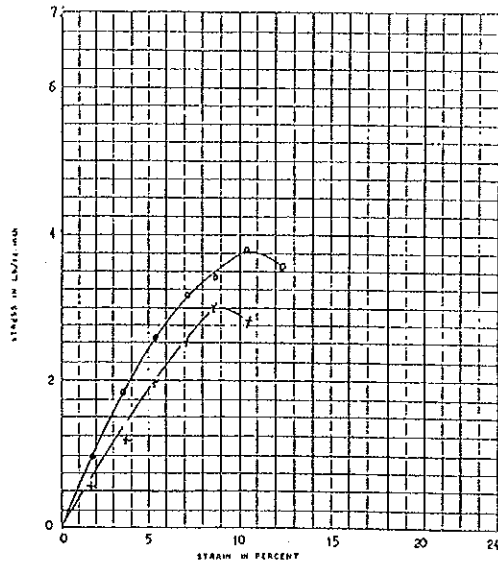


### 11-2-5 一軸壓縮試驗結果

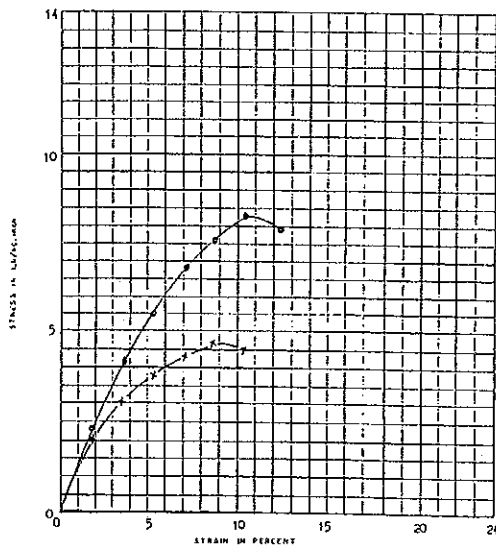


Site No. IV-1



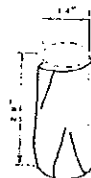
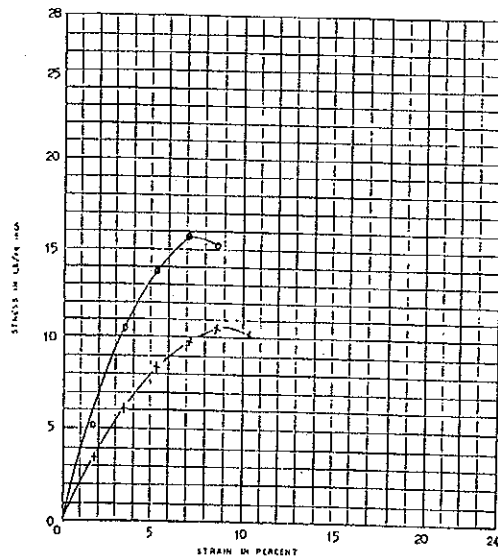
Unconfined compressive strength	0.312 <sub>ast</sub>
Percent Strain at failure	10.71
Sensitivity	$4.86/3.06 = 1.589$
Moisture Content (%)	22.00
Dry Density (lb/cft)	104.75
Classification	

Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	0.520 <sub>ast</sub>
Percent Strain at failure	10.71
Sensitivity	$8.24/4.79 = 1.720$
Moisture Content (%)	23.00
Dry Density (lb/cft)	102.10
Classification	

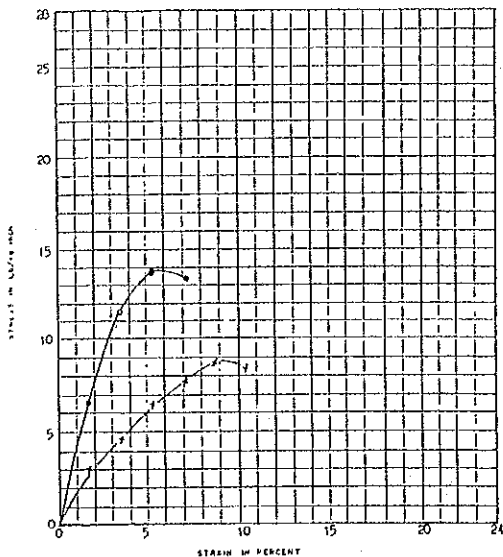
Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	1.017 <sub>ast</sub>
Percent Strain at failure	7.14
Sensitivity	$15.80/10.54 = 1.499$
Moisture Content (%)	25.00
Dry Density (lb/cft)	97.24
Classification	

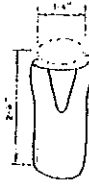
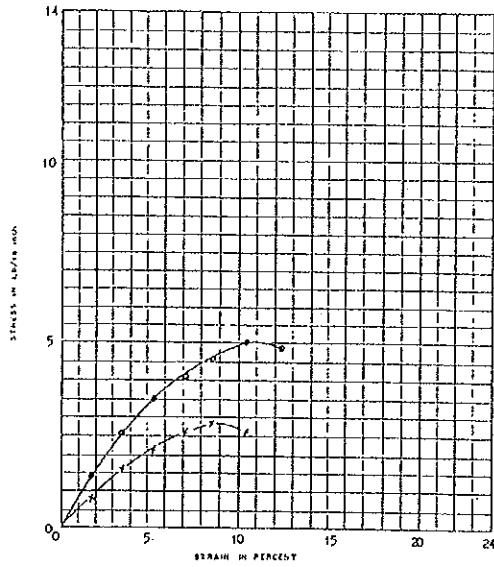
Un-disturbed Sample .....  
Remoulded Sample .....

Site No. IV-1



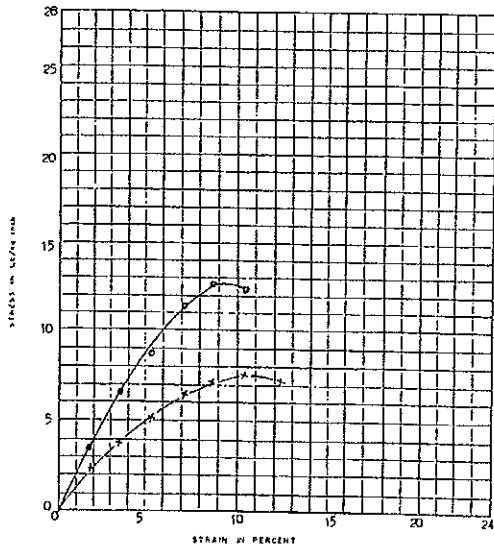
Unconfined compressive strength	0.895 lbf.
Percent strain at failure	5.35
Sensitivity	$13.91/8.81 = 1.578$
Moisture Content (%)	27.47
Dry Density, lb/cft	98.12
Classification	

UA-disturbed Sample \_\_\_\_\_  
 Remoulded Sample \_\_\_\_\_



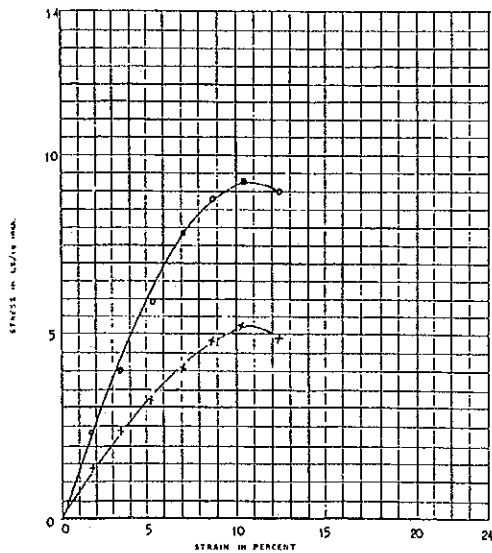
Unconfined compressive strength	0.325	pcf.
Percent Shrink at failure	10.71	
Sensitivity	5.05/2.87 = 1.759	
Moisture Content (%)	44.00	
Dry Density (lb/cft)	75.14	
Classification		

Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	0.826	pcf.
Percent Shrink at failure	8.92	
Sensitivity	12.84/7.87 = 1.674	
Moisture Content (%)	33.50	
Dry Density (lb/cft)	86.19	
Classification		

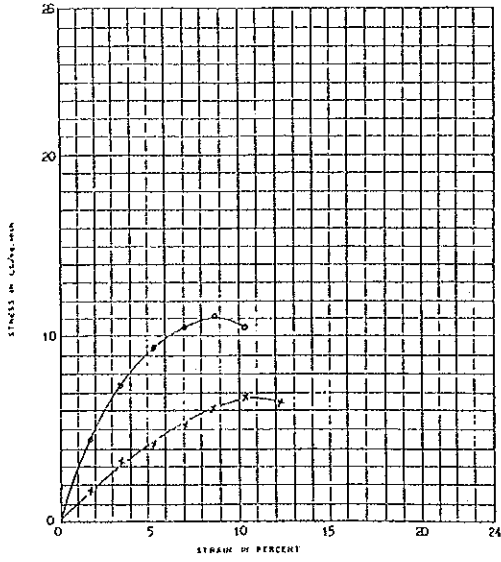
Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	0.602	pcf.
Percent Shrink at failure	10.71	
Sensitivity	9.36/5.24 = 1.786	
Moisture Content (%)	33.49	
Dry Density (lb/cft)	89.72	
Classification		

Un-disturbed Sample .....  
Remoulded Sample .....

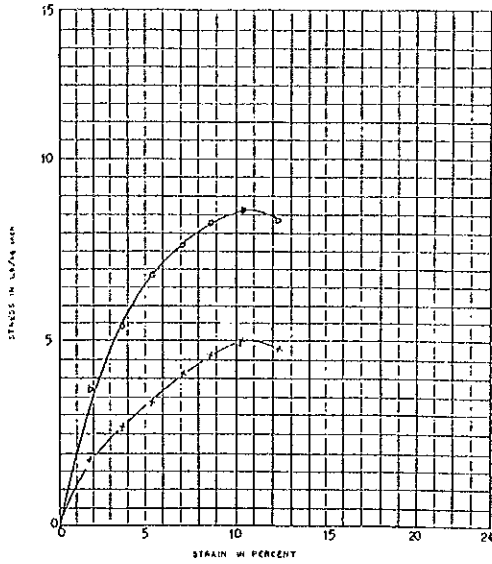
Site No. IV-2



Unconfined compressive strength	0.215 psi
Percent strain at failure	8.92
Sensitivity	11.11/6.92 = 1.605
Moisture Content (%)	31.73
Dry Density (Mg/m³)	91.93
Classification	

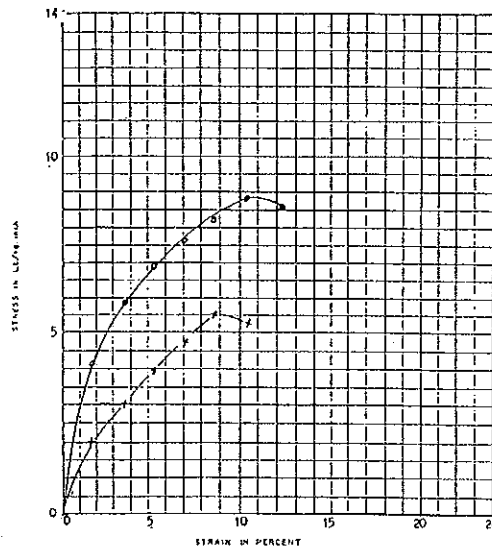
Undisturbed Sample .....  
 Remoulded Sample .....

Site No. IV-3



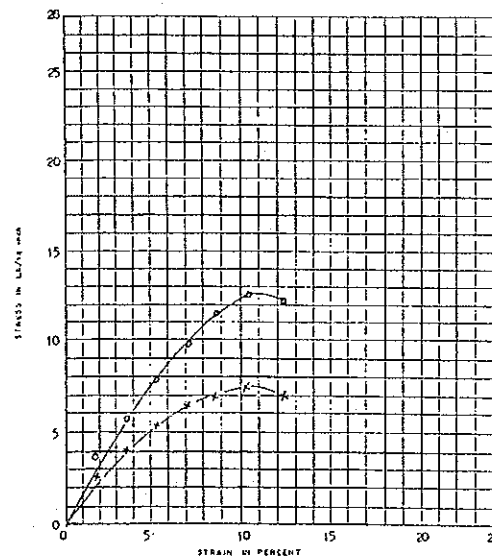
Unconfined compressive strength	0.554	pcf.
Percent Strain at failure	10.71	
Sensitivity	$8.61/5.05 = 1.704$	
Moisture Content (%)	37.00	
Dry Density (lb/cft)	87.07	
Classification		

Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	0.578	pcf.
Percent Strain at failure	10.71	
Sensitivity	$8.98/5.55 = 1.618$	
Moisture Content (%)	35.00	
Dry Density (lb/cft)	86.63	
Classification		

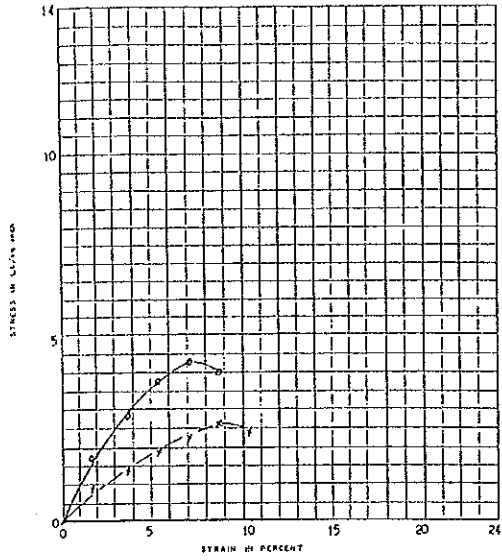
Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	0.807	pcf.
Percent Strain at failure	10.71	
Sensitivity	$12.54/7.30 = 1.717$	
Moisture Content (%)	31.00	
Dry Density (lb/cft)	90.17	
Classification		

Un-disturbed Sample .....  
Remoulded Sample .....

Site No. IV-3

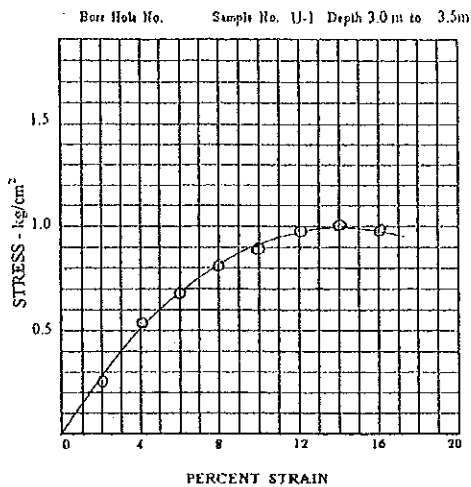


Unconfined compressive strength	0.276	1xL
Percent Strain at failure	7.14	
Sensitivity	4.29/2.68 = 1.60	
Moisture Content (%)	33.00	
Dry Density (lb/ft³)	99.17	
Classification		

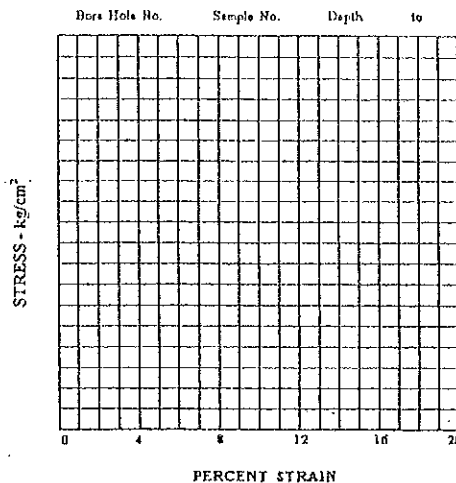
Un-disturbed Sample \_\_\_\_\_  
 Remoulded Sample \_\_\_\_\_



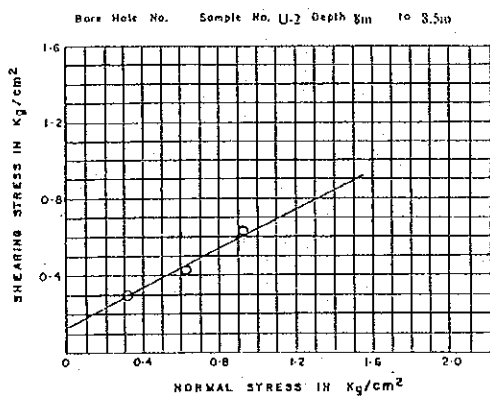
Site No. IV-4



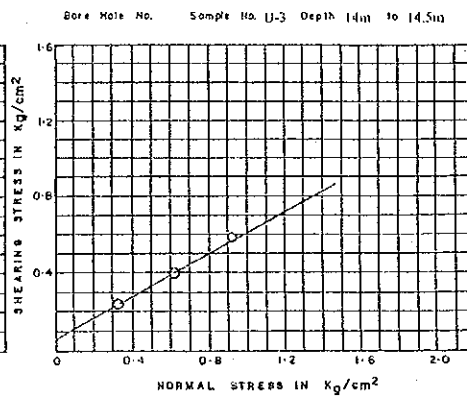
Unconfined compressive strength (kg/cm <sup>2</sup> ).....	0.997
Percent Strain at failure .....	14
Moisture content (%) .....	26.55
Dry density (gm/cc).....	1.520



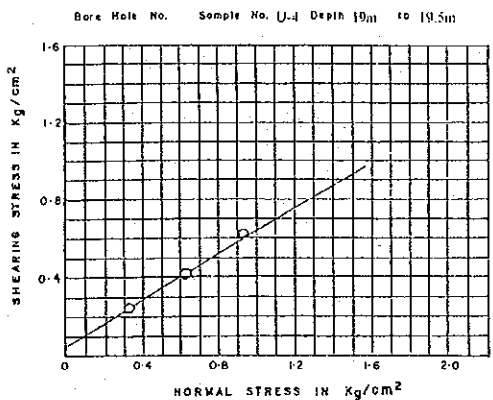
Unconfined compressive strength (kg/cm <sup>2</sup> ).....	
Percent Strain at failure .....	
Moisture content (%) .....	
Dry density (gm/cc).....	



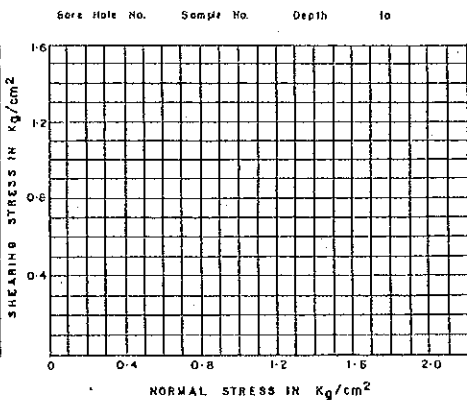
SHEARING ANGLE (degree)	27
COHESION (Kg/cm <sup>2</sup> )	0.140



SHEARING ANGLE (degree)	29.5
COHESION (Kg/cm <sup>2</sup> )	0.07



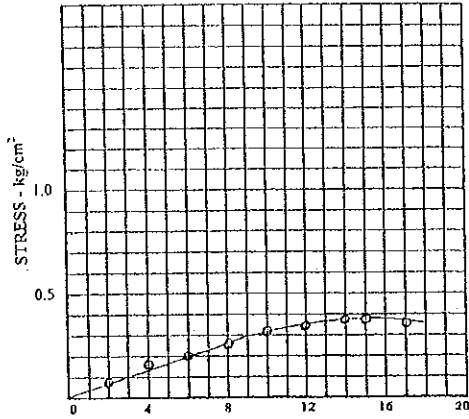
SHEARING ANGLE (degree)	31
COHESION (Kg/cm <sup>2</sup> )	0.05



SHEARING ANGLE (degree)	
COHESION (Kg/cm <sup>2</sup> )	

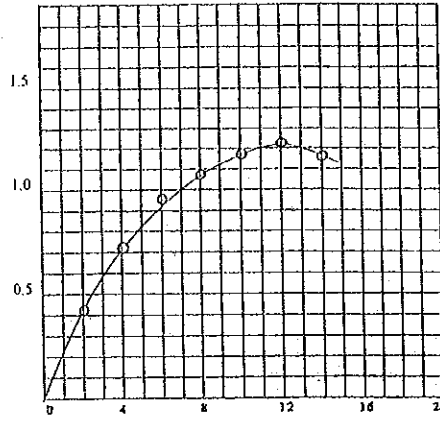
Site No. IV-5

Bore Hole No. Sample No. U-1 Depth 3.0m to 3.50m



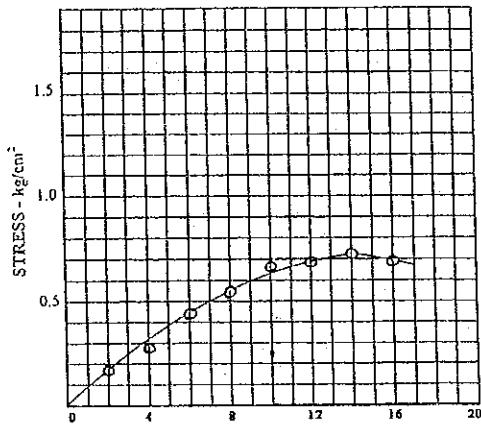
Unconfined compressive strength (kg/cm²).....	0.3705
Percent Strain at failure .....	15
Moisture content (%) .....	34.11
Dry density (gm/cc).....	1.3208

Bore Hole No. Sample No. U-3 Depth 14.0m to 14.5m



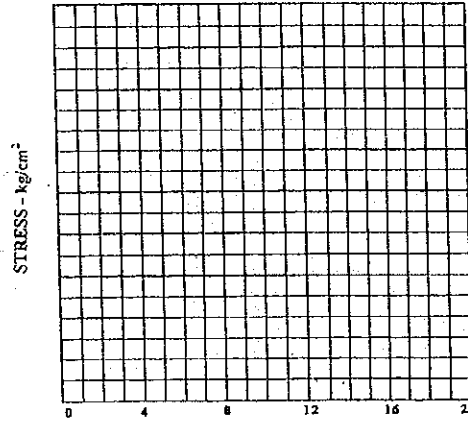
Unconfined compressive strength (kg/cm²).....	1.212
Percent Strain at failure .....	12
Moisture content (%) .....	24.18
Dry density (gm/cc).....	1.558

Bore Hole No. Sample No. U-4 Depth 19 m to 19.5m



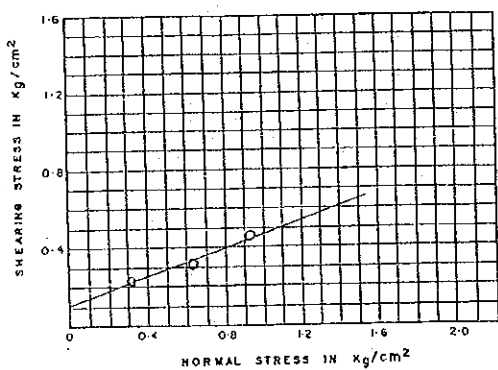
Unconfined compressive strength (kg/cm²).....	0.722
Percent Strain at failure .....	14
Moisture content (%) .....	25.18
Dry density (gm/cc).....	1.4784

Bore Hole No. Sample No. Depth to



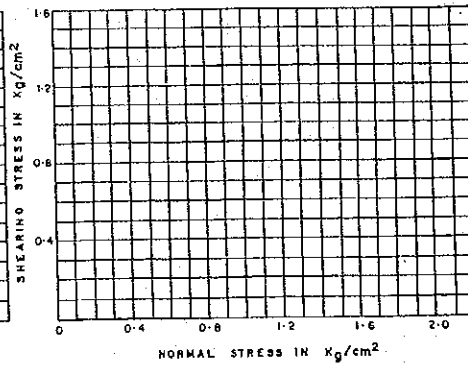
Unconfined compressive strength (kg/cm²).....	
Percent Strain at failure .....	
Moisture content (%) .....	
Dry density (gm/cc).....	

Bore Hole No. Sample No. U-2 Depth 8m to 8.5m



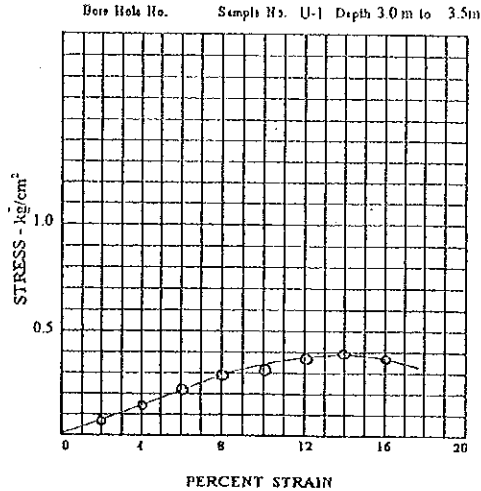
SHEARING ANGLE (degree)	19.5
COHESION (kg/cm²)	0.110

Bore Hole No. Sample No. Depth to

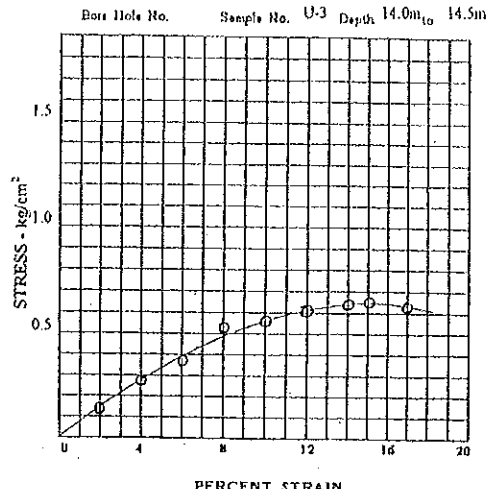


SHEARING ANGLE (degree)	
COHESION (kg/cm²)	

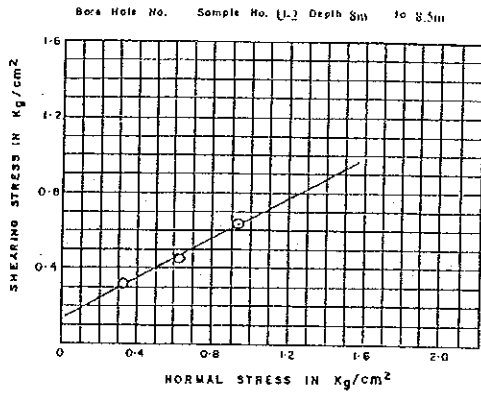
Site No. IV-6



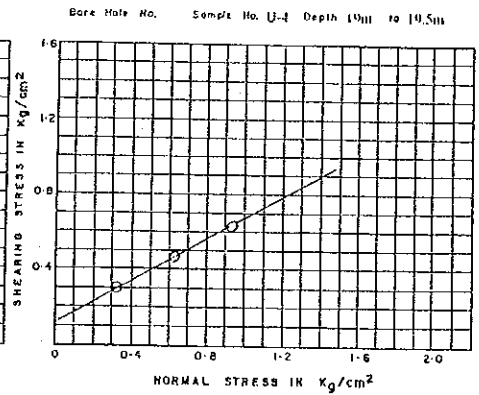
Unconfined compressive strength (kg/cm <sup>2</sup> ).....	0.3992
Percent Strain at failure .....	14
Moisture content (%) .....	32.11
Dry density (gm/cc) .....	1.3220



Unconfined compressive strength (kg/cm <sup>2</sup> ).....	0.6589
Percent Strain at failure .....	15
Moisture content (%) .....	26.98
Dry density (gm/cc) .....	1.4623

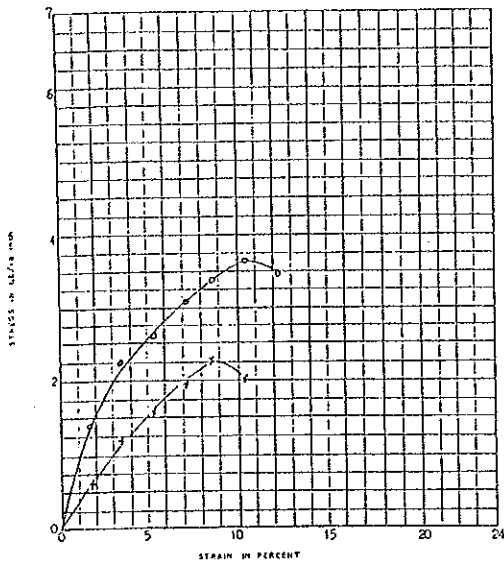


SHEARING ANGLE (degree)	29
COHESION (kg/cm <sup>2</sup> )	0.146



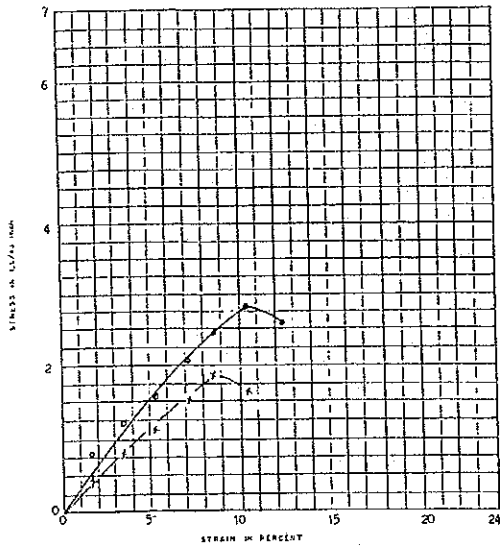
SHEARING ANGLE (degree)	30
COHESION (kg/cm <sup>2</sup> )	0.120

Site No. IV-- 7



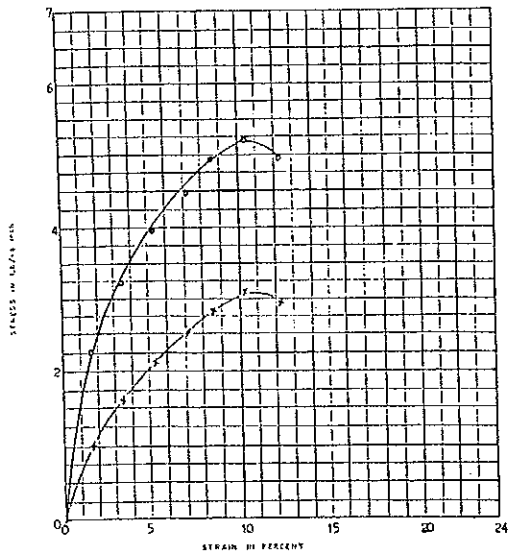
Unconfined compressive strength	0.240 psi
Percent Strain at failure	10.71
Sensitivity	$3.74/2.30 = 1.626$
Moisture Content (%)	55.10
Dry Density (lb/cu ft)	64.79
Classification	

Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	0.180 psi
Percent Strain at failure	10.71
Sensitivity	$2.81/1.91 = 1.471$
Moisture Content (%)	60.43
Dry Density (lb/cu ft)	61.43
Classification	

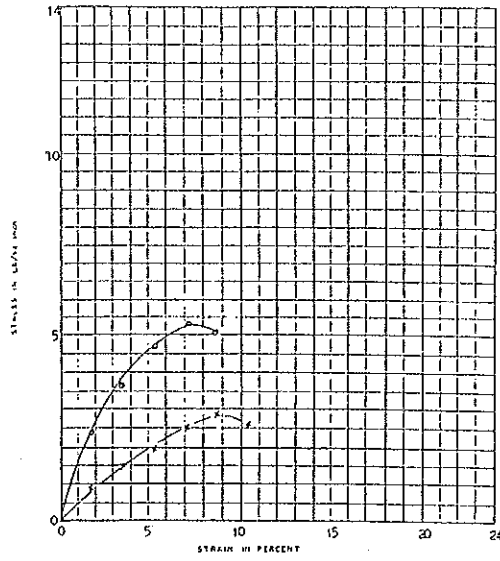
Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	0.340 psi
Percent Strain at failure	10.71
Sensitivity	$5.24/3.18 = 1.65$
Moisture Content (%)	44.78
Dry Density (lb/cu ft)	71.80
Classification	

Un-disturbed Sample .....  
Remoulded Sample .....

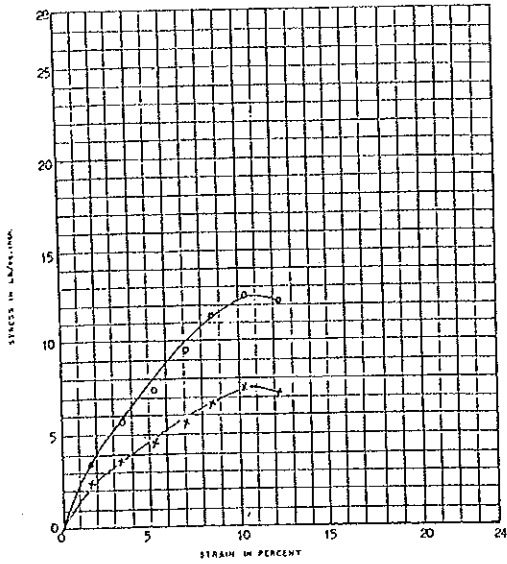
Site No. IV-7



Uncambered compressive strength	0.251	psi
Percent Strain at failure	7.14	
Sensitivity	$5.46/2.07 = 2.63$	
Moisture Content (%)	33.64	
Dry Density (lb/cft)	99.59	
Classification		

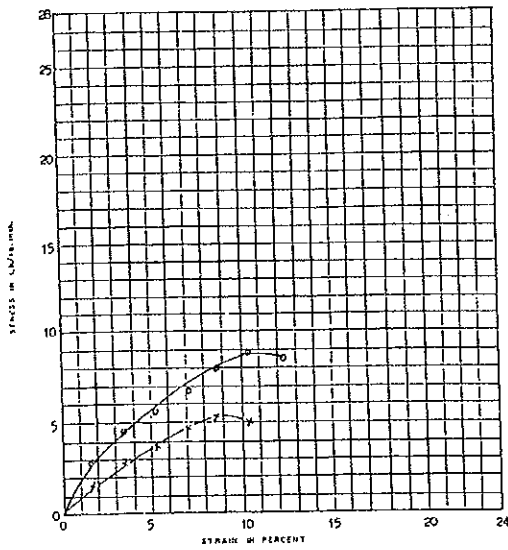
Undisturbed Sample .....  
Remolded Sample .....

Site No. IV-8



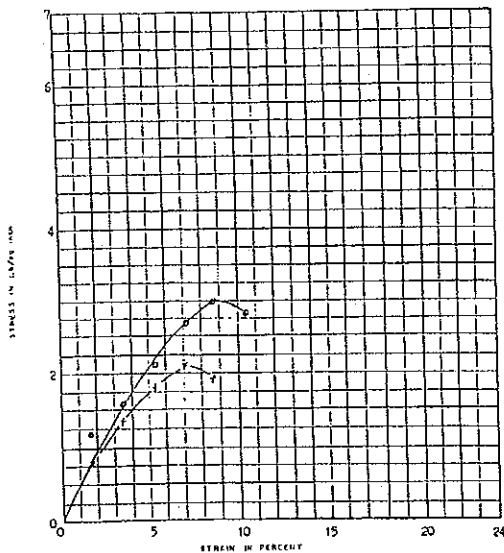
Unconfined compressive strength	0.819 lbf.
Percent Strain at failure	10.71
Sensitivity	$12.77/1.49 = 1.692$
Moisture Content (%)	25.55
Dry Density (lb/cft)	100.33
Classification	

Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	0.578 lbf.
Percent Strain at failure	10.71
Sensitivity	$8.98/5.36 = 1.675$
Moisture Content (%)	27.39
Dry Density (lb/cft)	96.79
Classification	

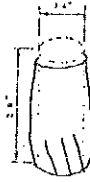
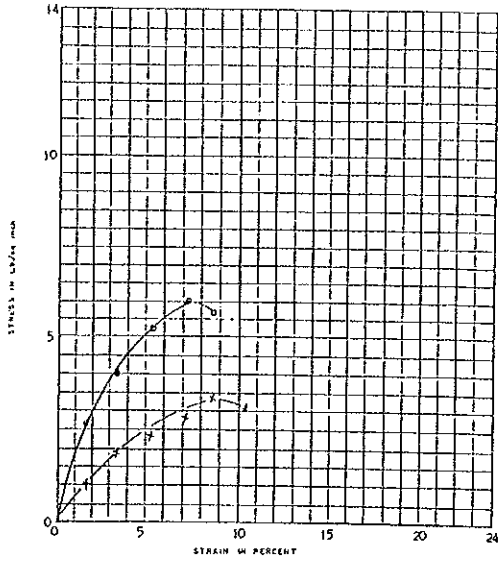
Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	0.197 lbf.
Percent Strain at failure	8.92
Sensitivity	$3.06/2.14 = 1.429$
Moisture Content (%)	40.65
Dry Density (lb/cft)	80.44
Classification	

Un-disturbed Sample .....  
Remoulded Sample .....

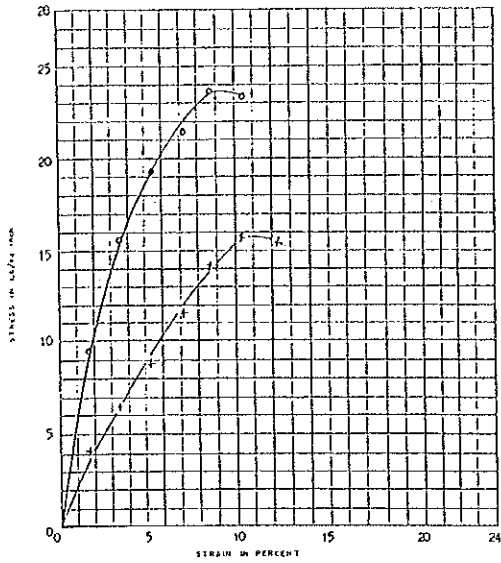
Site No. IV-8



Uncorrelated compressive strength	0.389	psi
Percent Strain at failure	7.14	
Sensitivity	$6.05/3.45 = 1.753$	
Moisture Content (%)	43.76	
Dry Density (lb./ft.³)	75.14	
Classification		

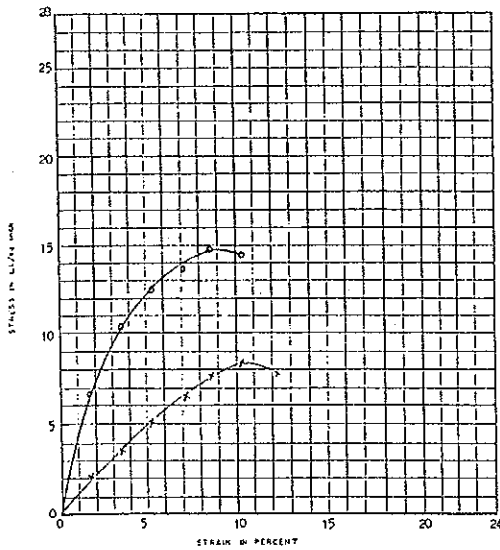
Un-disturbed Sample .....  
Remoulded Sample .....

Site No. IV-9



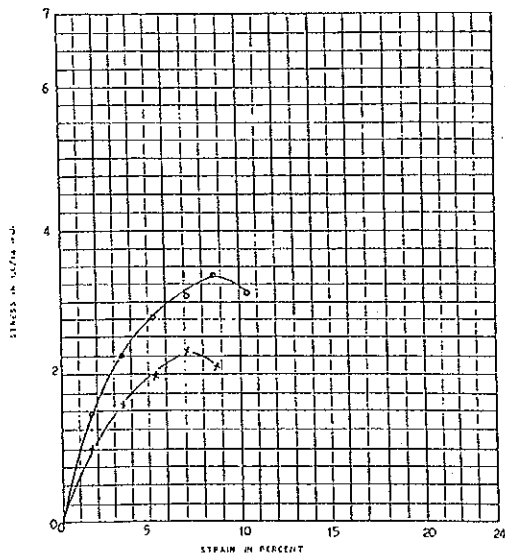
Unconfined compressive strength	1.543 lbf
Percent Strain at failure	8.92
Sensitivity	23.96/15.91 = 1.905
Moisture Content (%)	27.72
Dry Density (lb/cft)	97.24
Classification	

Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	0.962 lbf
Percent Strain at failure	8.92
Sensitivity	14.95/8.26 = 1.814
Moisture Content (%)	33.82
Dry Density (lb/cft)	90.16
Classification	

Un-disturbed Sample .....  
Remoulded Sample .....

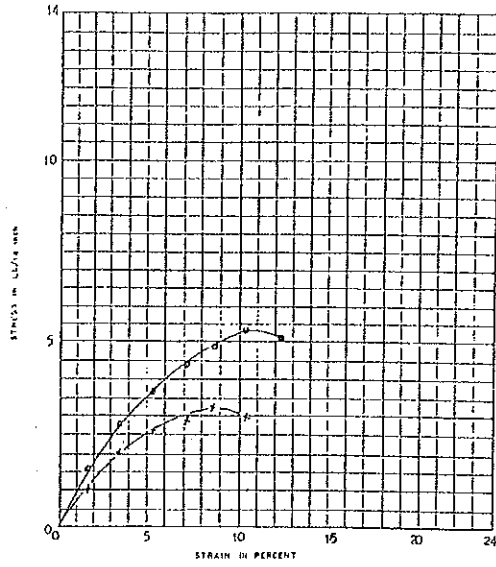


Unconfined compressive strength	0.222 lbf
Percent Strain at failure	8.92
Sensitivity	3.45/2.34 = 1.474
Moisture Content (%)	42.69
Dry Density (lb/cft)	78.67
Classification	

Un-disturbed Sample .....  
Remoulded Sample .....



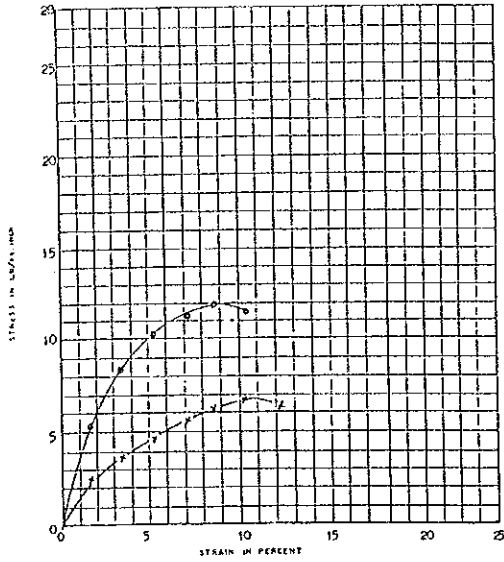
Site No. IV-9



Unconfined compressive strength	0.349	lb.
Percent Strain at failure	10.71	
Sensitivity	5.43/3.25 =	1.670
Moisture Content (%)	33.16	
Dry Density (lb/ft³)	87.95	
Classification		

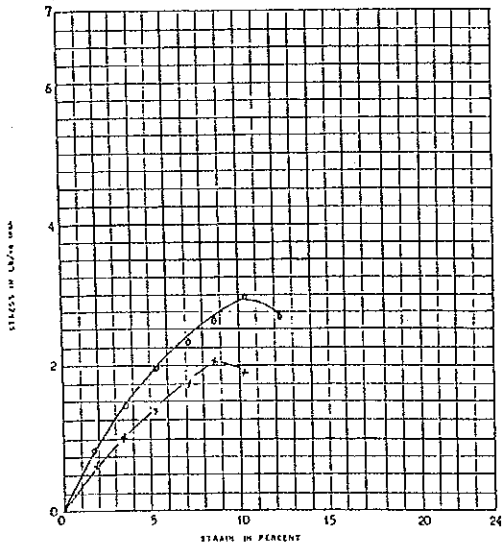
Un-disturbed Sample .....  
Remoulded Sample .....

Site No. IV-10



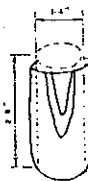
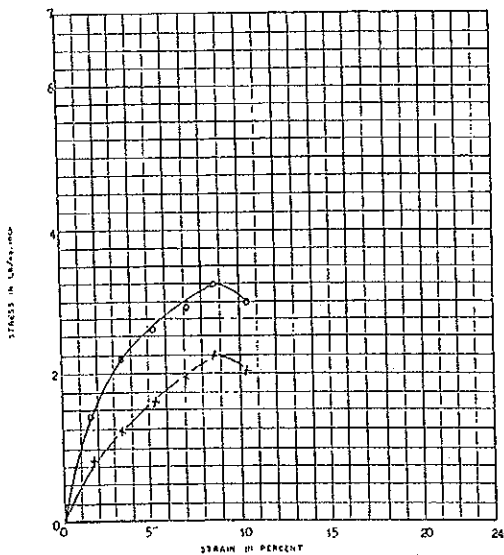
Unconfined compressive strength	0.777	lbf.
Percent Strain at Failure	8.92	
Sensitivity	$12.07/6.92 = 1.744$	
Moisture Content (%)	36.22	
Dry Density (lb/cft)	86.63	
Classification		

Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	0.192	lbf.
Percent Strain at Failure	10.71	
Sensitivity	$2.99/2.10 = 1.423$	
Moisture Content (%)	56.66	
Dry Density (lb/cft)	66.30	
Classification		

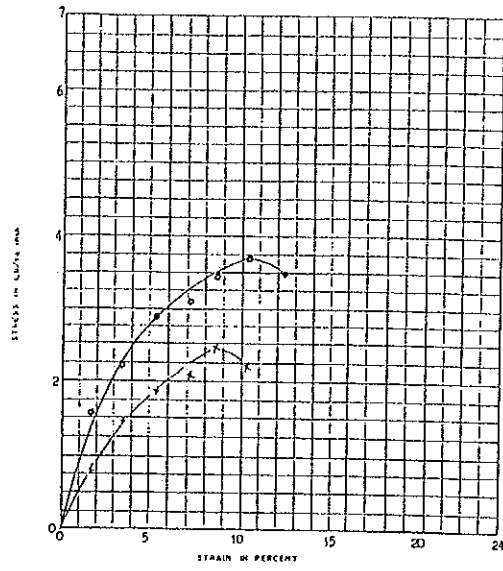
Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	0.203	lbf.
Percent Strain at Failure	8.92	
Sensitivity	$3.25/2.30 = 1.413$	
Moisture Content (%)	55.26	
Dry Density (lb/cft)	67.18	
Classification		

Un-disturbed Sample .....  
Remoulded Sample .....

Site No. IV-10

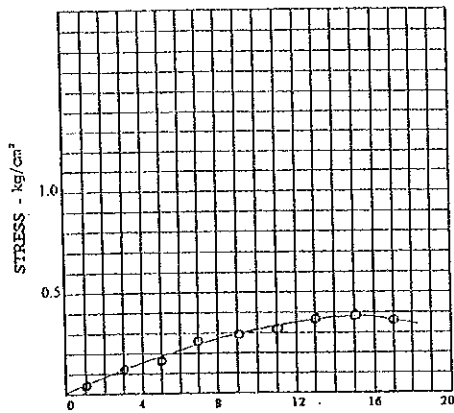


Unconfined compressive strength	0.240 lbf.
Percent strain at failure	10.71
Sensitivity	$2.74/2.49 = 1.102$
Moisture Content (%)	48.45
Dry Density (lb/cu ft)	72.04
Classification	

Un-disturbed Sample .....  
Remoulded Sample .....

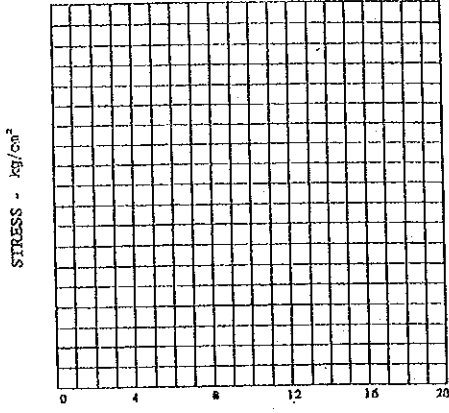
Site No. IV-11

Bore Hole No. Sample No. U-1 Depth 3m to 3.5m



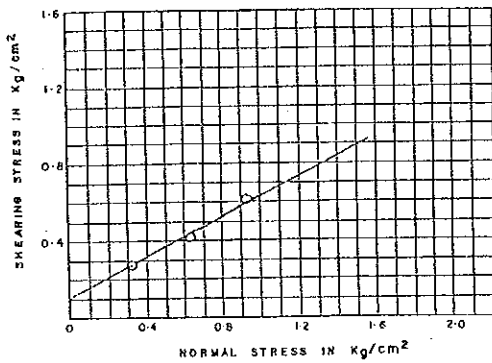
Unconfined compressive strength (kg/cm <sup>2</sup> ).....	0.384
Percent Strain at failure .....	15
Moisture content (%) .....	29.62
Dry density (gm/cc).....	1.3143

Bore Hole No. Sample No. Depth to



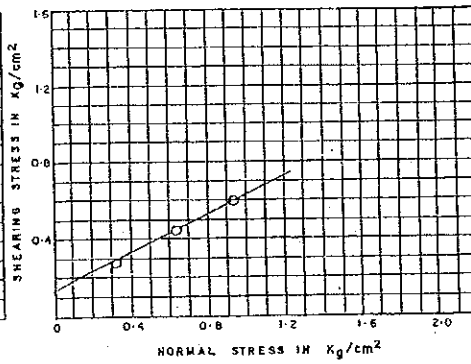
Unconfined compressive strength (kg/cm <sup>2</sup> ).....	
Percent Strain at failure .....	
Moisture content (%) .....	
Dry density (gm/cc).....	

Bore Hole No. Sample No. U-2 Depth 8m to 8.5m



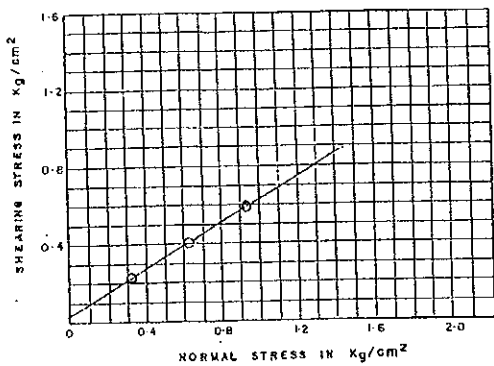
SHEARING ANGLE (degree)	25
COHESION (kg/cm <sup>2</sup> )	0.11

Bore Hole No. Sample No. U-3 Depth 12m to 14.5m



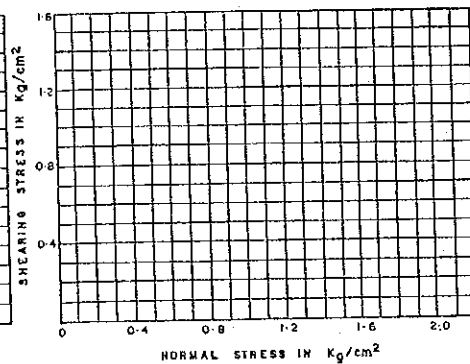
SHEARING ANGLE (degree)	27
COHESION (kg/cm <sup>2</sup> )	0.140

Bore Hole No. Sample No. U-4 Depth 14m to 15.5m



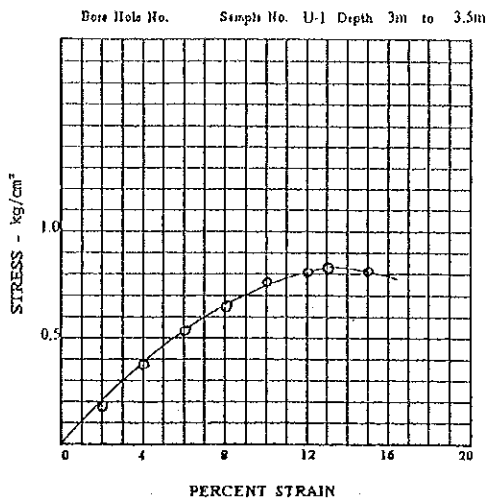
SHEARING ANGLE (degree)	31
COHESION (kg/cm <sup>2</sup> )	0.035

Bore Hole No. Sample No. Depth to

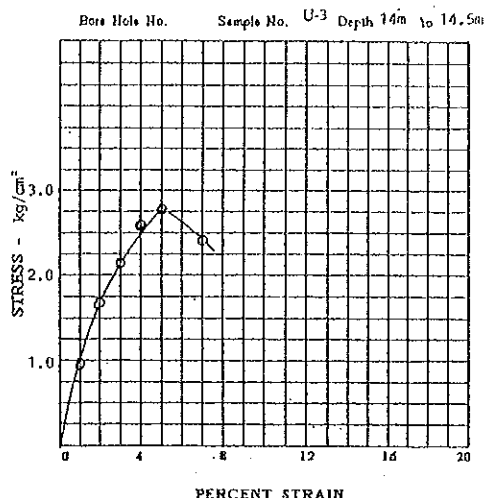


SHEARING ANGLE (degree)	
COHESION (kg/cm <sup>2</sup> )	

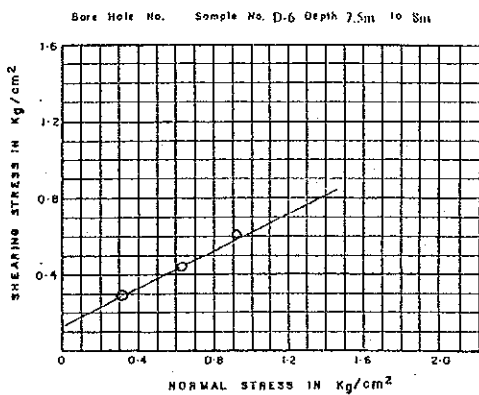
Site No. IV-12



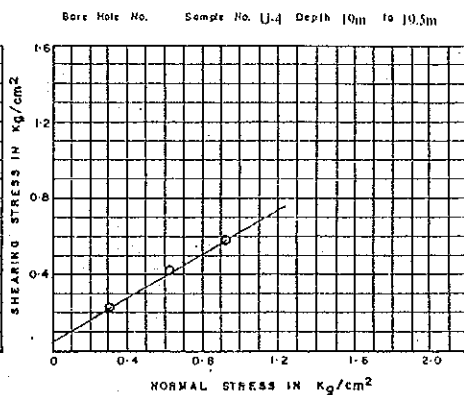
Unconfined compressive strength (kg/cm <sup>2</sup> ).....	0.844
Percent Strain at failure .....	13
Moisture content (%) .....	26.72
Dry density (gm/cc).....	1.536



Unconfined compressive strength (kg/cm <sup>2</sup> ).....	2.782
Percent Strain at failure .....	5
Moisture content (%) .....	20.09
Dry density (gm/cc).....	1.840

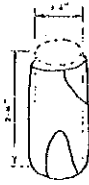
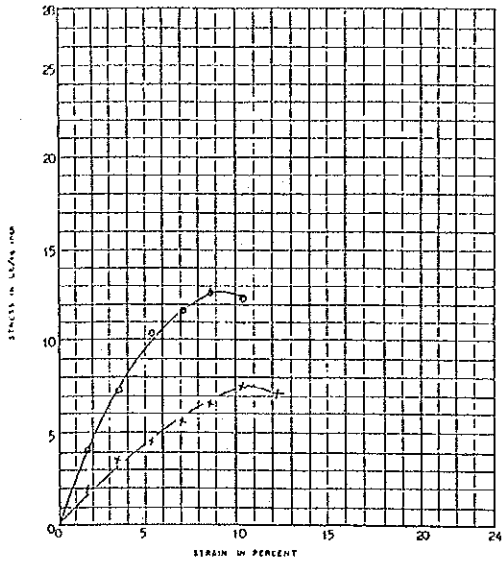


SHEARING ANGLE (degree)	27.5
COHESION (kg/cm <sup>2</sup> )	0.1400



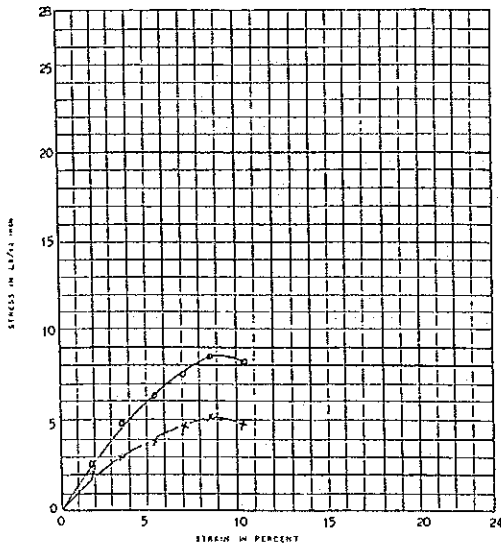
SHEARING ANGLE (degree)	30.5
COHESION (kg/cm <sup>2</sup> )	0.050

Site No. IV-13



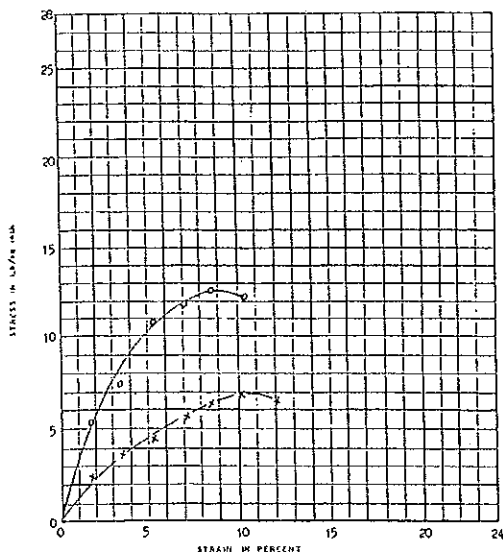
Unconfined compressive strength	0.625	1st
Percent Strain at failure	8.92	
Sensitivity	12.84/7.49 = 1.714	
Moisture Content (%)	29.60	
Dry Density (lb/cft)	91.93	
Classification		

Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	0.555	1st
Percent Strain at failure	8.92	
Sensitivity	8.62/5.17 = 1.667	
Moisture Content (%)	30.91	
Dry Density (lb/cft)	91.94	
Classification		

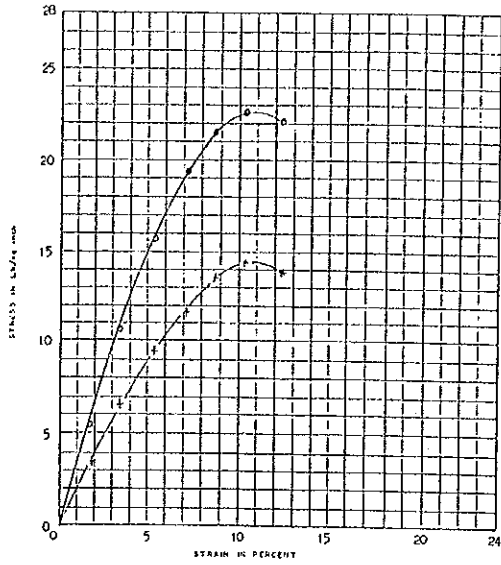
Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	0.814	1st
Percent Strain at failure	8.92	
Sensitivity	12.65/6.92 = 1.828	
Moisture Content (%)	29.30	
Dry Density (lb/cft)	95.03	
Classification		

Un-disturbed Sample .....  
Remoulded Sample .....

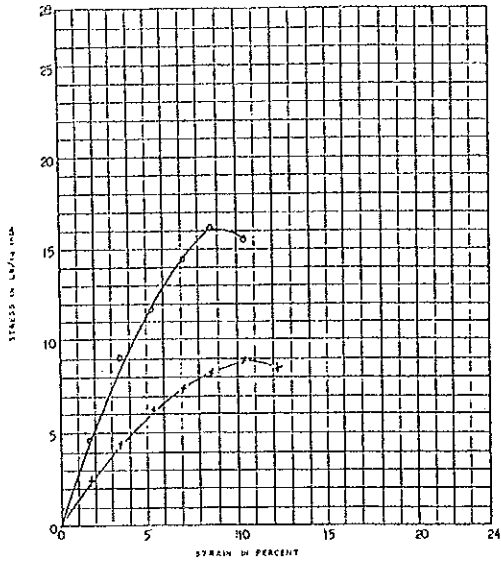
Site No. IV--13



Unconfined compressive strength	1,470 p.s.f.
Percent Strain at failure	10.71
Sensitivity	22.84/14.42 = 1.583
Moisture Content (%)	29.57
Dry Density (lb./cft)	94.14
Classification	

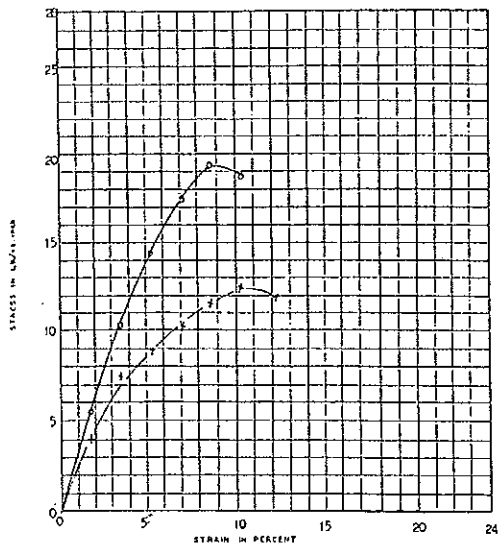
Un-disturbed Sample .....  
Remoulded Sample .....

Site No. IV-14



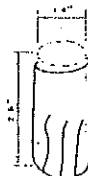
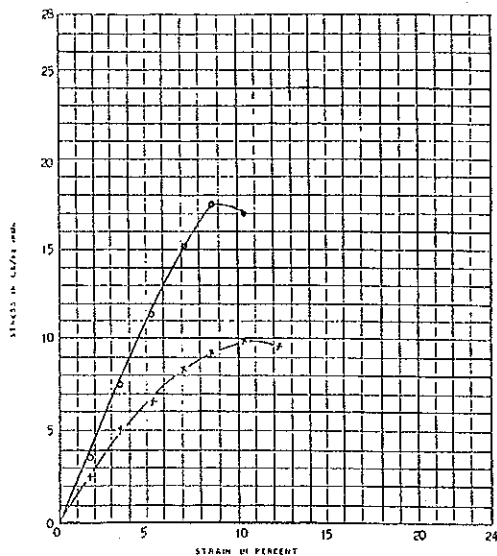
Unconfined compressive strength	1.036	1st
Percent Strain at failure	8.92	
Sensitivity	$16.10/8.92 = 1.792$	
Moisture Content (%)	33.00	
Dry Density (lb/cft)	88.40	
Classification		

Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	1.245	1st
Percent Strain at failure	8.92	
Sensitivity	$19.36/12.36 = 1.566$	
Moisture Content (%)	28.18	
Dry Density (lb/cft)	97.84	
Classification		

Un-disturbed Sample .....  
Remoulded Sample .....

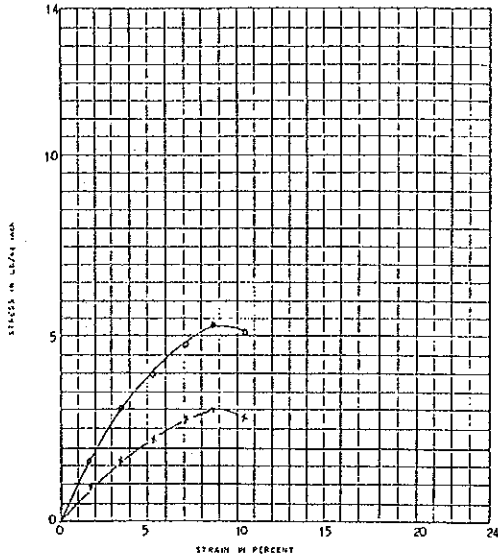


Unconfined compressive strength	1.135	1st
Percent Strain at failure	8.92	
Sensitivity	$17.63/9.92 = 1.777$	
Moisture Content (%)	32.91	
Dry Density (lb/cft)	90.78	
Classification		

Un-disturbed Sample .....  
Remoulded Sample .....



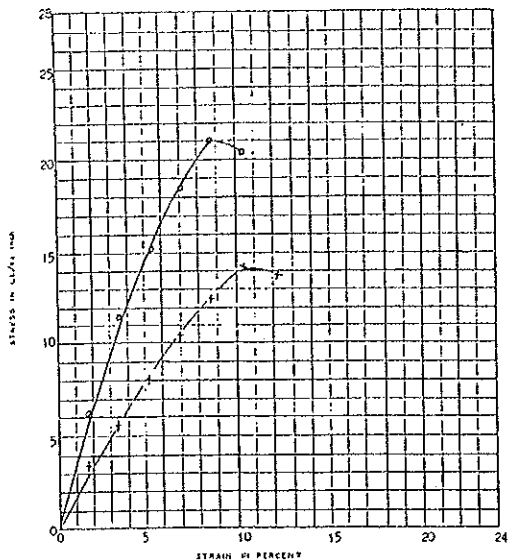
Site No. IV-14



Unconfined compressive strength	0.345
Percent strain at failure	6.92
Sensitivity	5.36/3.06 = 1.751
Moisture Content (%)	34.35
Dry density (lb/ft.³)	86.19
Classification	

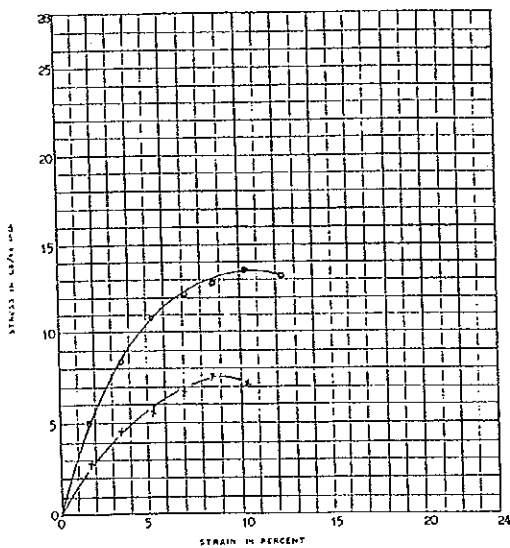
Un-disturbed Sample \_\_\_\_\_  
 Remolded Sample \_\_\_\_\_

Site No. IV-15



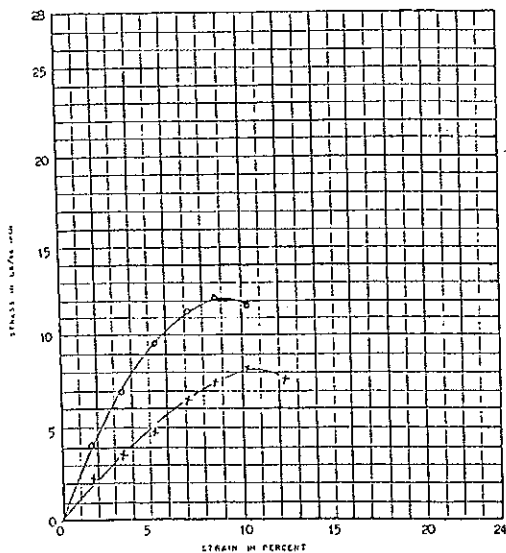
Unconfined compressive strength	1.357	pcf.
Percent strain at failure	8.92	
Sensitivity	$21.09/14.23 = 1.481$	
Moisture Content (%)	28.76	
Dry Density : lb/cft	97.79	
Classification		

Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	0.880	pcf.
Percent strain at failure	10.71	
Sensitivity	$13.67/7.65 = 1.784$	
Moisture Content (%)	27.60	
Dry Density : lb/cft	97.88	
Classification		

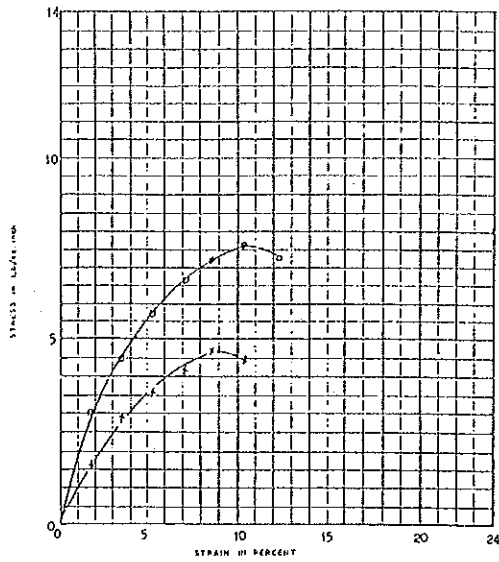
Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	0.789	pcf.
Percent strain at failure	8.92	
Sensitivity	$12.26/8.24 = 1.487$	
Moisture Content (%)	31.40	
Dry Density : lb/cft	91.49	
Classification		

Un-disturbed Sample .....  
Remoulded Sample .....

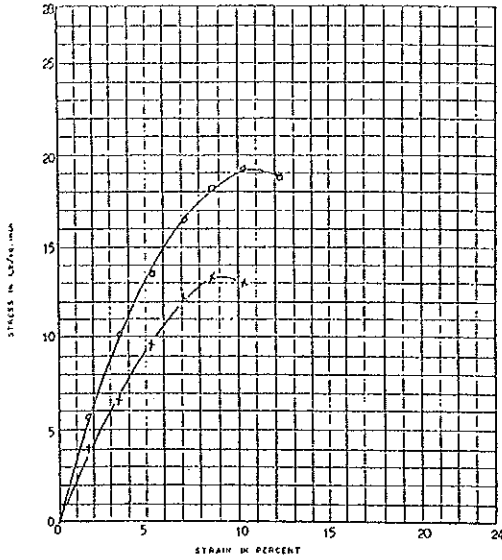
Site No. IV-15



Unconfined compressive strength	0.693	ksi.
Percent clay structure	10.71	
Sensitivity	$7.67/4.79 = 1.601$	
Moisture Content (%)	76.50	
Dry Density (pcf)	83.53	
Classification		

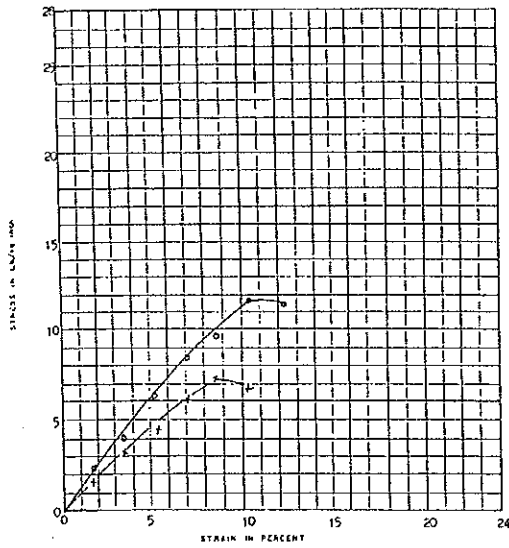
Un-disturbed Sample . . . . .  
Remoulded Sample . . . . .

Site No. IV-16



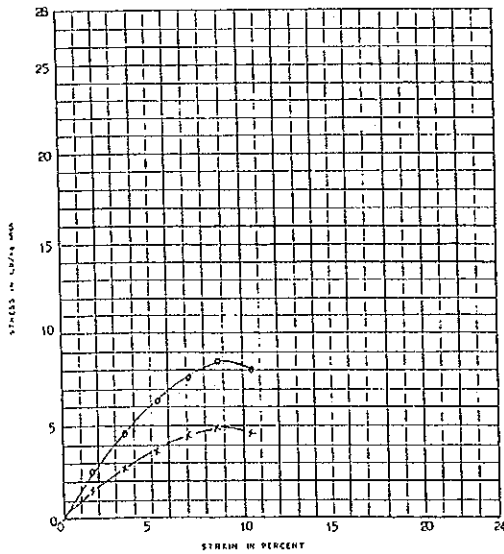
Unconfined compressive strength	19.29	13.45
Percent strain at failure	13.29	14.51
Sensitivity	1.451	
Moisture Content (%)	30.74	
Dry Density (pcf)	94.32	
Classification		

Un-disturbed Sample .....  
Remoulded Sample .....



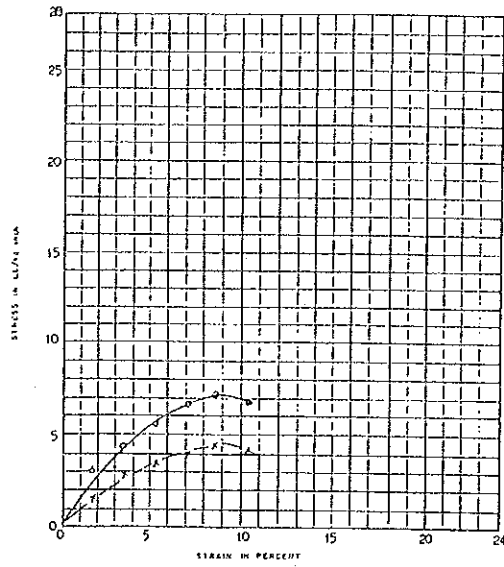
Unconfined compressive strength	11.79	7.19
Percent strain at failure	7.28	11.61
Sensitivity	1.619	
Moisture Content (%)	34.80	
Dry Density (pcf)	87.86	
Classification		

Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	8.43	4.98
Percent strain at failure	4.98	1.69
Sensitivity	1.692	
Moisture Content (%)	34.40	
Dry Density (pcf)	88.13	
Classification		

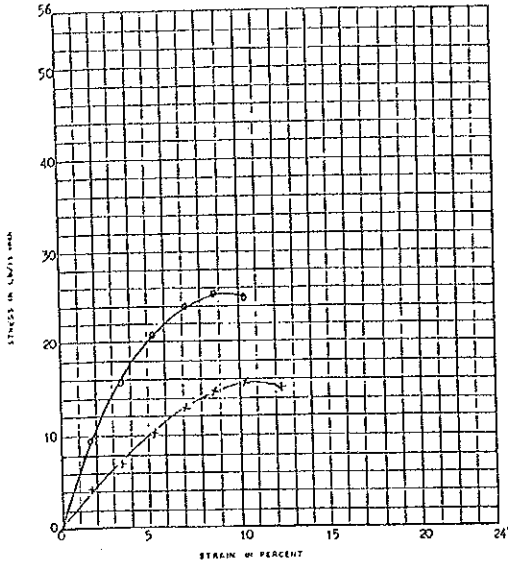
Un-disturbed Sample .....  
Remoulded Sample .....



Uncorrected compressive strength	0.458
Percent Strain at failure	8.92
Sensitivity	7.70/4.40 = 1.754
Moisture Content (%)	35.02
Dry density (pcf)	81.87
Classification	

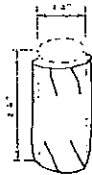
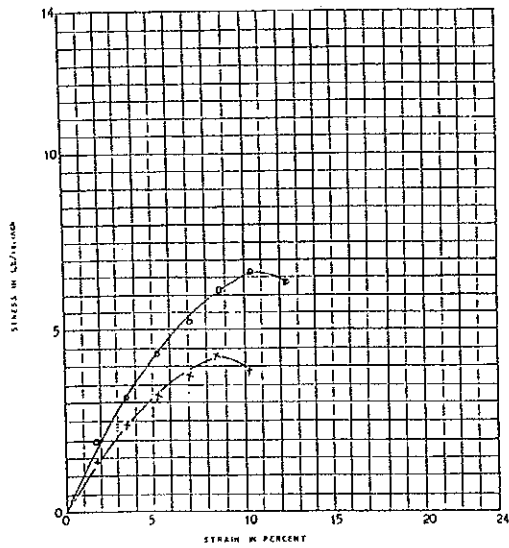
Un-disturbed Sample  
Remoulded Sample

Site No. IV-17



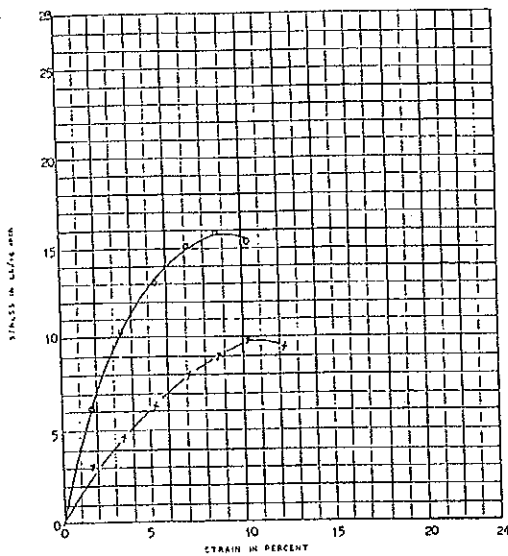
Unconfined compressive strength	1.666
Percent Strain at failure	8.92
Sensitivity	$25.88/15.91 = 1.626$
Moisture Content (%)	27.45
Dry Density (lb/cft)	98.38
Classification	

Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	0.434
Percent Strain at failure	10.71
Sensitivity	$6.74/4.21 = 1.60$
Moisture Content (%)	32.14
Dry Density (lb/cft)	86.63
Classification	

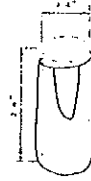
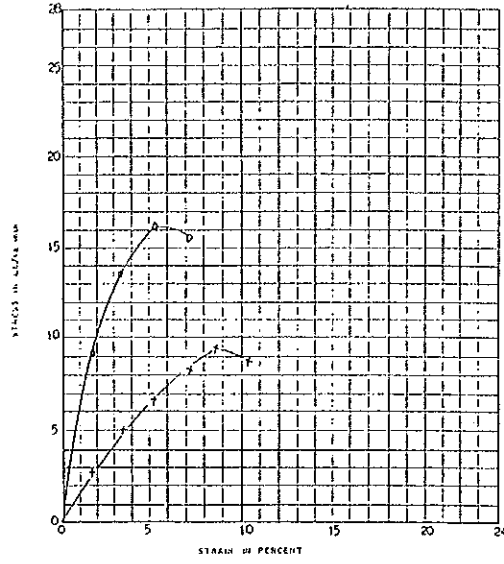
Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	1.028
Percent Strain at failure	8.92
Sensitivity	$15.91/9.92 = 1.603$
Moisture Content (%)	27.31
Dry Density (lb/cft)	95.47
Classification	

Un-disturbed Sample .....  
Remoulded Sample .....

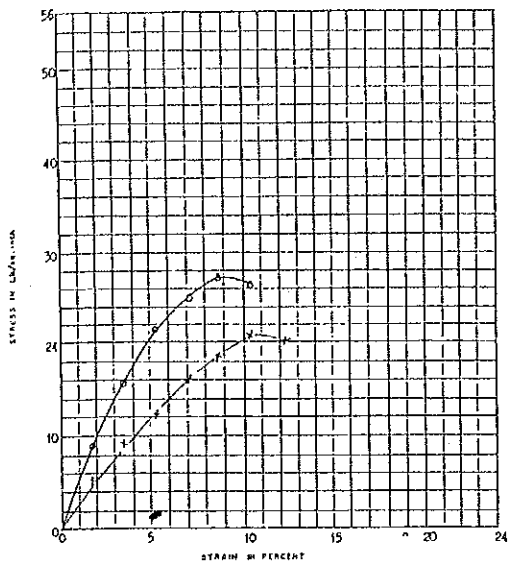
Site No. IV-1'



Measured compressive strength	1.049
Percent strain at failure	5.35
Sensitivity	$16.29/9.39 = 1.734$
Moisture Content (%)	27.04
Dry Density (pcf)	94.14
Classification	

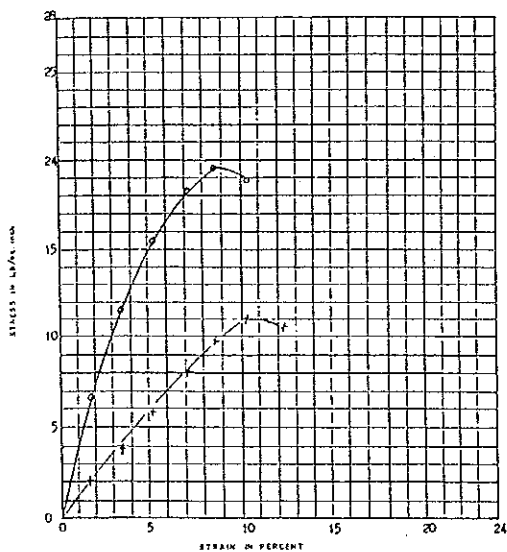
Un-disturbed Sample

Remoulded Sample



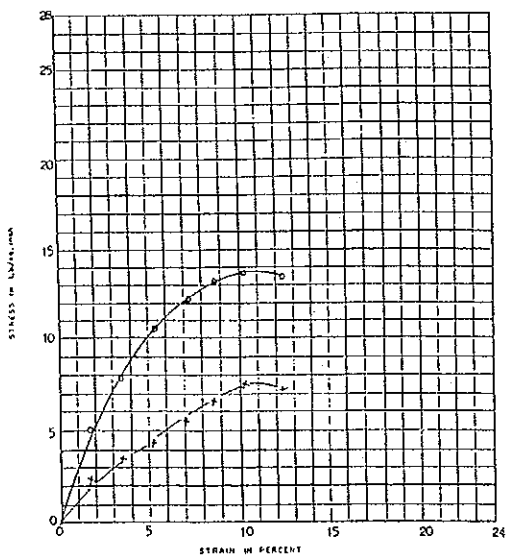
Unconfined compressive strength	1.777 <sub>1.31</sub>
Percent Strain at failure	8.92
Sensitivity	$27.60/20.97 = 1.316$
Moisture Content (%)	24.20
Dry Density (lb/cft)	102.98
Classification	

Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	1.251 <sub>1.31</sub>
Percent Strain at failure	8.92
Sensitivity	$19.55/11.04 = 1.770$
Moisture Content (%)	31.55
Dry Density (lb/cft)	91.05
Classification	

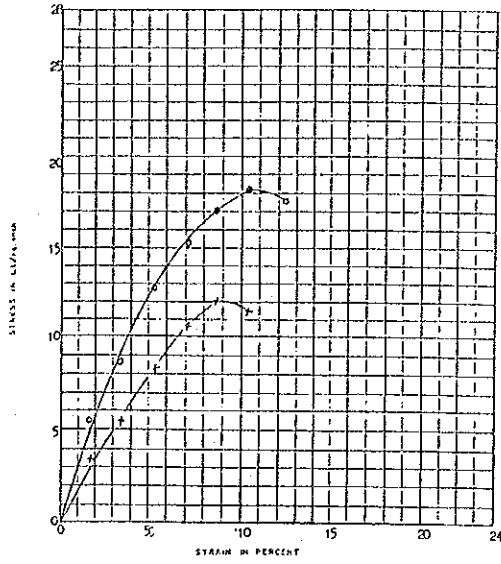
Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	0.891 <sub>1.31</sub>
Percent Strain at failure	10.71
Sensitivity	$13.85/7.49 = 1.849$
Moisture Content (%)	34.30
Dry Density (lb/cft)	88.40
Classification	

Un-disturbed Sample .....  
Remoulded Sample .....



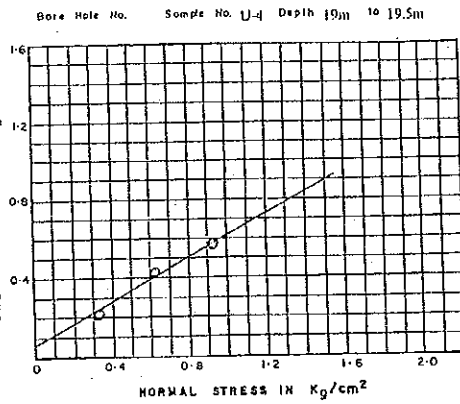
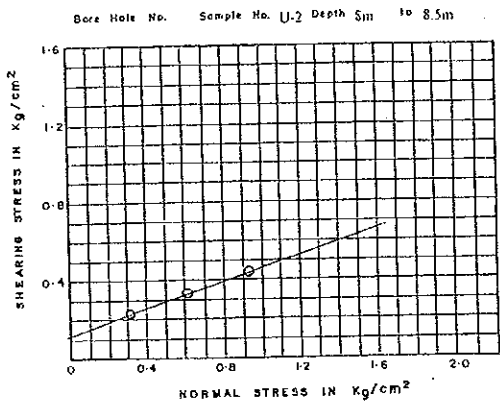
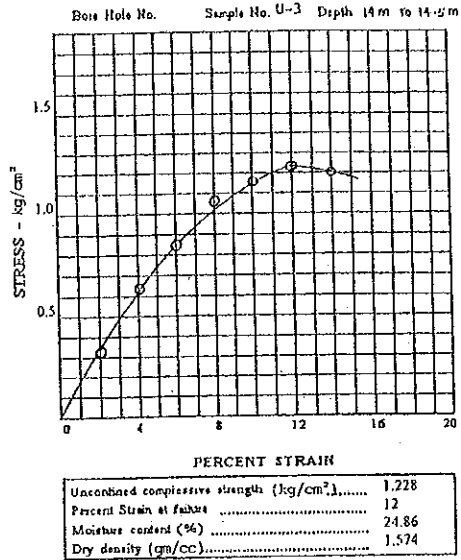
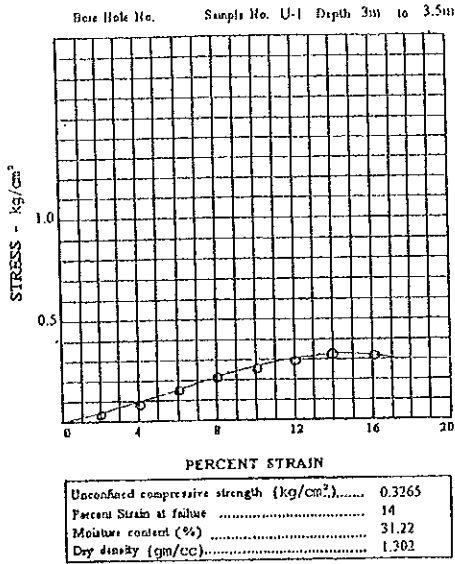


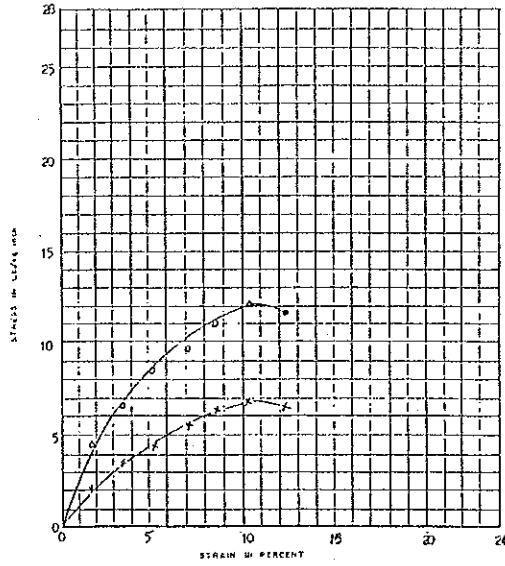
Unconfined compressive strength	1.160
Percent Shrink at failure	10.71
Sensitivity	10.16/12.02 = 1.504
Moisture Content (%)	72.20
Dry Density (kN/m³)	92.82
Classification	

Un-disturbed Sample

Remoulded Sample

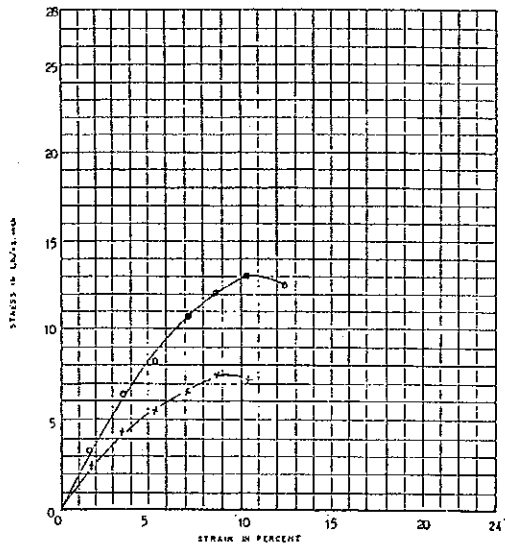
Site No. IV-19





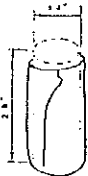
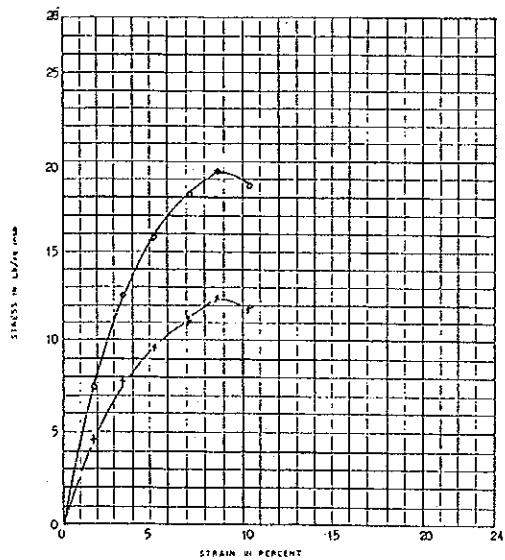
Unconfined compressive strength	0.883 lb./in.²
Percent Shrinkage	10.71
Sensitivity	$12.17/6.92 = 1.758$
Moisture Content (%)	31.26
Dry Density (lb./ft.³)	89.90
Classification	

Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	0.843 lb./in.²
Percent Shrinkage	10.71
Sensitivity	$13.10/7.47 = 1.753$
Moisture Content (%)	30.72
Dry Density (lb./ft.³)	92.64
Classification	

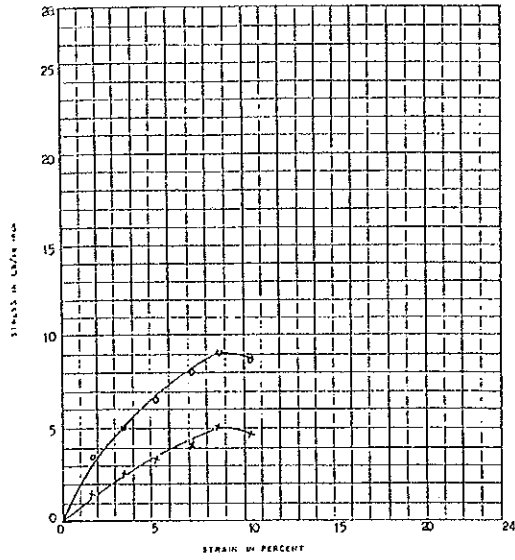
Un-disturbed Sample .....  
Remoulded Sample .....



Unconfined compressive strength	1.246 lb./in.²
Percent Shrinkage	8.92
Sensitivity	$19.36/12.46 = 1.553$
Moisture Content (%)	36.73
Dry Density (lb./ft.³)	86.63
Classification	

Un-disturbed Sample .....  
Remoulded Sample .....

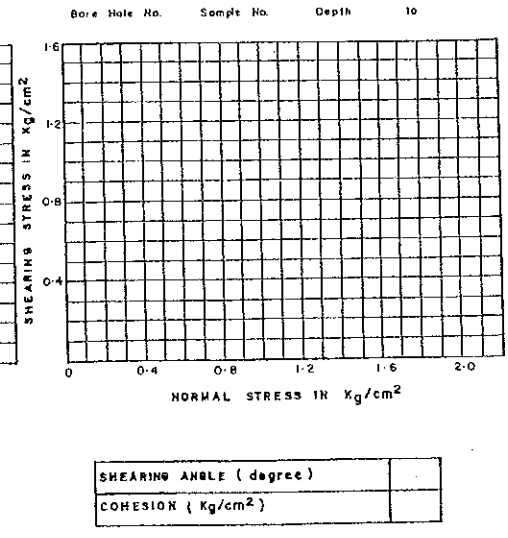
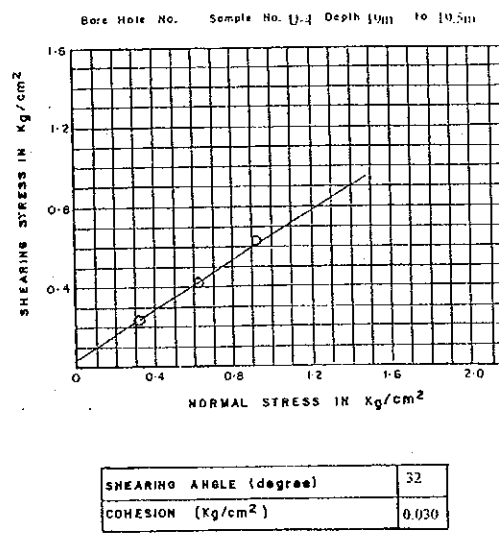
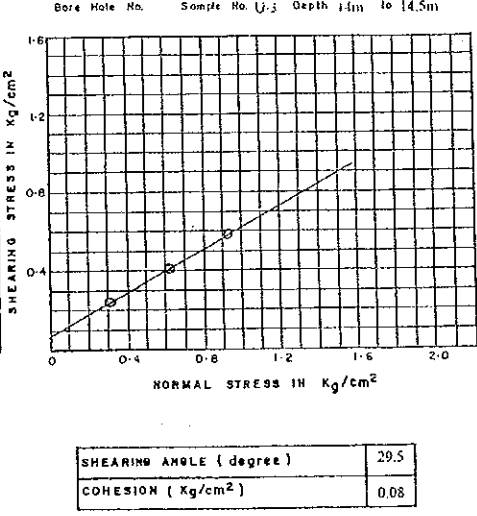
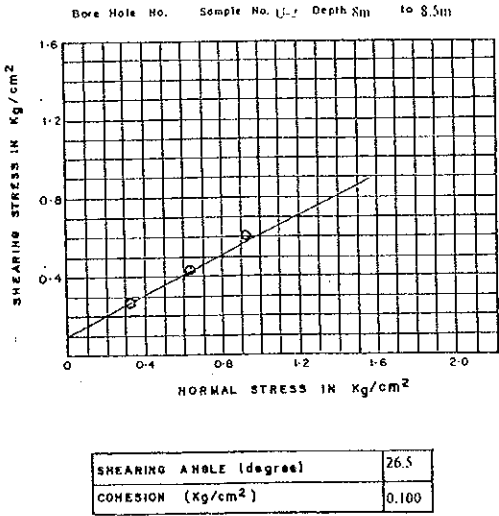
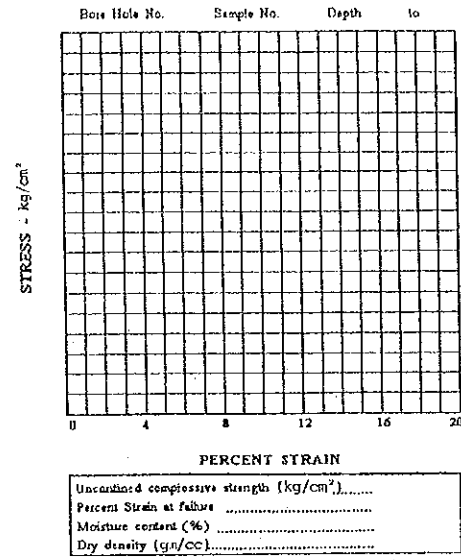
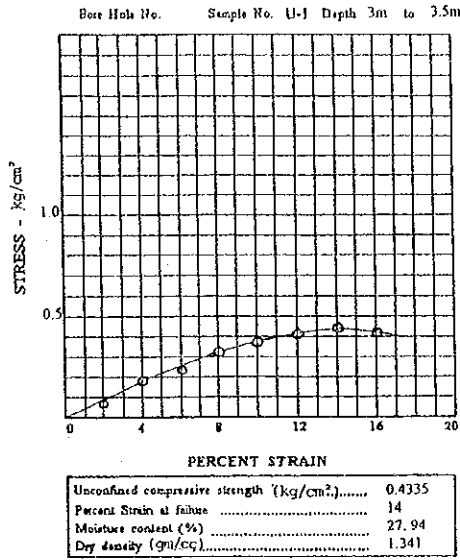
Site No. IV-20



Unconfined compressive strength	0.592
Percent shrink at failure	8.92
Sensitivity	$9.20/5.17 = 1.779$
Moisture Content (%)	78.84
Dry Density (lb/ft³)	83.95
Classification	

In-saturated Sample .....  
 Remoulded Sample .....

Site No. IV-21





### 11-3 気象調査

#### (1) 目的

当気象調査の目的は、サイクロンシェルターの設計及び施工計画に必要な気象条件を把握することである。

#### (2) 一般気象

計画対象地区の中央に位置するチッタゴン気象観測所の一般気象の1987年～1996年(10年間)の平均は以下のとおりである。詳細なデータを後掲する。

##### 1) 月平均最高・最低気温 (°C)

月	1	2	3	4	5	6	7	8	9	10	11	12
最高	25.9	28.1	30.5	38.0	32.7	31.7	31.1	31.6	31.9	31.5	29.8	27.2
最低	14.0	16.8	20.7	23.6	25.3	25.5	25.3	25.3	25.3	24.0	20.3	15.8

##### 2) 月間降雨量

月	1	2	3	4	5	6	7	8	9	10	11	12
Mm	2	38	69	165	256	566	712	403	273	228	67	10

##### 3) 湿度

月	1	2	3	4	5	6	7	8	9	10	11	12
%	74	73	75	78	79	84	86	85	84	83	80	76

##### 4) 風速(km/hr)・風向

月	1	2	3	4	5	6	7	8	9	10	11	12
風速	8.9	12.8	16.5	20.0	16.9	19.9	18.2	15.6	13.7	11.3	7.8	7.5
(m/sec)	2.5	3.6	4.6	5.6	4.7	5.5	5.1	4.3	3.8	3.1	2.2	2.1
風向	NW	NE	S	S	S	SE	SE	SE	SE	SE	NE	NE

#### (3) 潮位

ChittagongのSadarghat (北緯22° 20' , 東緯91° 50' )における過去の潮位記録及び太陽、月の運行を考慮した1999年の予測潮位は以下のとおりとなっている。詳細なデータを後掲する。

大潮平均高潮位	2.241m
小潮平均高潮位	1.380m
小潮平均低潮位	-1.381m
大潮平均高潮位	-2.242m

#### (4) サイクロンの履歴

1970年～1998年において、バングラデシュ国に襲来したサイクロン及びその被

害状況は後掲のとおりである。これより次に示すような傾向が見られる。襲来する月は、主に5月及び10～11月である。

これまでの大半のサイクロンは、Chittagong, Coxs Bazar地区に襲来している。

大災害をもたらしたサイクロンは人口の密集地域であるChittagong地域に襲来している。

その時のサージ高は、大略、10～20フィート（3～6 m）の範囲にある。

以上については更に検討を加える必要があるが、これらの諸状況を踏まえた計画の立案が必要と判断される。



11-3-1 一般気象



Government of the people's Republic of Bangladesh  
 Bangladesh Meteorological Department  
 Climate Division  
 Agargaon, Dhaka-1207

Station name : Chittagong Lat. 22 Deg 16 mts. N Long. 91 Deg 49 mts. E

Monthly and Annual Avg. Maximum temperature in Degree Celsius

Year : 1987 - 1996

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1987	26.5	28.5	30.1	31.1	32.8	32.1	30.5	31.0	31.9	32.4	30.5	27.4	30.4
1988	26.9	29.2	31.2	32.4	32.2	31.2	31.6	31.4	32.1	31.6	30.5	27.8	30.7
1989	25.1	27.9	31.2	31.9	33.1	32.0	30.8	32.1	31.6	29.9	29.5	26.7	30.1
1990	25.8	28.4	28.7	31.1	32.4	31.7	30.0	32.1	32.1	31.2	30.1	26.9	30.0
1991	25.1	29.0	32.4	***	32.2	30.4	31.1	31.9	31.3	31.2	28.3	25.5	***
1992	24.8	25.9	29.6	32.7	32.6	32.0	31.0	31.8	31.7	31.2	29.5	25.9	29.9
1993	25.8	27.5	29.6	32.0	32.1	30.9	31.4	30.9	31.4	31.5	29.3	27.4	30.0
1994	26.7	27.8	30.3	32.8	32.8	31.7	31.4	31.8	32.5	31.8	29.8	27.2	30.5
1995	26.0	27.7	31.0	32.8	33.1	32.3	31.2	31.7	31.9	32.6	29.2	27.3	30.6
1996	26.2	28.9	30.6	32.2	33.4	32.6	32.0	30.8	32.4	32.1	30.8	28.5	30.9
Mean	25.9	28.1	30.5	32.0	32.7	31.7	31.1	31.6	31.9	31.5	29.8	27.2	30.3

Table - 1

Government of the people's Republic of Bangladesh  
 Bangladesh Meteorological Department  
 Climate Division  
 Agargaon, Dhaka-1207

Station name : Chittagong Lat. 22 Deg 16 mts. N Long. 91 Deg 49 mts. E

Monthly and Annual Avg. Minimum temperature in Degree Celsius

Year : 1987 - 1996

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1987	14.7	16.6	20.7	23.6	25.3	26.0	25.1	24.9	25.3	23.7	21.2	16.5	22.0
1988	14.8	17.0	20.8	24.1	24.9	25.0	25.1	25.0	25.2	24.1	21.1	17.7	22.1
1989	12.5	16.8	20.0	24.2	25.9	25.4	25.2	25.3	25.0	23.7	18.0	14.8	21.4
1990	14.5	18.2	19.4	21.9	25.3	25.2	24.8	25.7	25.1	23.6	21.5	16.0	21.8
1991	14.1	17.1	22.1	***	25.6	25.6	25.8	25.5	25.4	24.1	18.9	15.3	***
1992	13.8	16.7	22.1	24.9	24.4	25.6	25.0	25.0	25.2	24.2	20.7	14.9	21.9
1993	13.9	16.8	19.0	22.3	23.4	24.5	25.0	25.0	24.4	23.8	19.3	15.1	21.1
1994	14.0	15.6	20.6	23.3	25.5	25.8	25.4	25.3	25.6	24.1	20.3	14.8	21.7
1995	13.2	16.4	20.5	24.4	27.2	26.2	25.7	25.9	25.9	25.1	21.8	16.0	22.4
1996	14.1	16.3	22.2	24.0	25.4	25.4	25.7	25.4	25.7	24.0	20.5	16.9	22.1
Mean	14.0	16.8	20.7	23.6	25.3	25.5	25.3	25.3	25.3	24.0	20.3	15.8	21.8

Table - 1

Government of the people's Republic of Bangladesh  
 Bangladesh Meteorological Department  
 Climate Division  
 Agargaon, Dhaka-1207

Station name : Chittagong Lat. 22 Deg 16 mts. N Long. 91 Deg 49 mts. E

Monthly and Annual Total Rainfall in millimeter

Year : 1987 - 1996

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1987	3	20	80	287	63	****	1206	673	429	35	49	17	****
1988	0	11	35	192	433	643	632	413	329	342	72	1	3093
1989	0	2	0	220	82	277	1173	66	360	304	14	0	2588
1990	0	39	53	250	205	668	1038	115	141	233	74	38	2852
1991	19	0	0	****	****	774	****	357	360	211	99	13	****
1992	0	119	0	1	127	571	412	280	292	435	4	34	2275
1993	0	71	223	100	667	781	437	729	243	129	14	0	3334
1994	7	8	194	262	208	581	390	397	100	101	20	0	2258
1995	0	12	18	51	268	359	685	546	129	53	323	0	2444
1996	0	106	91	134	251	447	451	457	350	343	3	1	2634
Mean	2	38	69	165	256	566	712	403	273	228	67	10	2693

Table - 1

Government of the People's Republic of Bangladesh  
 Bangladesh Meteorological Department  
 Climate Division  
 Agargaon, Dhaka-1207

Station name : Chittagong Lat. 22 Deg 16 mts. N Long. 91 Deg 49 mts. E

Monthly and Annual Average Humidity in Percent

Year : 1987 - 1996

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1987	73	72	75	80	77	82	89	95	84	80	78	75	79
1988	72	72	73	76	80	84	85	85	83	83	78	77	79
1989	68	72	69	76	76	81	85	81	83	87	75	74	77
1990	77	75	75	78	79	84	88	82	83	81	82	79	80
1991	77	75	75	**	79	85	85	85	85	84	79	75	**
1992	78	77	83	78	79	84	86	84	86	84	79	78	81
1993	76	75	75	79	82	86	85	86	85	82	78	75	80
1994	74	66	77	78	80	85	86	86	83	82	79	75	79
1995	69	74	68	78	80	84	85	86	84	83	85	78	80
1996	75	72	79	80	80	82	85	88	84	82	82	77	81
Mean	74	73	75	78	79	84	86	85	84	83	80	76	80

Table - 1

Government of the People's Republic of Bangladesh  
 Bangladesh Meteorological Department  
 Climate Division  
 Agargaon, Dhaka-1207

Station name : Chittagong Lat. 22 Deg 16 mts. N Long. 91 Deg 43 mts. E

Monthly Prevailing Wind speed in knots and direction.

Year : 1987-1996

Year	Jan.		Feb.		Mar.		Apr.		May		Jun.		Jul.		Aug.		Sep.		Oct.		Nov.		Dec.	
	Spd	Dir	Spd	Dir	Spd	Dir	Spd	Dir	Spd	Dir	Spd	Dir	Spd	Dir	Spd	Dir	Spd	Dir	Spd	Dir	Spd	Dir	Spd	Dir
1987	5.3	NE	5.6	NE	10.7	SW	16.1	SW	10.8	SW	12.4	SE	12.1	SE	9.7	SE	9.7	SE	5.0	NE	4.4	NE	4.0	NE
1988	4.5	NE	5.7	NW	7.7	SW	9.2	SW	9.1	SE	9.5	SE	11.4	S	8.3	SE	5.5	SE	6.2	NW	4.3	NE	3.6	N
1989	5.5	NW	3.9	SW	8.5	NW	14.1	SW	10.3	SW	13.6	S	10.1	S	7.3	SE	5.9	SE	6.4	SE	3.7	NE	4.2	NE
1990	4.9	NW	5.9	W	4.4	NE	10.1	S	5.9	SE	7.6	SE	6.3	SE	5.3	SE	4.8	SE	10.2	SE	3.4	NE	4.5	NW
1991	3.2	NW	3.4	NE	5.1	W	***	***	4.7	E	8.0	S	8.7	S	8.6	SE	6.0	SE	9.4	SE	2.3	NE	2.7	NE
1992	3.1	N	7.8	S	8.7	S	10.2	S	10.2	S	7.4	SE	8.0	SE	9.5	SE	6.0	SE	4.5	SE	4.1	N	2.9	WNW
1993	4.2	W	16.2	S	8.4	S	7.8	S	8.9	S	10.0	SE	8.4	SE	8.7	SE	7.6	SE	5.4	SE	4.2	NE	4.1	NE
1994	6.5	NW	6.0	NW	12.1	S	11.8	S	9.0	S	10.2	SE	10.5	SE	11.0	SSE	11.2	S	3.7	E	4.7	N	4.3	NNE
1995	6.0	N	4.2	NE	6.9	NW	9.3	S	10.9	S	13.7	S	13.0	SSE	7.2	SE	10.6	SSE	4.5	NE	6.6	NE	5.1	N
1996	4.7	NNE	4.4	NNE	14.5	S	8.6	S	11.7	SSE	15.0	S	9.9	S	9.4	SSE	6.8	SSE	5.7	N	4.2	N	4.9	N

Table - 1





11-3-2 潮 位



**TIDAL LEVELS**

<u>STATION</u>	<u>LAT</u>	<u>MLWS</u>	<u>MLWN</u>	<u>ML</u>	<u>MHWN</u>	<u>MHWS</u>	<u>HAT</u>
Hiron Point	- 0.256	0.225	0.905	1.700	2.495	3.175	3.656
Sundarikota	- 0.553	0.036	0.636	1.829	3.022	3.694	4.211
Mongla	- 0.261	0.325	1.194	2.310	3.427	4.296	4.882
Khal No 10	- 0.444	0.261	1.231	2.664	4.097	5.067	5.772
<u>Sadarghat</u>	<u>- 0.423</u>	<u>0.239</u>	<u>1.100</u>	<u>2.481</u>	<u>3.861</u>	<u>4.722</u>	<u>5.385</u>
Cox's Bazar	- 0.339	0.205	1.023	1.995	2.967	3.785	4.329
Shahpuri Island	- 0.348	0.191	1.045	1.874	2.703	3.557	4.096
Shandwip	- 0.583	0.238	1.634	3.243	4.851	6.248	7.070
Char Changa	- 0.375	0.256	1.060	2.037	3.014	3.818	4.449
Khepupara	- 0.323	0.195	1.025	2.060	3.096	3.925	4.445
Char Ramdaspur	- 0.261	0.189	0.763	2.036	3.309	3.883	4.333
Barisal	+ 0.134	0.434	0.692	1.539	2.386	2.644	2.944
Chandpur	+ 0.019	0.256	0.493	2.172	3.852	4.088	4.326
Nalmuri	+ 0.078	0.370	0.722	2.195	3.669	4.021	4.313
Narayanganj	+ 0.458	0.585	0.697	2.770	4.844	4.956	5.083
Galachipa	- 0.159	0.283	0.937	1.764	2.592	3.245	3.689
Patuakhali	- 0.143	0.242	0.740	1.575	2.409	2.907	3.293

**STATION INFORMATIONS**

<u>STATION</u>	<u>RIVER</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>BENCH MARK</u>	<u>HET GHTS (M)</u>
		<u>NORTH</u>	<u>EAST</u>	<u>CD</u>	<u>PWD</u>
Hiron Point	Pussur	21:48	89:28	3.784	
Sundari Kota	Pussur	22:07	89:36	3.369	
Mongla	Pussur	22:27	89:36	4.657	
Khal No. 10	Karnaphuli	22:16	91:49	6.481	
<u>Sadarghat</u>	<u>Karnaphuli</u>	<u>22:20</u>	<u>91:50</u>	<u>5.822</u>	
Cox's Bazar	Bag Khali	21:26	91:59	4.836	3.931
Shahpuri Island	Naaf	20:47	92:20	4.380	
Sandwip	Satalkhali	22:29	91:26	7.850	4.687
Char Changa	Shahbazpur	22:08	91:06	4.996	
Khepupara	Nilganj	21:54	90:13	3.757	1.797
Char Ramdaspur	Meghna	22:48	90:39	5.137	
Barisal	Barisal	22:41	90:22	3.365	2.946
Chandpur	Dakatia	23:13	90:40	5.812	6.062
Nalmuri	Meghna	23:06	90:26	5.312	5.088
Narayanganj	Lakhya	23:31	90:29	5.981	6.179
Galachipa	Lohalia	22:10	90:24	5.119	4.404
Patuakhali	Patuakhali	22:22	90:19	3.785	2.889

LAT = Lowest Astronomical Tide  
HAT = Highest Astronomical Tide  
PWD = Public Works Datum  
CD = Chart Datum

MLWS = Mean Low Water Spring  
MHWS = Mean High Water Spring  
MHWN = Mean High Water Neap  
MLWN = Mean Low Water Neap  
ML = Mean Level

Bangladesh Tide Tables 1999

## KARNAPHULI RIVER - SADARGHAT (CTG)

### JANUARY

### FEBRUARY

Time	Ht (m)	Time	Ht (m)	Time	Ht (m)	Time	Ht (m)	Time	Ht (m)	Time	Ht (m)
1 0026	3.90	11 0228	1.15	21 0324	3.89	1 0142	3.74	11 0418	1.01	21 0435	3.78
FR 0724	.41	MO 0821	2.57	TH 1030	.41	MO 0842	.38	TH 1025	2.33	SU 1125	.18
1248	3.43	1454	.84	1552	3.56	1410	3.36	1612	.85	1707	3.63
1928	.41	2127	2.87	2236	.45	2047	.50	2249	3.01	2348	.43
2 0106	3.94	12 0403	1.08	22 0407	3.85	2 0219	3.75	12 0536	.82	22 0524	3.52
SA 0809	.42	TU 0956	2.52	FR 1107	.33	TU 0920	.40	FR 1125	2.58	MO 1209	.25
1331	3.47	1603	.80	1638	3.56	1446	3.42	1715	.76	1804	3.47
2012	.45	2238	3.05	2318	.45	2125	.52	2336	3.26		
3 0147	3.93	13 0520	.87	23 0453	3.74	3 0255	3.75	13 0623	.68	23 0042	.58
SU 0852	.45	WE 1108	2.66	SA 1147	.28	WE 0956	.39	SA 1204	2.85	TU 0624	3.17
1416	3.47	1704	.68	1728	3.50	1522	3.46	1808	.67	1304	.42
2056	.52	2327	3.27			2200	.52			1920	3.29
4 0231	3.88	14 0608	.69	24 0006	.51	4 0330	3.73	14 0013	3.48	24 0200	.74
MO 0934	.48	TH 1153	2.83	SU 0545	3.52	TH 1028	.35	SU 0703	.59	WE 0749	2.85
1502	3.45	1752	.59	1235	.32	1557	3.48	1236	3.11	1424	.62
2138	.58			1828	3.37	2233	.52	1855	.58	2049	3.23
5 0316	3.80	15 0005	3.47	25 0105	.64	5 0405	3.66	15 0046	3.69	25 0349	.71
TU 1015	.49	FR 0647	.60	MO 0648	3.22	FR 1058	.32	MO 0741	.52	TH 0935	2.75
1547	3.42	1226	2.99	1336	.43	1635	3.43	1308	3.36	1605	.66
2218	.63	1834	.53	1948	3.26	2304	.54	1940	.49	2220	3.32
6 0359	3.72	16 0038	3.60	26 0231	.76	6 0444	3.49	16 0118	3.87	26 0514	.51
WE 1054	.48	SA 0724	.57	TU 0813	2.95	SA 1128	.33	TU 0820	.44	FR 1112	2.91
1631	3.38	1257	3.12	1500	.52	1716	3.29	1340	3.58	1728	.57
2257	.68	1913	.52	2117	3.27	2338	.63	2023	.40	2330	3.47
7 0441	3.60	17 0109	3.70	27 0408	.69	7 0525	3.20	17 0151	4.02	27 0617	.34
TH 1131	.48	SU 0800	.58	WE 0948	2.87	SU 1202	.42	WE 0858	.36	SA 1211	3.12
1715	3.30	1327	3.25	1625	.50	1803	3.09	1415	3.74	1829	.49
2336	.76	1954	.52	2237	3.41			2104	.34		
8 0524	3.40	18 0139	3.77	28 0526	.50	8 0020	.79	18 0228	4.08	28 0020	3.58
FR 1209	.53	MO 0838	.57	TH 1112	2.96	MO 0614	2.84	TH 0935	.28	SU 0706	.28
1802	3.16	1359	3.36	1736	.43	1244	.60	1454	3.80	1254	3.27
		2035	.51	2338	3.57	1901	2.86	2144	.31	1917	.46
9 0018	.88	19 0210	3.84	29 0626	.36	9 0117	.99	19 0308	4.06		
SA 0611	3.13	TU 0916	.54	FR 1211	3.10	TU 0715	2.48	FR 1011	.23		
1251	.64	1433	3.45	1834	.40	1343	.79	1535	3.79		
1856	2.98	2116	.50			2013	2.73	2223	.32		
10 0111	1.05	20 0245	3.88	30 0025	3.67	10 0243	1.10	20 0350	3.96		
SU 0708	2.82	WE 0954	.48	SA 0717	.31	WE 0837	2.26	SA 1046	.19		
1345	.77	1511	3.52	1255	3.21	1501	.89	1619	3.74		
2004	2.85	2156	.47	1923	.41	2140	2.79	2303	.35		
				31 0105	3.71						
				SU 0801	.33						
				1333	3.29						
				2007	.45						

## KARNAPHULI RIVER - SADARGHAT (CTG)

### MARCH

### APRIL

Time	Ht (m)	Time	Ht (m)	Time	Ht (m)	Time	Ht (m)	Time	Ht (m)	Time	Ht (m)
1 0059	3.64	11 0135	1.06	21 0334	4.09	1 0145	3.89	11 0344	1.08	21 0503	3.75
MO 0749	.31	TH 0736	2.39	SU 1025	.22	TH 0833	.52	SU 0957	3.10	WE 1131	.73
1329	3.39	1356	1.00	1601	4.02	1405	3.90	1601	1.18	1735	3.97
1958	.48	2034	2.84	2248	.39	2047	.61	2216	3.50		
2 0133	3.70	12 0314	1.10	22 0420	3.86	2 0213	3.95	12 0456	.97	22 0012	.83
TU 0826	.36	FR 0919	2.38	MO 1104	.27	FR 0900	.51	MO 1057	3.46	TH 0608	3.50
1400	3.49	1525	1.07	1650	3.87	1432	3.96	1712	1.05	1224	.97
2035	.49	2200	2.99	2333	.49	2115	.61	2308	3.76	1843	3.77
3 0205	3.77	13 0441	.97	23 0511	3.58	3 0241	3.95	13 0554	.87	23 0121	.98
WE 0900	.38	SA 1048	2.67	TU 1148	.40	SA 0926	.49	TU 1139	3.80	FR 0725	3.31
1429	3.59	1638	.98	1748	3.68	1500	3.96	1811	.89	1336	1.23
2109	.50	2300	3.26			2142	.62	2348	4.02	1957	3.60
4 0235	3.82	14 0547	.81	24 0026	.64	4 0311	3.86	14 0641	.76	24 0257	1.03
TH 0931	.37	SU 1135	3.02	WE 0614	3.25	SU 0951	.48	WE 1214	4.10	SA 0854	3.26
1458	3.66	1743	.85	1241	.62	1531	3.90	1900	.74	1524	1.34
2139	.49	2344	3.54	1901	3.48	2209	.63			2118	3.50
5 0305	3.83	15 0634	.69	25 0139	.81	5 0342	3.71	15 0024	4.25	25 0421	.98
FR 0958	.34	MO 1211	3.37	TH 0738	2.97	MO 1017	.48	TH 0724	.65	SU 1028	3.39
1528	3.69	1837	.70	1357	.87	1604	3.80	1248	4.36	1652	1.24
2207	.47			2024	3.35	2239	.67	1944	.60	2238	3.54
6 0337	3.76	16 0019	3.81	26 0327	.82	6 0415	3.52	16 0102	4.43	26 0527	.90
SA 1024	.29	TU 0715	.57	FR 0920	2.90	TU 1046	.54	FR 0804	.53	MO 1129	3.60
1602	3.64	1243	3.69	1548	.96	1637	3.67	1326	4.51	1753	1.10
2235	.47	1923	.55	2153	3.35	2312	.74	2027	.52	2335	3.64
7 0412	3.60	17 0053	4.06	27 0454	.66	7 0451	3.30	17 0144	4.48	27 0616	.85
SU 1051	.29	WE 0755	.46	SA 1059	3.10	WE 1120	.66	SA 0844	.45	TU 1210	3.80
1639	3.52	1316	3.96	1716	.85	1718	3.51	1409	4.55	1839	.99
2306	.53	2006	.41	2310	3.46	2354	.85	2109	.49		
8 0448	3.34	18 0128	4.24	28 0558	.52	8 0540	3.08	18 0229	4.41	28 0016	3.78
MO 1121	.36	TH 0833	.34	SU 1158	3.34	TH 1205	.85	SU 0923	.43	WE 0656	.84
1719	3.32	1352	4.13	1816	.72	1816	3.35	1455	4.47	1242	3.97
2341	.66	2047	.32					2151	.53	1916	.91
9 0529	3.00	19 0208	4.31	29 0003	3.58	9 0050	1.01	19 0317	4.23	29 0050	3.93
TU 1156	.53	FR 0911	.25	MO 0647	.47	FR 0648	2.89	MO 1003	.47	TH 0729	.81
1808	3.10	1433	4.18	1239	3.51	1307	1.09	1543	4.33	1310	4.13
		2128	.29	1903	.66	1936	3.23	2234	.61	1949	.87
10 0027	.86	20 0250	4.25	30 0043	3.68	10 0214	1.12	20 0407	4.00	30 0119	4.05
WE 0621	2.66	SA 0947	.22	TU 0727	.49	SA 0821	2.86	TU 1045	.57	FR 0759	.79
1244	.77	1516	4.13	1311	3.66	1436	1.23	1636	4.16	1337	4.24
1913	2.90	2207	.32	1941	.63	2103	3.29	2320	.71	2020	.86
				31 0115	3.79						
				WE 0801	.52						
				1339	3.79						
				2015	.62						

## KARNAPHULI RIVER - SADARGHAT (CTG)

MAY						JUNE					
Time	Ht (m)	Time	Ht (m)	Time	Ht (m)	Time	Ht (m)	Time	Ht (m)	Time	Ht (m)
1 0147	4.10	11 0407	1.13	21 0555	3.87	1 0223	4.12	11 0533	1.21	21 0126	1.46
SA 0826	.78	TU 1014	3.94	FR 1208	1.32	TU 0853	1.18	FR 1121	4.64	MO 0728	3.98
1404	4.28	1638	1.25	1820	4.09	1437	4.42	1814	1.27	1346	1.80
2049	.89	2229	4.03			2128	1.36	2337	4.42	1946	3.94
2 0216	4.07	12 0510	1.08	22 0100	1.20	2 0253	4.06	12 0626	1.16	22 0229	1.56
SU 0853	.80	WE 1104	4.21	SA 0702	3.74	WE 0926	1.23	SA 1203	4.80	TU 0837	3.90
1433	4.24	1742	1.13	1313	1.53	1505	4.39	1905	1.21	1509	1.87
2117	.93	2317	4.22	1925	3.89	2202	1.37			2058	3.78
3 0246	3.98	13 0604	1.01	23 0217	1.29	3 0325	4.04	13 0021	4.52	23 0337	1.61
MO 0920	.82	TH 1144	4.46	SU 0816	3.66	TH 1000	1.25	SU 0713	1.12	WE 0951	3.94
1502	4.17	1835	1.01	1444	1.66	1538	4.39	1244	4.90	1630	1.80
2146	.98	2357	4.39	2036	3.73	2237	1.33	1952	1.19	2215	3.76
4 0315	3.86	14 0652	.92	24 0333	1.34	4 0405	4.05	14 0106	4.57	24 0442	1.56
TU 0948	.86	FR 1221	4.66	MO 0938	3.69	FR 1039	1.25	MO 0759	1.10	TH 1052	4.10
1530	4.09	1923	.92	1612	1.63	1621	4.39	1329	4.93	1732	1.64
2217	1.00			2153	3.67	2317	1.27	2038	1.20	2315	3.88
5 0346	3.76	15 0037	4.53	25 0442	1.32	5 0454	4.08	15 0155	4.55	25 0534	1.46
WE 1018	.89	SA 0735	.84	TU 1045	3.83	SA 1125	1.27	TU 0844	1.14	FR 1139	4.30
1600	4.04	1301	4.79	1719	1.50	1714	4.37	1418	4.87	1818	1.49
2251	1.01	2007	.86	2258	3.74			2124	1.24		
6 0424	3.68	16 0121	4.57	26 0536	1.27	6 0004	1.22	16 0248	4.48	26 0000	4.03
TH 1055	.95	SU 0818	.79	WE 1133	4.03	SU 0551	4.08	WE 0930	1.21	SA 0615	1.36
1642	3.99	1345	4.81	1807	1.35	1219	1.33	1511	4.78	1216	4.48
2331	1.02	2051	.85	2345	3.89	1815	4.29	2209	1.27	1856	1.41
7 0514	3.60	17 0209	4.50	27 0617	1.19	7 0101	1.23	17 0342	4.39	27 0035	4.15
FR 1141	1.06	MO 0901	.80	TH 1209	4.23	MO 0659	4.08	TH 1015	1.29	SU 0651	1.31
1738	3.89	1434	4.73	1846	1.23	1325	1.42	1604	4.67	1249	4.59
		2135	.89			1927	4.19	2255	1.29	1931	1.41
8 0023	1.07	18 0300	4.36	28 0022	4.04	8 0211	1.27	18 0436	4.31	28 0106	4.22
SA 0617	3.53	TU 0944	.86	FR 0652	1.12	TU 0817	4.13	FR 1101	1.39	MO 0725	1.31
1239	1.21	1526	4.59	1240	4.40	1446	1.47	1657	4.54	1320	4.64
1849	3.79	2220	.96	1921	1.17	2044	4.16	2342	1.31	2006	1.46
9 0131	1.15	19 0355	4.18	29 0054	4.16	9 0326	1.29	19 0531	4.22	29 0135	4.26
SU 0737	3.53	WE 1029	.98	SA 0723	1.08	WE 0932	4.27	SA 1149	1.50	TU 0800	1.35
1356	1.34	1621	4.44	1309	4.50	1605	1.44	1750	4.39	1350	4.65
2012	3.76	2307	1.02	1953	1.16	2153	4.21			2041	1.57
10 0255	1.17	20 0453	4.02	30 0123	4.20	10 0433	1.26	20 0031	1.37	30 0206	4.28
MO 0904	3.68	TH 1116	1.13	SU 0752	1.08	TH 1032	4.46	SU 0627	4.11	WE 0836	1.39
1524	1.34	1719	4.27	1338	4.52	1715	1.36	1242	1.65	1421	4.65
2129	3.86	2359	1.10	2024	1.22	2249	4.31	1845	4.17	2116	1.56
				31 0153	4.18						
				MO 0822	1.12						
				1408	4.48						
				2056	1.29						

Bangladesh Tide Tables 1999

## KARNAPHULI RIVER - SADARGHAT (CTG)

### JULY

### AUGUST

Time		Ht (m)		Time		Ht (m)		Time		Ht (m)		Time		Ht (m)				
1	0238	4.30	11	0611	1.29	21	0125	1.56	1	0339	4.64	11	0118	4.49	21	0243	1.78	
TH	0913	1.42	SU	1159	4.78	WE	0737	4.02	SU	1022	1.28	WE	0750	1.21	SA	0919	3.75	
	1453	4.65		1856	1.33		1356	1.86		1556	4.88		1330	4.83		1556	1.83	
	2152	1.55					1950	3.79		2251	1.30		2024	1.20		2218	3.39	
2	0312	4.33	12	0023	4.43	22	0227	1.69	2	0420	4.64	12	0156	4.58	22	0402	1.79	
FR	0951	1.41	MO	0704	1.26	TH	0850	3.92	MO	1101	1.26	TH	0833	1.22	SU	1040	3.90	
	1527	4.67		1244	4.87		1519	1.92		1638	4.81		1409	4.86		1729	1.65	
	2229	1.50		1945	1.32		2123	3.63		2327	1.23		2105	1.22		2326	3.63	
3	0352	4.38	13	0100	4.52	23	0337	1.72	3	0505	4.61	13	0235	4.64	23	0520	1.67	
SA	1030	1.39	TU	0752	1.27	FR	1010	3.90	TU	1144	1.27	FR	0914	1.22	MO	1133	4.14	
	1609	4.70		1327	4.92		1652	1.81		1724	4.68		1449	4.86		1820	1.48	
	2306	1.40		2031	1.34		2249	3.69					2143	1.23				
4	0437	4.43	14	0154	4.56	24	0447	1.66	4	0010	1.21	14	0313	4.67	24	0006	3.89	
SU	1113	1.36	WE	0837	1.30	SA	1111	4.17	WE	0557	4.52	SA	0952	1.23	TU	0615	1.53	
	1655	4.69		1413	4.91		1754	1.64		1234	1.36		1528	4.84		1212	4.36	
	2347	1.32		2115	1.36		2345	3.86		1819	4.44		2218	1.21		1858	1.39	
5	0527	4.44	15	0241	4.57	25	0545	1.55	5	0101	1.28	15	0351	4.66	25	0037	4.14	
MO	1201	1.36	TH	0922	1.34	SU	1156	4.37	TH	0703	4.39	SU	1027	1.24	WE	0657	1.41	
	1748	4.60		1500	4.87		1839	1.52		1339	1.51		1606	4.77		1245	4.56	
				2158	1.37					1931	4.16		2250	1.18		1934	1.33	
6	0035	1.29	16	0328	4.56	26	0022	4.03	6	0212	1.41	16	0429	4.61	26	0106	4.38	
TU	0624	4.41	FR	1004	1.38	MO	0630	1.48	FR	0827	4.30	MO	1100	1.25	TH	0735	1.29	
	1257	1.44		1546	4.82		1232	4.53		1514	1.58		1644	4.64		1317	4.74	
	1848	4.44		2239	1.36		1916	1.49		2100	4.00		2321	1.17		2009	1.27	
7	0133	1.33	17	0414	4.54	27	0053	4.18	7	0340	1.45	17	0509	4.49	27	0137	4.59	
WE	0736	4.35	SA	1045	1.41	TU	0709	1.44	SA	0952	4.36	TU	1134	1.31	FR	0814	1.17	
	1409	1.55		1631	4.74		1304	4.65		1643	1.47		1724	4.40		1350	4.89	
	2003	4.27		2318	1.34		1952	1.49		2232	4.04		2355	1.24		2045	1.19	
8	0247	1.39	18	0500	4.48	28	0123	4.32	8	0501	1.38	18	0554	4.29	28	0210	4.74	
TH	0855	4.37	SU	1126	1.46	WE	0747	1.40	SU	1107	4.52	WE	1214	1.45	SA	0853	1.07	
	1536	1.57		1716	4.59		1336	4.75		1755	1.31		1811	4.05		1424	4.97	
	2121	4.19		2356	1.36		2028	1.50		2344	4.21					2121	1.11	
9	0403	1.39	19	0546	4.37	29	0153	4.45	9	0608	1.29	19	0036	1.39	29	0245	4.81	
FR	1008	4.49	MO	1207	1.56	TH	0826	1.37	MO	1204	4.67	TH	0647	4.04	SU	0931	1.02	
	1655	1.50		1802	4.37		1408	4.83		1852	1.21		1305	1.65		1501	4.96	
	2233	4.23					2104	1.47					1908	3.68		2156	1.06	
10	0512	1.34	20	0037	1.43	30	0226	4.55	10	0036	4.37	20	0130	1.61	30	0323	4.79	
SA	1109	4.64	TU	0637	4.20	FR	0905	1.33	TU	0702	1.23	FR	0753	3.81	MO	1009	1.01	
	1801	1.39		1254	1.71		1442	4.88		1249	4.77		1418	1.83		1540	4.88	
	2333	4.33		1854	4.08		2141	1.43		1940	1.18		2026	3.39		2230	1.02	
							31	0301	4.61							31	0403	4.74
							SA	0944	1.31							TU	1047	1.02
								1517	4.90								1621	4.75
								2216	1.37								2307	.99

Bangladesh Tide Tables 1999

KARNAPHULI RIVER -- SADARGHAT (CTG)

SEPTEMBER

OCTOBER

SEPTEMBER			OCTOBER		
Time	Ht (m)		Time	Ht (m)	
1 0447	4.64	11 0222	4.63	21 0444	1.66
WE 1128	1.07	SA 0900	.99	TU 1058	3.87
1707	4.53	1434	4.71	1745	1.34
2347	1.02	2120	.97	2337	3.78
2 0538	4.50	12 0256	4.66	22 0551	1.45
TH 1217	1.18	SU 0933	.99	WE 1142	4.13
1801	4.24	1508	4.69	1828	1.21
		2151	.97		
3 0037	1.15	13 0328	4.64	23 0011	4.10
FR 0643	4.30	MO 1004	1.00	TH 0636	1.26
1320	1.35	1542	4.61	1219	4.37
1915	3.92	2219	.95	1906	1.11
4 0145	1.35	14 0401	4.57	24 0042	4.38
SA 0808	4.16	TU 1034	1.01	FR 0716	1.09
1459	1.43	1615	4.45	1252	4.58
2052	3.75	2247	.95	1942	1.01
5 0324	1.45	15 0437	4.44	25 0113	4.62
SU 0939	4.16	WE 1105	1.06	SA 0755	.93
1634	1.29	1652	4.21	1325	4.76
2238	3.86	2318	1.02	2018	.90
6 0456	1.35	16 0516	4.23	26 0146	4.78
MO 1102	4.31	TH 1140	1.17	SU 0834	.81
1747	1.08	1733	3.88	1401	4.84
2348	4.12	2353	1.18	2055	.80
7 0605	1.18	17 0603	3.97	27 0223	4.84
TU 1201	4.47	FR 1224	1.36	MO 0913	.74
1843	.95	1824	3.51	1439	4.81
				2131	.74
8 0037	4.33	18 0039	1.43	28 0302	4.80
WE 0658	1.07	SA 0702	3.70	TU 0952	.74
1246	4.57	1325	1.58	1521	4.69
1929	.92	1934	3.20	2208	.72
9 0115	4.46	19 0146	1.69	29 0345	4.70
TH 0743	1.01	SU 0822	3.54	WE 1032	.77
1324	4.64	1458	1.67	1605	4.50
2010	.94	2125	3.15	2246	.74
10 0149	4.56	20 0315	1.78	30 0431	4.56
FR 0823	.99	MO 0954	3.62	TH 1115	.84
1359	4.69	1640	1.54	1654	4.25
2046	.97	2251	3.44	2328	.84
1 0525	4.38	11 0232	4.53	21 0509	1.28
FR 1204	.95	MO 0910	.78	TH 1104	3.87
1753	3.95	1445	4.38	1744	1.01
		2120	.75	2336	4.81
2 0019	1.03	12 0303	4.48	22 0604	1.07
SA 0631	4.16	TU 0939	.81	FR 1145	4.09
1308	1.11	1516	4.27	1828	.90
1909	3.67	2147	.77		
3 0127	1.28	13 0333	4.38	23 0011	4.28
SU 0752	3.97	WE 1008	.85	SA 0649	.89
1446	1.18	1547	4.09	1221	4.28
2046	3.55	2214	.80	1908	.79
4 0312	1.40	14 0405	4.24	24 0044	4.50
MO 0921	3.91	TH 1038	.90	SU 0731	.74
1618	1.05	1620	3.88	1256	4.44
2232	3.72	2243	.87	1947	.68
5 0447	1.26	15 0439	4.06	25 0118	4.64
TU 1047	4.00	FR 1111	.97	MO 0812	.63
1730	.87	1657	3.63	1333	4.51
2338	3.99	2316	1.00	2026	.59
6 0555	1.06	16 0519	3.86	26 0156	4.69
WE 1147	4.13	SA 1150	1.08	TU 0853	.57
1825	.76	1742	3.38	1415	4.48
		2357	1.20	2105	.53
7 0024	4.19	17 0610	3.64	27 0239	4.65
TH 0645	.91	SU 1241	1.23	WE 0934	.56
1231	4.22	1845	3.16	1501	4.34
1909	.74			2145	.54
8 0100	4.33	18 0055	1.43	28 0325	4.53
FR 0727	.83	MO 0723	3.46	TH 1016	.60
1308	4.31	1400	1.35	1550	4.15
1946	.74	2017	3.10	2226	.61
9 0132	4.44	19 0222	1.58	29 0415	4.37
SA 0804	.79	TU 0853	3.44	FR 1101	.66
1341	4.38	1534	1.30	1643	3.93
2020	.75	2157	3.33	2312	.74
10 0202	4.51	20 0354	1.49	30 0512	4.18
SU 0838	.77	WE 1011	3.63	SA 1152	.76
1414	4.42	1648	1.15	1746	3.69
2051	.75	2255	3.69		
				31 0004	.95
				SU 0617	3.96
				1257	.88
				1900	3.50



KARNAPHULI RIVER - SADARGHAT (CTG)

NOVEMBER						DECEMBER					
Time	Ht (m)	Time	Ht (m)	Time	Ht (m)	Time	Ht (m)	Time	Ht (m)	Time	Ht (m)
1 0112	1.19	11 0303	4.10	21 0618	.74	1 0222	1.18	11 0301	3.77	21 0645	.53
MO 0732	3.75	TH 0944	.77	SU 1149	3.88	WE 0815	3.31	SA 0956	.77	TU 1207	3.56
1427	.93	1518	3.69	1832	.62	1510	.78	1520	3.33	1851	.43
2028	3.41	2143	.73			2122	3.28	2148	.73		
2 0255	1.30	12 0332	3.97	22 0014	4.24	2 0350	1.13	12 0328	3.72	22 0030	4.07
TU 0854	3.61	FR 1015	.82	MO 0705	.62	TH 0937	3.19	SU 1029	.77	WE 0734	.47
1551	.87	1549	3.55	1227	4.00	1621	.76	1554	3.30	1250	3.64
2207	3.53	2213	.80	1916	.53	2235	3.40	2223	.76	1938	.40
3 0426	1.18	13 0401	3.86	23 0050	4.37	3 0502	.98	13 0402	3.67	23 0111	4.14
WE 1019	3.61	SA 1047	.85	TU 0750	.54	FR 1048	3.21	MO 1104	.73	TH 0820	.44
1702	.77	1623	3.42	1308	4.07	1720	.70	1635	3.28	1336	3.68
2314	3.74	2245	.87	1958	.47	2326	3.56	2304	.79	2024	.41
4 0533	.99	14 0435	3.75	24 0130	4.43	4 0556	.81	14 0447	3.60	24 0156	4.13
TH 1123	3.68	SU 1123	.88	WE 0833	.49	SA 1139	3.30	TU 1144	.69	FR 0905	.45
1757	.70	1705	3.30	1352	4.05	1805	.63	1726	3.27	1426	3.65
		2326	.98	2041	.44			2353	.84	2109	.46
5 0000	3.92	15 0522	3.61	25 0215	4.39	5 0005	3.72	15 0543	3.49	25 0245	4.06
FR 0623	.83	MO 1209	.92	TH 0917	.49	SU 0638	.67	WE 1234	.67	SA 0951	.46
1208	3.78	1802	3.20	1441	3.96	1220	3.41	1828	3.24	1518	3.58
1840	.66			2124	.48	1842	.57			2155	.54
6 0035	4.06	16 0620	1.12	26 0304	4.28	6 0038	3.86	16 0053	.91	26 0337	3.94
SA 0704	.73	TU 0627	3.46	FR 1002	.52	MO 0714	.58	TH 0649	3.35	SU 1036	.48
1244	3.88	1311	.98	1534	3.82	1254	3.51	1337	.69	1612	3.50
1916	.63	1919	3.17	2209	.56	1915	.52	1945	3.26	2242	.64
7 0106	4.18	17 0132	1.24	27 0357	4.13	7 0109	3.96	17 0210	.96	27 0430	3.79
SU 0740	.66	WE 0750	3.37	SA 1049	.56	TU 0748	.55	FR 0809	3.25	MO 1123	.50
1317	3.97	1433	.99	1630	3.66	1325	3.56	1452	.69	1707	3.40
1949	.60	2049	3.29	2256	.70	1946	.51	2105	3.39	2330	.75
8 0136	4.27	18 0303	1.22	28 0454	3.96	8 0138	3.98	18 0335	.90	28 0523	3.60
MO 0813	.63	TH 0912	3.43	SU 1140	.62	WE 0820	.58	SA 0925	3.26	TU 1212	.54
1349	4.01	1548	.91	1732	3.51	1354	3.53	1603	.63	1804	3.29
2019	.59	2202	3.56	2349	.87	2016	.54	2211	3.58		
9 0205	4.28	19 0421	1.07	29 0555	3.75	9 0206	3.93	19 0449	.77	29 0023	.88
TU 0844	.65	FR 1017	3.57	MO 1240	.69	TH 0852	.65	SU 1028	3.34	WE 0619	3.36
1419	3.96	1651	.81	1839	3.36	1422	3.46	1705	.56	1306	.61
2047	.62	2255	3.83			2046	.61	2305	3.78	1907	3.16
10 0234	4.21	20 0525	.89	30 0053	1.06	10 0234	3.85	20 0551	.64	30 0127	1.02
WE 0914	.70	SA 1107	3.74	TU 0701	3.52	FR 0924	.72	MO 1121	3.45	TH 0721	3.09
1449	3.84	1745	.71	1354	.76	1451	3.39	1801	.49	1409	.71
2115	.66	2337	4.06	1955	3.27	2117	.68	2350	3.94	2019	3.06
										31 0252	1.09
										FR 0835	2.85
										1518	.76
										2138	3.06



### 11-3-3 サイクロンの履歴



Government of The People's Republic of Bangladesh  
 Bangladesh Meteorological Department  
 Meteorological Complex, Agargaon,  
Dhaka-1207.

List of Major Cyclonic Storms from 1960 to 1997 which caused huge loss  
 of lives & properties in Bangladesh

Date of Occurrence	Nature of Phenomenon	Landfall Area	Maximum Wind Speed in kph.	Tidal Surge Height in ft	Central Pressure (mbs)	Loss/ Damage
1	2	3	4	5	6	7
11.10.60	Severe Cyclonic Storm	Chittagong	160	15	-	People Killed = 3000
31.10.60	Severe Cyclonic Storm	Chittagong	193	20	-	People Killed = 5149 70% buildings in Hatiya blown off, 2 large Ocean liners thrown on main land, 5-7 vessels capsized in Karnaphuly river
09.05.61	Severe Cyclonic Storm	Chittagong	160	8-10	-	People Killed = 11468
30.05.61	Severe Cyclonic Storm	Chittagong (Near Feni)	160	6-15	-	Damage report not available.
28.05.63	Severe Cyclonic Storm	Chittagong - Cox's Bazar	209	8-12	-	People Killed = 11520 Home stead lost = 1000000
11.05.65	Severe Cyclonic Storm	Chittagong -Barisal Coast	160	12	-	People Killed = 17279 In Barisal 14193 people were killed
05.11.65	Severe Cyclonic Storm	Chittagong	160	8-12	-	People Killed = 873 No. of salt beds damaged = 10000
15.12.65	Severe Cyclonic Storm	Cox's Bazar	210	8-10	-	Great loss of lives Fishermen missing = 1000
01.11.66	Severe Cyclonic Storm	Chittagong	120	20-22	-	People Killed = 850
23.10.70	Severe Cyclonic Storm of Hurricane intensity	Khulna- Barisal	163	Moderate	-	No heavy damage report received.
12.11.70	Severe Cyclonic Storm with a core of hurricane wind	Chittagong	224	10-33	-	People Killed= 300000(officially)  =500000(unofficially) The entire belt from Khulna to Chittagong and off-shore islands experienced hurricane wind for about 9 hours. A great number of animals were also killed.

Contd.....P/2.

1	2	3	4	5	6	7
28.11.74	Severe Cyclonic Storm	Cox's Bazar	163	9-17	-	People Killed = 20 People wounded = 50 People missing = 280 Cattle killed = 1000 No. of dwelling parished = 2300
10.12.81	Cyclonic Storm	Khulna	120	7-15	989	People Killed = 72
15.10.83	Cyclonic Storm	Chittagong	93	-	995	People Killed = 43 Fishermen missing = 100
09.11.83	Severe Cyclonic Storm	Cox's Bazar	136	5	986	Fishermen missing = 300
24.05.85	Severe Cyclonic Storm	Chittagong	154	15	982	People Killed = 4264 People missing = 6805 Affected area = 1906 sq. miles People affected = 1310935 Damaged to crops in acres = 132860 House damaged fully = 90915 House damaged partly = 34611 Livestock lost = 135033 Road damaged = 40 miles Embankment damaged fully = 53 miles Embankment damaged partly = 189 miles Trees damaged = 1200
29.11.88	Severe Cyclonic Storm with a core of hurricane wind	Khulna	160	2-14.5	983	People Killed = 6133 (Bangladesh & India) Deer killed = 15000 Royal Bengal Tiger killed = 9 Cattle heads = 65000 Crops damaged = 940 crores (Taka) Fishing equipments = 15 crores (Taka)
18.12.90	Cyclonic Storm (crossed as a depression)	Cox's Bazar Coast	115	5-7	995	Damage report not available.

Contd.....P/3.

1	2	3	4	5	6	7
29.04.91	Severe Cyclonic Storm with a core of hurricane wind	Chittagong	225	12-22	940	People Killed = 13882 People wounded = 1390540 No. of affected districts = 19 No. of affected Thana = 102 No. of affected Municipalities = 9 No. of affected Population = 10798275 Damage to crops fully = 133272 acres Damage to crops partly = 882705 " No. of house destroyed fully = 819608 " partly = 882705
02.05.94	Severe Cyclonic Storm with a core of hurricane wind	Cox's Bazar-Teknaf Coast	278	5-6	948	People Killed = 188 Affected unions = 64 Affected families = 98169 Affected people = 416000 Totally damaged dwelling houses = 45000 Partially " = 62677 Cattle & livestock = 7890 Crops lost (totally) = 21167 acres Crops lost (partially) = 33862 acres Salt beds damaged = 7527 acres Shrimp Project damaged = 5017 acres Barrage damaged = 126 kms Roads & Highways damaged = 350kms Forest Resources damaged = 2530051 trees (appox.) Educational & other Religious Institutions damaged = 725 Bridges damaged = 150
25.11.95	Severe Cyclonic Storm	Cox's Bazar	140	10	998	Damage report not available.

Contd....P/4.

1	2	3	4	5	6	7
19.05.97	Severe Cyclonic Storm with a core of hurricane wind	Sitakundu	232	15	965	People Killed = 155 People wounded = 9663 People affected = 2835472 Families affected = 541586 Districts affected = 10 Livestock killed = 3118 Houses damaged (fully) = 112160 Houses damaged (partly) = 99557 Crops damaged (fully) = 19173 acres Crops damaged (partly) = 78160 " Roads damaged (fully) = 53 kms Roads damaged (partly) = 162 kms Betel vines damaged = 60000 acres Shrimp Projects affected = 600 acres Embankment damaged = 6 kms Bridge & Culverts damaged = 165 Fishing Trawlers damaged = 26 Educational & Religious Institutions damaged = 1480 Cyclone Shelters damaged = 718 Salt washed away = 60000 maunds
27.09.97	Severe Cyclonic Storm with a core of hurricane wind	Sitakundu	150	10-15	-	People Killed = 78 People missing = 222 People affected = 2015669 People wounded = 2396 Family affected = 374583 Loss of cattle heads = 3196 Houses damaged (fully) = 51435 Houses damaged (partly) = 163352 Crops damaged (fully) = 16537 acres Crops damaged (partly) = 72662 " Bridge & Culverts damaged = 85 Educational & Religious Institutions damaged = 475 Roads damaged (fully) = 218 kms Roads damaged (partly) = 2379 kms Embankment damaged = 280 kms
20.05.98	Severe Cyclonic Storm with a core of hurricane winds	Chittagong Coast near Sita-Kundu	173	3		People Killed = 14 People wounded = 100 Fishermen missing = 100 Houses damaged = 10,000 Ships damaged = Two ships collided and one was damaged Micro-Wave Link = Micro-Wave Link at Singira was damaged at 0005 UTC on May 20, 1998. Trawlers missing at Chittagong = 32 Coasters/Tankers of BIWTC blown away over land = 13 Police Camp damaged at Bangladesh (Fully) = 12 Police Camp damaged at Bangladesh (Partially) = 03









JICA