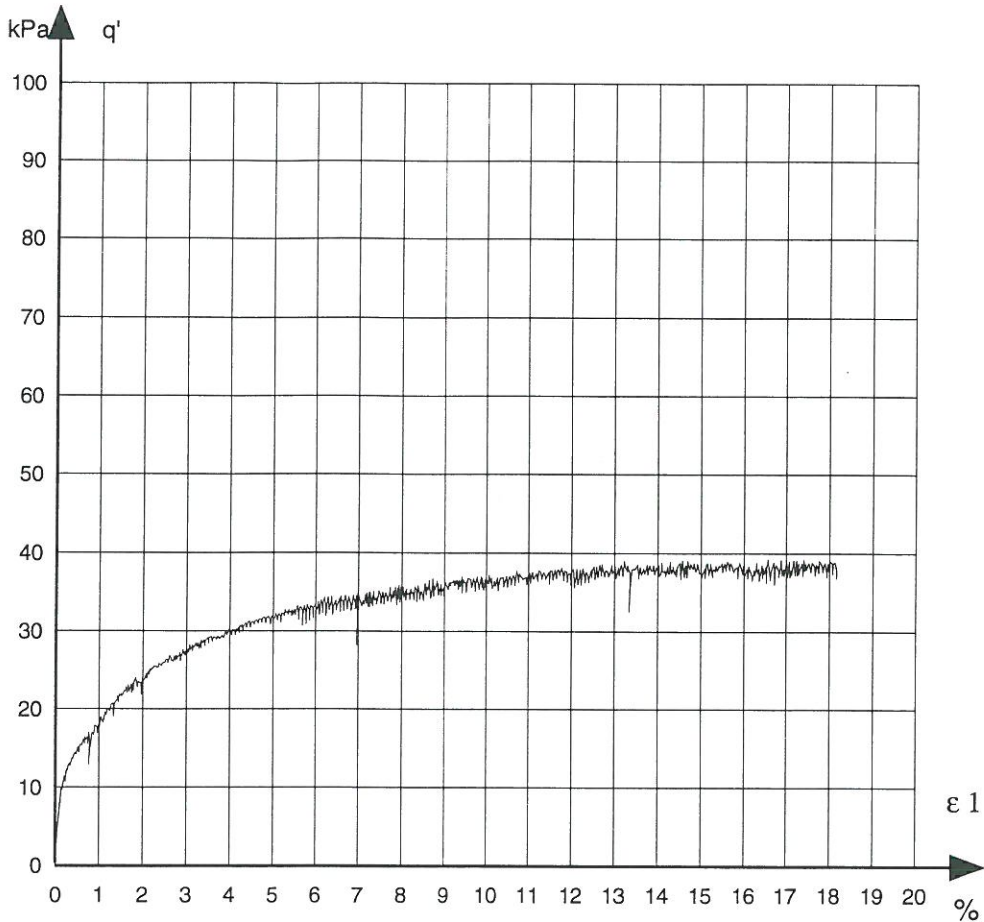
		Values at failure	Values for $\Delta\epsilon_v = 0$
Deviator stress	q'	39.32 kPa	10.35 kPa
Mean normal stress	p'	23.21 kPa	13.55 kPa
Confining pressures	σ_3	10.10 kPa	10.10 kPa
Vertical strain	ϵ_1	16.57 %	0.15 %
Volumetric strain	ϵ_v	-1.99 %	0.01 %



q'	p'	ϵ_1	ϵ_v
0.25	10.18	0.00	0.00
5.81	12.04	0.05	0.01
10.35	13.55	0.15	0.01
15.22	15.17	0.50	-0.02
17.63	15.98	1.00	-0.07
22.02	17.44	1.50	-0.11
23.38	17.89	2.01	-0.15
26.08	18.79	2.51	-0.20
27.89	19.40	3.00	-0.25
30.11	20.14	4.00	-0.36
31.67	20.66	5.01	-0.49
32.48	20.93	6.00	-0.62
33.23	21.18	7.07	-0.77
35.73	22.01	8.03	-0.91
35.87	22.06	9.01	-1.05
36.21	22.17	10.00	-1.19
37.53	22.61	11.02	-1.34
37.73	22.68	12.00	-1.48
38.43	22.91	13.01	-1.63
37.95	22.75	13.99	-1.77
37.56	22.62	15.01	-1.90
36.99	22.43	16.00	-1.99
39.32	23.21	16.57	-1.99
36.78	22.36	18.17	-2.18

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark:
Preparation $\delta \epsilon_1 = 0.193$
Preparatio at 20 kPa vacuum
No failure, specimen slipped out.

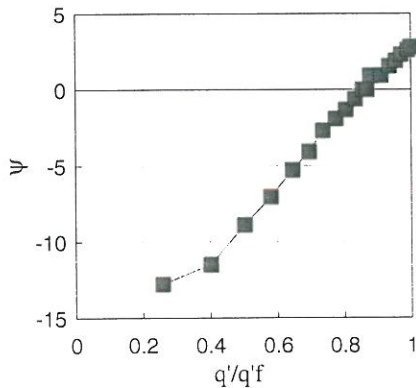
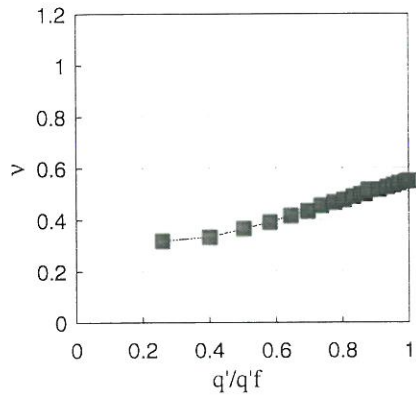


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	31.7	
Calibration file kal5	Date 03.01.94	Void ratio	2.64	0.851
		Saturation	0.854	0.898
		Dimension H mm	0.98	
		Dimension D mm	71.5	69.7

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-320 kPa
		ϵ_1	0.134 %
		ϵ_v	0.455 %
	2. Drained compression.		
	Deformation rate:		3.6 % ph

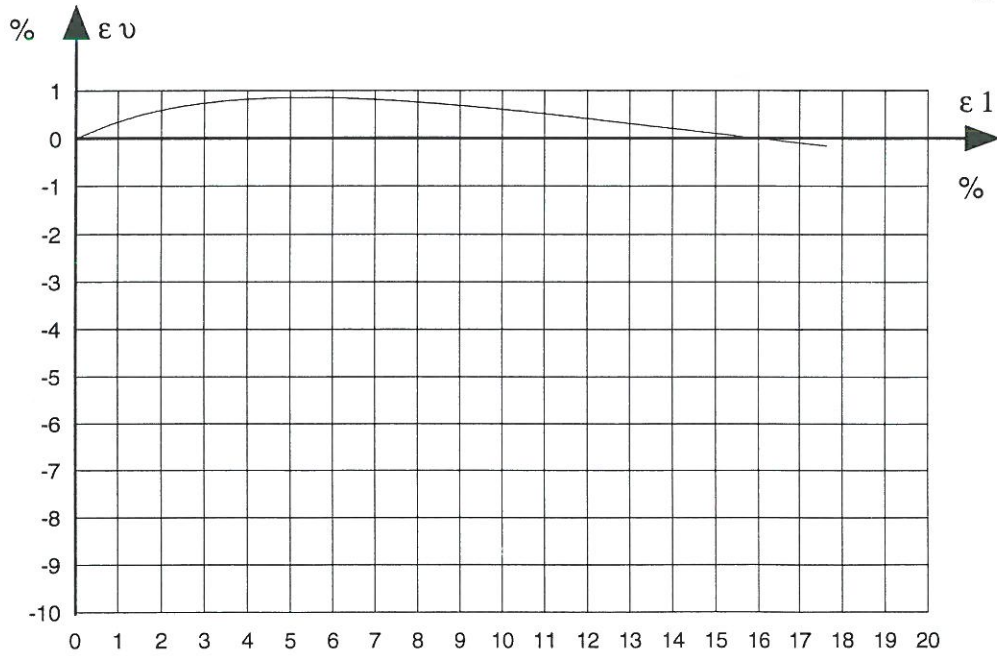
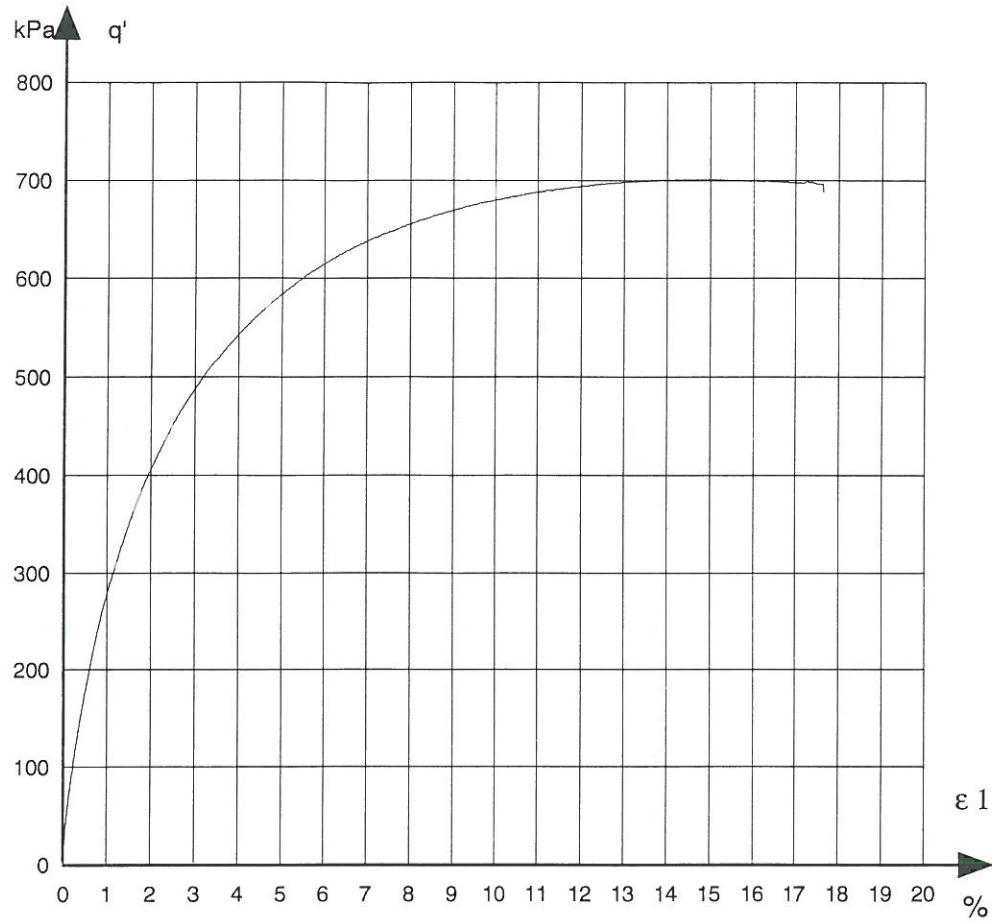
		Values at failure	Values for $\Delta\epsilon_v = 0$
Deviator stress	q'	701.38 kPa	608.63 kPa
Mean normal stress	p'	553.79 kPa	522.88 kPa
Confining pressures	σ_3	320.00 kPa	320.00 kPa
Vertical strain	ϵ_1	14.38 %	5.78 %
Volumetric strain	ϵ_v	0.17 %	0.85 %



q'	p'	ϵ_1	ϵ_v
0.25	320.28	0.00	0.00
181.27	380.52	0.51	0.18
281.40	413.90	1.01	0.35
351.91	437.40	1.51	0.48
407.07	455.79	2.01	0.59
452.05	470.78	2.51	0.68
487.59	482.63	3.01	0.74
516.29	492.20	3.50	0.79
542.93	501.08	4.01	0.82
564.06	508.12	4.49	0.84
584.07	514.79	5.00	0.85
600.38	520.23	5.50	0.85
608.63	522.88	5.78	0.85
615.54	525.28	6.01	0.85
637.97	532.76	7.00	0.81
655.66	538.75	8.00	0.76
669.06	543.12	9.01	0.69
680.23	546.74	10.02	0.60
694.71	551.47	12.02	0.41
700.43	553.48	14.01	0.21
701.38	553.79	14.38	0.17
700.69	553.46	15.01	0.11
697.83	552.61	17.01	-0.10
687.25	548.98	17.65	-0.16

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark: Preparation [%] $\Delta\epsilon_1 = 0.184$ Preparation at 20 kPa vacuum

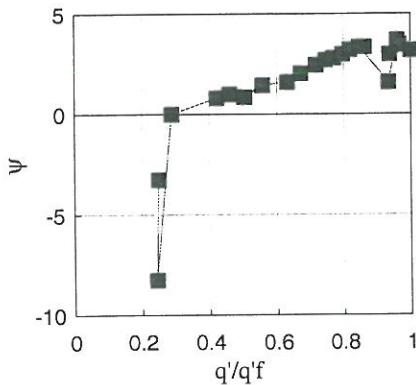
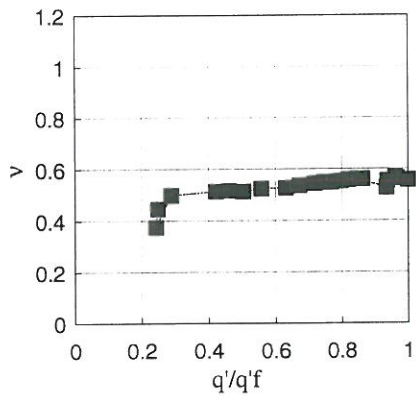


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	30.8	
Calibration file kal5	Date 05.01.94	Void ratio	2.64	0.852
		Saturation	0.852	0.931
		Dimension H mm	0.96	
		Dimension D mm	71.5	
			69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-5 kPa
		ϵ_1	-0.248 %
		ϵ_v	-0.652 %
	2. Drained compression.		
	Deformation rate:		4.2 % ph

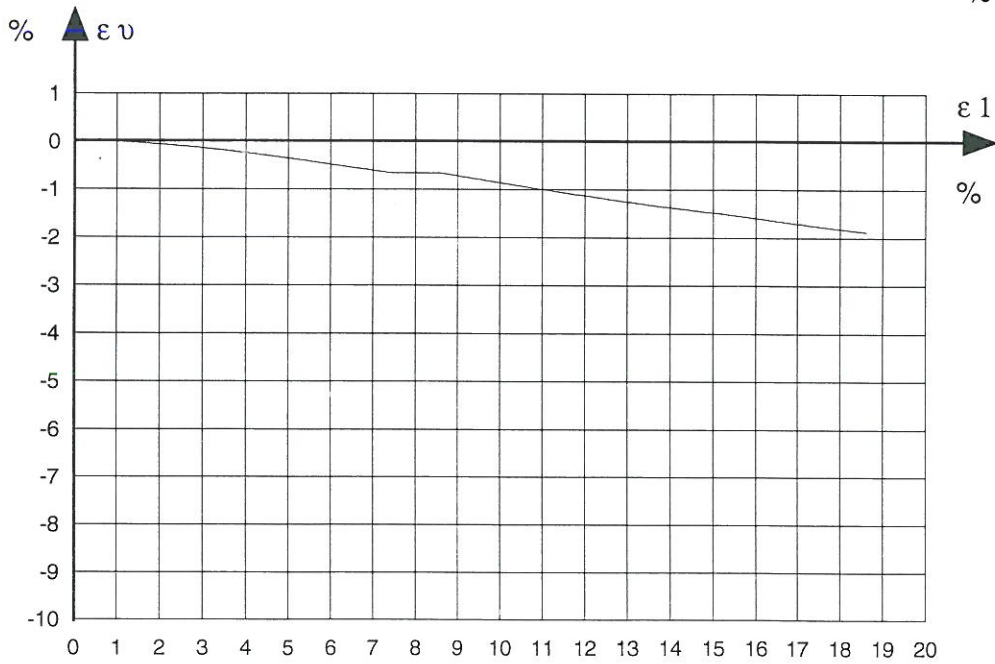
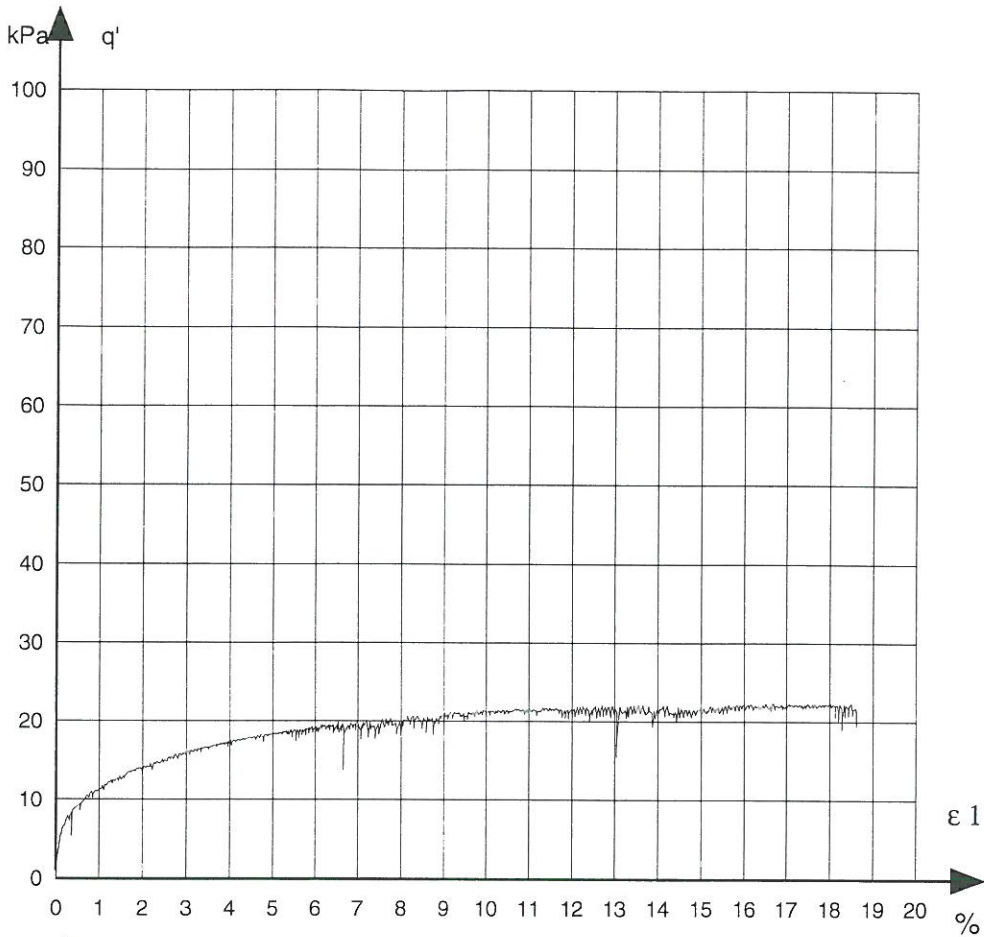
		Values at failure	Values for $\Delta\epsilon_v = 0$
Deviator stress	q'	22.37 kPa	6.43 kPa
Mean normal stress	p'	12.56 kPa	7.24 kPa
Confining pressures	σ_3	5.10 kPa	5.10 kPa
Vertical strain	ϵ_1	16.69 %	0.15 %
Volumetric strain	ϵ_v	-1.67 %	0.01 %



q'	p'	ϵ_1	ϵ_v
0.25	5.08	0.00	0.00
5.55	6.95	0.10	0.01
5.43	6.91	0.12	0.01
6.43	7.24	0.15	0.01
9.42	8.24	0.54	0.00
10.28	8.43	0.75	-0.00
11.26	8.85	1.00	-0.01
12.44	9.15	1.50	-0.04
14.10	9.80	2.02	-0.07
15.01	10.10	2.52	-0.10
16.03	10.34	3.01	-0.15
16.67	10.66	3.50	-0.19
17.18	10.73	4.00	-0.25
17.81	11.04	4.50	-0.30
18.30	11.10	5.00	-0.36
19.27	11.42	6.00	-0.48
18.92	11.41	7.04	-0.61
20.89	12.06	9.00	-0.72
21.49	12.26	11.03	-1.00
21.61	12.30	13.01	-1.26
20.97	11.99	15.00	-1.47
22.37	12.56	16.69	-1.67
21.56	12.29	17.00	-1.70
19.29	11.43	18.60	-1.88

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark:
Preparation [%] $\Delta\epsilon_1 = 0.124$
Preparation at 20 kPa vacuum.
Membrane fold

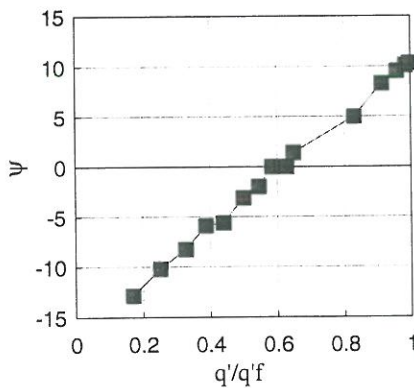
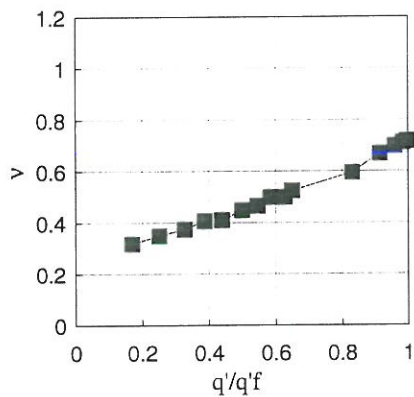


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	25.8	
Calibration file kal5	Date 07.01.94	Void ratio	2.64	0.738
		Saturation	0.705	0.783
		Dimension H mm	0.97	
			D mm	71.5
			69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-80 kPa
		ϵ_1	-0.103 %
		ϵ_v	-0.015 %
	2. Drained compression.		
	Deformation rate:		4.0 % ph

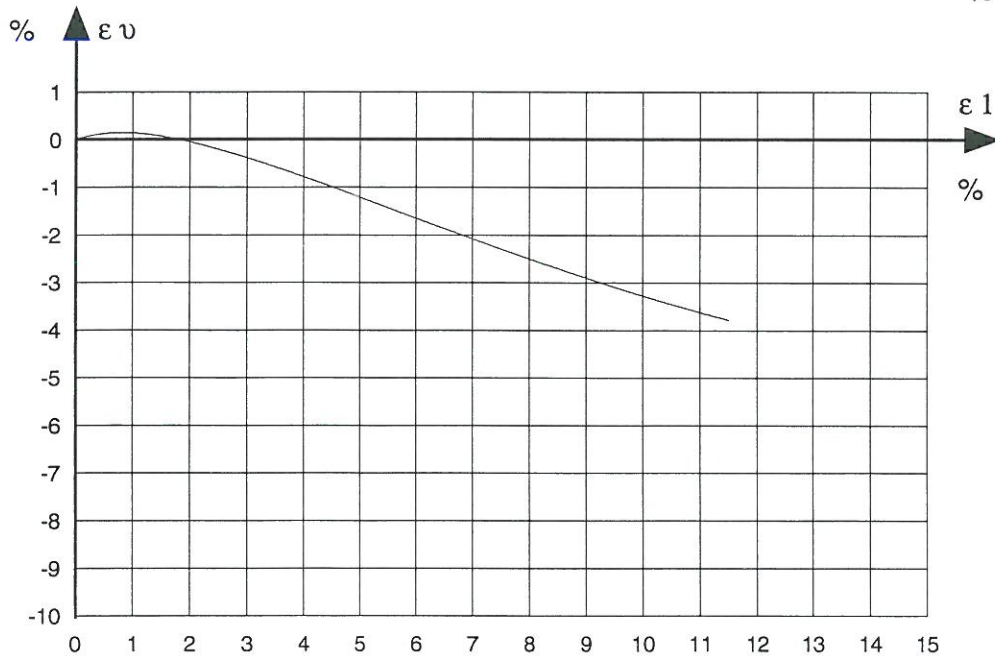
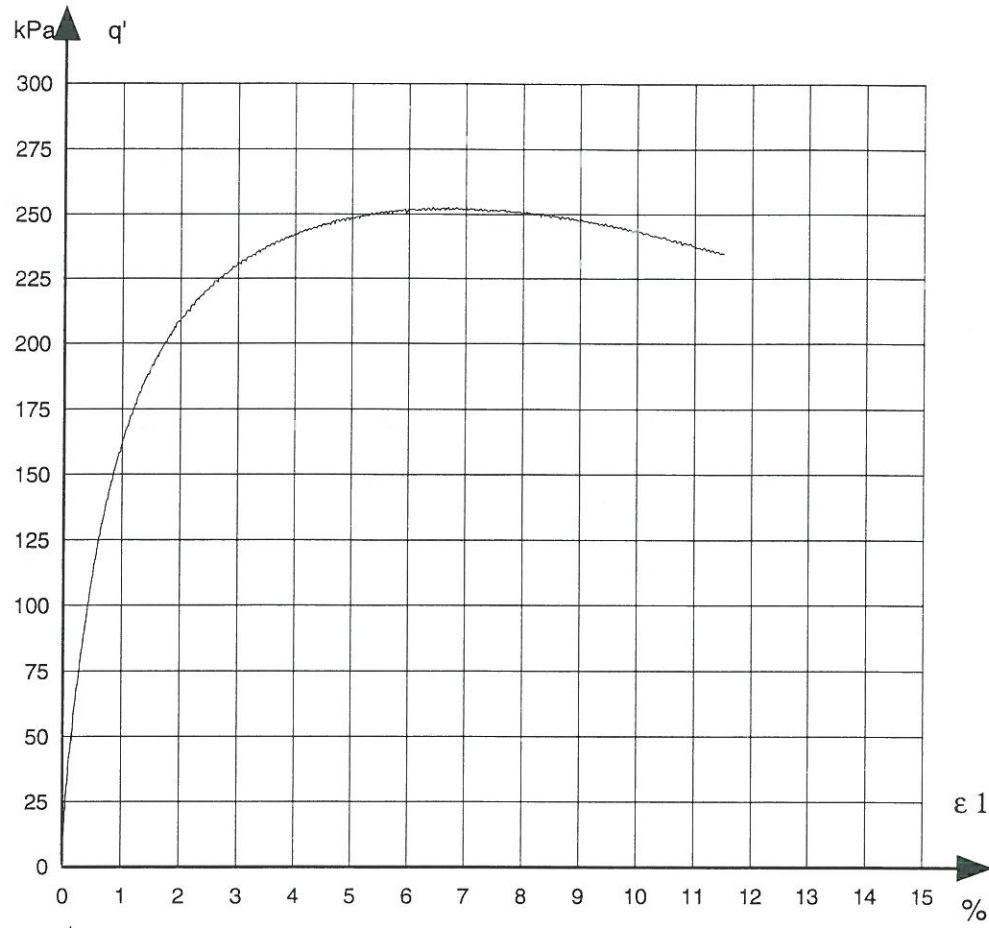
		Values at failure	Values for $\Delta \epsilon_v = 0$
Deviator stress	q'	252.80 kPa	158.32 kPa
Mean normal stress	p'	164.37 kPa	132.87 kPa
Confining pressures	σ_3	80.10 kPa	80.10 kPa
Vertical strain	ϵ_1	6.68 %	0.94 %
Volumetric strain	ϵ_v	-1.94 %	0.15 %



q'	p'	ϵ_1	ϵ_v
0.25	80.08	0.00	0.00
42.76	94.25	0.10	0.04
63.27	101.09	0.20	0.07
82.48	107.49	0.30	0.09
97.60	112.53	0.40	0.11
110.93	116.98	0.50	0.13
126.11	122.04	0.61	0.14
137.72	126.01	0.72	0.15
147.43	129.24	0.81	0.15
154.73	131.68	0.90	0.15
158.32	132.87	0.94	0.15
163.86	134.72	1.02	0.14
209.66	149.99	2.01	-0.05
230.87	156.96	3.01	-0.38
242.36	160.89	4.00	-0.78
248.82	163.04	5.01	-1.21
251.79	164.03	6.02	-1.65
252.80	164.37	6.68	-1.94
252.63	164.31	7.01	-2.08
250.79	163.70	8.02	-2.50
247.88	162.63	9.01	-2.91
242.85	160.95	10.01	-3.28
237.38	159.13	11.01	-3.63
234.71	158.24	11.51	-3.79

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark: Preparation [%] $\Delta \epsilon_1 = 0.014$
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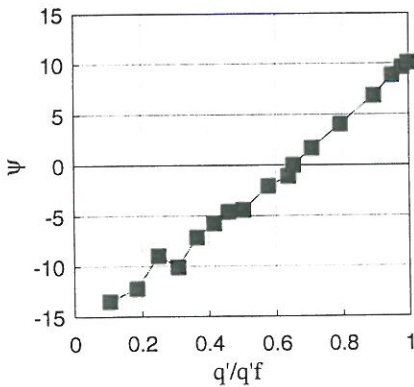
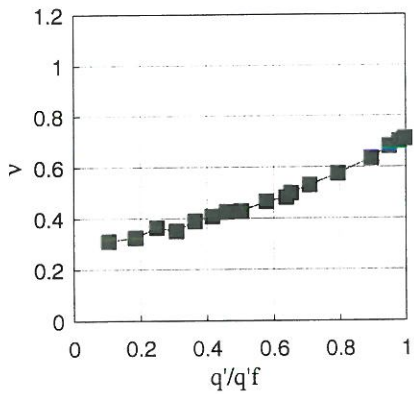


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	26.8	0.727 0.772
Calibration file	Date	Void ratio	0.695	
kal5	10.01.94	Saturation	1.02	
		Dimension H mm	71.5	
		D mm	69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-160 kPa
		ϵ_1	-0.030 %
		ϵ_v	0.550 %
	2. Drained compression.		
	Deformation rate:		3.6 % ph

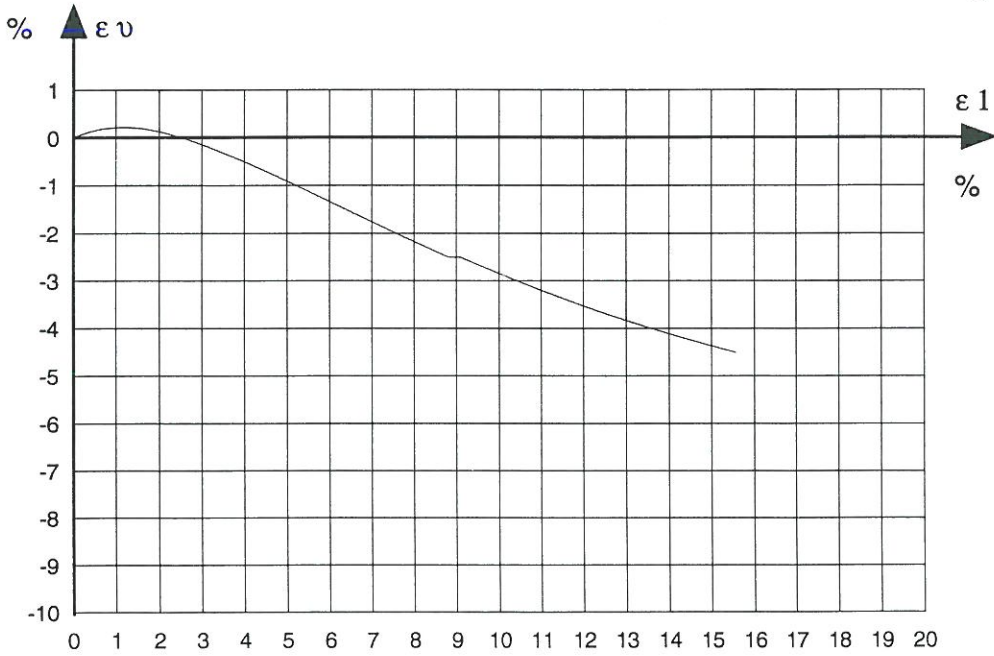
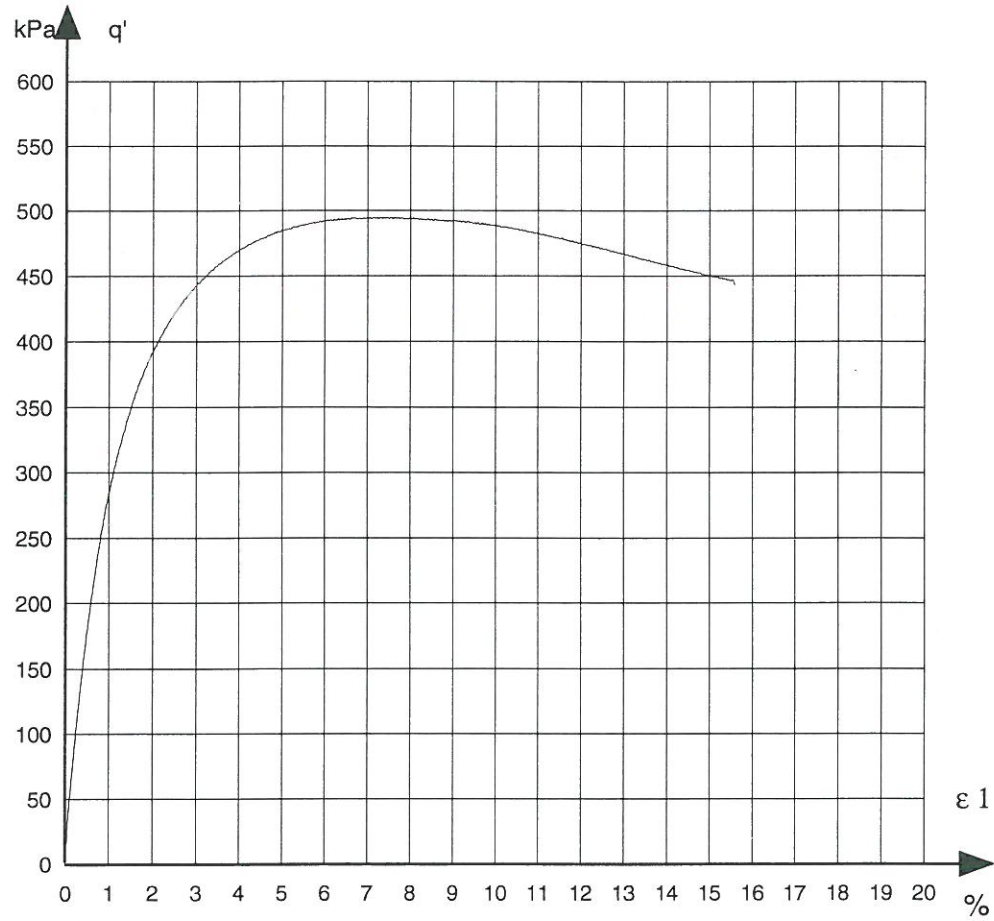
		Values at failure	Values for $\Delta\epsilon_v = 0$
Deviator stress	q'	494.83 kPa	322.35 kPa
Mean normal stress	p'	324.94 kPa	267.45 kPa
Confining pressures	σ_3	160.00 kPa	160.00 kPa
Vertical strain	ϵ_1	7.32 %	1.26 %
Volumetric strain	ϵ_v	-1.89 %	0.22 %



q'	p'	ϵ_1	ϵ_v
0.38	160.13	0.00	0.00
51.01	177.00	0.10	0.04
91.24	190.41	0.20	0.07
122.88	200.96	0.30	0.10
151.94	210.65	0.40	0.13
179.79	219.93	0.50	0.15
205.56	228.52	0.60	0.17
226.84	235.61	0.69	0.18
248.32	242.77	0.80	0.20
285.55	255.18	1.01	0.21
315.07	265.02	1.21	0.22
322.35	267.45	1.26	0.22
349.98	276.66	1.50	0.21
392.36	290.79	2.00	0.13
442.92	307.64	3.00	-0.14
470.04	316.68	4.00	-0.51
484.59	321.53	5.01	-0.91
493.42	324.47	7.00	-1.76
494.83	324.94	7.32	-1.89
492.58	324.19	9.00	-2.50
482.23	320.84	11.01	-3.20
466.28	315.43	13.01	-3.84
449.93	309.98	15.00	-4.37
442.71	307.57	15.58	-4.51

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark: Preparation [%] $\Delta\epsilon_1 = 0.008$

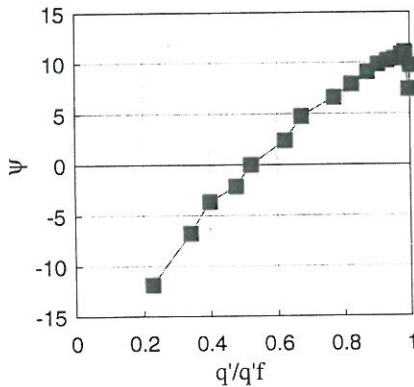
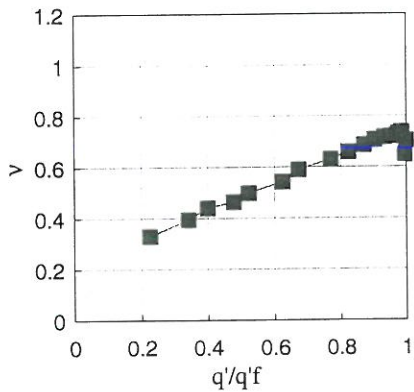


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	27.7	
Calibration file kal5	Date 12.01.94	Void ratio	2.64	0.763
		Saturation	0.703	0.808
		Dimension H mm D mm	1.04	
			71.5 69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-40 kPa
		ϵ_1	-0.140 %
		ϵ_v	-0.121 %
	2. Drained compression.		
	Deformation rate:		4.0 % ph

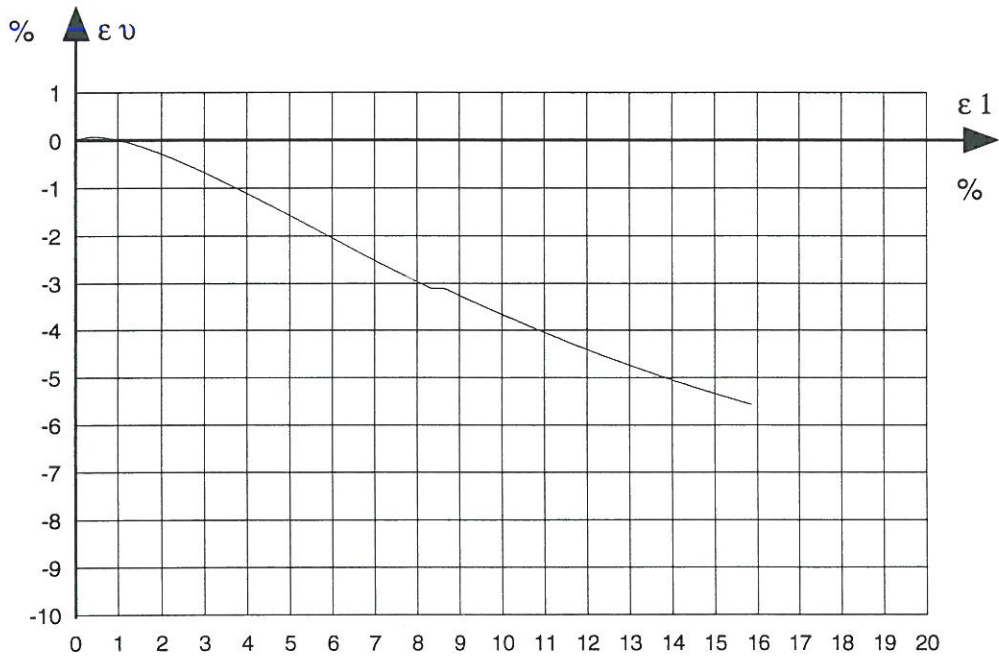
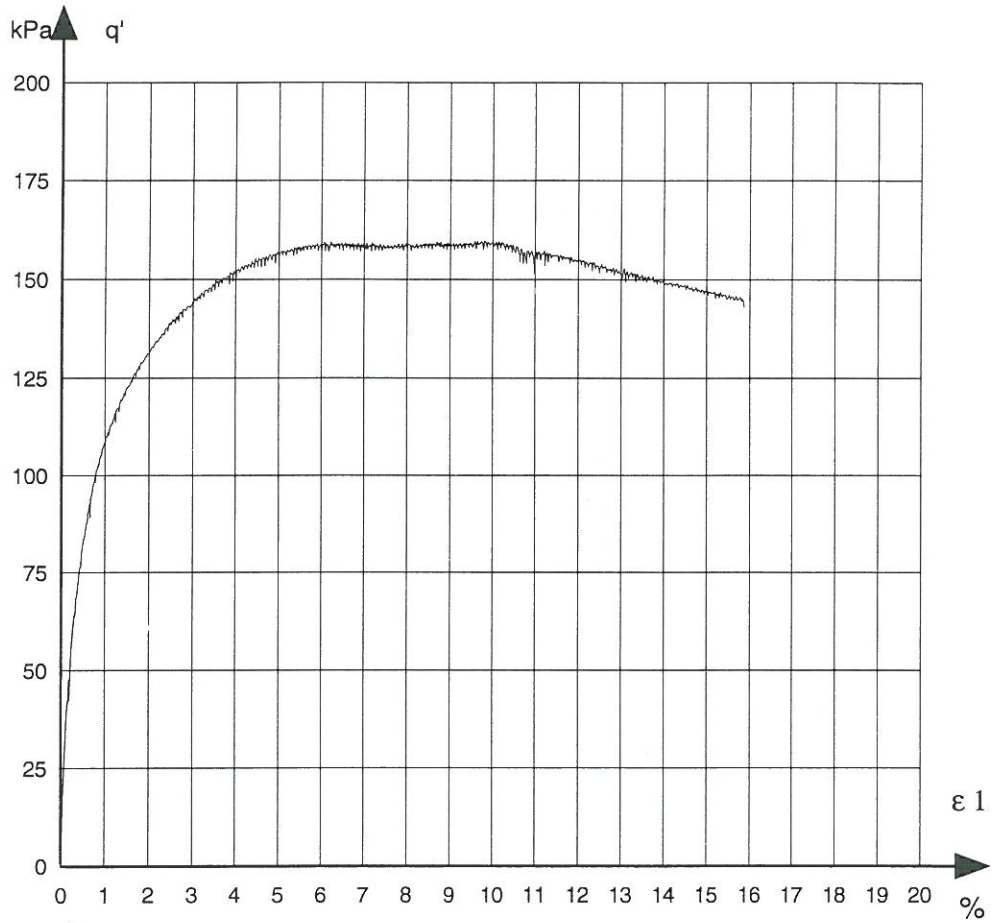
		Values at failure	Values for $\Delta\epsilon_v = 0$
Deviator stress	q'	159.85 kPa	83.38 kPa
Mean normal stress	p'	93.38 kPa	67.89 kPa
Confining pressures	σ_3	40.10 kPa	40.10 kPa
Vertical strain	ϵ_1	9.63 %	0.50 %
Volumetric strain	ϵ_v	-3.52 %	0.08 %



q'	p'	ϵ_1	ϵ_v
0.13	40.14	0.00	0.00
36.01	52.00	0.11	0.04
54.47	58.16	0.21	0.06
63.80	61.27	0.30	0.07
76.25	65.52	0.41	0.08
83.38	67.89	0.50	0.08
99.53	73.18	0.75	0.05
107.28	75.76	1.00	0.01
122.93	80.98	1.52	-0.12
131.56	83.85	2.00	-0.28
139.14	86.38	2.50	-0.47
144.27	88.19	3.00	-0.67
148.80	89.60	3.50	-0.89
152.17	90.72	4.00	-1.11
155.58	91.96	5.00	-1.57
157.20	92.50	6.00	-2.05
157.60	92.63	7.00	-2.51
157.60	92.63	8.00	-2.97
159.04	93.11	8.99	-3.26
159.85	93.38	9.63	-3.52
159.29	93.10	10.01	-3.67
154.85	91.62	12.01	-4.41
148.65	89.55	14.01	-5.05
143.02	87.77	15.87	-5.57

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark: Preparation [%] $\Delta\epsilon_1 = -0.010$
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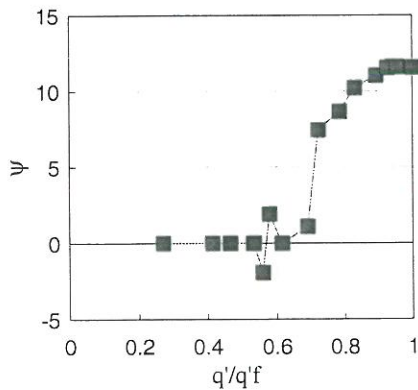
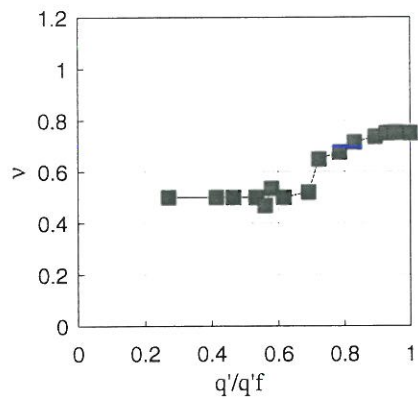


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	27.9	
Calibration file kal5	Date 14.01.94	Void ratio	2.64	0,748
		Saturation	0.702	0.793
		Dimension H mm	1.05	
			D mm	71.5
			69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-20 kPa
		ϵ_1	-0.181 %
		ϵ_v	-0.275 %
	2. Drained compression.		
	Deformation rate:		4.1 % ph

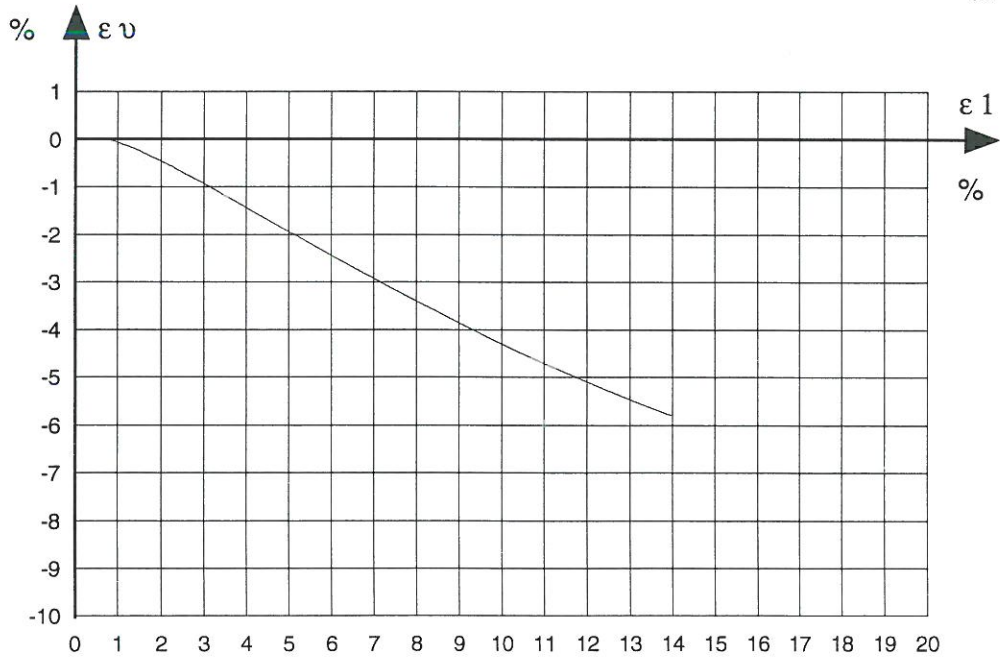
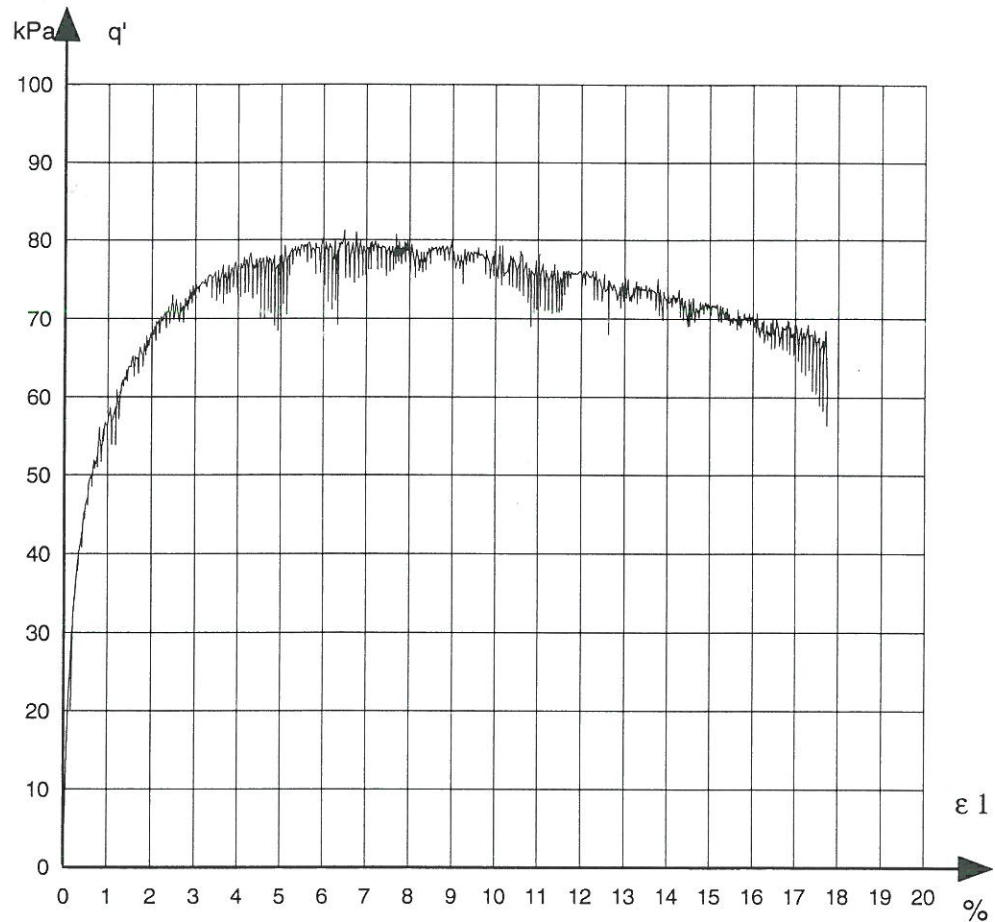
		Values at failure	Values for $\Delta \epsilon_v = 0$
Deviator stress	q'	81.26 kPa	45.41 kPa
Mean normal stress	p'	47.19 kPa	35.24 kPa
Confining pressures	σ_3	20.10 kPa	20.10 kPa
Vertical strain	ϵ_1	6.49 %	0.46 %
Volumetric strain	ϵ_v	-2.68 %	0.00 %



q'	p'	ϵ_1	ϵ_v
0.00	20.10	0.00	0.00
21.90	27.40	0.10	0.00
33.64	31.31	0.21	0.00
37.78	32.69	0.31	0.00
43.29	34.53	0.41	0.00
45.41	35.24	0.46	0.00
47.03	35.68	0.52	0.00
50.00	36.87	0.62	0.00
56.06	38.89	0.81	-0.01
58.64	39.75	1.05	-0.08
63.76	41.35	1.51	-0.24
67.38	42.56	2.00	-0.45
72.59	44.30	3.01	-0.93
76.62	45.64	4.02	-1.44
75.25	45.18	5.00	-1.93
77.55	45.95	6.02	-2.45
81.26	47.19	6.49	-2.68
78.99	46.43	7.03	-2.94
78.49	46.26	9.03	-3.87
78.10	46.13	11.02	-4.72
75.18	45.16	13.01	-5.48
71.81	44.04	15.00	-6.11
68.58	42.96	17.03	-6.62
56.28	38.86	17.73	-6.77

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark:	
Preparation	$\delta \epsilon_1 = -0.011$



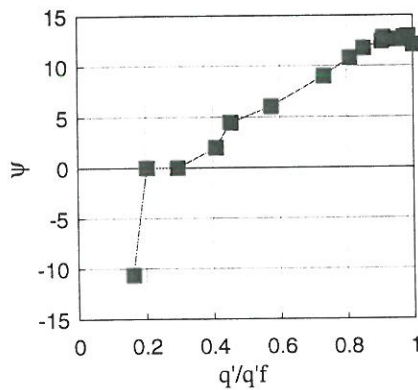
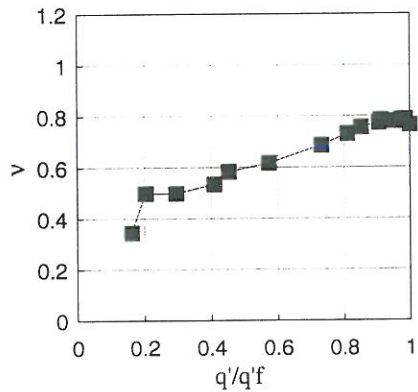
Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

X

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	26	
Calibration file kal4	Date 17.01.94	Void ratio	2.64	0.759
		Saturation	0.696	0.717
		Dimension H mm	0.98	0.697
		Dimension D mm	71.5	
			69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-10 kPa
		ϵ_1	-0.116 %
		ϵ_v	-0.257 %
	2. Drained compression.		
	Deformation rate:		4.2 % ph

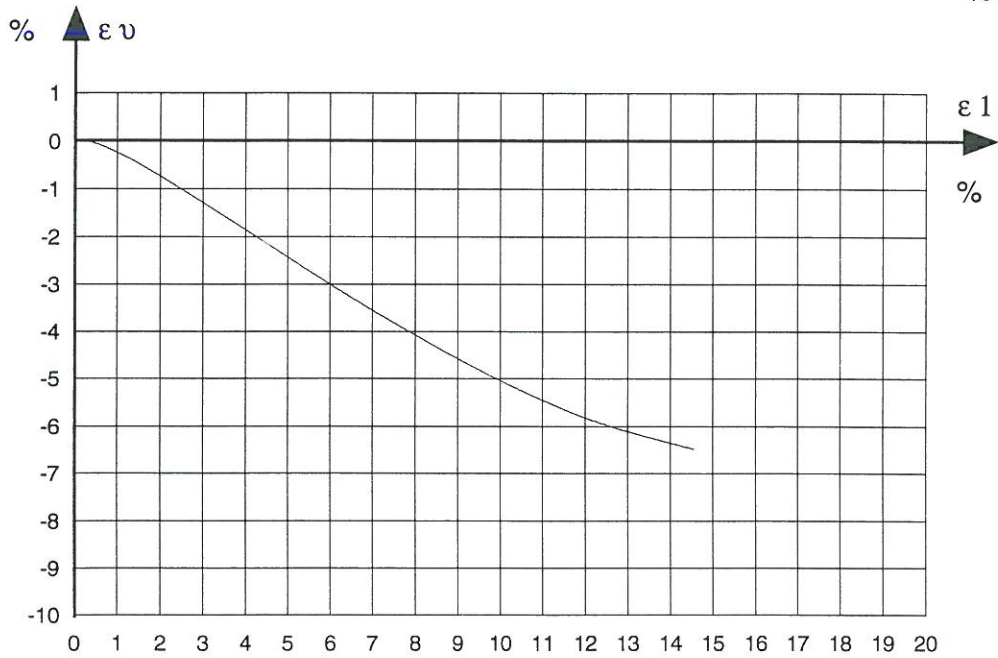
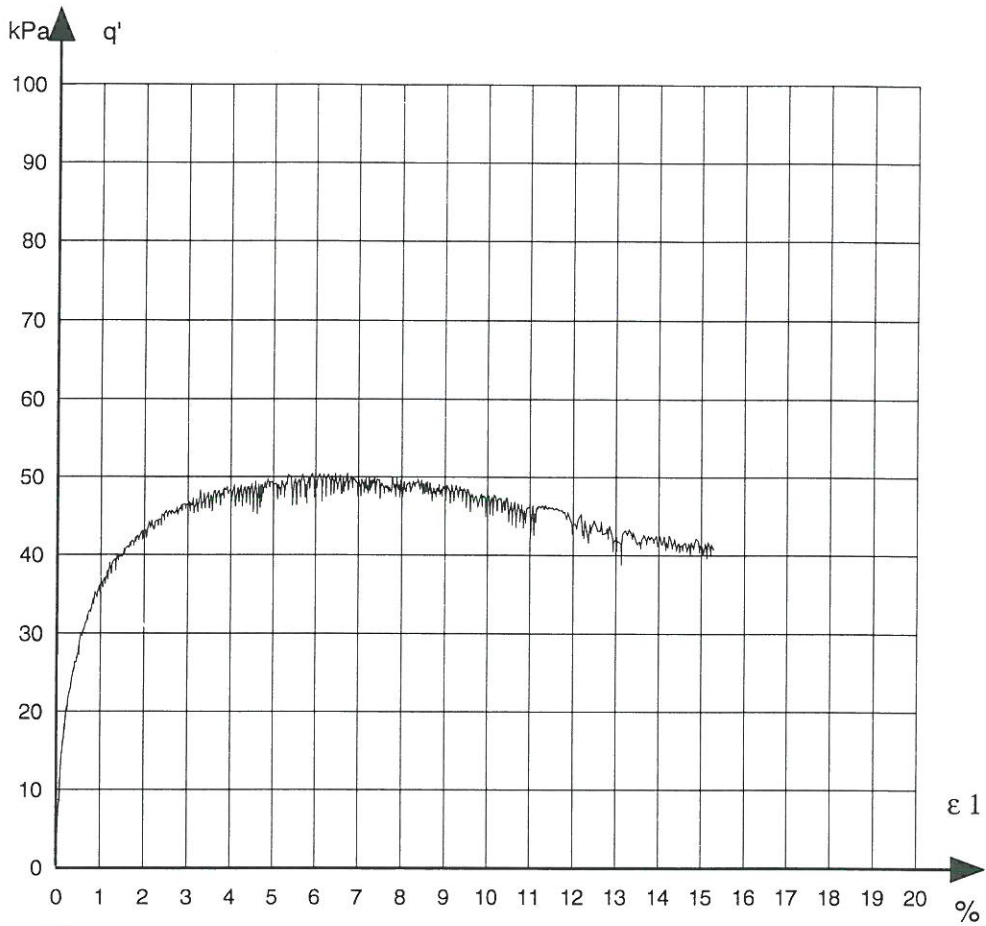
		Values at failure	Values for $\Delta \epsilon_v = 0$
Deviator stress	q'	50.46 kPa	10.23 kPa
Mean normal stress	p'	26.92 kPa	13.41 kPa
Confining pressures	σ_3	10.10 kPa	10.00 kPa
Vertical strain	ϵ_1	6.74 %	0.07 %
Volumetric strain	ϵ_v	-3.41 %	0.01 %



q'	p'	ϵ_1	ϵ_v
0.01	10.00	0.00	0.00
8.12	12.71	0.05	0.01
10.23	13.41	0.07	0.01
14.84	14.95	0.11	0.01
20.61	16.97	0.21	0.01
22.83	17.61	0.30	-0.01
28.92	19.64	0.50	-0.05
32.97	20.99	0.75	-0.14
36.89	22.30	1.00	-0.24
40.82	23.61	1.52	-0.48
42.95	24.32	2.00	-0.73
45.69	25.23	2.50	-1.00
46.45	25.48	3.01	-1.29
45.95	25.32	3.50	-1.57
49.15	26.38	4.50	-2.14
49.75	26.58	5.52	-2.73
48.76	26.25	6.51	-3.28
50.46	26.92	6.74	-3.41
48.60	26.20	7.04	-3.57
48.33	26.11	9.01	-4.58
46.21	25.40	11.00	-5.46
42.32	24.11	13.01	-6.11
41.12	23.71	15.02	-6.58
40.67	23.56	15.28	-6.63

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark:	
Preparation	$\delta \epsilon_1 = -0.116$
Specimen slipped out.	

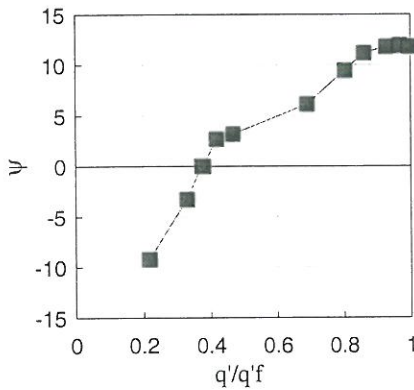
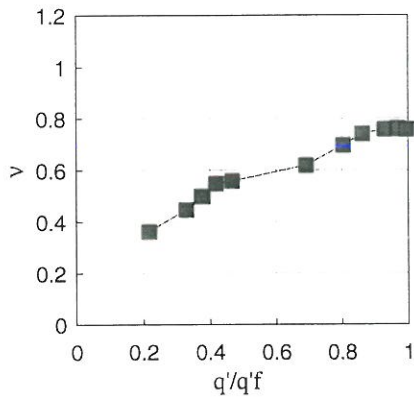


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	26.1	
Calibration file kal6	Date 20.01.94	Void ratio	2.64	0.749
		Saturation	0.696	0.794
		Dimension H mm	0.99	
		Dimension D mm	71.5	
			69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-20 kPa
		ϵ_1	-0.155 %
		ϵ_v	-0.301 %
	2. Drained compression.		
	Deformation rate:		3.7 % ph

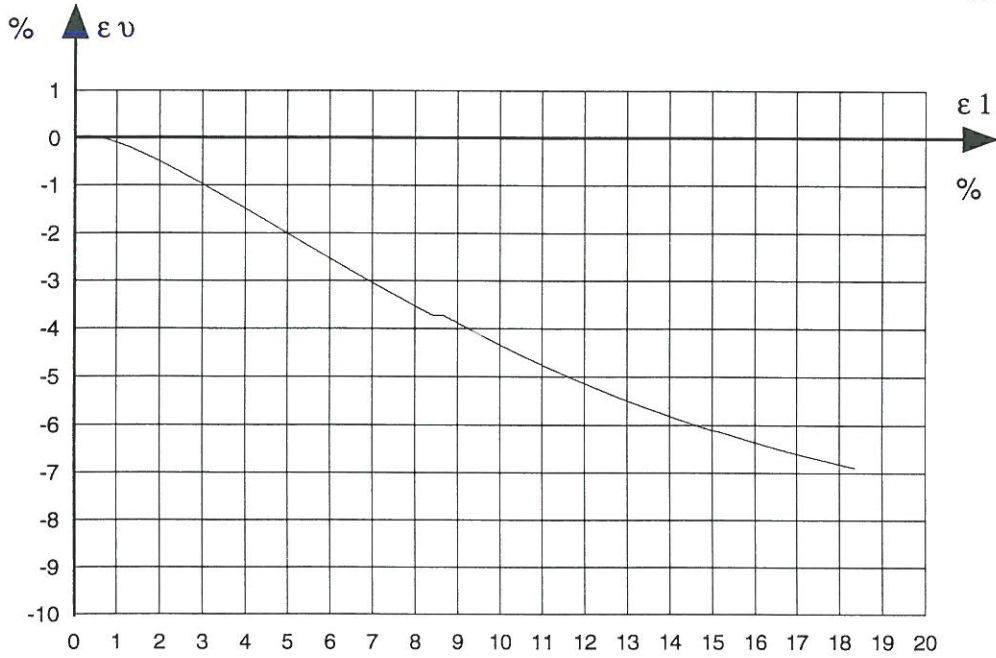
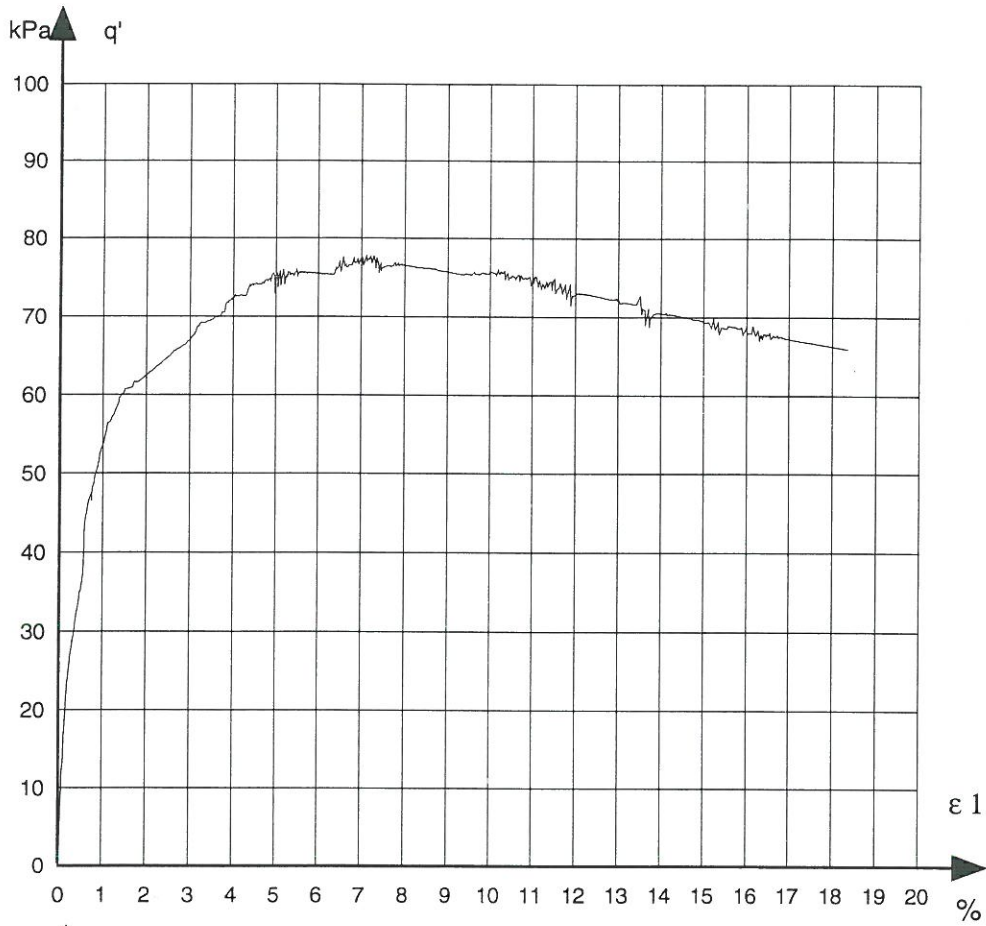
		Values at failure	Values for $\Delta\epsilon_v = 0$
Deviator stress	q'	77.85 kPa	29.37 kPa
Mean normal stress	p'	45.85 kPa	29.79 kPa
Confining pressures	σ_3	19.90 kPa	20.00 kPa
Vertical strain	ϵ_1	7.11 %	0.31 %
Volumetric strain	ϵ_v	-3.10 %	0.04 %



q'	p'	ϵ_1	ϵ_v
0.01	19.90	0.00	0.00
16.83	25.51	0.11	0.03
25.51	28.40	0.21	0.04
29.00	29.67	0.29	0.04
29.37	29.79	0.31	0.04
32.50	30.83	0.39	0.03
36.30	32.10	0.51	0.02
53.73	37.81	1.00	-0.10
62.54	40.85	2.01	-0.49
67.06	42.35	3.00	-0.97
72.28	44.09	4.00	-1.49
75.29	45.10	5.00	-2.01
75.54	45.18	6.00	-2.53
77.53	45.84	7.02	-3.05
77.85	45.85	7.11	-3.10
76.56	45.52	8.00	-3.53
75.71	45.24	9.01	-3.89
75.84	45.18	10.00	-4.34
75.07	44.92	11.01	-4.76
72.78	44.16	12.00	-5.14
70.46	43.49	14.01	-5.82
67.90	42.53	16.00	-6.36
66.27	42.09	18.00	-6.81
65.93	41.98	18.36	-6.89

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark: Preparation [%] $\Delta\epsilon_1 = 0.003$

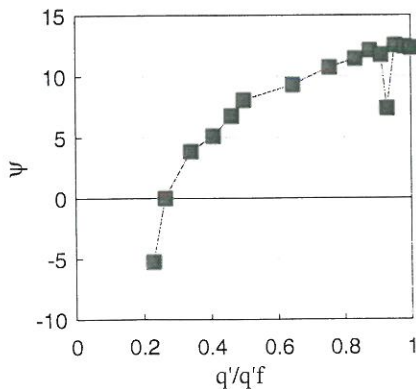
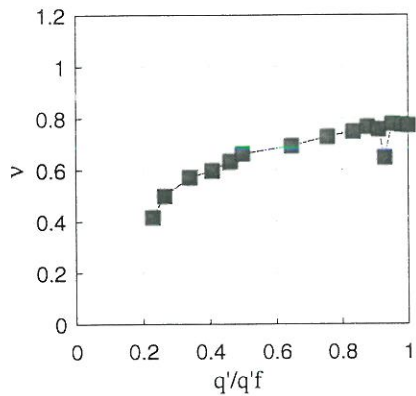


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	26.5	
Calibration file kal6	Date 24.01.94	Void ratio	2.64	0,748
		Saturation	0.704	0,793
		Dimension H mm	0.99	
			D mm	71.5
			69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-5 kPa
		ϵ_1	-0.226 %
		ϵ_v	-0.627 %
	2. Drained compression.		
	Deformation rate:		4.2 % ph

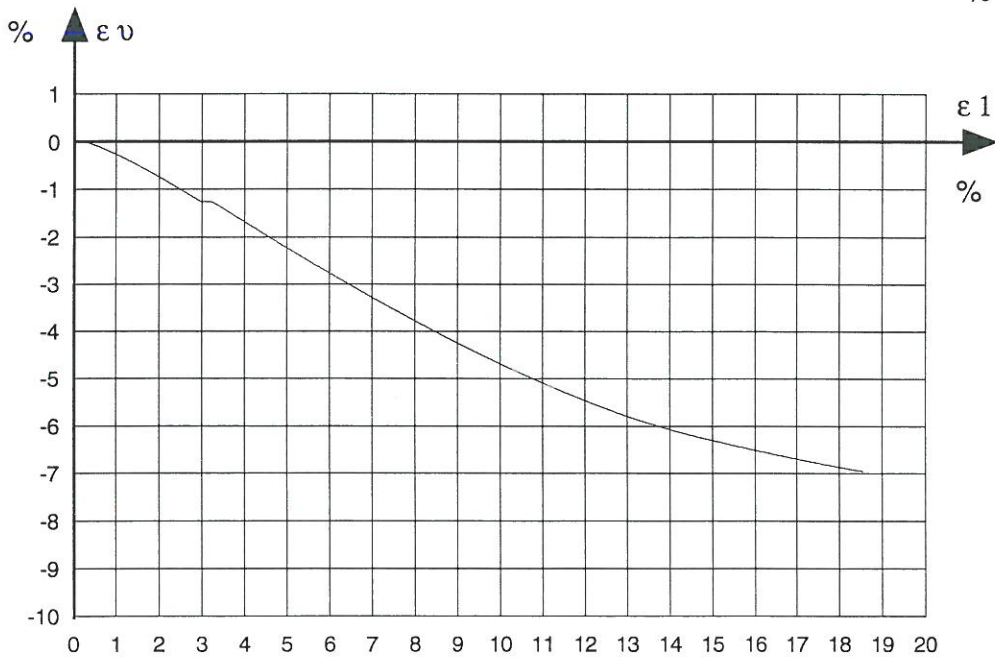
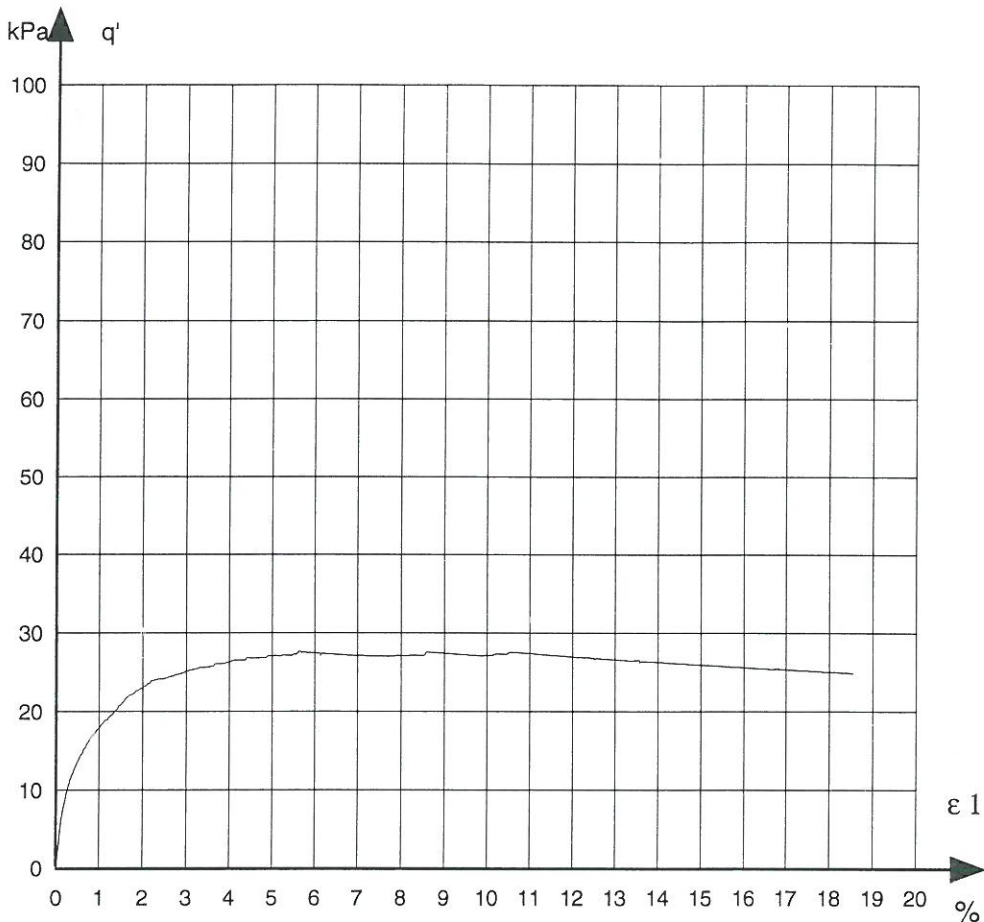
		Values at failure	Values for $\Delta\epsilon_v = 0$
Deviator stress	q'	27.65 kPa	7.28 kPa
Mean normal stress	p'	14.22 kPa	7.53 kPa
Confining pressures	σ_3	5.00 kPa	5.10 kPa
Vertical strain	ϵ_1	5.62 %	0.14 %
Volumetric strain	ϵ_v	-2.57 %	0.02 %



q'	p'	ϵ_1	ϵ_v
0.00	5.20	0.00	0.00
6.30	7.20	0.11	0.02
7.28	7.53	0.14	0.02
9.38	8.13	0.21	0.01
11.24	8.75	0.31	-0.01
12.74	9.25	0.40	-0.04
13.75	9.58	0.50	-0.07
17.83	11.04	1.00	-0.26
20.89	11.96	1.50	-0.49
23.01	12.67	2.00	-0.74
24.23	13.08	2.51	-1.01
25.16	13.39	3.00	-1.26
25.66	13.55	3.51	-1.41
26.31	13.77	4.01	-1.69
27.08	14.03	5.00	-2.23
27.65	14.22	5.62	-2.57
27.45	14.25	6.05	-2.79
27.12	14.04	8.00	-3.78
27.11	14.14	10.04	-4.70
26.95	13.98	12.04	-5.48
26.29	13.76	14.01	-6.08
25.60	13.63	16.04	-6.52
25.02	13.34	18.01	-6.87
24.87	13.29	18.56	-6.96

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark: Preparation [%] $\Delta\epsilon_1 = 0.006$

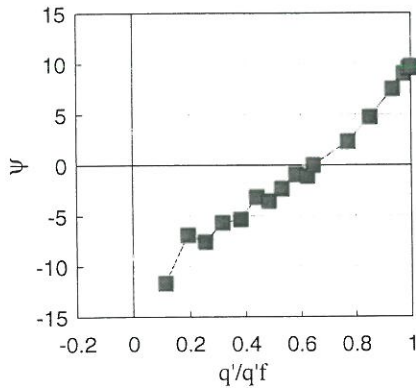
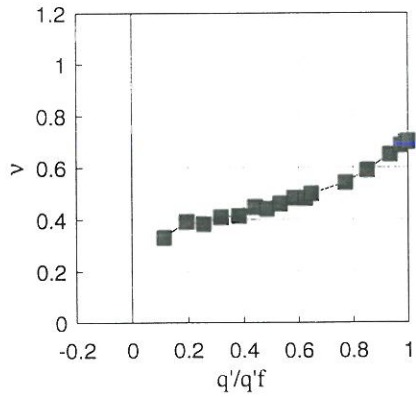


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	24.8	
Calibration file kal7	Date 27.01.94	Void ratio	0.698	0,727 0.771
		Saturation	0.94	
		Dimension H mm	71.5	
		D mm	69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-320 kPa
		ϵ_1	-0.013 %
		ϵ_v	1.008 %
	2. Drained compression.		
	Deformation rate:		3.7 % ph

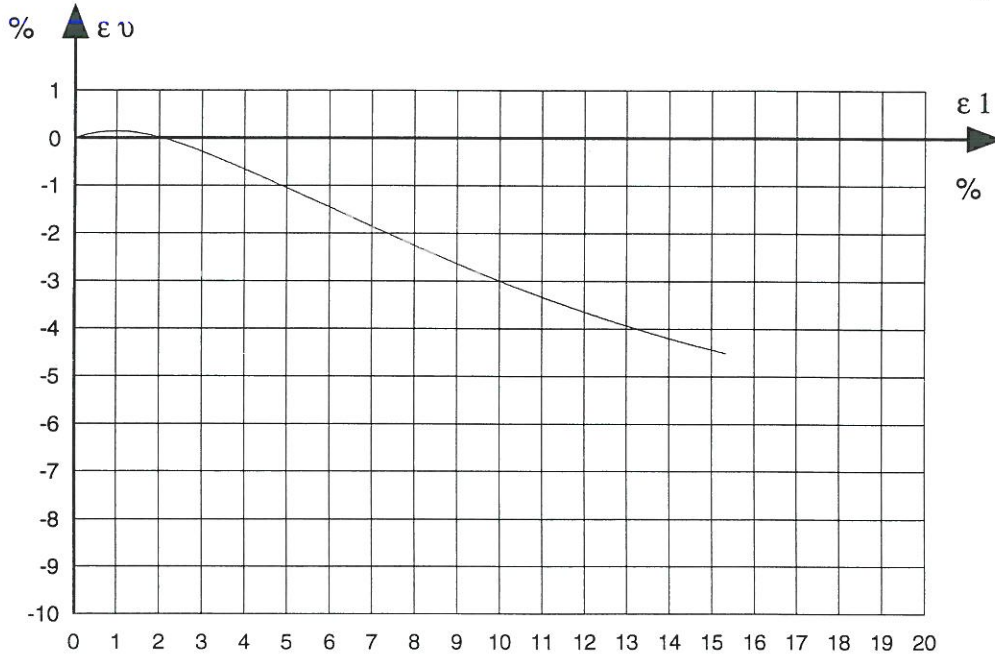
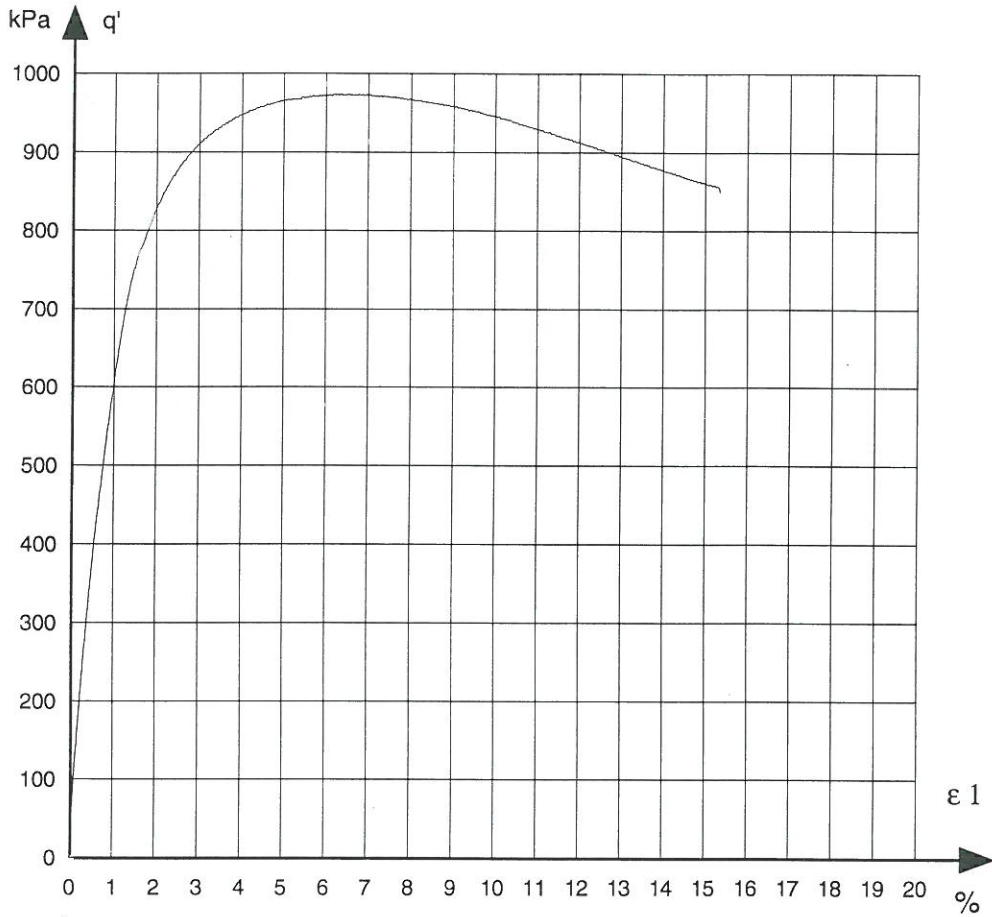
		Values at failure	Values for $\Delta\epsilon_v = 0$
Deviator stress	q'	973.87 kPa	628.85 kPa
Mean normal stress	p'	644.62 kPa	529.62 kPa
Confining pressures	σ_3	320.00 kPa	320.00 kPa
Vertical strain	ϵ_1	6.54 %	1.06 %
Volumetric strain	ϵ_v	-1.67 %	0.15 %



q'	p'	ϵ_1	ϵ_v
-0.71	319.76	0.00	0.00
110.41	356.80	0.10	0.03
188.56	382.85	0.20	0.05
249.36	403.12	0.29	0.08
309.68	423.23	0.40	0.10
373.04	444.35	0.50	0.11
429.59	463.20	0.61	0.12
471.70	477.23	0.70	0.14
517.57	492.52	0.80	0.14
567.78	509.26	0.91	0.15
607.48	522.49	1.01	0.15
628.85	529.62	1.06	0.15
751.16	570.49	1.50	0.11
829.28	596.53	2.01	0.02
909.34	623.21	2.99	-0.27
947.61	635.87	4.00	-0.65
965.81	642.04	5.00	-1.05
972.35	644.22	6.01	-1.46
973.87	644.62	6.54	-1.67
972.54	644.28	7.01	-1.87
958.67	639.56	9.00	-2.64
929.08	629.79	11.00	-3.34
895.25	618.52	13.00	-3.93
848.82	602.94	15.34	-4.51

Job: Baskarp No 15	Encl. No
Exc: YB, LB	Check: LB

Remark: Preparation [%] $\Delta\epsilon_1 = -0.004$ Problem during saturation.
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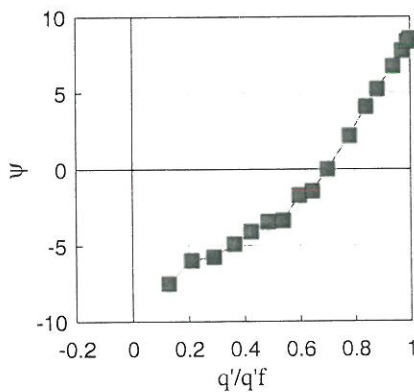
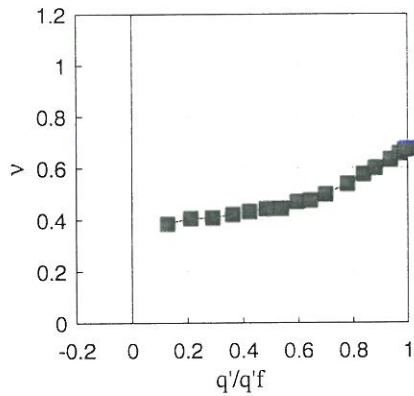


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	2.64	0,724
Calibration file	Date	Void ratio	0.698	0.768
kal7	31.01.94	Saturation		
		Dimension H mm	71.5	
		D mm	69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-640 kPa
		ϵ_1	0.153 %
		ϵ_v	0.572 %
	2. Drained compression.		
	Deformation rate:		3.8 % ph

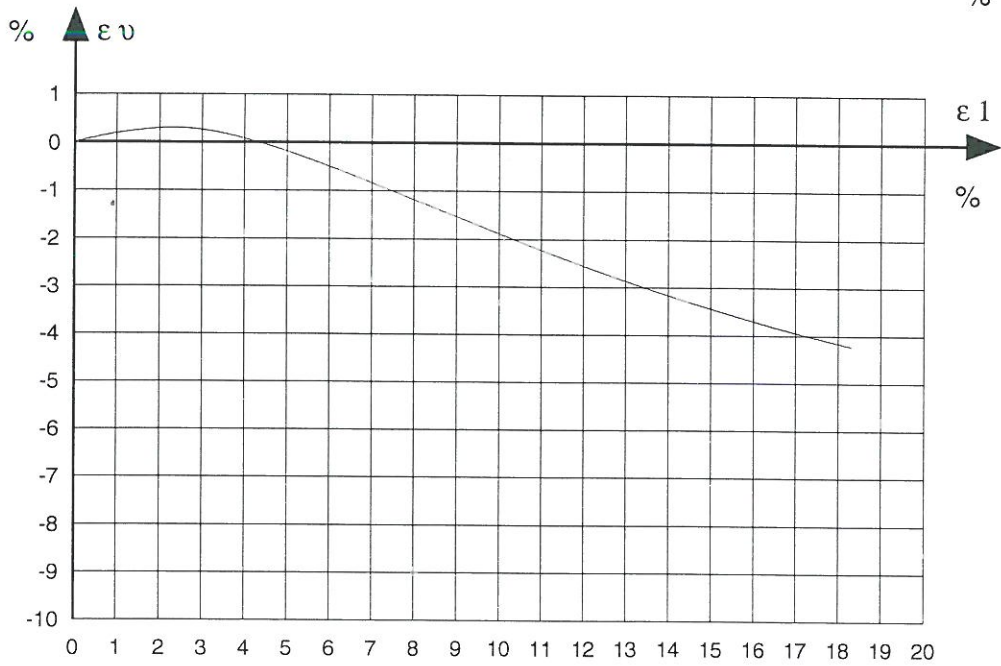
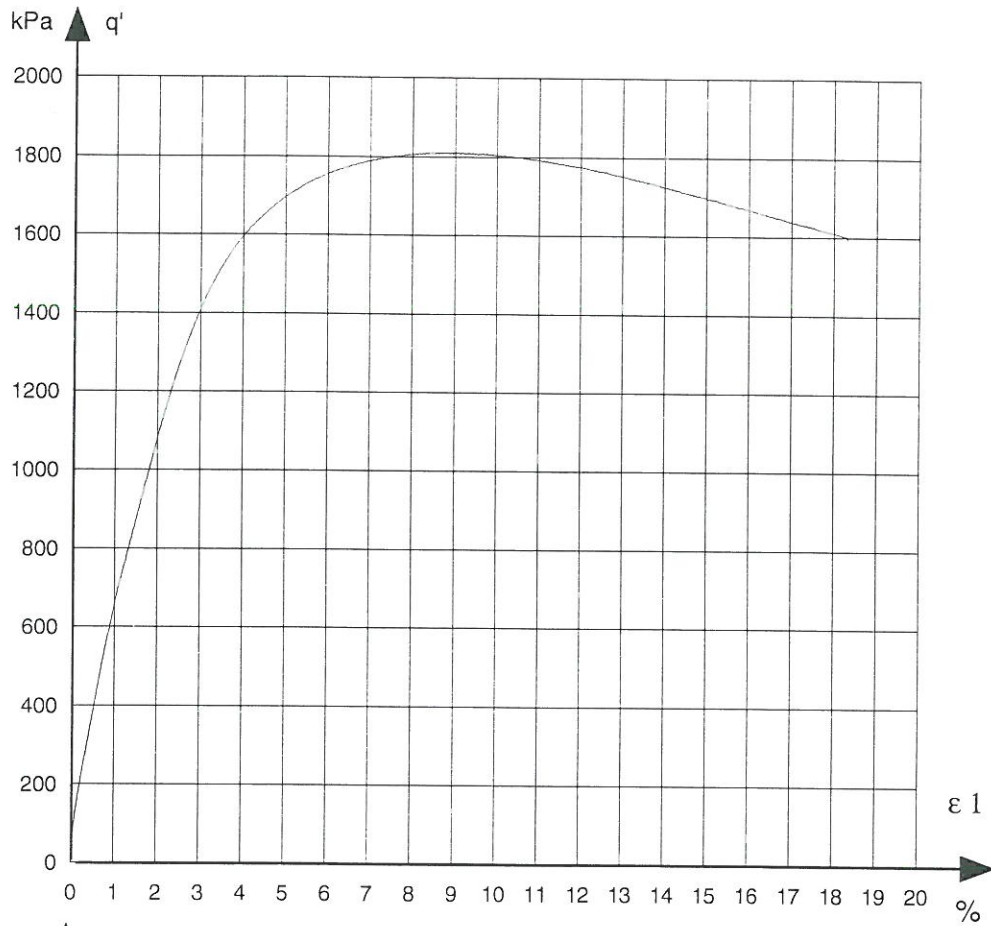
		Values at failure	Values for $\Delta \epsilon_v = 0$
Deviator stress	q'	1,810.74 kPa	678.01 kPa
Mean normal stress	p'	1,243.68 kPa	866.00 kPa
Confining pressures	σ_3	640.10 kPa	640.00 kPa
Vertical strain	ϵ_1	9.00 %	1.04 %
Volumetric strain	ϵ_v	-1.53 %	0.20 %



q'	p'	ϵ_1	ϵ_v
-1.05	639.65	0.00	0.00
230.75	716.92	0.25	0.06
380.88	766.96	0.51	0.11
525.89	815.30	0.75	0.15
657.67	859.32	1.00	0.19
767.34	895.88	1.25	0.22
877.09	932.36	1.51	0.25
974.80	965.03	1.74	0.28
1080.02	1000.01	2.00	0.29
1166.44	1028.81	2.22	0.30
1266.70	1062.23	2.50	0.30
1412.06	1110.69	3.01	0.26
1518.98	1146.43	3.51	0.19
1595.33	1171.88	4.00	0.09
1697.39	1205.90	5.01	-0.18
1756.34	1225.45	6.01	-0.49
1790.23	1236.84	7.01	-0.83
1806.96	1242.42	8.01	-1.18
1810.74	1243.68	9.00	-1.53
1792.56	1237.62	11.01	-2.22
1752.25	1224.18	13.00	-2.87
1697.27	1205.86	15.00	-3.44
1639.31	1186.54	17.00	-3.94
1593.32	1171.21	18.31	-4.23

Job: Baskarp No 15	Encl. No
Exc: JB, LB	Check: LB

Remark:
Preparation [%] $\Delta \epsilon_1 = -0.031$
Problem with measurement during saturation.

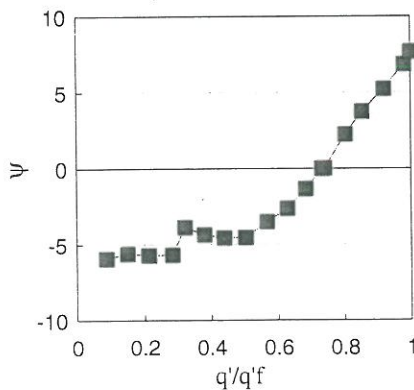
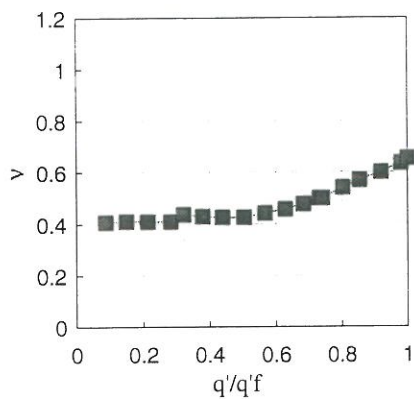


Job: Baskarp No 15	Encl. No
Exc: YB, LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	26.7	
Calibration file kal7	Date 08.02.94	Void ratio	2.64	0.718
		Saturation	0.699	0.762
		Dimension H mm	1.01	
		D mm	71.5	
			69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-800 kPa
		ϵ_1	0.225 %
		ϵ_v	0.979 %
	2. Drained compression.		
	Deformation rate:		3.6 % ph

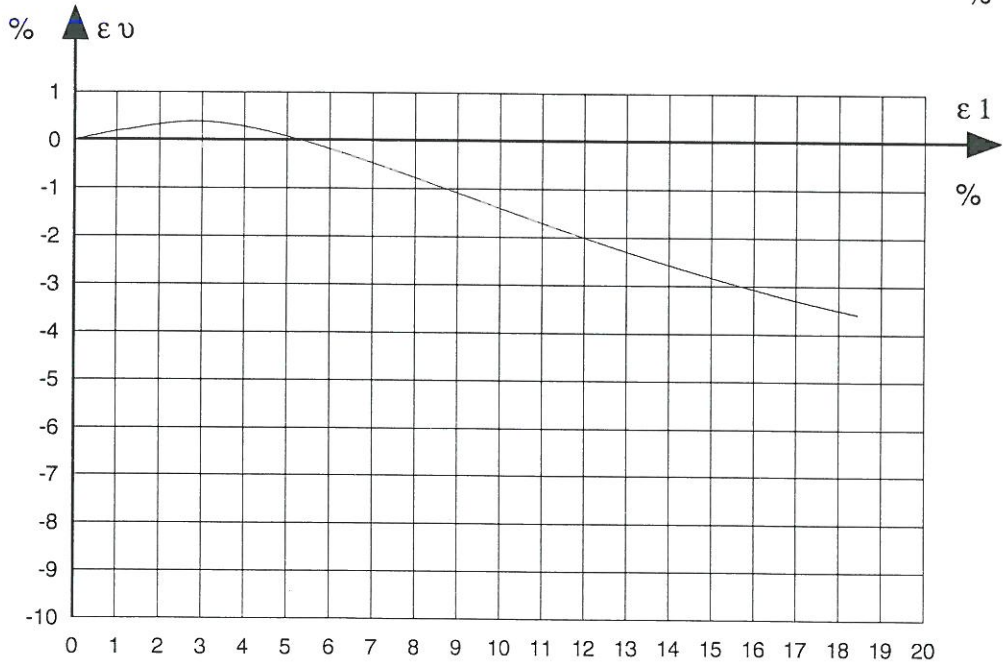
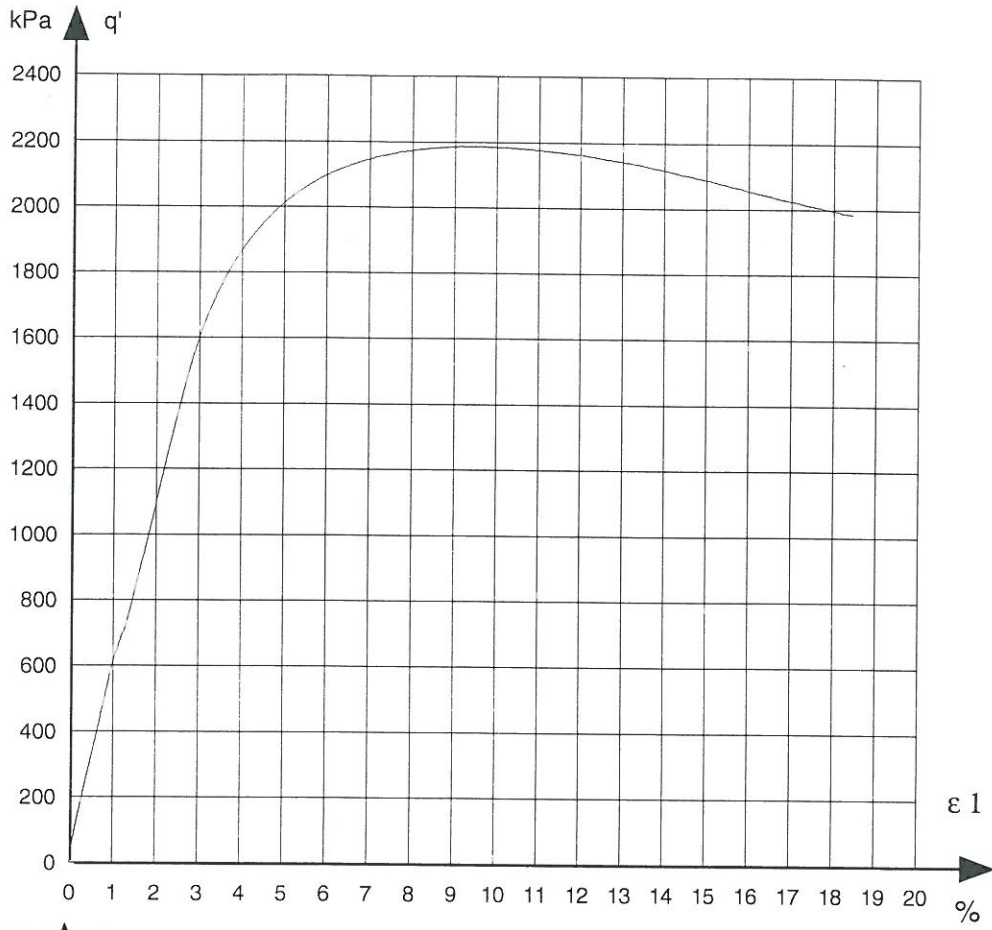
		Values at failure	Values for $\Delta\epsilon_v = 0$
Deviator stress	q'	2,187.60 kPa	1617.78 kPa
Mean normal stress	p'	1,529.40 kPa	1339.16 kPa
Confining pressures	σ_3	800.20 kPa	799.90 kPa
Vertical strain	ϵ_1	9.18 %	3.05 %
Volumetric strain	ϵ_v	-1.14 %	0.38 %



q'	p'	ϵ_1	ϵ_v
-3.17	798.94	0.00	0.00
188.64	862.88	0.25	0.05
326.03	908.58	0.50	0.09
465.33	955.01	0.75	0.14
618.26	1006.09	1.01	0.18
701.30	1033.77	1.24	0.21
828.32	1076.11	1.50	0.25
958.68	1119.56	1.75	0.29
1099.53	1166.41	2.00	0.32
1238.56	1212.85	2.25	0.35
1373.09	1257.70	2.51	0.37
1494.25	1297.98	2.75	0.38
1600.36	1333.35	3.00	0.38
1617.78	1339.16	3.05	0.38
1755.53	1385.28	3.50	0.35
1867.16	1422.59	4.00	0.28
2012.18	1470.93	5.00	0.08
2145.72	1515.44	7.00	-0.47
2186.72	1529.11	9.00	-1.09
2187.60	1529.40	9.18	-1.14
2175.31	1525.30	11.01	-1.71
2140.38	1513.56	13.02	-2.30
2088.69	1496.43	15.00	-2.83
1983.75	1461.45	18.46	-3.59

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark: Preparation [%] $\Delta\epsilon_1 = -0.009$
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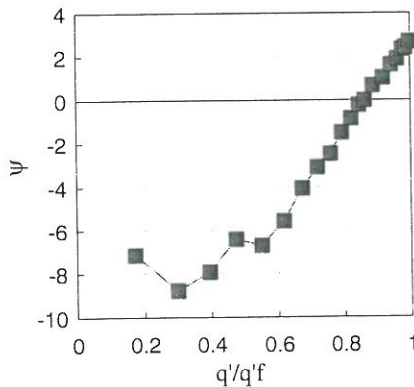
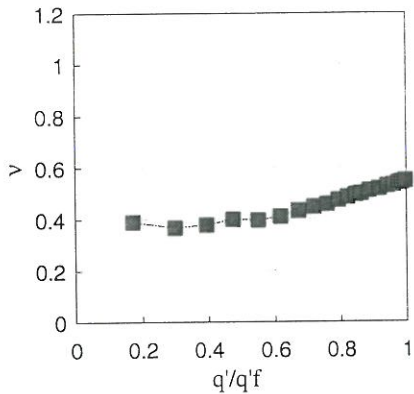


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	30.8	
Calibration file kal7	Date 11.02.94	Void ratio	2.64	0.852
		Saturation	0.856	0.900
		Dimension H mm	0.95	
		Dimension D mm	71.5	
			69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-640 kPa
		ϵ_1	0.287 %
		ϵ_v	0.880 %
	2. Drained compression.		
	Deformation rate:		4.2 % ph

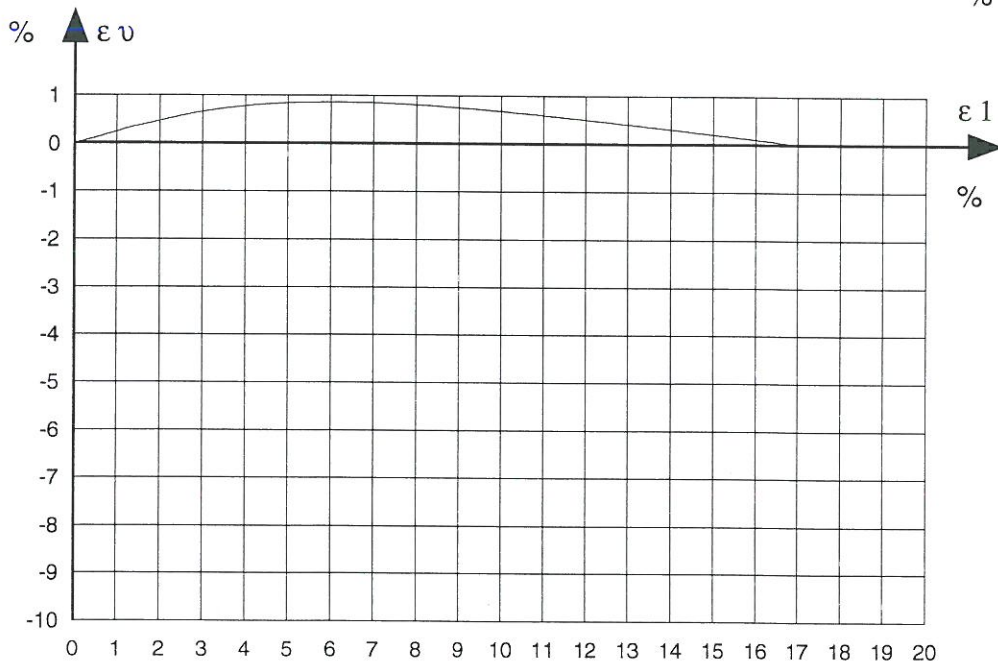
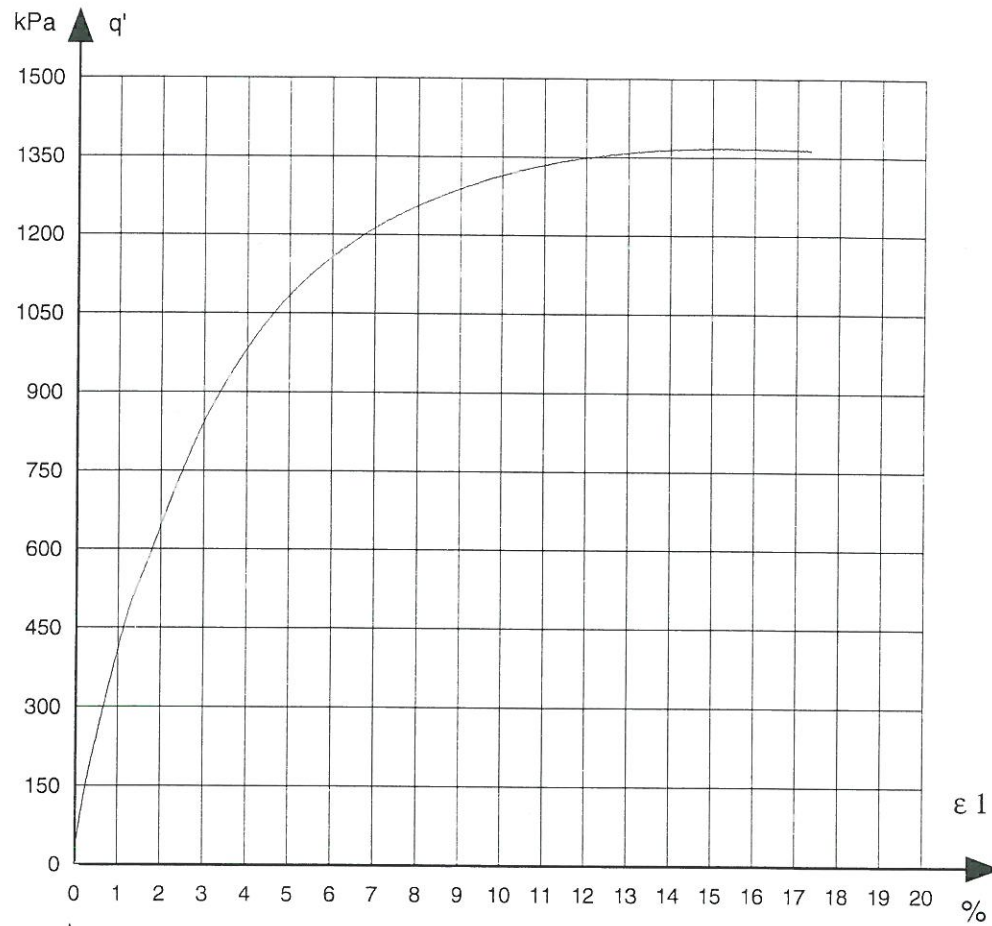
		Values at failure	Values for $\Delta \epsilon_v = 0$
Deviator stress	q'	1,367.94 kPa	1179.88 kPa
Mean normal stress	p'	1,096.18 kPa	1033.49 kPa
Confining pressures	σ_3	640.20 kPa	640.20 kPa
Vertical strain	ϵ_1	15.21 %	6.39 %
Volumetric strain	ϵ_v	0.19 %	0.86 %



q'	p'	ϵ_1	ϵ_v
-1.76	639.61	0.00	0.00
234.56	718.39	0.50	0.11
408.09	776.13	1.00	0.24
539.53	820.04	1.51	0.37
648.43	856.34	2.00	0.47
752.58	890.96	2.51	0.57
842.39	920.90	3.01	0.66
918.54	946.28	3.51	0.73
981.56	967.39	4.01	0.78
1036.16	985.59	4.50	0.82
1083.13	1001.34	5.00	0.84
1122.71	1014.44	5.51	0.86
1155.93	1025.51	5.99	0.86
1179.88	1033.49	6.39	0.86
1213.26	1044.52	7.00	0.85
1255.49	1058.70	8.00	0.81
1288.06	1069.55	9.00	0.75
1314.80	1078.47	10.01	0.68
1335.39	1085.33	11.00	0.60
1348.42	1089.67	12.00	0.51
1363.36	1094.65	14.01	0.31
1367.94	1096.18	15.21	0.19
1366.56	1095.72	16.01	0.11
1362.21	1094.27	17.33	-0.02

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark:
Preparation [%] $\Delta \epsilon_1 = 0.085$
Preparation at 20 kPa vacuum.

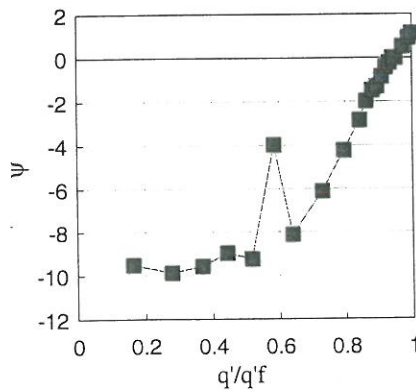
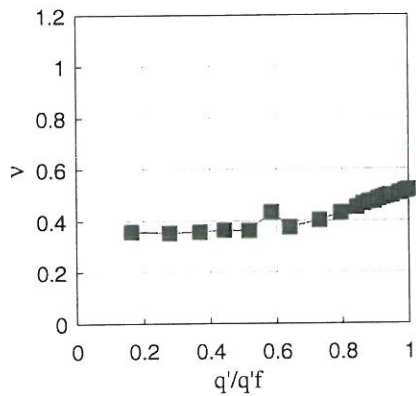


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	32.4	0,824
Calibration file kal7	Date 13.02.94	Void ratio	0.846	0.871
		Saturation	1.01	
		Dimension H mm	71.5	
			D mm	69.7

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-800 kPa
		ϵ_l	-0.042 %
		ϵ_v	4.069 %
	2. Drained compression.		
	Deformation rate:		3.8 % ph

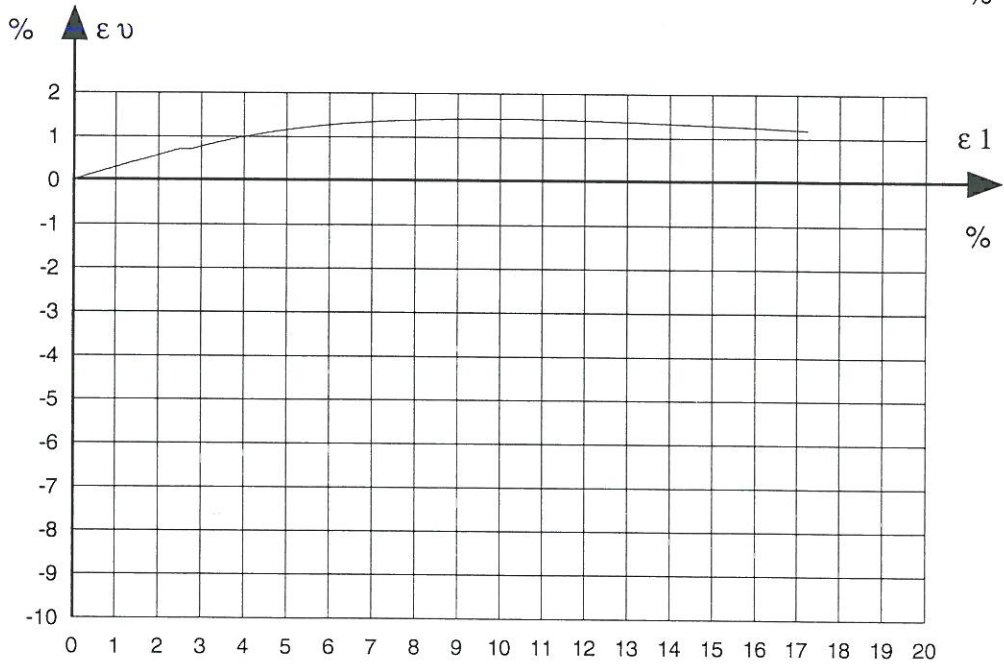
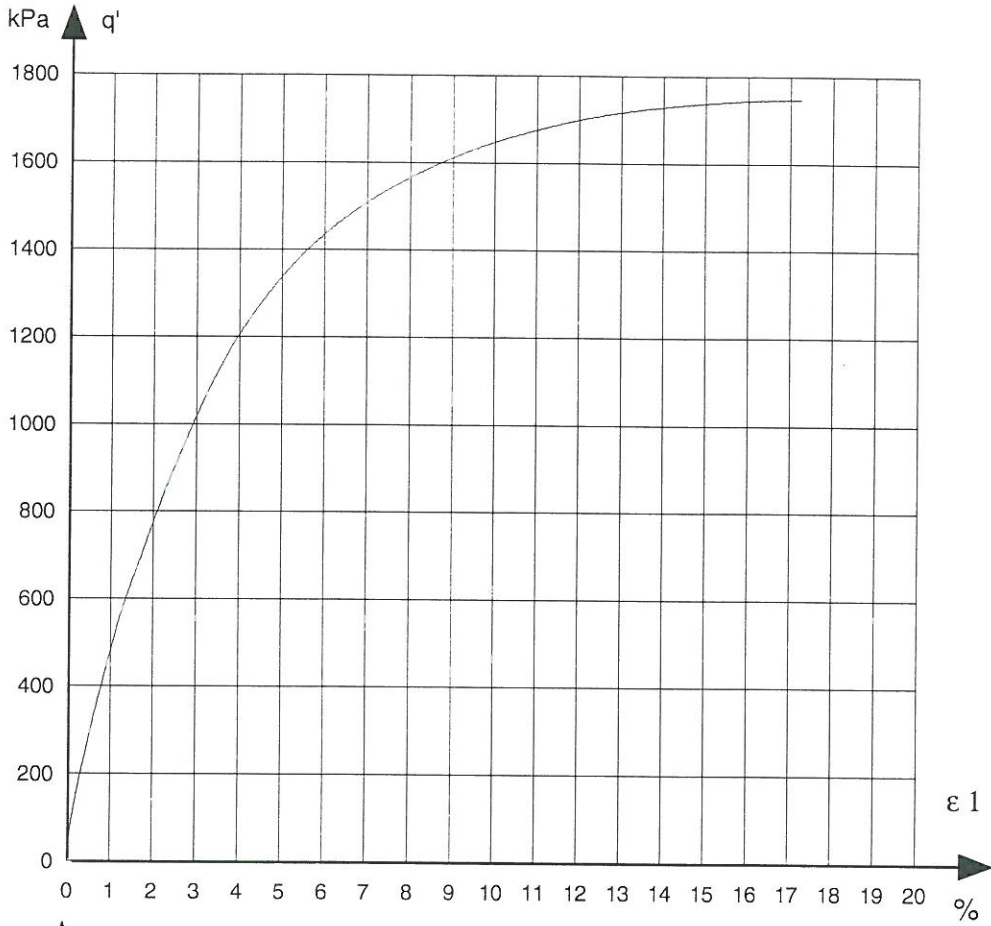
		Values at failure	Values for $\Delta\epsilon_v = 0$
Deviator stress	q'	1,748.07 kPa	1660.53 kPa
Mean normal stress	p'	1,382.69 kPa	1353.51 kPa
Confining pressures	σ_3	800.00 kPa	800.00 kPa
Vertical strain	ϵ_l	17.21 %	10.43 %
Volumetric strain	ϵ_v	1.19 %	1.42 %



q'	p'	ϵ_l	ϵ_v
-1.46	799.51	0.00	0.00
284.99	895.00	0.50	0.14
484.04	961.25	1.00	0.29
643.08	1014.36	1.51	0.43
773.67	1057.89	2.00	0.56
902.52	1100.74	2.50	0.70
1019.19	1139.63	3.01	0.77
1118.26	1172.65	3.50	0.89
1276.69	1225.56	4.51	1.09
1390.16	1263.29	5.49	1.22
1473.42	1291.24	6.50	1.32
1508.74	1303.01	7.00	1.35
1540.10	1313.47	7.51	1.37
1566.28	1322.19	8.01	1.40
1589.12	1329.81	8.51	1.41
1610.49	1336.83	9.01	1.42
1630.05	1343.45	9.50	1.42
1647.54	1349.18	10.00	1.42
1660.53	1353.51	10.43	1.42
1700.33	1366.78	12.00	1.39
1730.11	1376.70	14.00	1.33
1745.52	1381.84	16.00	1.25
1748.07	1382.69	17.21	1.19
1747.09	1382.36	17.25	1.19

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark:
Preparation [%] $\Delta\epsilon_l = 0.568$
Preparation at 20 kPa vacuum.

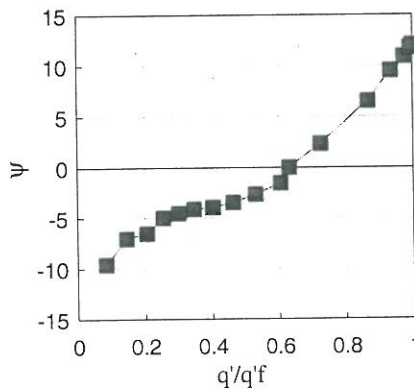
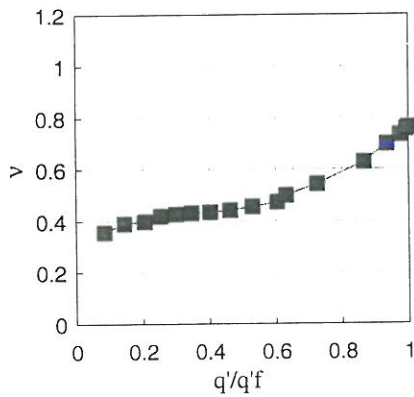


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	24.4	
Calibration file kal7	Date 15.02.94	Void ratio	2.64	0,646
		Saturation	0.614	0.688
		Dimension H mm	1.05	
		Dimension D mm	71.5	
			69.7	

TEST-PROGRAM	Drained compression.		
CD - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-800 kPa
		ϵ_1	0.211 %
		ϵ_v	4.564 %
	2. Drained compression.		
	Deformation rate:		4.6 % ph

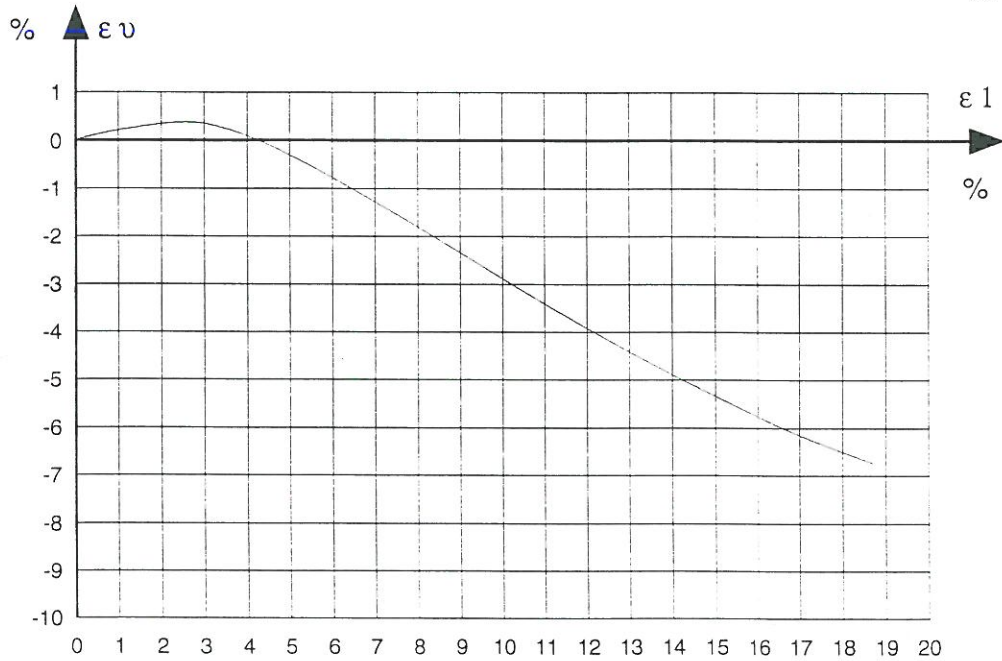
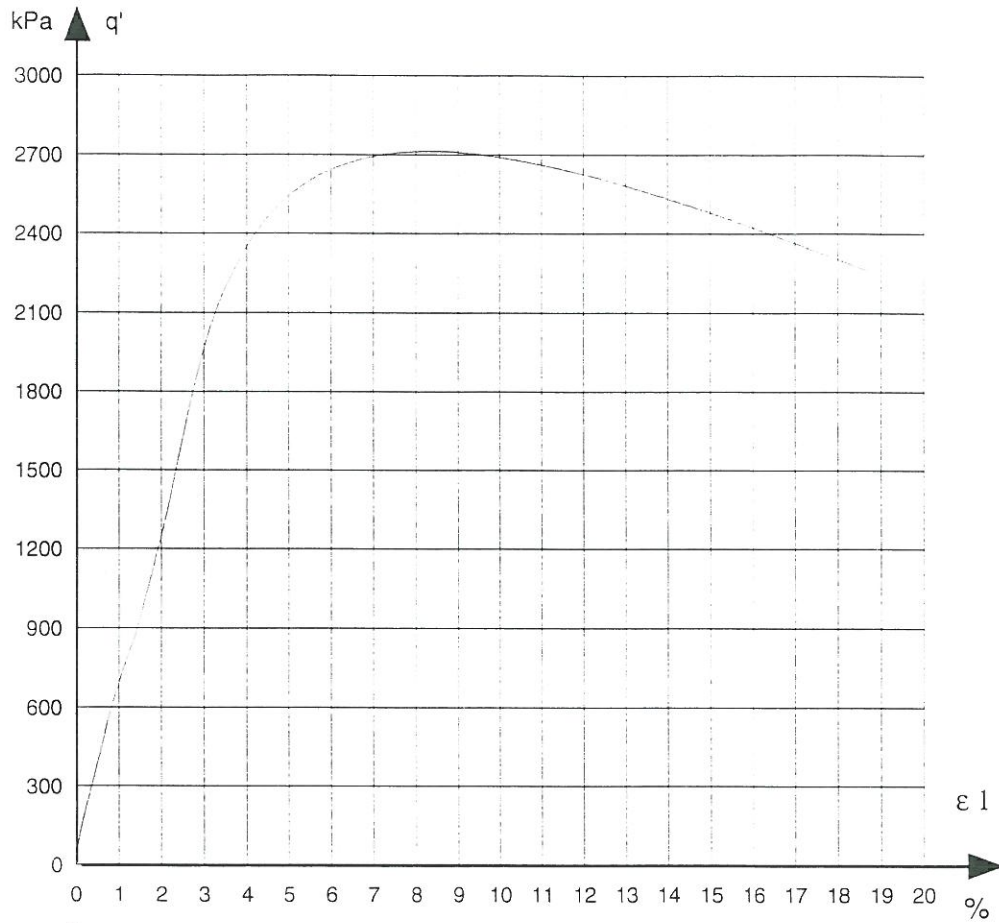
		Values at failure	Values for $\Delta\epsilon_v = 0$
Deviator stress	q'	2,713.80 kPa	1712.10 kPa
Mean normal stress	p'	1,704.80 kPa	1370.80 kPa
Confining pressures	σ_3	800.20 kPa	800.10 kPa
Vertical strain	ϵ_1	8.30 %	2.62 %
Volumetric strain	ϵ_v	-1.97 %	0.38 %



q'	p'	ϵ_1	ϵ_v
-1.83	801.49	0.00	0.00
224.27	874.86	0.24	0.07
390.89	930.40	0.50	0.12
555.01	985.10	0.75	0.18
688.30	1029.53	1.00	0.22
813.04	1071.01	1.25	0.25
936.90	1112.30	1.50	0.29
1091.44	1163.91	1.75	0.32
1253.82	1217.94	2.01	0.35
1434.46	1278.15	2.25	0.37
1639.76	1346.59	2.53	0.38
1712.10	1370.80	2.62	0.38
1968.92	1456.41	3.01	0.35
2351.86	1584.05	4.01	0.10
2537.65	1645.98	4.99	-0.29
2644.38	1681.66	6.02	-0.77
2693.47	1697.92	7.02	-1.29
2710.97	1703.86	8.01	-1.81
2713.80	1704.80	8.30	-1.97
2690.00	1696.87	10.00	-2.88
2624.63	1674.98	12.01	-3.93
2530.44	1643.68	14.00	-4.89
2422.84	1607.71	16.01	-5.77
2259.46	1553.35	18.70	-6.74

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark: Preparation [%] $\Delta\epsilon_1 = -0.008$
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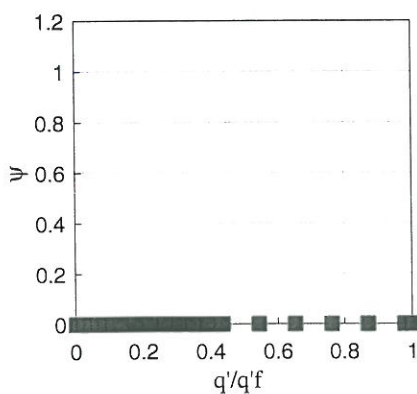
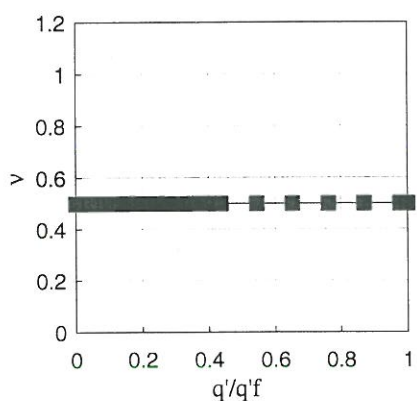


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	25.4	Before test	At failure
		Grain density	2.64		
Calibration file kal7	Date 16.02.94	Void ratio	0.698		
		Saturation	0.96		
		Dimension H mm	71.5		
		D mm	69.7		

TEST-PROGRAM	Drained compression.		
CU - Triaxial test. free ends	1. Isotropic compression.	σ_3	100- 10 kPa
		ϵ_1	-0.219 %
		ϵ_v	-0.363 %
	2. Undrained compression.		
	Deformation rate:		3.7 % ph

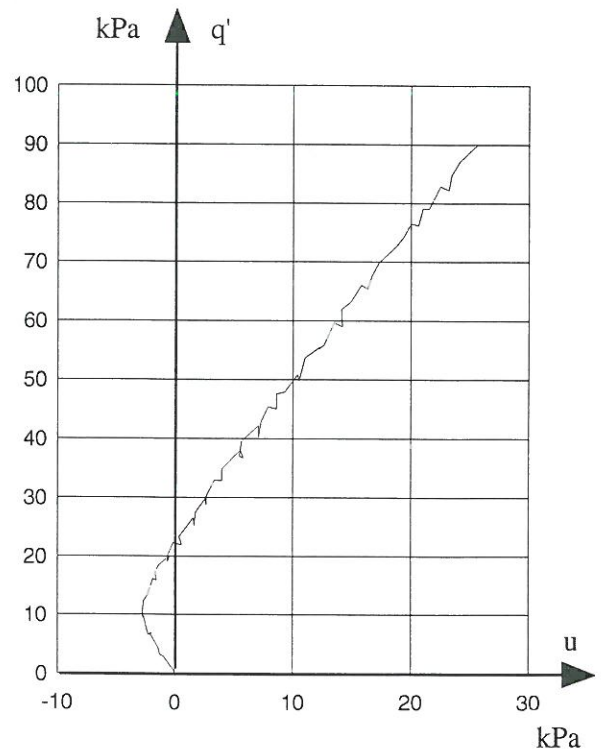
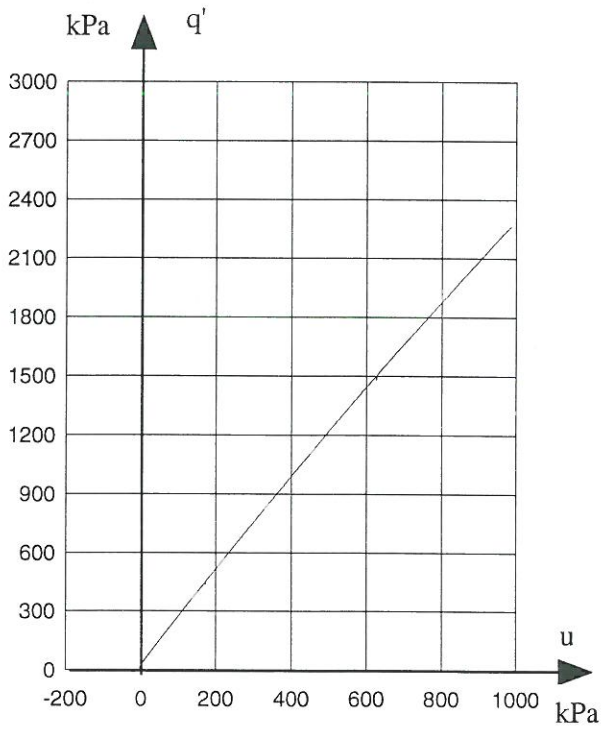
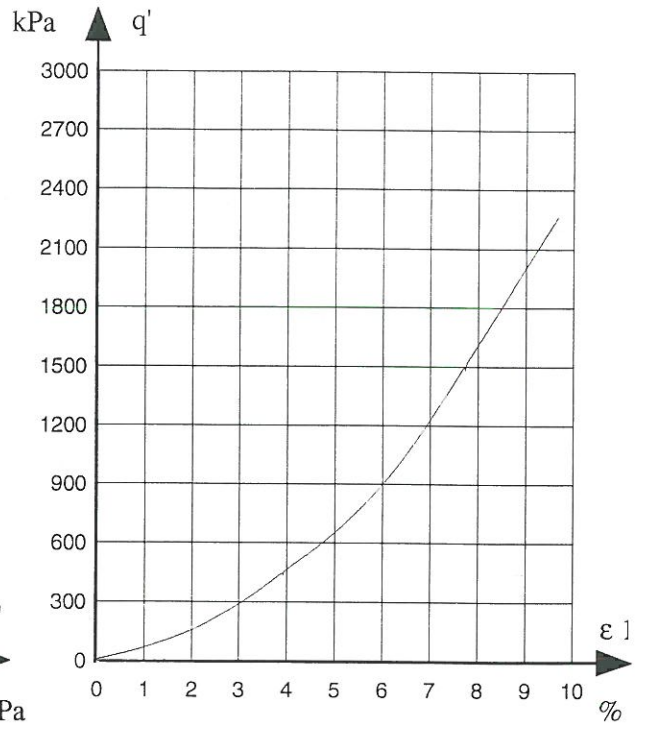
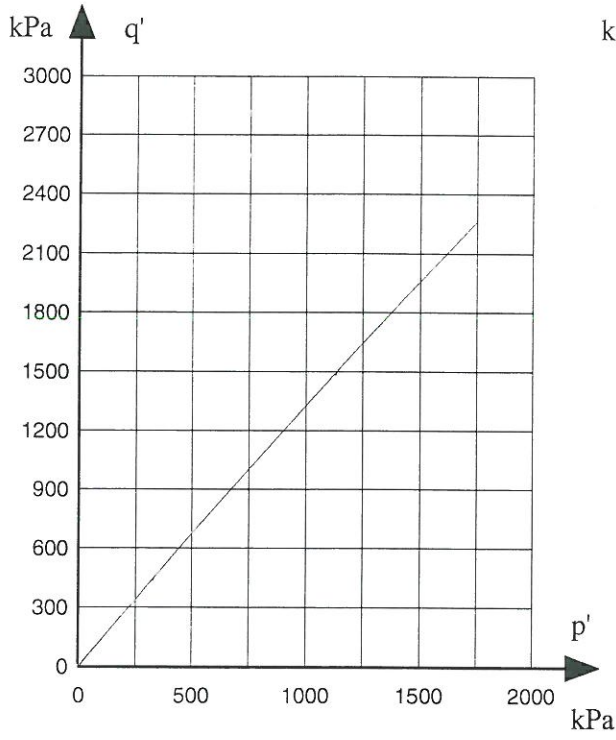
		Maximum values		Minimum values for σ_3	
Deviator stress	q'	2,261.40	kPa	9.39	kPa
Mean normal stress	p'	1,750.63	kPa	10.33	kPa
Confining pressures	σ_3	997.60	kPa	7.20	kPa
Vertical strain	ϵ_1	9.69	%	0.07	%
Volumetric strain	ϵ_v	0.00	%	0.00	%



q'	p'	ϵ_1	ϵ_v
0.32	10.11	0.00	0.00
2.91	9.97	0.01	0.00
6.80	10.27	0.04	0.00
9.39	10.33	0.07	0.00
25.17	20.09	0.36	0.00
50.78	37.33	0.76	0.00
101.22	73.84	1.41	0.00
148.99	108.86	1.92	0.00
198.62	145.81	2.35	0.00
246.44	181.65	2.70	0.00
296.15	218.02	3.04	0.00
394.26	291.12	3.62	0.00
491.81	363.14	4.14	0.00
591.77	437.96	4.69	0.00
691.64	512.85	5.18	0.00
789.29	587.40	5.59	0.00
886.69	661.26	5.96	0.00
984.38	735.53	6.29	0.00
1229.04	923.78	7.00	0.00
1473.35	1114.32	7.64	0.00
1722.86	1311.59	8.28	0.00
1966.70	1507.87	8.91	0.00
2210.51	1707.54	9.53	0.00
2261.40	1749.00	9.67	0.00

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark: Preparation [%] $\Delta \epsilon_1 = 0.019$
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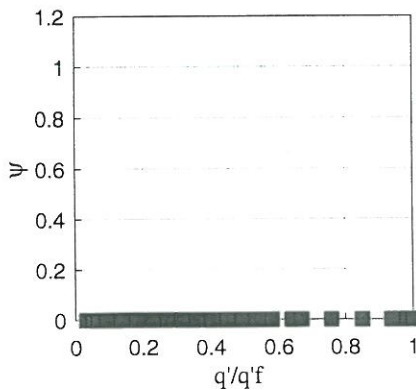
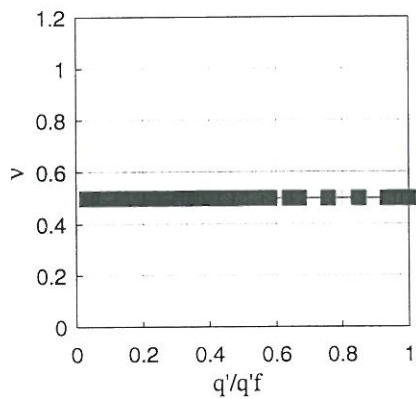


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	32.4	Before test	At failure
		Grain density	2.64		
Calibration file kal7	Date 17.02.94	Void ratio	0.854		
		Saturation	1		
		Dimension H mm	71.5		
		D mm	69.7		

TEST-PROGRAM	Drained compression.		
CU - Triaxial test. free ends	1. Isotropic compression.	σ_3	100- 10 kPa
		ϵ_1	-0.243 %
		ϵ_v	-3.343 %
	2. Undrained compression.		
	Deformation rate:		4.2 % ph

		Maximum values	Minimum values for σ
Deviator stress	q'	220.68 kPa	11.56 kPa
Mean normal stress	p'	179.66 kPa	9.75 kPa
Confining pressures	σ_3	106.10 kPa	5.90 kPa
Vertical strain	ϵ_1	17.97 %	0.92 %
Volumetric strain	ϵ_v	0.00 %	0.00 %

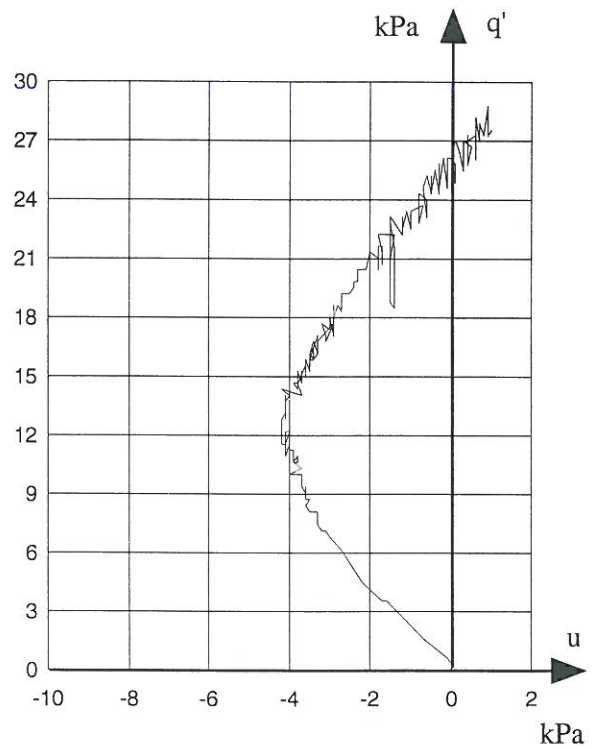
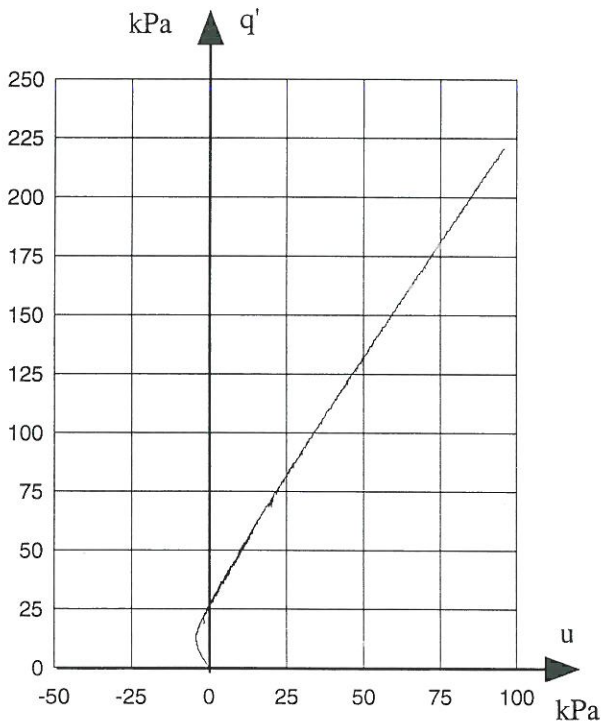
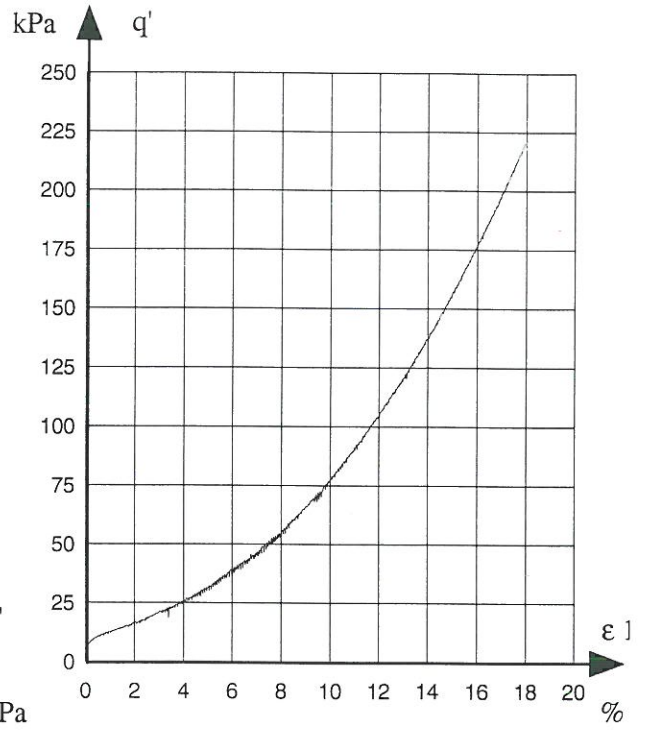
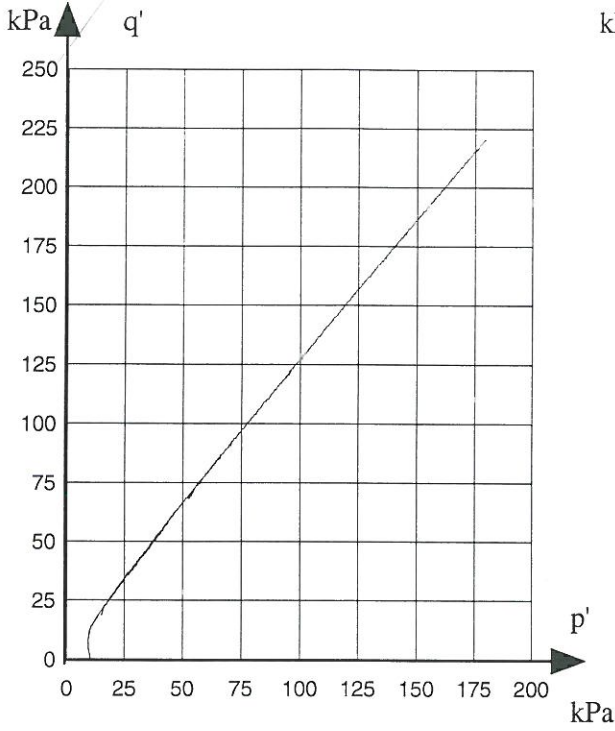


q'	p'	ϵ_1	ϵ_v
0.32	10.21	0.00	0.00
7.12	9.37	0.13	0.00
10.00	9.43	0.44	0.00
11.56	9.75	0.92	0.00
14.67	11.19	1.59	0.00
19.84	14.31	2.78	0.00
29.66	21.39	4.64	0.00
39.59	28.60	6.00	0.00
50.15	36.62	7.32	0.00
59.68	44.29	8.36	0.00
69.09	52.03	9.27	0.00
78.97	59.82	10.07	0.00
89.00	68.07	10.82	0.00
99.14	76.65	11.58	0.00
108.92	84.41	12.24	0.00
118.10	92.27	12.81	0.00
127.93	100.54	13.43	0.00
141.22	111.57	14.22	0.00
147.60	117.20	14.55	0.00
167.21	134.04	15.56	0.00
187.31	150.74	16.48	0.00
206.54	167.05	17.34	0.00
216.70	175.73	17.76	0.00
220.68	179.66	17.97	0.00

Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Remark:
Preparation [%] $\Delta \epsilon_1 = 0.145$
Preparation at 20 kPa vacuum

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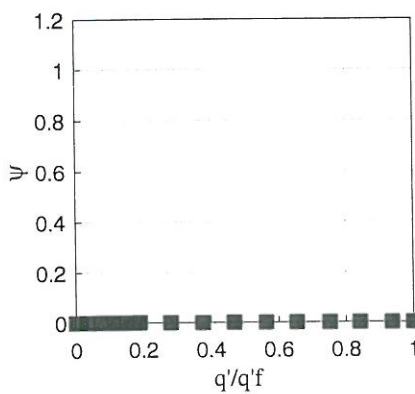
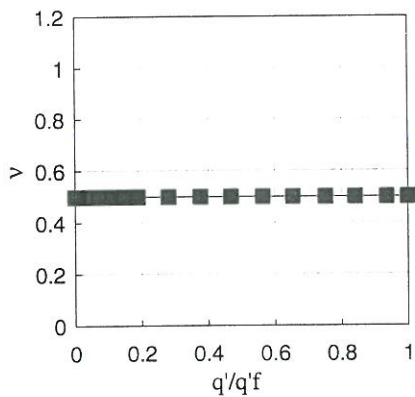


Job: Baskarp No 15	Encl. No
Exc: LB	Check: LB

Description of soil Baskarp No 15		Water content %	Before test	At failure
		Grain density	27.5	
Calibration file kal4	Date 19.10.93	Void ratio	0.611	
		Saturation	1.19	
		Dimension H mm	71.5	
		D mm	69.7	

TEST-PROGRAM	Drained compression.		
CU - Triaxial test. free ends	1. Isotropic compression.	σ_3	100-100 kPa
		ϵ_1	0.002 %
		ϵ_v	0.000 %
	2. Undrained compression.		
	Deformation rate:		3.7 % ph

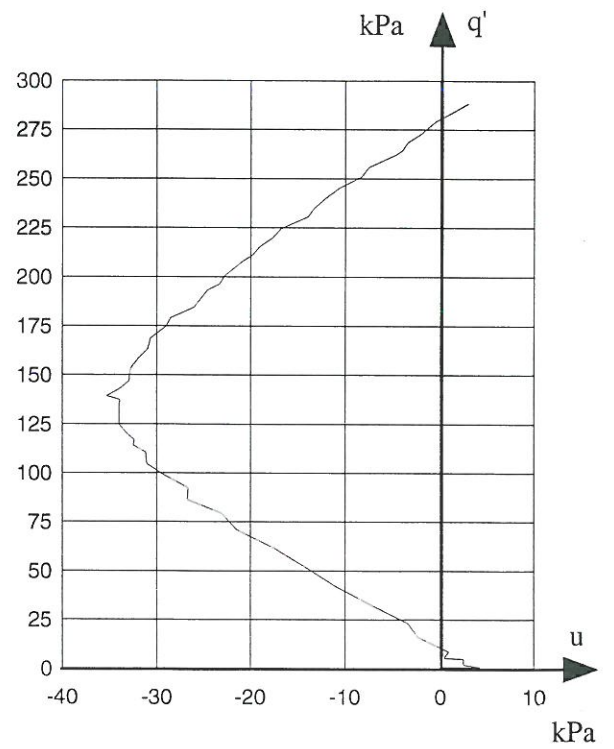
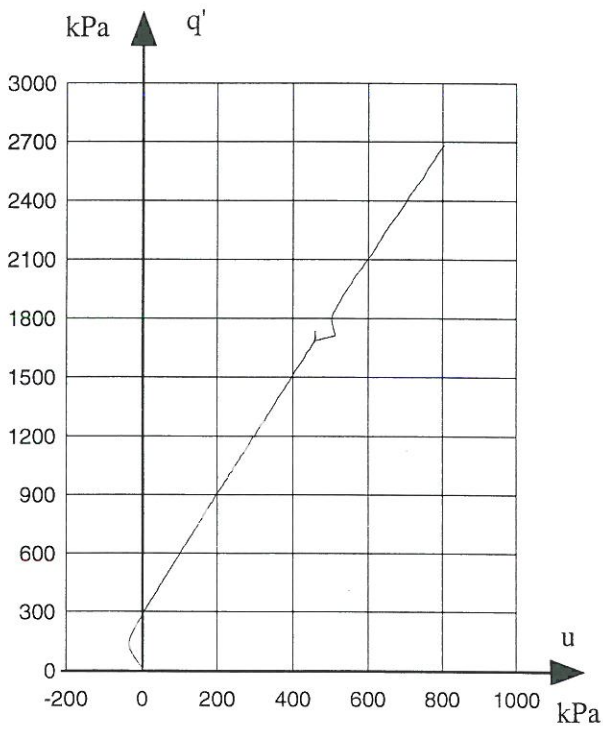
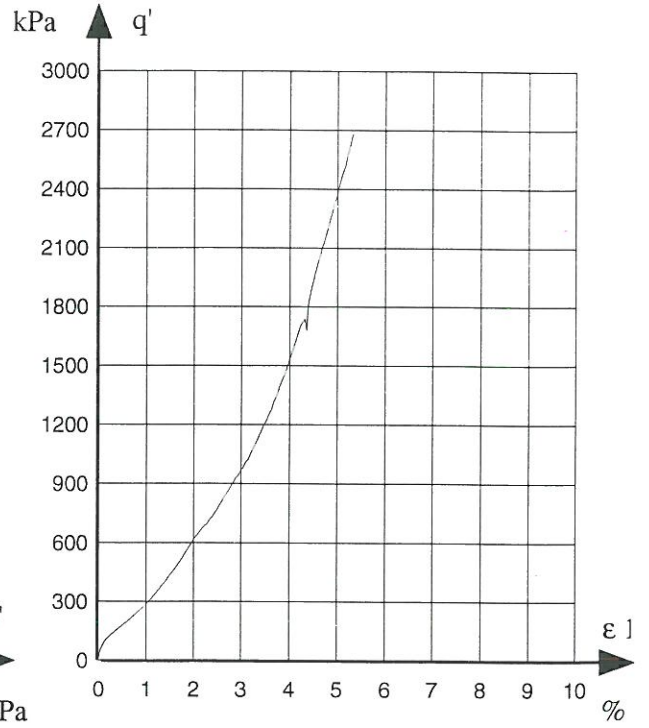
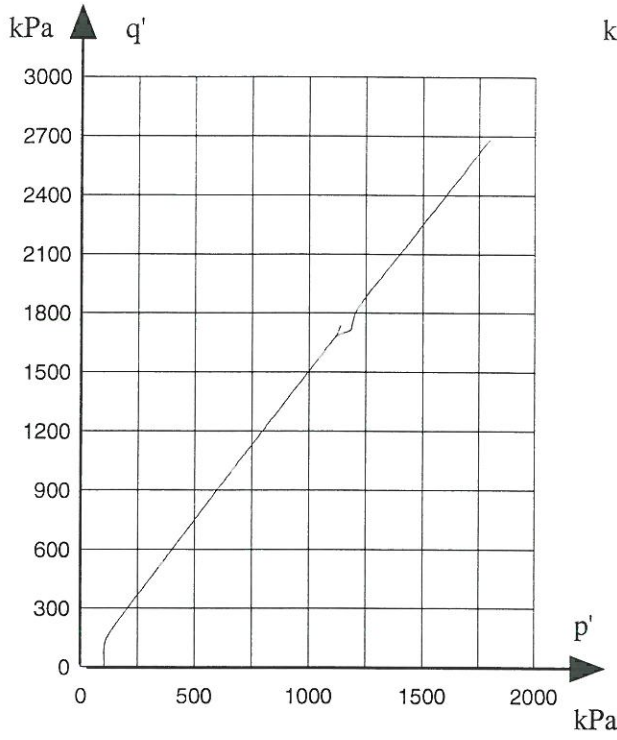
		Maximum values		Minimum values for σ_3	
Deviator stress	q'	2,682.64	kPa	139.15	kPa
Mean normal stress	p'	1,798.41	kPa	110.68	kPa
Confining pressures	σ_3	904.20	kPa	64.30	kPa
Vertical strain	ϵ_1	5.32	%	0.32	%
Volumetric strain	ϵ_v	0.00	%	0.00	%



q'	p'	ϵ_1	ϵ_v
0.65	99.82	0.00	0.00
0.65	102.92	0.00	0.00
0.65	102.12	0.00	0.00
23.26	103.95	0.02	0.00
52.00	102.73	0.05	0.00
86.18	101.63	0.11	0.00
104.85	103.45	0.17	0.00
117.05	106.22	0.22	0.00
132.12	109.64	0.28	0.00
139.15	110.68	0.32	0.00
150.35	116.82	0.37	0.00
200.39	143.60	0.62	0.00
300.55	205.88	1.05	0.00
405.86	275.39	1.42	0.00
506.27	339.76	1.71	0.00
753.70	503.03	2.45	0.00
1007.16	667.92	3.09	0.00
1257.16	833.05	3.58	0.00
1509.97	1003.62	3.97	0.00
1753.39	1190.66	4.37	0.00
2016.01	1338.80	4.58	0.00
2255.14	1502.51	4.86	0.00
2509.67	1681.66	5.15	0.00
2682.64	1798.41	5.32	0.00

Job: Baskarp No 15	Encl. No
Exc: MB & JH	Check: LB

Remark: Preparation [%] $\Delta \epsilon_1 = 0.041$
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Job: Baskarp No 15	Encl. No
Exc: MB & JH	Check: LB

