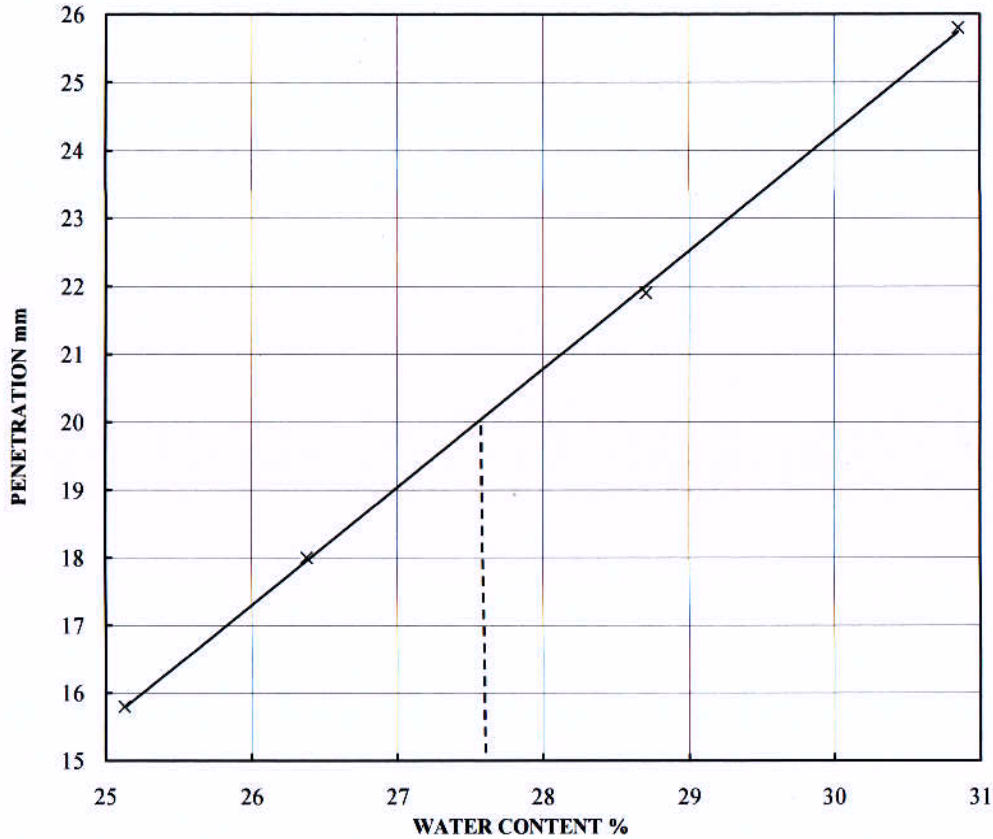


I.S. : 2720 : PART 5



HISTORY OF SAMPLE : Natural

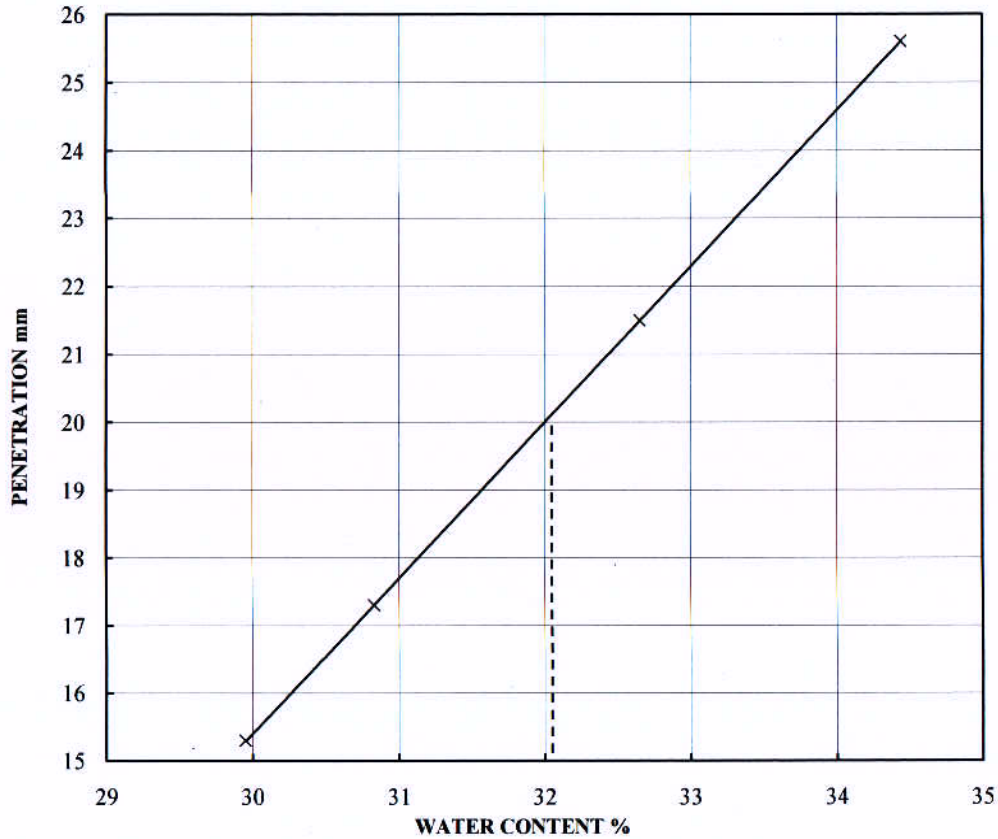
Percentage of passing 0.425mm B.S.Sieve =

	LIQUID LIMIT %				PLASTIC LIMIT %
Wet Weight + Tare (g)	27.32	26.30	29.05	25.62	
Dry Weight + Tare (g)	23.55	22.76	24.81	21.62	
Tare Weight (g)	8.57	9.34	10.04	8.65	NP
Water Content (%)	25.13	26.38	28.71	30.85	
Penetration (mm)	15.80	18.00	21.90	25.80	

LIQUID LIMIT (%) 28
 PLASTIC LIMIT (%) NP
 PLASTICITY INDEX (%)

Sample Type : UDS		Borehole No. BH-1, CH-34+920		Sample No: UDS-6	Depth (m): 17.00
XPLORER		Site Ref: Muzaffarnagar to Saharanpur		Job No : 1342	Test Report No: XPL/2015-16/02
Operator : <i>Bhupul</i>		Checked : <i>RE</i>		Authorised Signatory <i>[Signature]</i>	
Date : <i>22/07/2016</i>		Date: <i>28/3/16</i>		Date: <i>28/07/16</i>	

I.S. : 2720 : PART 5



HISTORY OF SAMPLE : Natural

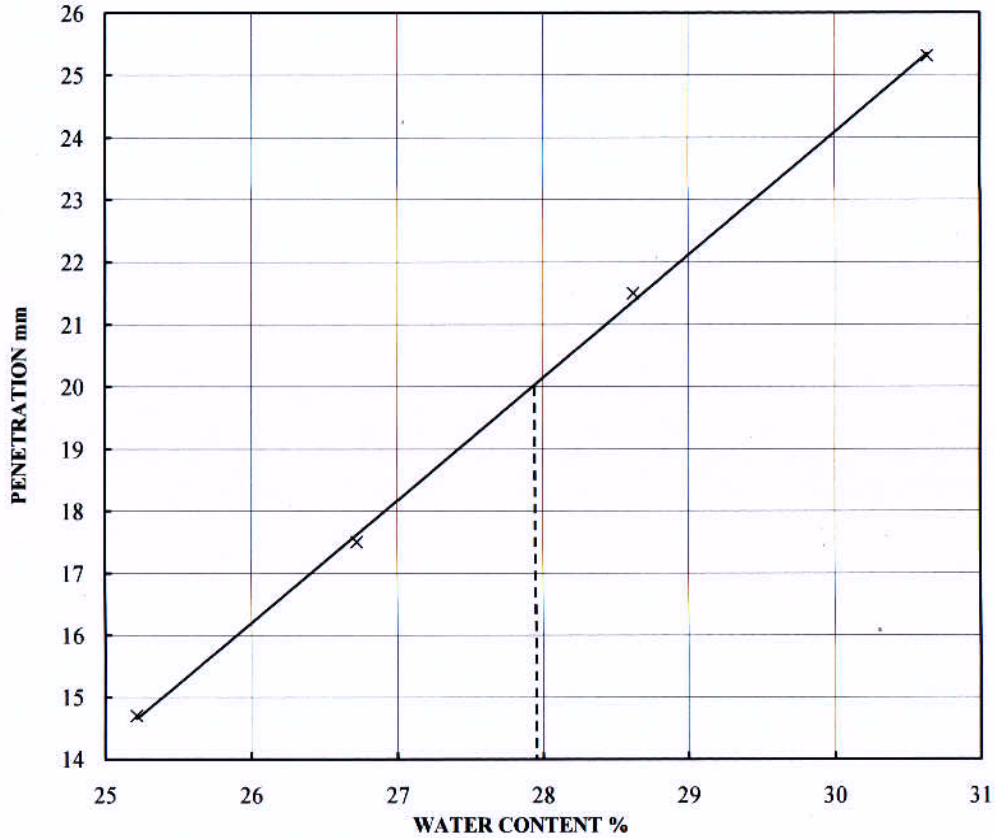
Percentage of passing 0.425mm B.S.Sieve =

	LIQUID LIMIT %				PLASTIC LIMIT %
Wet Weight + Tare (g)	23.24	24.79	28.39	25.64	
Dry Weight + Tare (g)	20.08	21.30	24.39	21.38	
Tare Weight (g)	9.53	9.98	12.14	9.00	NP
Water Content (%)	29.95	30.83	32.65	34.44	
Penetration (mm)	15.30	17.30	21.50	25.60	

LIQUID LIMIT (%) 32
 PLASTIC LIMIT (%) NP
 PLASTICITY INDEX (%)

Sample Type : UDS		Borehole No. BH-1, CH-36+585		Sample No: UDS-8	Depth (m): 23.00
XPLORER		Site Ref: Muzaffarnagar to Saharanpur		Job No : 1342	Test Report No: XPL/2015-16/02
Operator : <i>Bhopley</i>		Checked : <i>RS</i>		Authorised Signatory <i>[Signature]</i>	
Date : <i>22/3/2016</i>		Date: <i>28/3/16</i>		Date: <i>28/3/16</i>	

I.S. : 2720 : PART 5



HISTORY OF SAMPLE : Natural

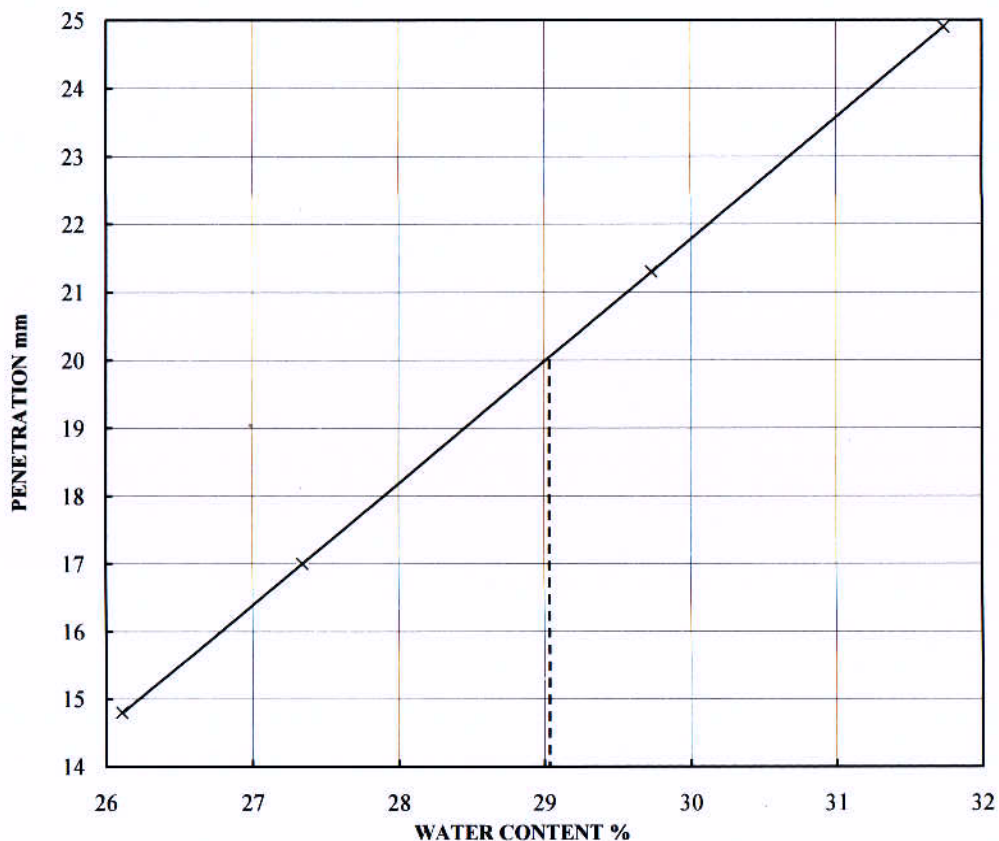
Percentage of passing 0.425mm B.S.Sieve =

	LIQUID LIMIT %				PLASTIC LIMIT %
	30.14	28.54	30.55	32.14	
Wet Weight + Tare (g)	30.14	28.54	30.55	32.14	
Dry Weight + Tare (g)	26.04	24.43	25.77	26.95	
Tare Weight (g)	9.78	9.05	9.07	10.01	NP
Water Content (%)	25.22	26.72	28.62	30.64	
Penetration (mm)	14.70	17.50	21.50	25.30	

LIQUID LIMIT (%) 28
 PLASTIC LIMIT (%) NP
 PLASTICITY INDEX (%)

Sample Type : SPT		Borehole No. BH-2, CH-36+585		Sample No: SPT-1	Depth (m): 1.50
XPLORER		Site Ref: Muzaffarnagar to Saharanpur		Job No : 1342	Test Report No: XPL/2015-16/02
Operator : <i>Bhaguet</i>		Checked : <i>RSE</i>		Authorised Signatory <i>A. D. Singh</i>	
Date : <i>22/3/2016</i>		Date: <i>28/3/16</i>		Date: <i>28/8/16</i>	

I.S. : 2720 : PART 5



HISTORY OF SAMPLE : Natural

Percentage of passing 0.425mm B.S.Sieve =

	LIQUID LIMIT %				PLASTIC LIMIT %
Wet Weight + Tare (g)	25.38	30.04	28.74	29.01	
Dry Weight + Tare (g)	22.18	25.34	24.31	24.32	
Tare Weight (g)	9.91	8.15	9.41	9.56	NP
Water Content (%)	26.11	27.34	29.73	31.74	
Penetration (mm)	14.80	17.00	21.30	24.90	

LIQUID LIMIT (%) 29
 PLASTIC LIMIT (%) NP
 PLASTICITY INDEX (%)

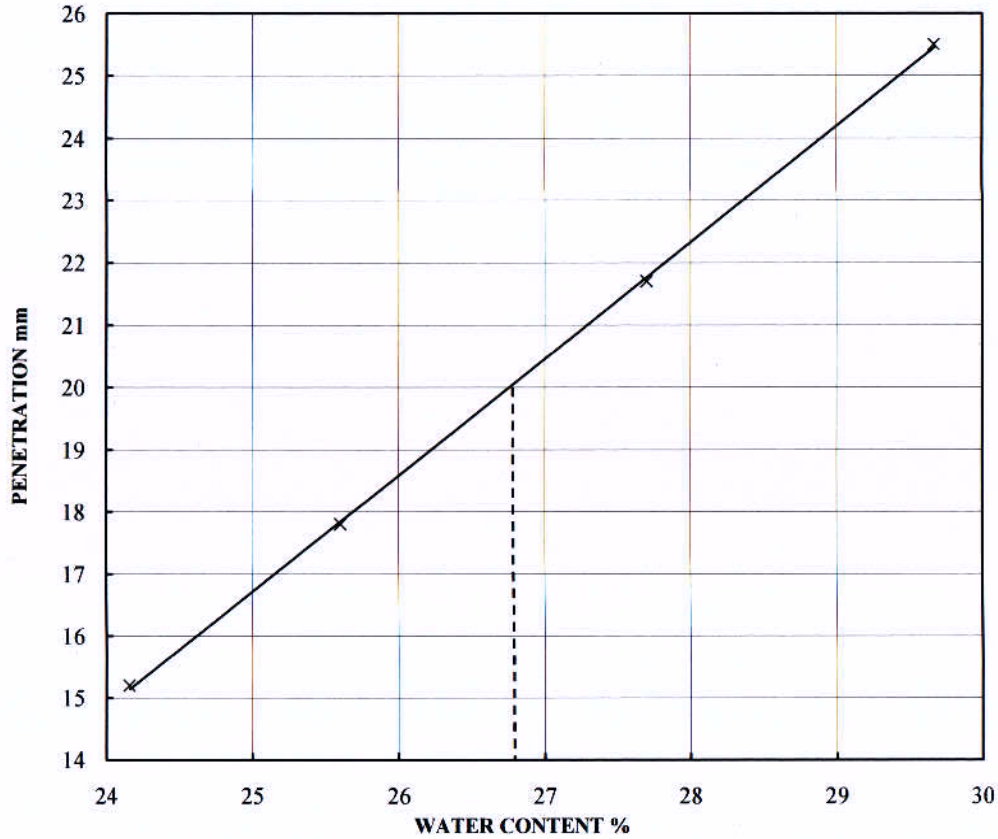
Sample Type : UDS

Borehole No. BH-2, CH-36+585 Sample No: UDS-7 Depth (m): 20.00

XPLORER Site Ref: Muzaffarnagar to Saharanpur Job No : 1342
 Test Report No: XPL/2015-16/02

Operator : *Bhagya* Checked : *AK* Authorised Signatory *[Signature]*
 Date : 22/07/2016 Date: 28/3/16 Date: 28/07/16

I.S. : 2720 : PART 5



HISTORY OF SAMPLE :

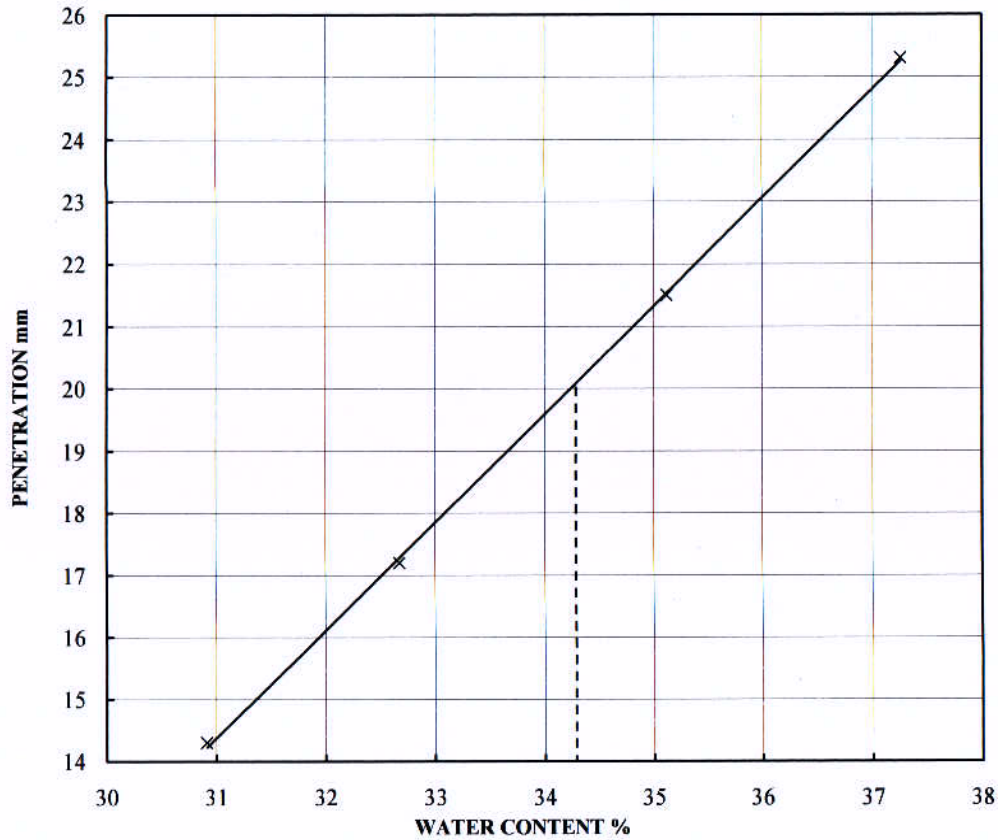
Percentage of passing 0.425mm B.S.Sieve = 88%

	LIQUID LIMIT %				PLASTIC LIMIT %
Wet Weight + Tare (g)	26.87	29.18	28.25	29.14	
Dry Weight + Tare (g)	23.57	25.15	23.89	24.66	
Tare Weight (g)	9.91	9.41	8.15	9.56	NP
Water Content (%)	24.16	25.60	27.70	29.67	
Penetration (mm)	15.20	17.80	21.70	25.50	

LIQUID LIMIT (%) 27
 PLASTIC LIMIT (%) NP
 PLASTICITY INDEX (%)

Sample Type : <i>Bridge</i> SPT		
Borehole No. BH-1, CH-15+800	Sample No: SPT-1	Depth (m): 1.50
XPLORER	Site Ref: Muzaffarnagar to Saharanpur	Job No : 1342
		Test Report No: XPL/2015-16/02
Operator : <i>Bhojraj</i>	Checked : <i>RNE</i>	Authorised Signatory <i>[Signature]</i>
Date : <i>23/2016</i>	Date: <i>28/3/16</i>	Date: <i>28/3/16</i>

I.S. : 2720 : PART 5



HISTORY OF SAMPLE :

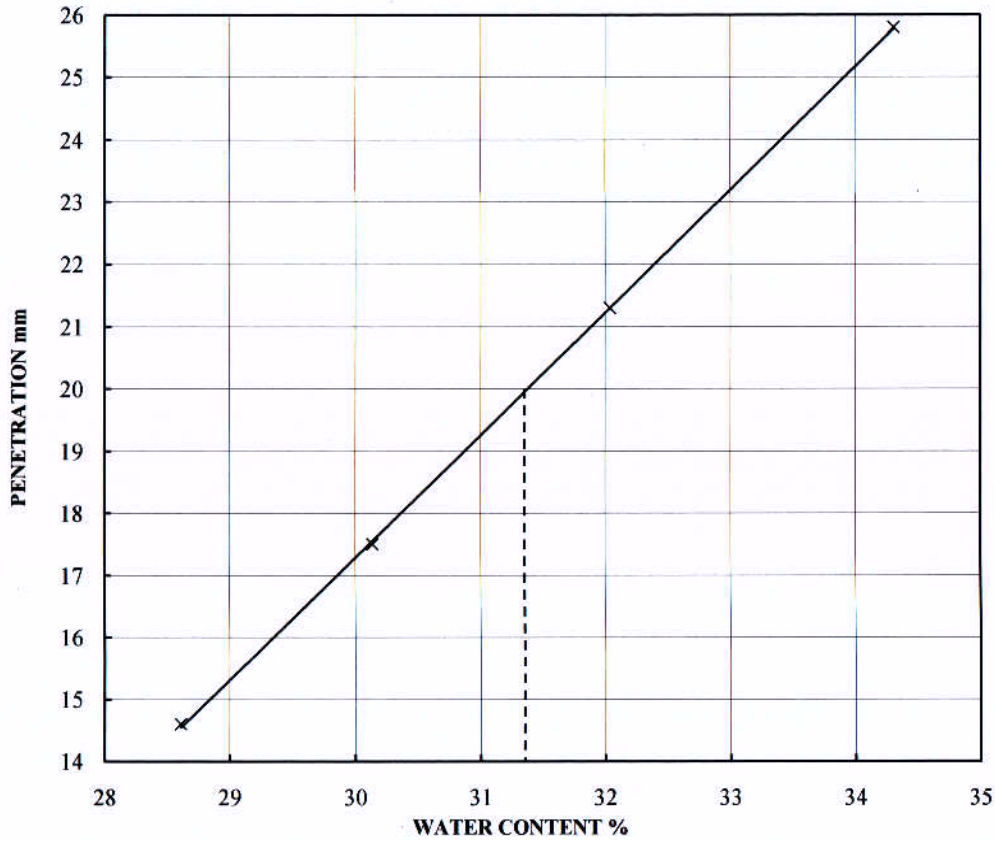
Percentage of passing 0.425mm B.S.Sieve = 90%

	LIQUID LIMIT %				PLASTIC LIMIT %	
	27.48	29.13	30.18	26.87	20.54	21.33
Wet Weight + Tare (g)	27.48	29.13	30.18	26.87	20.54	21.33
Dry Weight + Tare (g)	23.48	24.33	24.61	22.19	18.72	19.28
Tare Weight (g)	10.54	9.64	8.75	9.63	10.04	9.56
Water Content (%)	30.91	32.68	35.12	37.26	20.97	21.09
Penetration (mm)	14.30	17.20	21.50	25.30		

LIQUID LIMIT (%) 34
 PLASTIC LIMIT (%) 21
 PLASTICITY INDEX (%) 13

Sample Type : SPT <i>Bridge No-53</i>		Depth (m): 25.50	
Borehole No. BH-1, CH-15+800	Sample No: SPT-17		
XPLORER	Site Ref: Muzaffarnagar to Saharanpur	Job No : 1342	Test Report No: XPL/2015-16/02
Operator : <i>Bhawal</i>	Checked : <i>RC</i>	Authorised Signatory <i>[Signature]</i>	
Date : <i>23/3/2016</i>	Date: <i>28/3/16</i>	Date: <i>28/07/16</i>	

I.S. : 2720 : PART 5



HISTORY OF SAMPLE :

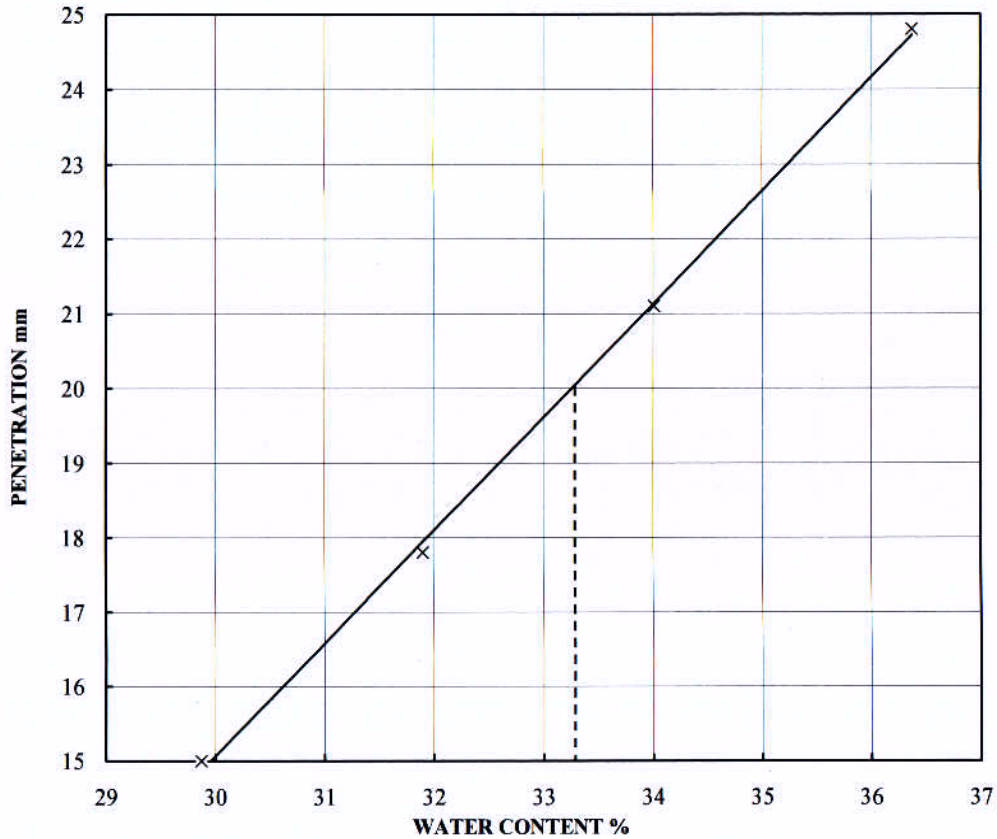
Percentage of passing 0.425mm B.S.Sieve = 87%

	LIQUID LIMIT %				PLASTIC LIMIT %
Wet Weight + Tare (g)	28.32	26.78	28.25	30.25	
Dry Weight + Tare (g)	24.28	22.69	23.71	24.85	
Tare Weight (g)	10.16	9.11	9.54	9.10	NP
Water Content (%)	28.61	30.14	32.04	34.31	
Penetration (mm)	14.60	17.50	21.30	25.80	

LIQUID LIMIT (%) 31
 PLASTIC LIMIT (%) NP
 PLASTICITY INDEX (%)

Sample Type : SPT <i>Bridge No-53</i>		Depth (m): 1.50	
Borehole No. BH-2, CH-15+800	Sample No: SPT-1		
XPLORER	Site Ref: Muzaffarnagar to Saharanpur	Job No : 1342	Test Report No: XPL/2015-16/02
Operator : <i>Bhoyur</i>	Checked : <i>RE</i>	Authorised Signatory <i>[Signature]</i>	
Date : <i>23/3/16</i>	Date: <i>28/3/16</i>	Date: <i>28/3/16</i>	

I.S. : 2720 : PART 5



HISTORY OF SAMPLE :

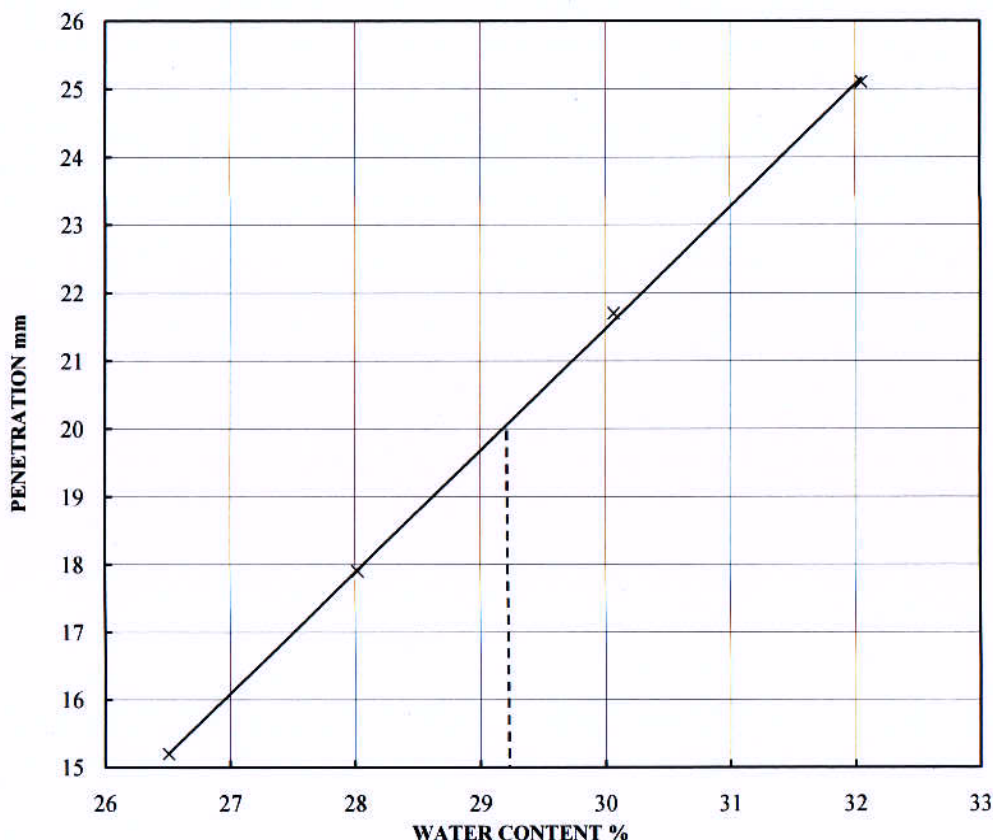
Percentage of passing 0.425mm B.S.Sieve = 86%

	LIQUID LIMIT %				PLASTIC LIMIT %	
	30.18	28.97	27.63	29.88	21.13	20.64
Wet Weight + Tare (g)	30.18	28.97	27.63	29.88	21.13	20.64
Dry Weight + Tare (g)	25.32	24.36	23.10	24.58	18.85	18.51
Tare Weight (g)	9.05	9.91	9.78	10.01	9.07	9.41
Water Content (%)	29.87	31.90	34.01	36.38	23.31	23.41
Penetration (mm)	15.00	17.80	21.10	24.80		

LIQUID LIMIT (%) 33
 PLASTIC LIMIT (%) 23
 PLASTICITY INDEX (%) 10

Sample Type : SPT		<i>Bridge No-53</i>	
Borehole No. BH-2, CH-15+800	Sample No: SPT-17	Depth (m): 25.50	
XPLORER	Site Ref: Muzaffarnagar to Saharanpur	Job No : 1342	Test Report No: XPL/2015-16/02
Operator : <i>Bhargava</i>	Checked : <i>R/E</i>	Authorised Signatory <i>[Signature]</i>	
Date : <i>28/3/16</i>	Date: <i>28/3/16</i>	Date: <i>28/3/16</i>	

I.S. : 2720 : PART 5



HISTORY OF SAMPLE : Natural

Percentage of passing 0.425mm B.S.Sieve =

	LIQUID LIMIT %				PLASTIC LIMIT %
Wet Weight + Tare (g)	21.46	22.56	25.27	22.16	
Dry Weight + Tare (g)	19.09	19.50	21.74	18.92	
Tare Weight (g)	10.16	8.58	10.00	8.81	NP
Water Content (%)	26.51	28.02	30.07	32.05	
Penetration (mm)	15.20	17.90	21.70	25.10	

LIQUID LIMIT (%) 29
 PLASTIC LIMIT (%) NP
 PLASTICITY INDEX (%)

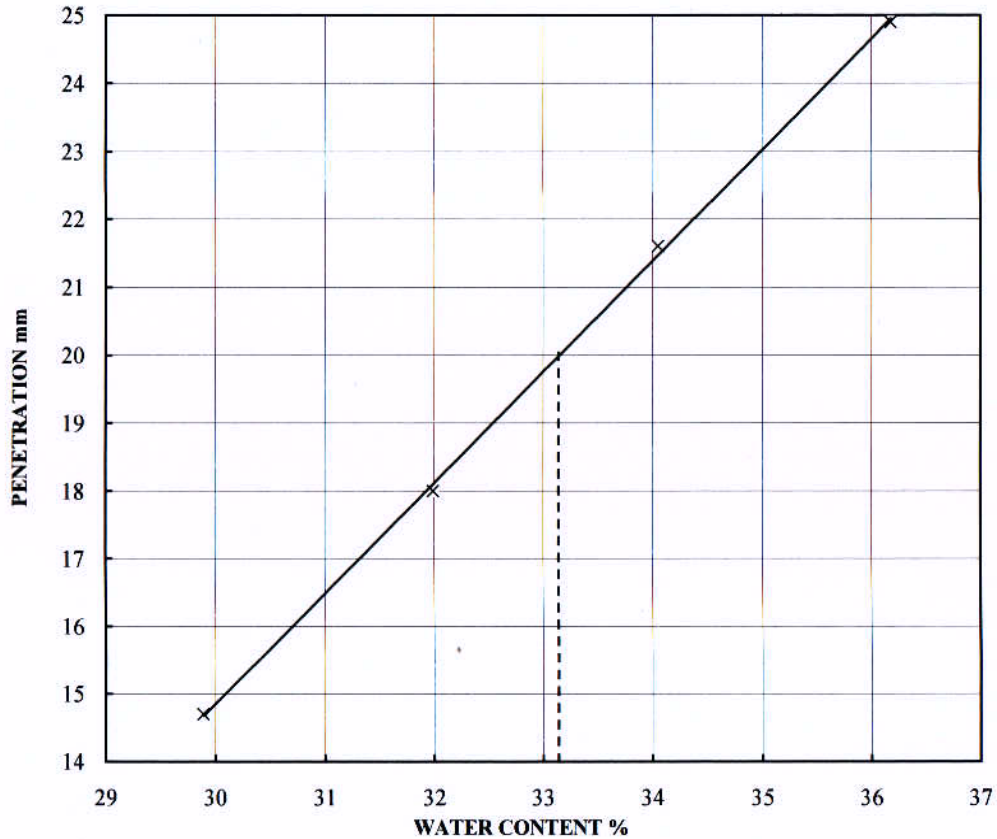
Sample Type : UDS

Borehole No. BH-1, CH-38+930 Sample No: UDS-1 Depth (m): 2.00

XPLORER Site Ref: Muzaffarnagar to Saharanpur Job No : 1342
 Test Report No: XPL/2015-16/02

Operator : <i>Bhupay</i>	Checked : <i>RE</i>	Authorised Signatory : <i>[Signature]</i>
Date : <i>23/3/2016</i>	Date: <i>28/3/16</i>	Date: <i>28/3/16</i>

I.S. : 2720 : PART 5



HISTORY OF SAMPLE :

Percentage of passing 0.425mm B.S.Sieve = 92%

	LIQUID LIMIT %				PLASTIC LIMIT %	
	24.36	24.87	29.05	30.22	20.87	21.04
Wet Weight + Tare (g)	24.36	24.87	29.05	30.22	20.87	21.04
Dry Weight + Tare (g)	21.00	21.24	24.21	24.60	18.79	19.03
Tare Weight (g)	9.78	9.91	10.01	9.07	9.05	9.54
Water Content (%)	29.89	31.99	34.05	36.18	21.36	21.18
Penetration (mm)	14.70	18.00	21.60	24.90		

LIQUID LIMIT (%) 33
 PLASTIC LIMIT (%) 21
 PLASTICITY INDEX (%) 12

Sample Type : UDS	
Borehole No. BH-1, CH-38+930	Sample No: UDS-4
Depth (m): 11.00	
XPLORER	Site Ref: Muzaffarnagar to Saharanpur
Job No : 1342	
Test Report No: XPL/2015-16/02	
Operator : <i>Bhargava</i>	Checked : <i>RSE</i>
Date : <i>23/3/2016</i>	Date: <i>28/3/16</i>
Authorised Signatory <i>[Signature]</i>	
Date: <i>28/3/16</i>	

SPECIFIC GRAVITY
(IS 2720 : PART 3/ SEC 1 : 1980)

PROJECT : Geotechnical Investigation Works For Muzaffarnagar to Saharanpur
Section of DFCC Meerut

SITE REF: Muzaffarnagar to Saharanpur

Job No. 1342

Test Report No: XPL/2015-16/02

BH No :- 1 Sample No :-SPT-6 Depth(m) 9.00
Chainage 6550

Test No :	1	2
ρ_s Bottle No :	SG-12	SG-15
Mass of ρ_s bottle with stopper, M1	38.67	36.05
Mass of ρ_s bottle with Stopper & Soil, M2	48.66	46.04
Mass of ρ_s bottle with Stopper, Soil & Distilled Water, M3	86.98	94.25
Mass of ρ_s bottle with Stopper & Distilled Water, M4	80.74	88.01
$\rho_s = \frac{(M2 - M1)}{(M4 - M1) - (M3 - M2)}$	2.66	2.66

Average Specific Gravity : 2.66

BH No :- 2 Sample No :-SPT-1 Depth(m) 1.50
Chainage 6550

Test No :	1	2
ρ_s Bottle No :	SG-16	SG-17
Mass of ρ_s bottle with stopper, M1	32.62	33.02
Mass of ρ_s bottle with Stopper & Soil, M2	42.62	43.02
Mass of ρ_s bottle with Stopper, Soil & Distilled Water, M3	90.88	90.95
Mass of ρ_s bottle with Stopper & Distilled Water, M4	84.65	84.77
$\rho_s = \frac{(M2 - M1)}{(M4 - M1) - (M3 - M2)}$	2.65	2.62

Average Specific Gravity : 2.64


Operator :



Checked :



Authorised signatory



Date :

18/3/16

Date :

28/3/16

Date :

28/3/16

PROJECT : Geotechnical Investigation Works For Muzaffarnagar to Saharanpur
Section of DFCC Meerut

SITE REF: **Muzaffarnagar to Saharanpur**

Job No. 1342

Test Report No: XPL/2015-16/02

BH No :- 1 Sample No :-SPT-4 Depth(m) 6.00
Chainage 5322

Test No :	1	2
ρ_s Bottle No :	SG-18	SG-20
Mass of ρ_s bottle with stopper, M1	39.5	43.18
Mass of ρ_s bottle with Stopper & Soil, M2	49.5	53.18
Mass of ρ_s bottle with Stopper, Soil & Distilled Water, M3	94.23	93.28
Mass of ρ_s bottle with Stopper & Distilled Water, M4	88.00	87.07
$\rho_s = \frac{(M2 - M1)}{(M4 - M1) - (M3 - M2)}$	2.65	2.64

Average Specific Gravity : 2.65

BH No :-1 Sample No :-UDS-4 Depth(m) 11.00
Chainage 1790

Test No :	1	2
ρ_s Bottle No :	SG-21	SG-23
Mass of ρ_s bottle with stopper, M1	37.29	32.82
Mass of ρ_s bottle with Stopper & Soil, M2	47.28	42.82
Mass of ρ_s bottle with Stopper, Soil & Distilled Water, M3	91.75	88.64
Mass of ρ_s bottle with Stopper & Distilled Water, M4	85.51	82.41
$\rho_s = \frac{(M2 - M1)}{(M4 - M1) - (M3 - M2)}$	2.66	2.65

Average Specific Gravity : 2.66

Operator :



Checked :



Authorised signatory



Date :

15/3/16

Date :

28/3/16

Date :

28/3/16

PROJECT : Geotechnical Investigation Works For Muzaffarnagar to Saharanpur
Section of DFCC Meerut

SITE REF: Muzaffarnagar to Saharanpur

Job No. 1342

Test Report No: XPL/2015-16/02

BH No :- 2 Sample No :-UDS-6 Depth(m) 17.00

Chainage 1790

Test No :	1	2
ρ_s Bottle No :	SG-21	SG-23
Mass of ρ_s bottle with stopper, M1	37.29	32.82
Mass of ρ_s bottle with Stopper & Soil, M2	47.28	42.82
Mass of ρ_s bottle with Stopper, Soil & Distilled Water, M3	91.78	88.70
Mass of ρ_s bottle with Stopper & Distilled Water, M4	85.52	82.40
$\rho_s = \frac{(M2 - M1)}{(M4 - M1) - (M3 - M2)}$	2.68	2.70

Average Specific Gravity : 2.69

BH No :- 1 Sample No :-SPT-4 Depth(m) 6.00

Chainage 2286

Test No :	1	2
ρ_s Bottle No :	SG-16	SG-17
Mass of ρ_s bottle with stopper, M1	32.62	33.02
Mass of ρ_s bottle with Stopper & Soil, M2	42.61	43.02
Mass of ρ_s bottle with Stopper, Soil & Distilled Water, M3	90.53	90.64
Mass of ρ_s bottle with Stopper & Distilled Water, M4	84.29	84.43
$\rho_s = \frac{(M2 - M1)}{(M4 - M1) - (M3 - M2)}$	2.66	2.64

Average Specific Gravity : 2.65

Operator :



Date :

15/2/16

Checked :



Date :

28/3/16

Authorised signatory



Date :

28/07/16

PROJECT : Geotechnical Investigation Works For Muzaffarnagar to Saharanpur
Section of DFCC Meerut

SITE REF: Muzaffarnagar to Saharanpur

Job No. 1342

Test Report No: XPL/2015-16/02

BH No :- 1 Sample No :-UDS-1 Depth(m) 2.00

Chainage 33+310

Test No :	1	2
ρ_s Bottle No :	SG-21	SG-23
Mass of ρ_s bottle with stopper, M1	37.86	35.09
Mass of ρ_s bottle with Stopper & Soil, M2	47.86	45.02
Mass of ρ_s bottle with Stopper, Soil & Distilled Water, M3	93.02	91.23
Mass of ρ_s bottle with Stopper & Distilled Water, M4	86.80	85.07
$\rho_s = \frac{(M2 - M1)}{(M4 - M1) - (M3 - M2)}$	2.64	2.63

Average Specific Gravity : 2.64

BH No :- 1 Sample No :-UDS-1 Depth(m) 2.00

Chainage 34+920

Test No :	1	2
ρ_s Bottle No :	SG-24	SG-25
Mass of ρ_s bottle with stopper, M1	42.02	24.13
Mass of ρ_s bottle with Stopper & Soil, M2	52.02	34.13
Mass of ρ_s bottle with Stopper, Soil & Distilled Water, M3	97.47	75.56
Mass of ρ_s bottle with Stopper & Distilled Water, M4	91.20	69.33
$\rho_s = \frac{(M2 - M1)}{(M4 - M1) - (M3 - M2)}$	2.68	2.65

Average Specific Gravity : 2.67

Operator :


17/3/16

Date :

Checked :


28/3/16

Date :

Authorised signatory



Date : 28/3/16

**PROJECT : Geotechnical Investigation Works For Muzaffarnagar to Saharanpur
Section of DFCC Meerut**

SITE REF: Muzaffarnagar to Saharanpur Job No. 1342

Test Report No: XPL/2015-16/02

BH No :- 1 Sample No :-SPT-1 Depth(m) 1.50
Chainage 36+585

Test No :	1	2
ρ_s Bottle No :	SG-17	SG-18
Mass of ρ_s bottle with stopper, M1	33.55	40.13
Mass of ρ_s bottle with Stopper & Soil, M2	43.55	50.13
Mass of ρ_s bottle with Stopper, Soil & Distilled Water, M3	92.36	95.57
Mass of ρ_s bottle with Stopper & Distilled Water, M4	86.16	89.42
$\rho_s = \frac{(M2 - M1)}{(M4 - M1) - (M3 - M2)}$	2.63	2.60

Average Specific Gravity : 2.62

BH No :- 2 Sample No :-SPT-8 Depth(m) 12.00
Chainage 36+585

Test No :	1	2
ρ_s Bottle No :	SG-21	SG-23
Mass of ρ_s bottle with stopper, M1	37.86	35.02
Mass of ρ_s bottle with Stopper & Soil, M2	47.85	45.03
Mass of ρ_s bottle with Stopper, Soil & Distilled Water, M3	93.05	75.56
Mass of ρ_s bottle with Stopper & Distilled Water, M4	86.89	69.38
$\rho_s = \frac{(M2 - M1)}{(M4 - M1) - (M3 - M2)}$	2.61	2.62


Average Specific Gravity : 2.61

Operator :


17/3/16


Date :

Checked :


28/3/16

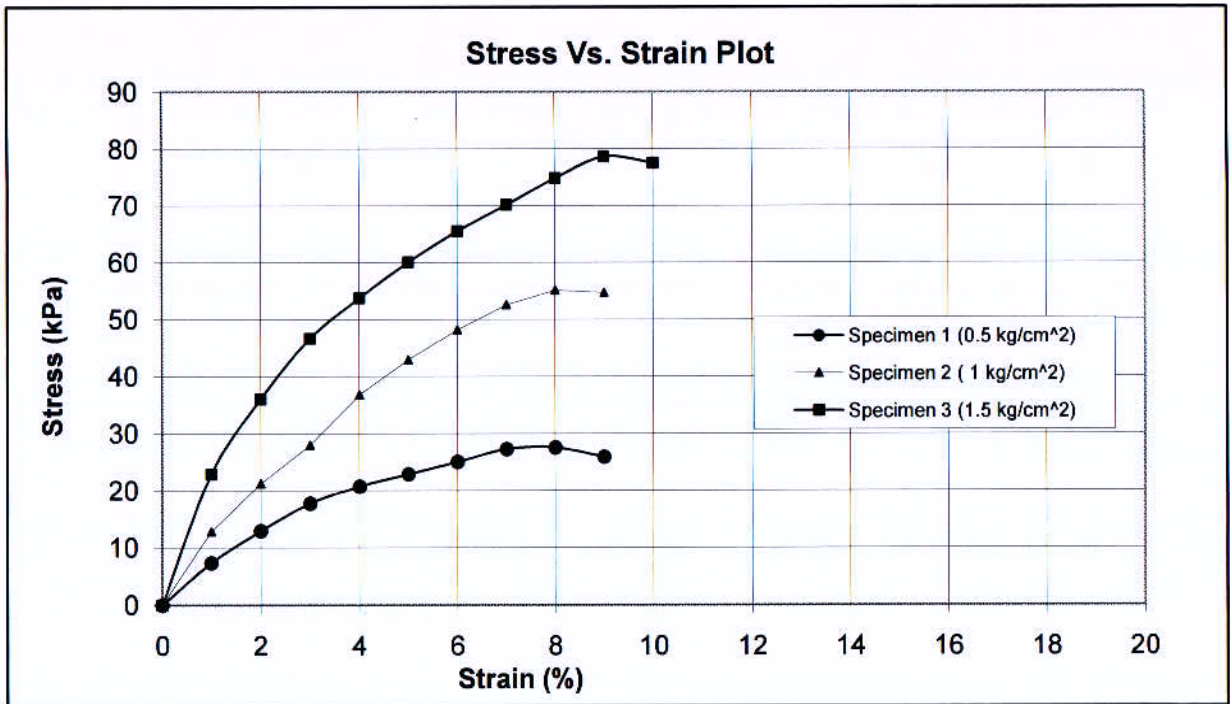
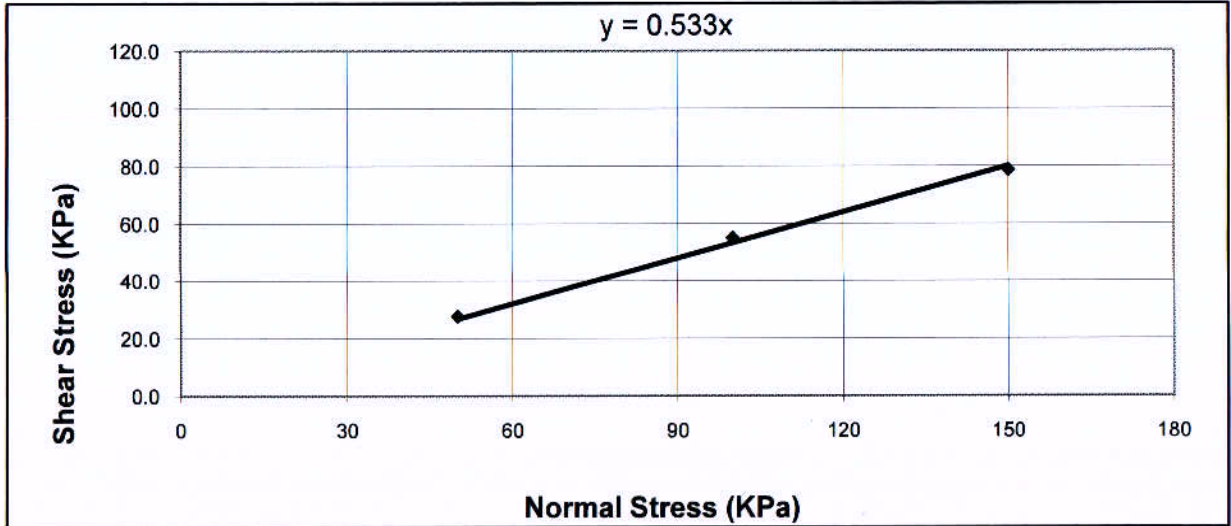
Date :

Authorised signatory



Date : 28/03/16

DIRECT SHEAR TEST RESULT
I.S.: 2720 : PART XIII



Sample Details

Dry-density, (mg/m³) = 1.55
Brownish Sandy SILT (ML)

Test Result

$c = 0.0$ kPa
 $\phi = 28.0^\circ$

BH No: 1	Chainage 2010	Sample No.: SPT-1	Depth (m): 1.50
Site Ref: Muzaffarnagar to Saharanpur	Job No: 1342		Test Report No: XPL/2015-16/02

Tested by:

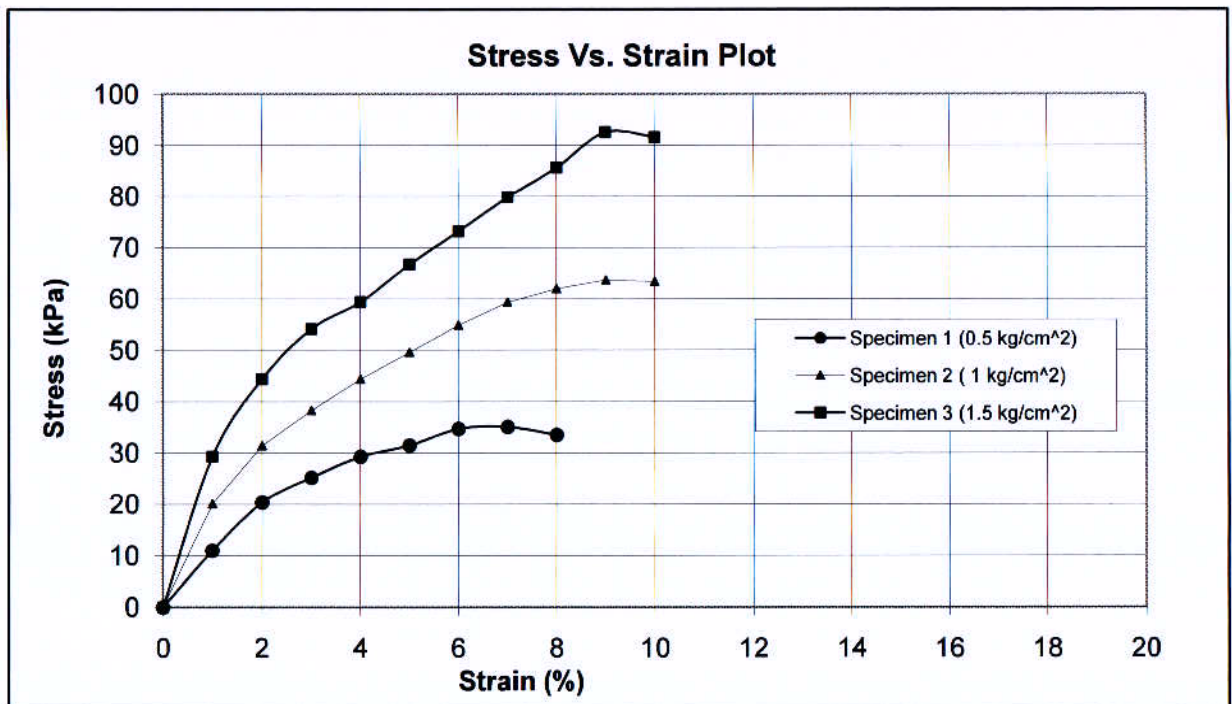
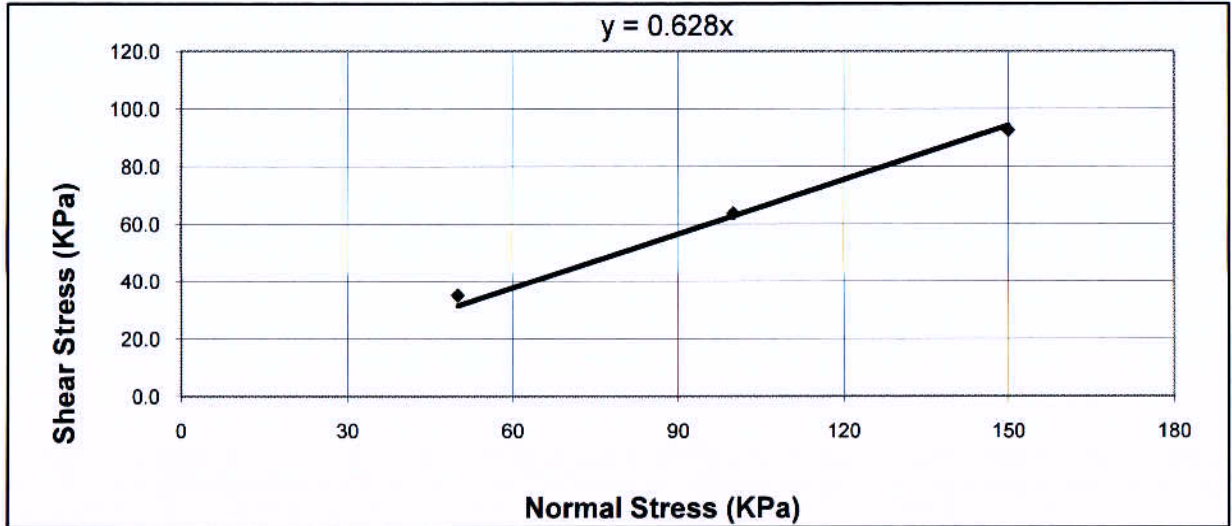
Checked by:

Authorised Signatory:

Date: 15/3/16

Date: 28/3/16

Date: 28/3/16



Sample Details

Dry-density, (mg/m³) = 1.72
Greyish Poorly Graded SAND (SP)

Test Result

$c = 0.0$ kPa
 $\phi = 32.1^\circ$

BH No: 1	Chainage 2010	Sample No.: SPT-10	Depth (m): 15.00
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:

Date: 15/8/16

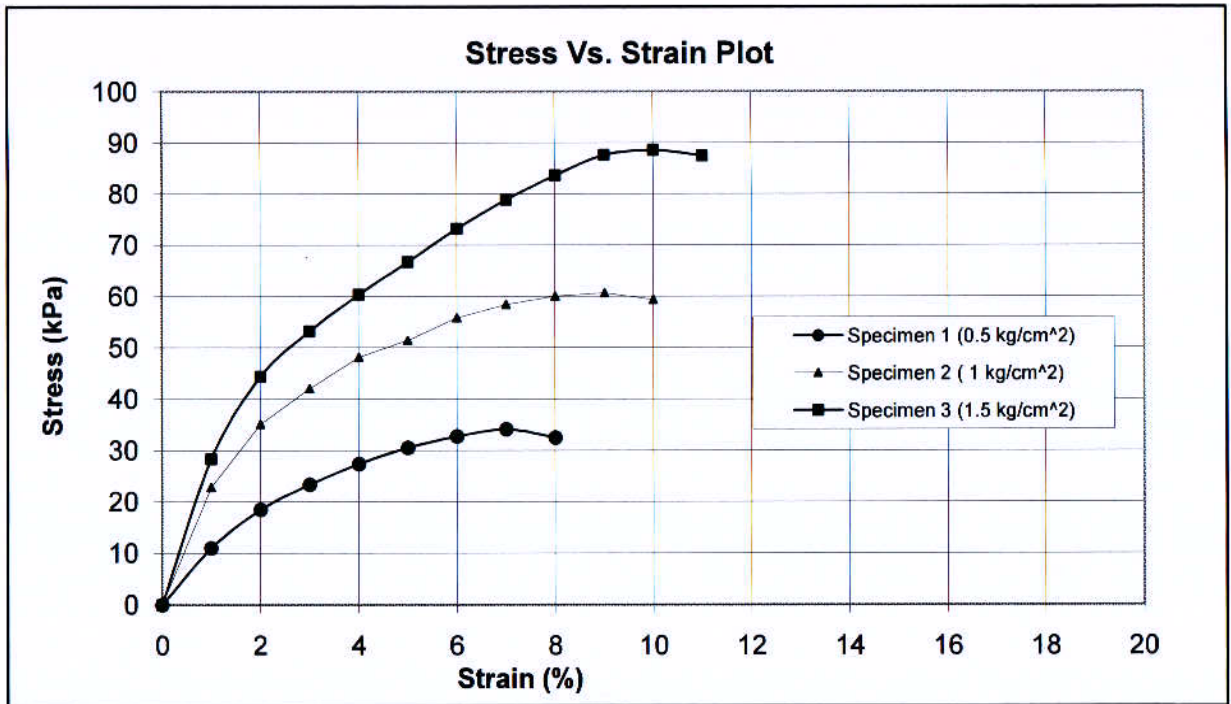
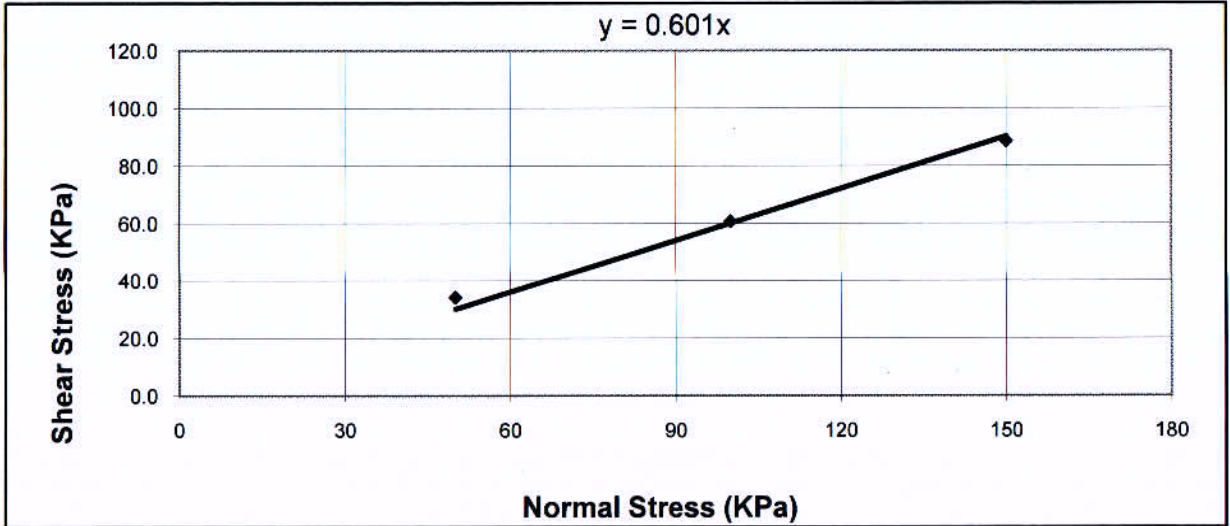
Checked by:

Date: 28/8/16

Authorised Signatory:

Date: 28/8/16

DIRECT SHEAR TEST RESULT
I.S.: 2720 : PART XIII



Sample Details

Dry-density, (mg/m³) = 1.62
Brownish Silty SAND (SM)

Test Result

$c = 0.0$ kPa
 $\phi = 31.0^\circ$

BH No: 1	Chainage 1980	Sample No.: SPT-1	Depth (m): 1.50
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:

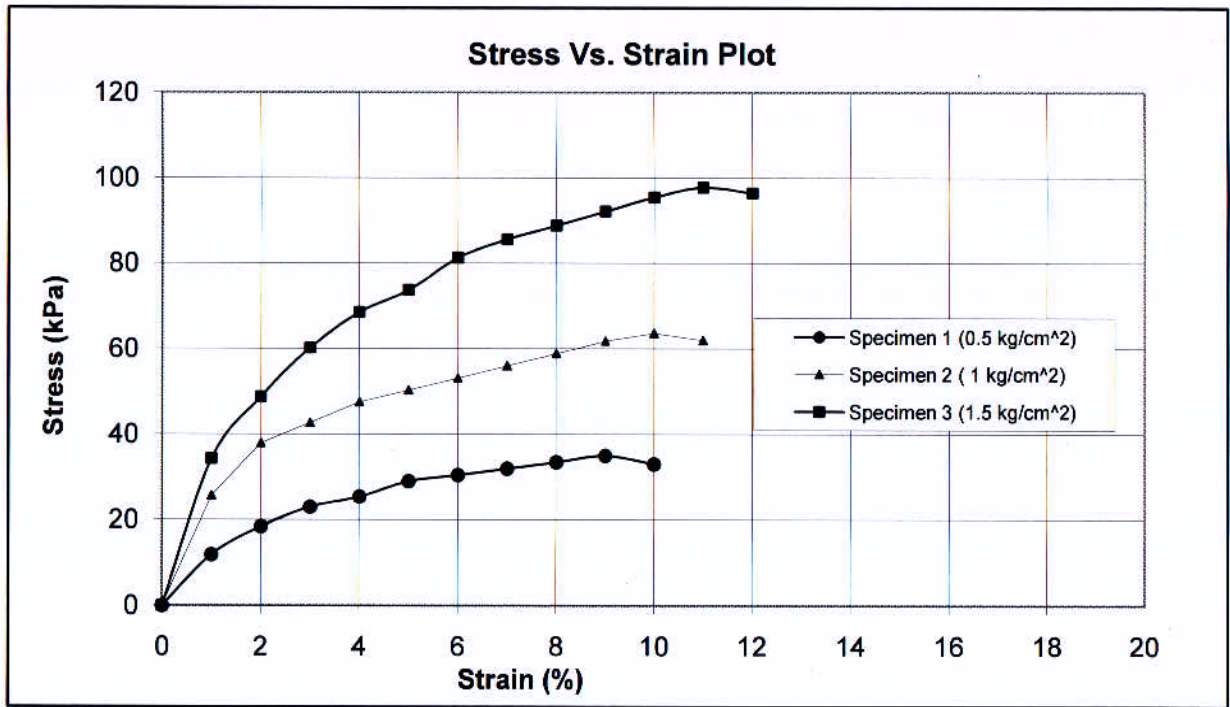
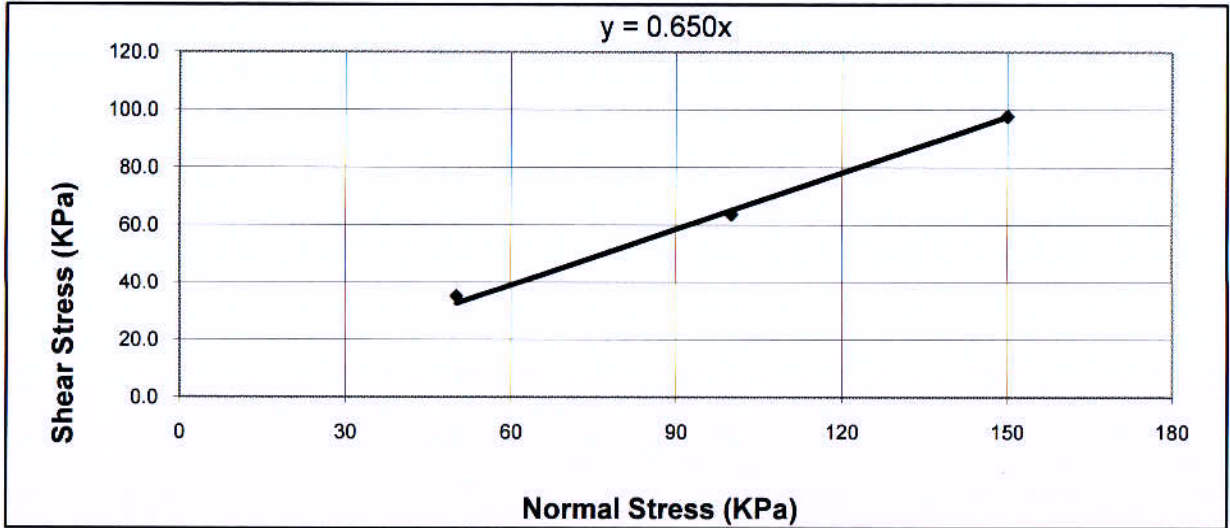
[Signature]
Date: 15/03/16

Checked by:

[Signature]
Date: 28/3/16

Authorised Signatory:

[Signature]
Date: 28/3/16



Sample Details

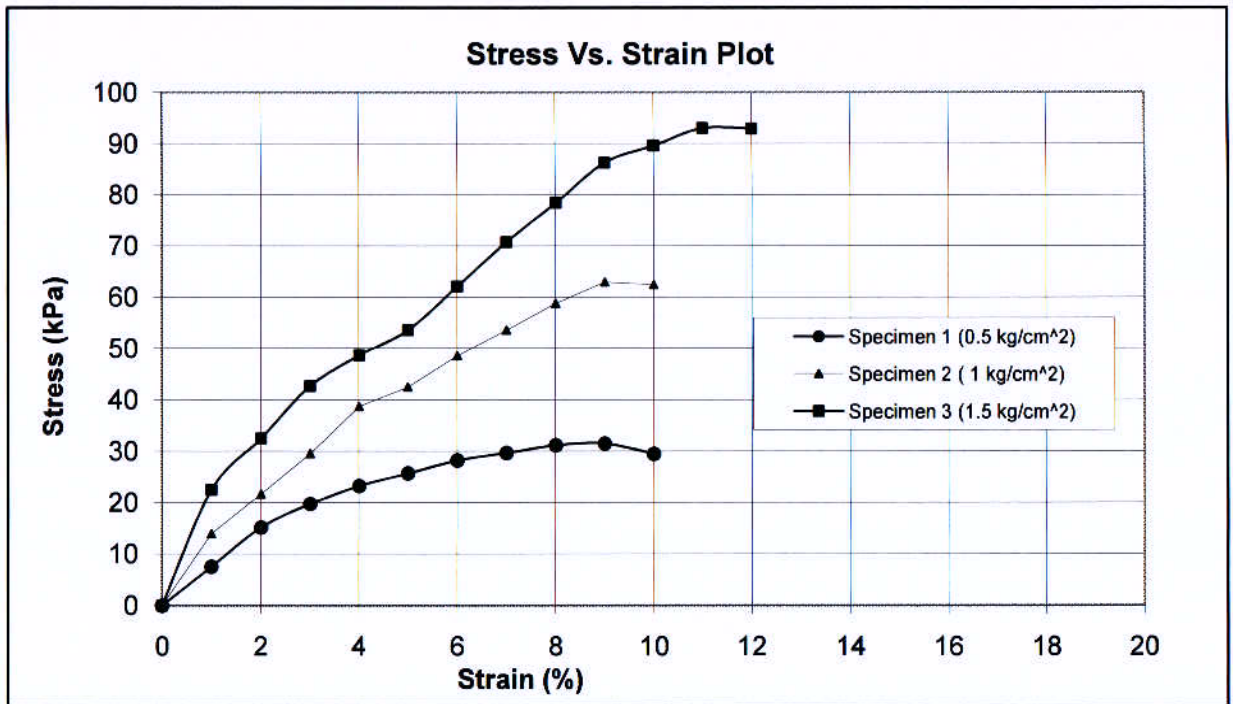
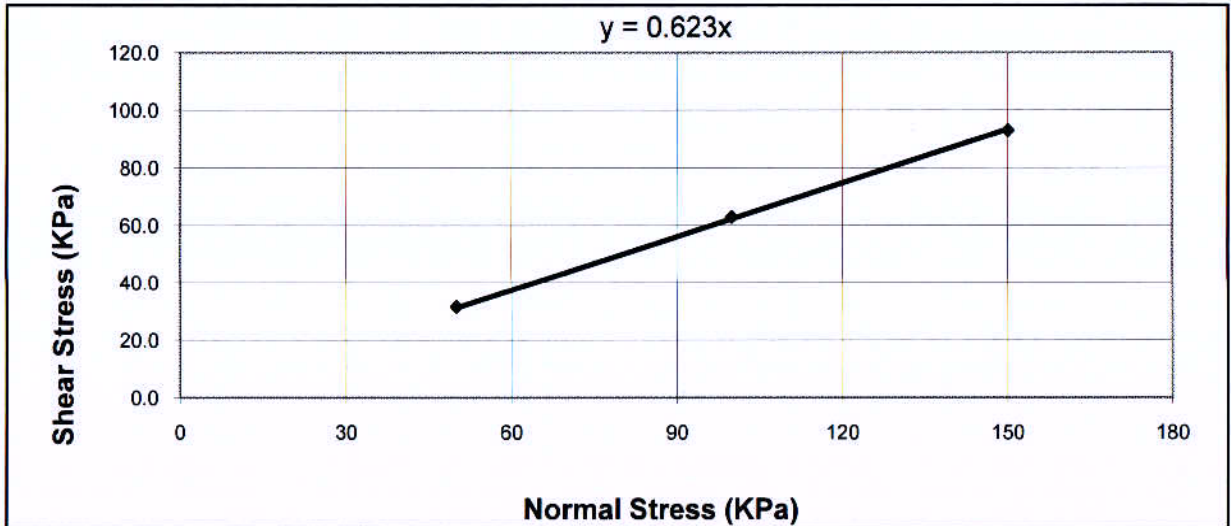
Dry-density, (mg/m³) = 1.72
Poorly Graded SAND (SP)

Test Result

c = 0.0 kPa
φ = 33.0 °

BH No: 1	Chainage 1980	Sample No.: SPT-10	Depth (m): 15.00
Site Ref: Muzaffarnagar to Saharanpur		Job No : 1342	
Test Report No: XPL/2015-16/02			

Tested by:	Checked by:	Authorised Signatory:
Date: 16/3/16	Date: 28/3/16	Date: 28/3/16






Sample Details

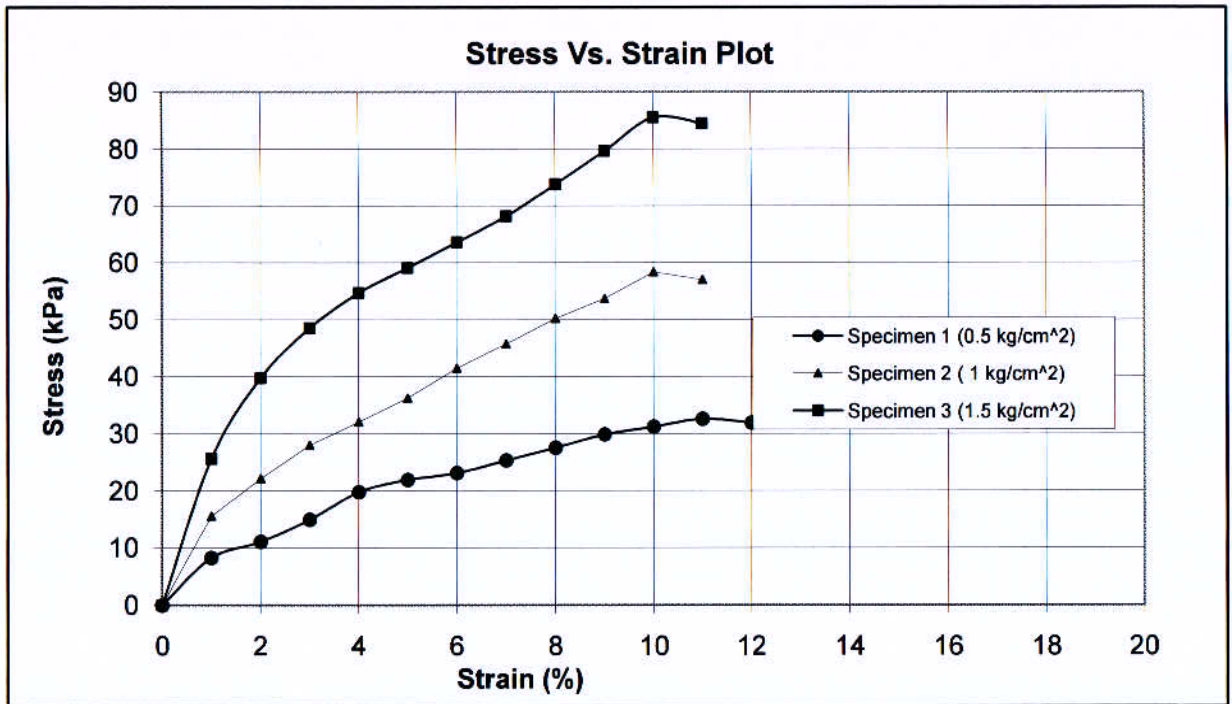
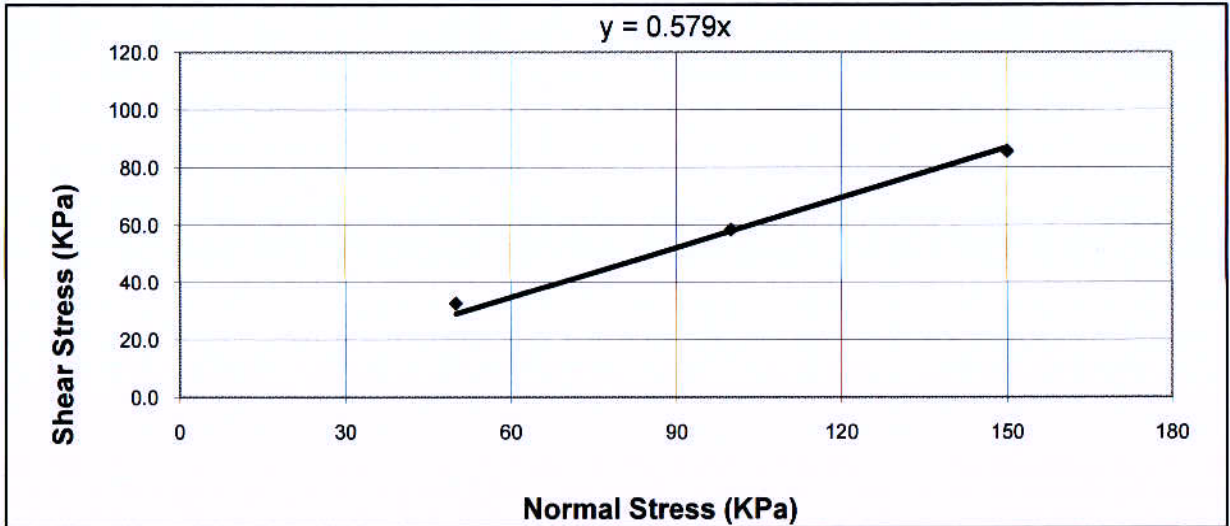
Dry-density, (mg/m³) = 1.62
Brownish Sandy SILT (ML)

Test Result

c = 0.0 kPa
 $\phi = 31.9^\circ$

BH No: 1	Chainage 1980	Sample No.: UDS-9	Depth (m): 26.00
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:  Date: 16/3/16	Checked by:  Date: 28/3/16	Authorised Signatory:  Date: 28/3/16
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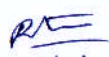
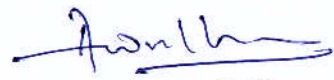
Sample Details

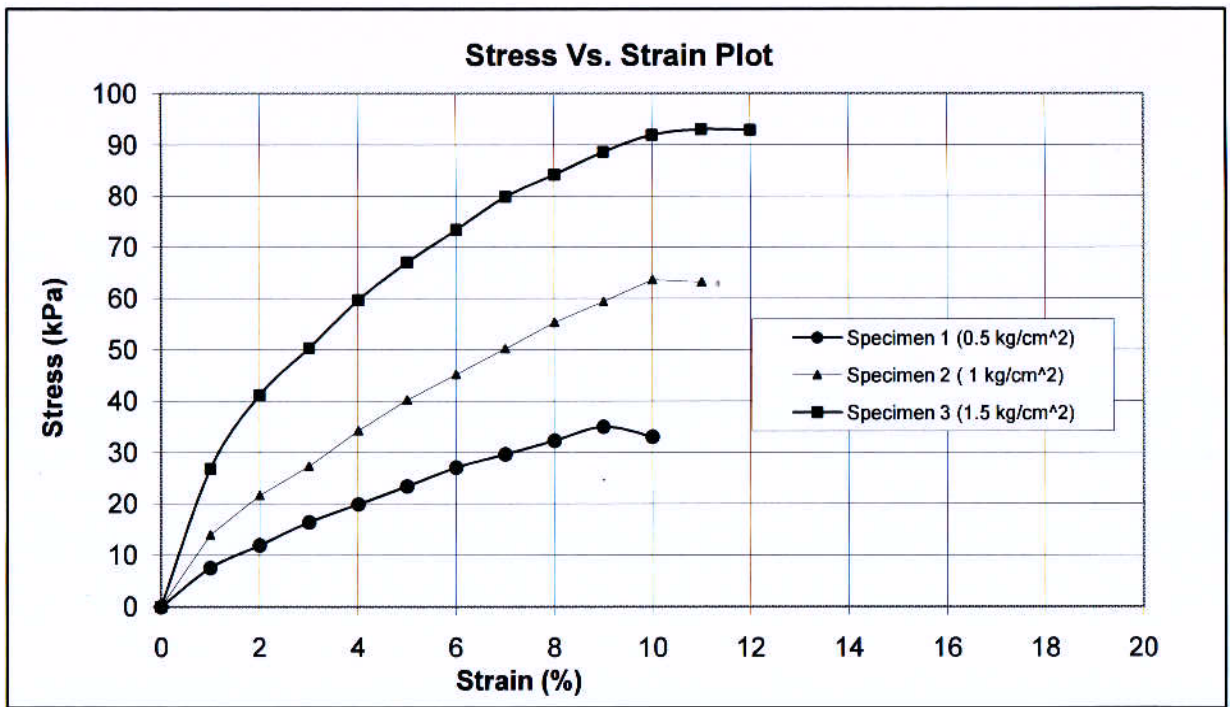
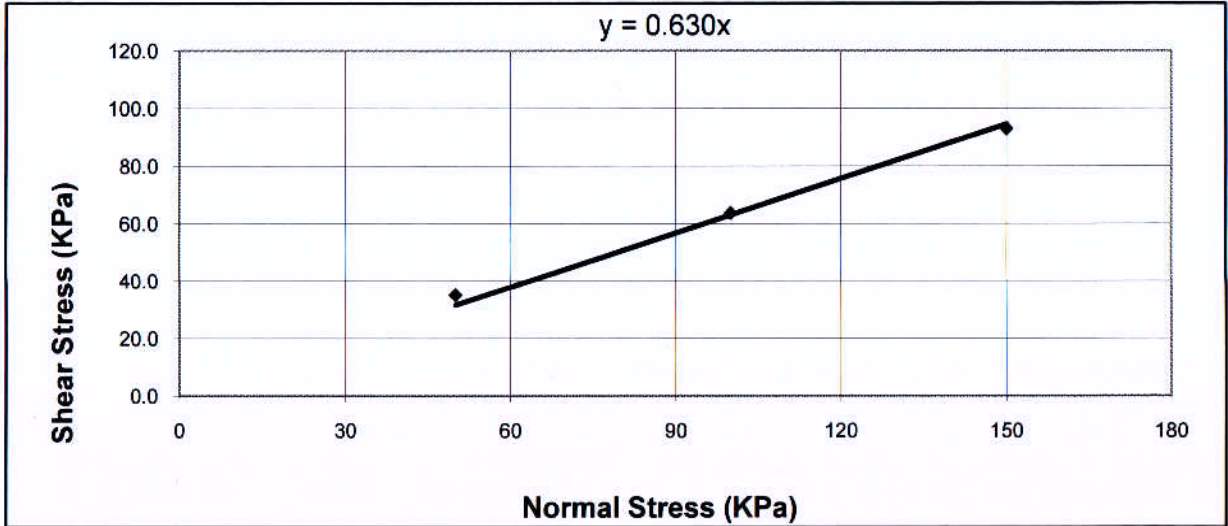
Dry-density, (mg/m³) = 1.60
Brownish Silty SAND (SM)

Test Result

$c = 0.0$ kPa
 $\phi = 30.1^\circ$

BH No: 1	Chainage 6550	Sample No.: SPT-1	Depth (m): 1.50
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:  Date: 16/3/16	Checked by:  Date: 28/3/16	Authorised Signatory:  Date: 28/3/16
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

Sample Details

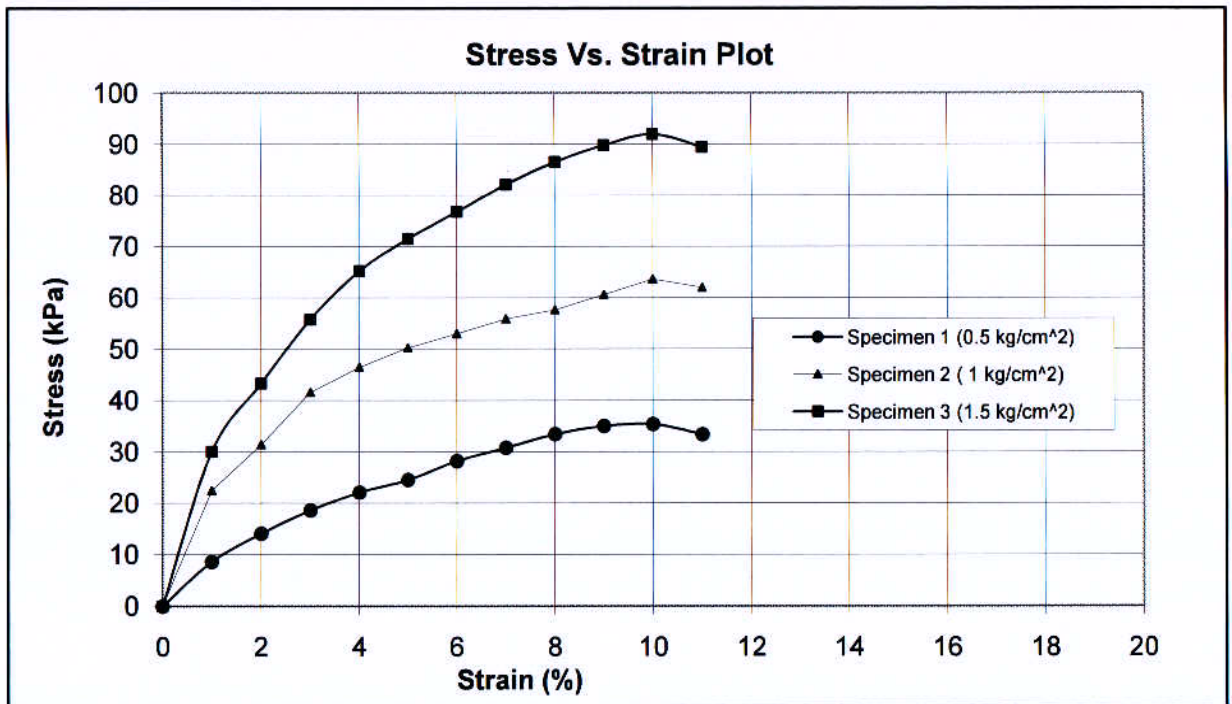
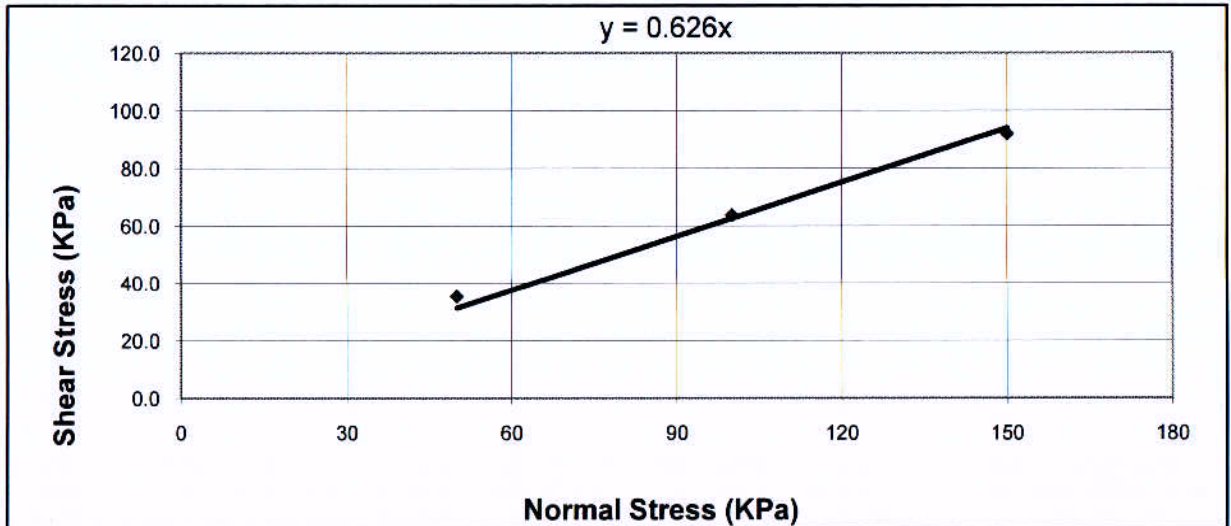
Dry-density, (mg/m³) = 1.65
Brownish Silty SAND (SM)

Test Result

$c = 0.0$ kPa
 $\phi = 32.2^\circ$

BH No: 1	Chainage 6550	Sample No.: SPT-6	Depth (m): 9.00
Site Ref: Muzaffarnagar to Saharanpur	Job No : 1342		Test Report No: XPL/2015-16/02

<p>Tested by:</p>  <p>Date: 16/8/16</p>	<p>Checked by:</p>  <p>Date: 28/3/16</p>	<p>Authorised Signatory:</p>  <p>Date: 28/8/16</p>
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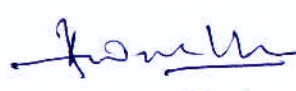
Sample Details

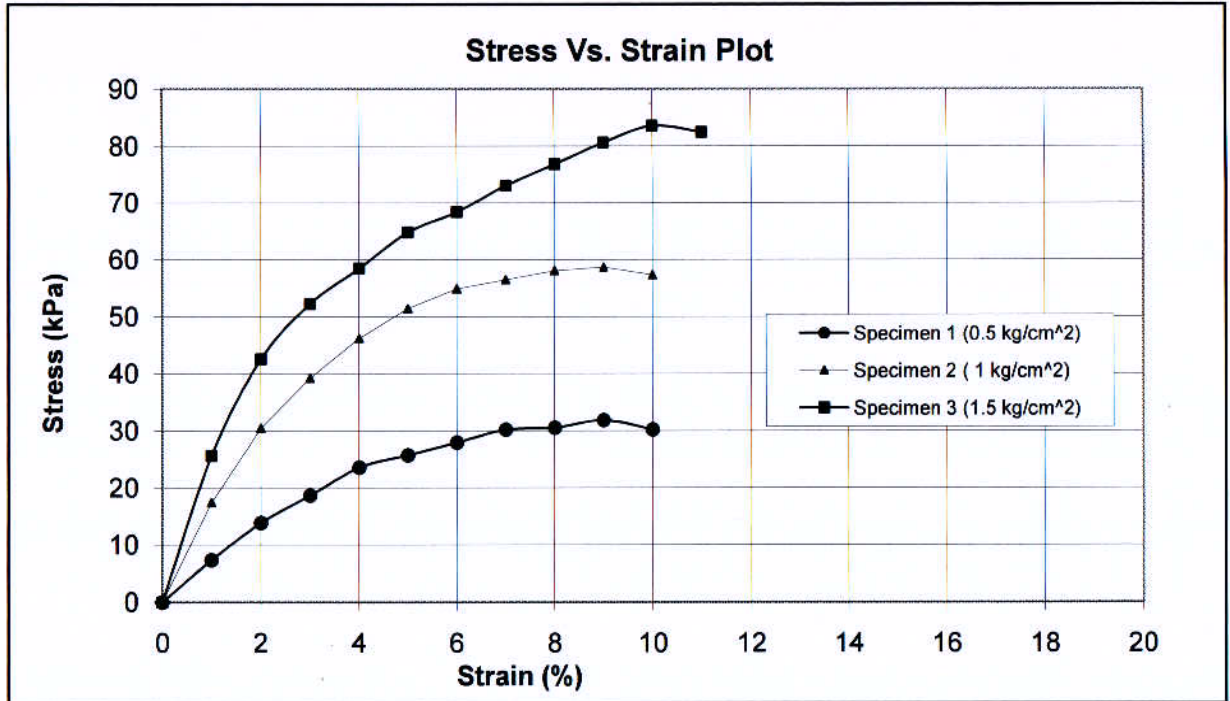
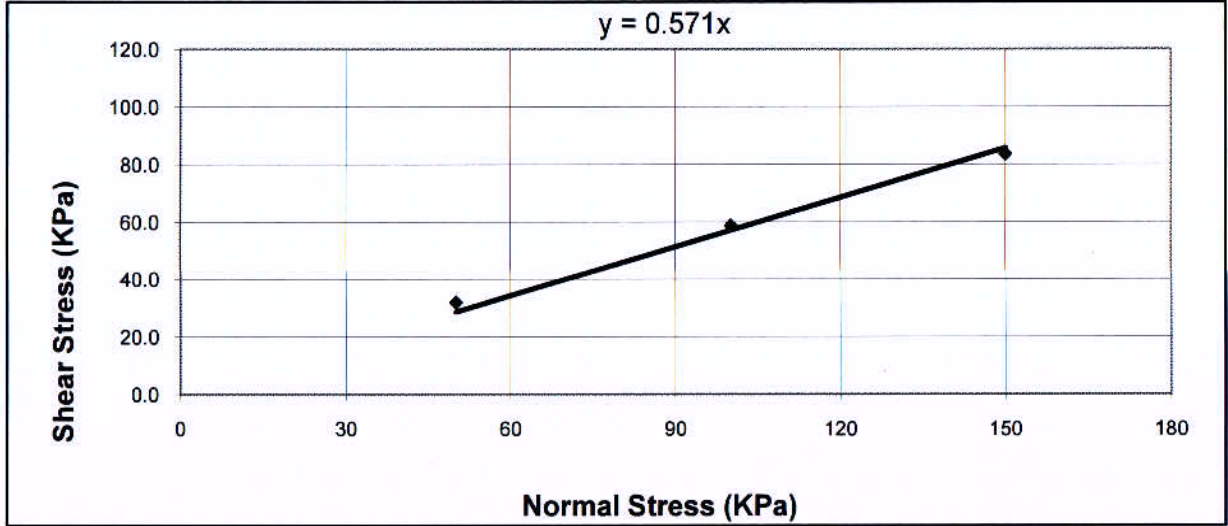
Dry-density, (mg/m³) = 1.69
Brownish Sandy SILT (ML)

Test Result

$c = 0.0$ kPa
 $\phi = 32.0^\circ$

BH No: 1	Chainage 6550	Sample No.: SPT-19	Depth (m): 28.50
Site Ref: Muzaffarnagar to Saharanpur	Job No : 1342		Test Report No: XPL/2015-16/02

Tested by:  Date: 16/3/16	Checked by:  Date: 28/3/16	Authorised Signatory:  Date: 28/3/16
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Sample Details

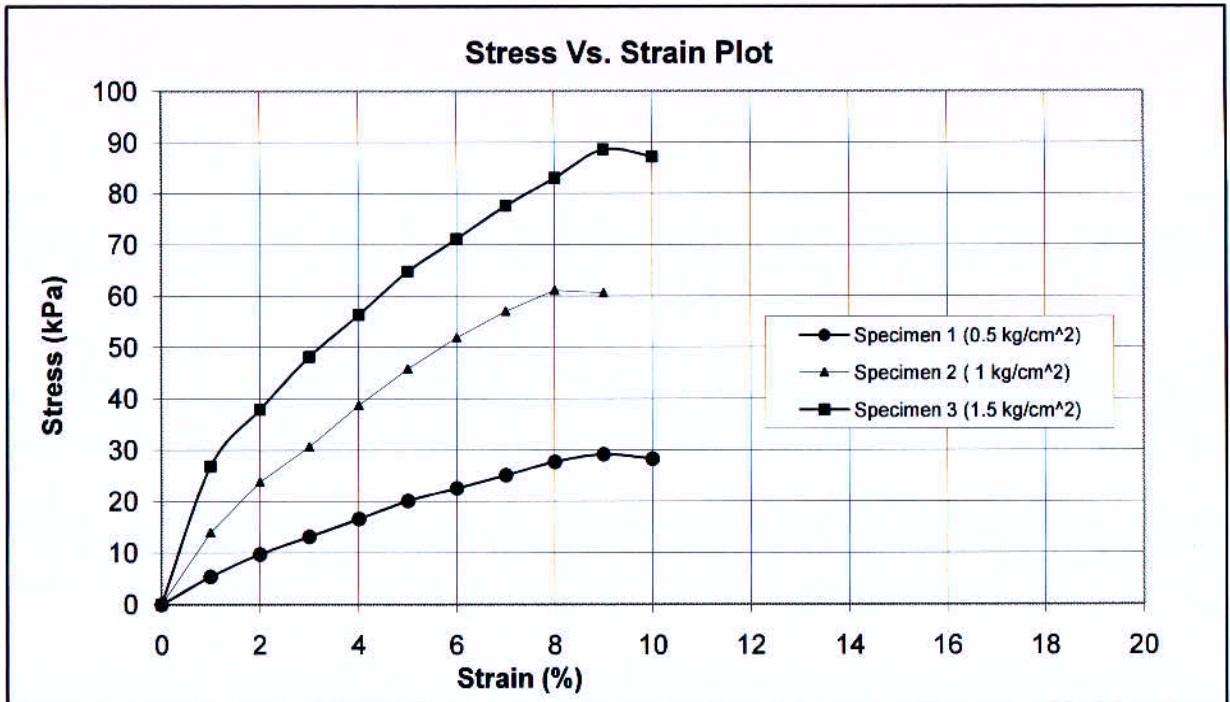
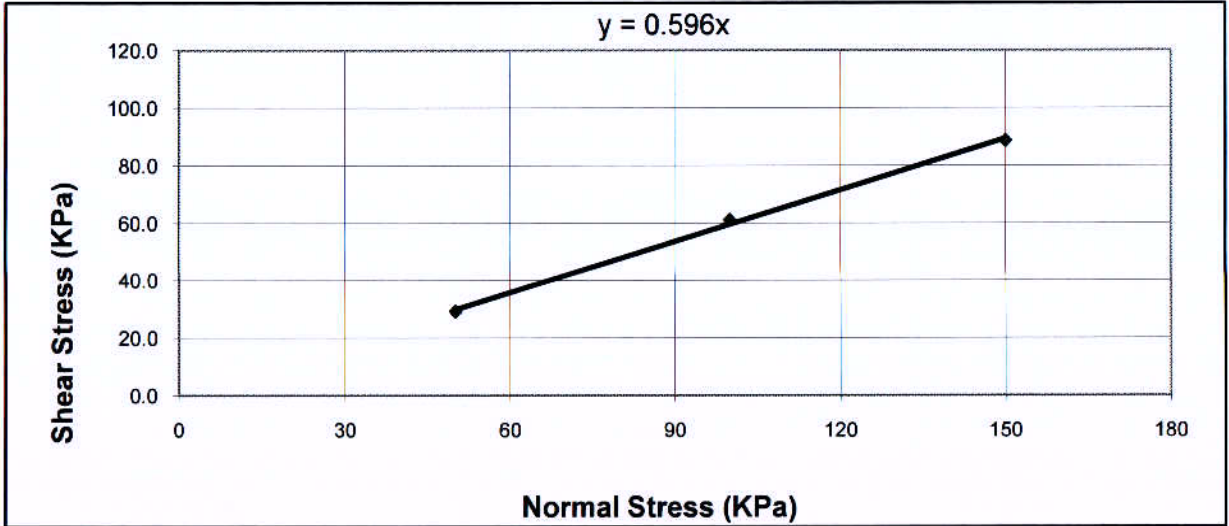
Dry-density, (mg/m³) = 1.58
Brownish Silty SAND (SM)

Test Result

$c = 0.0$ kPa
 $\phi = 29.7^\circ$

BH No: 1	Chainage 5322	Sample No.: SPT-1	Depth (m): 1.50
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:	Checked by:	Authorised Signatory:
Date: 16/3/16	Date: 28/3/16	Date: 28/07/16



Sample Details

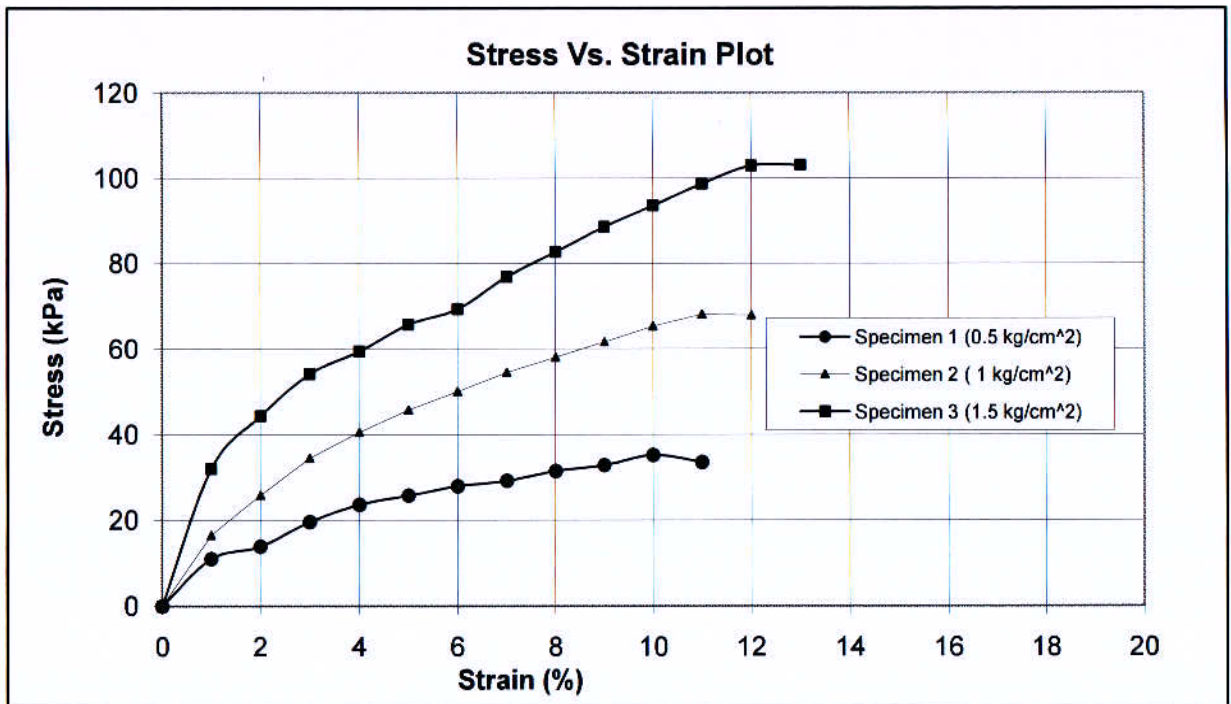
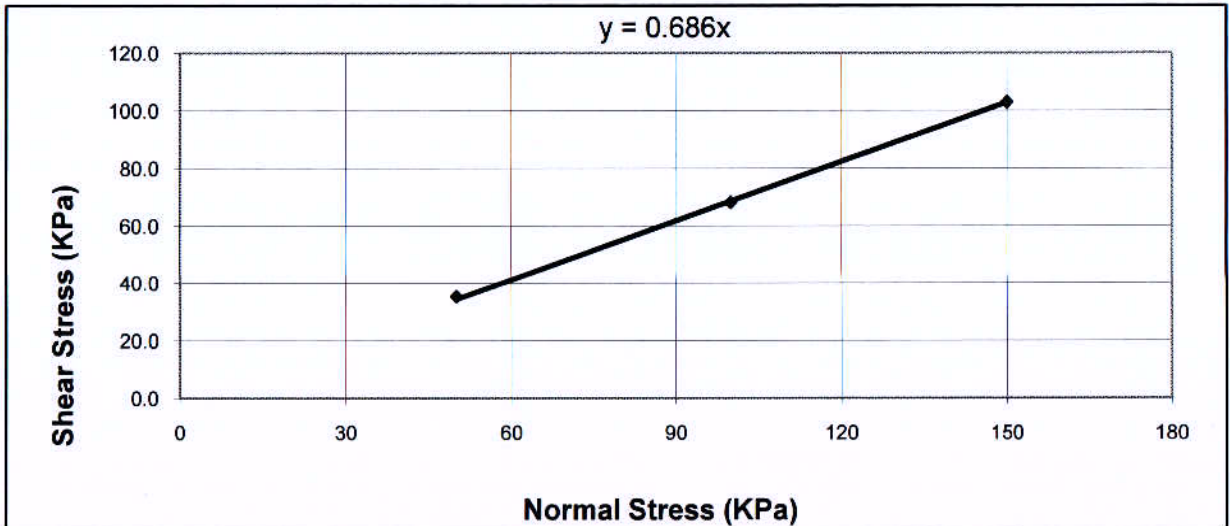
Dry-density, (mg/m³) = 1.62
Brownish Silty SAND (SW-SM)

Test Result

$c = 0.0$ kPa
 $\phi = 30.8^\circ$

BH No: 1	Chainage 1790	Sample No.: SPT-1	Depth (m): 1.50
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:	Checked by:	Authorised Signatory:
Date: 16/3/16	Date: 28/3/16	Date: 28/3/16



Sample Details

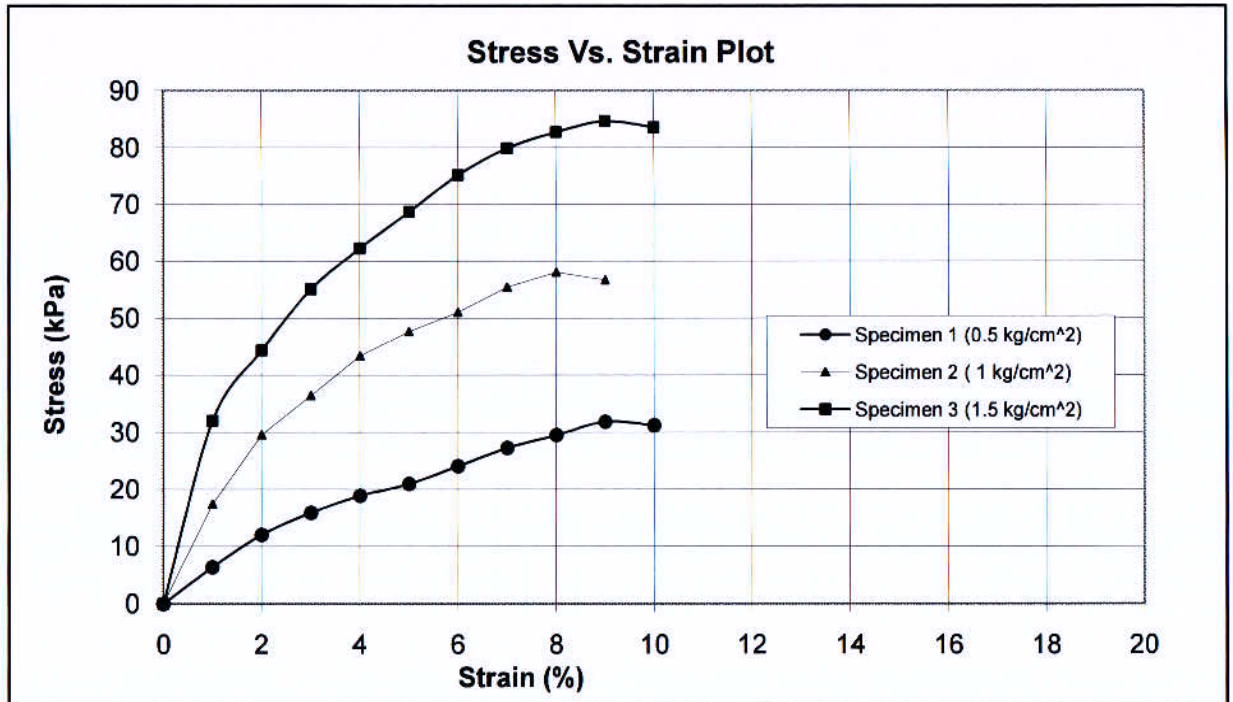
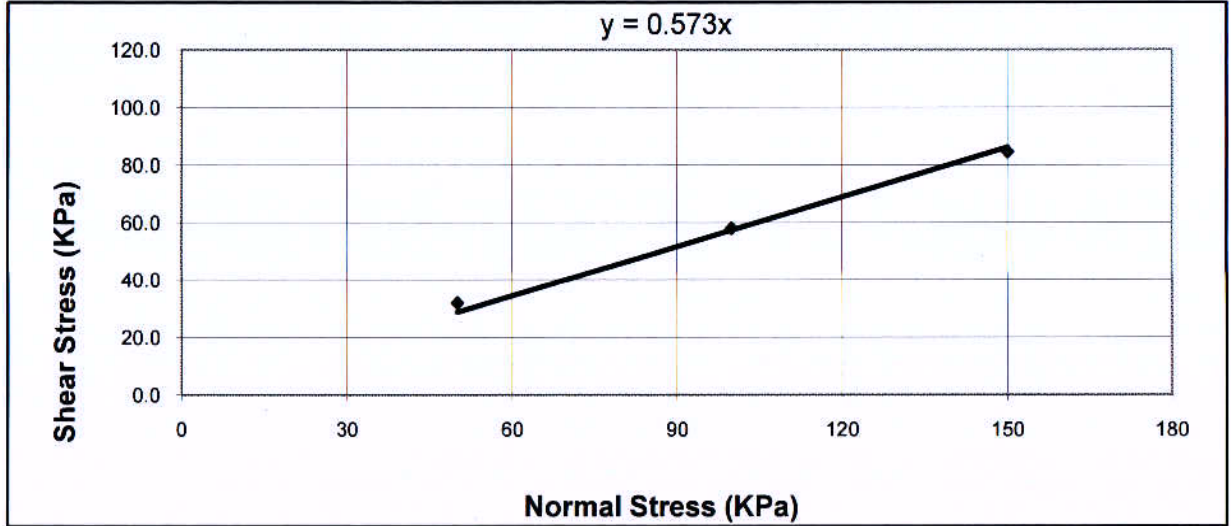
Dry-density, (mg/m³) = 1.75
Brownish Silty SAND (SM)

Test Result

$c = 0.0$ kPa
 $\phi = 34.4^\circ$

BH No: 1	Chainage 1790	Sample No.: SPT-18	Depth (m): 27.00
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:	Checked by:	Authorised Signatory:
Date: 10/3/16	Date: 28/3/16	Date: 28/3/16




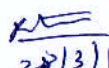

Sample Details

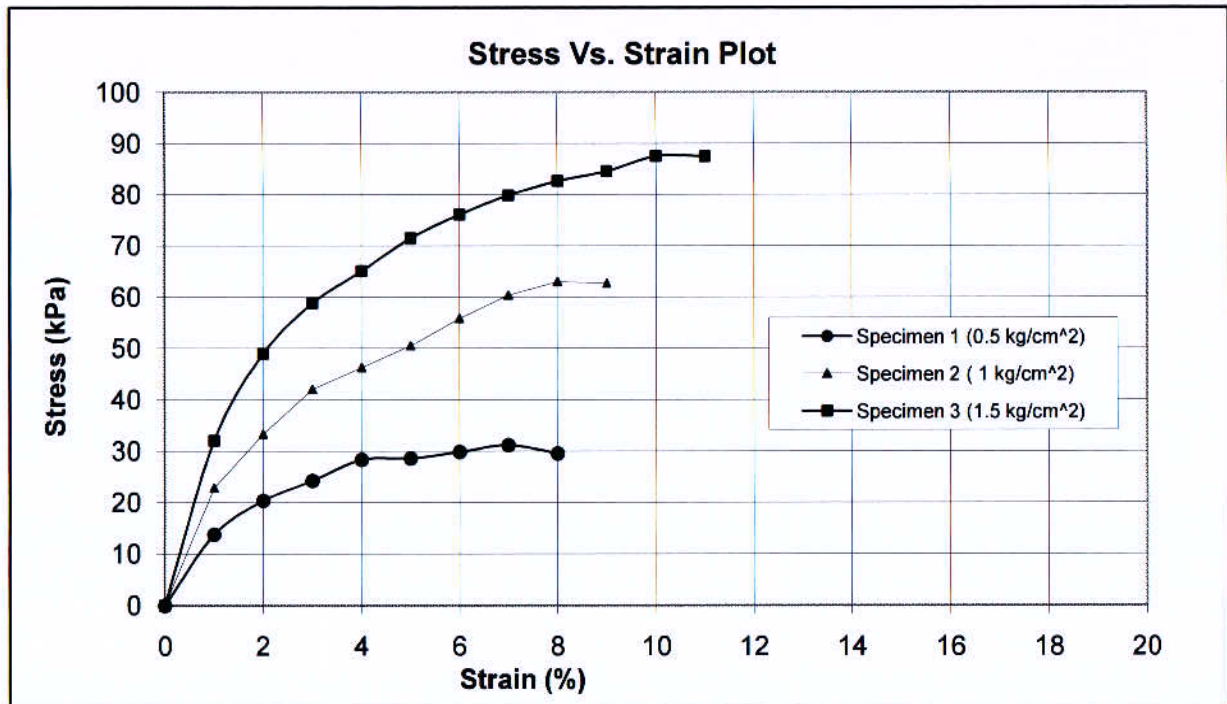
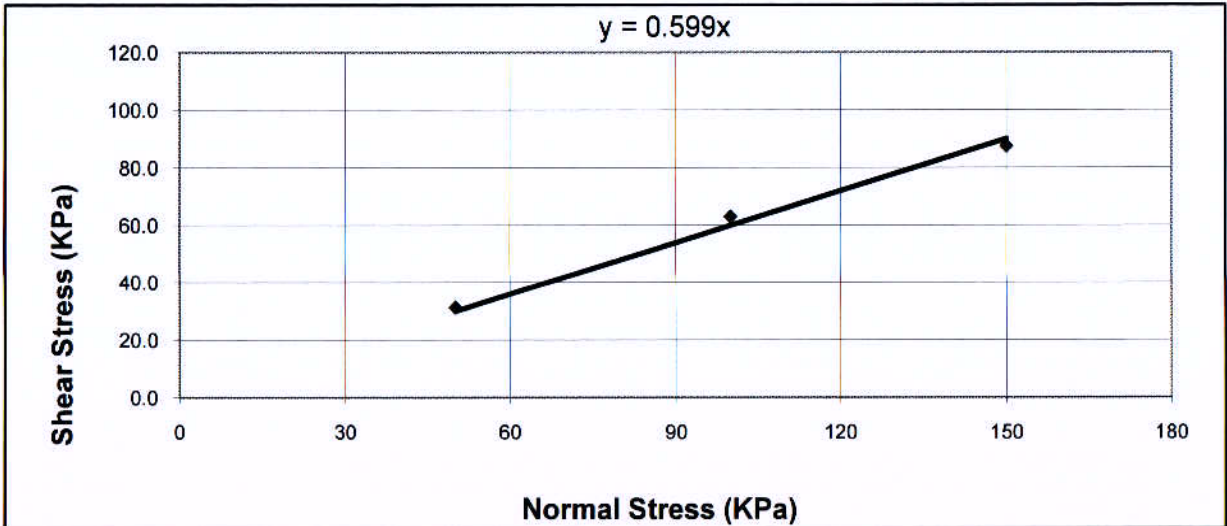
Dry-density, (mg/m³) = 1.59
Brownish Silty SAND (SM)

Test Result

$c = 0.0$ kPa
 $\phi = 29.8^\circ$

BH No: 2	Chainage 1790	Sample No.: SPT-1	Depth (m): 1.50
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:  Date: 16/13/16	Checked by:  Date: 28/3/16	Authorised Signatory:  Date: 28/3/16
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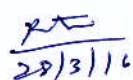
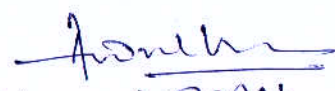
Sample Details

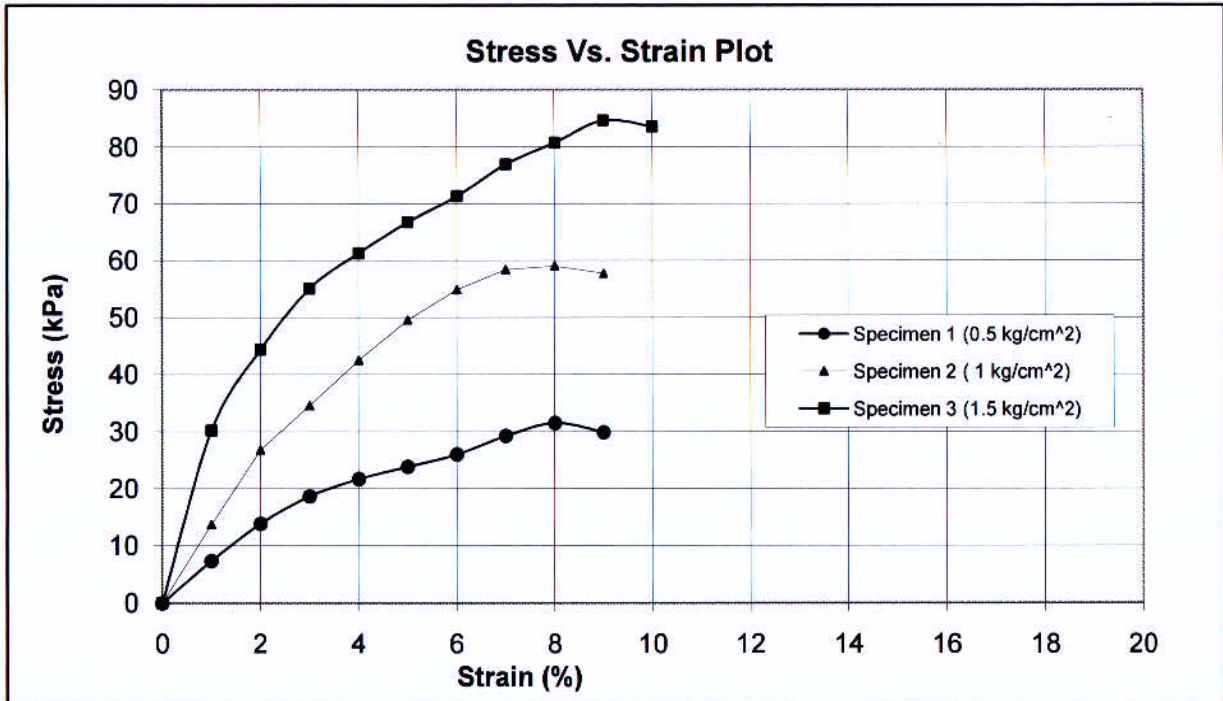
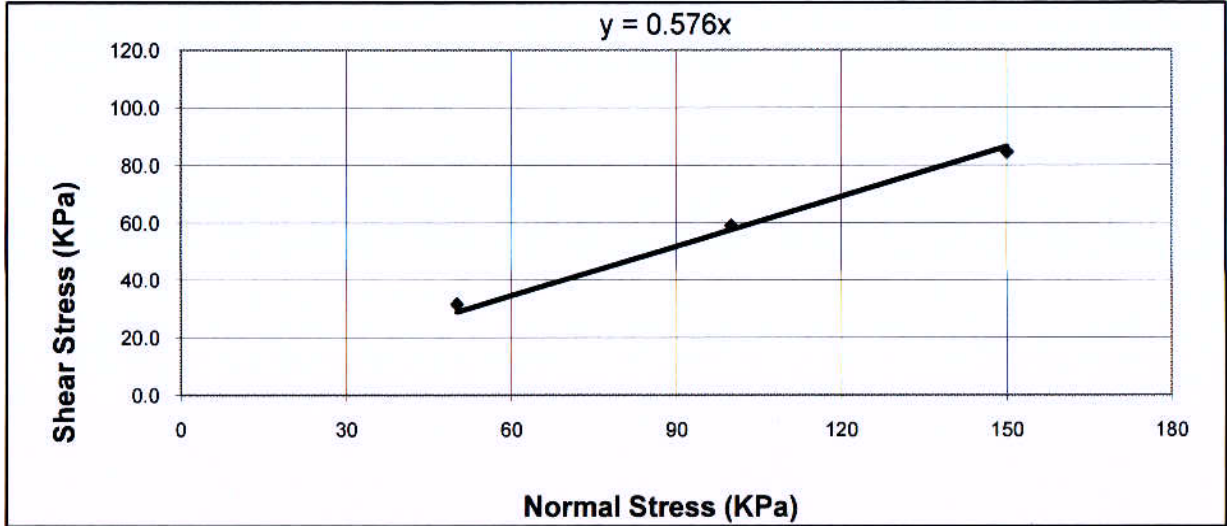
Dry-density, (mg/m³) = 1.68
Brownish Sandy SILT (ML)

Test Result

$c = 0.0$ kPa
 $\phi = 30.9^\circ$

BH No: 2	Chainage 1790	Sample No.: UDS-6	Depth (m): 17.00
Site Ref: Muzaffarnagar to Saharanpur	Job No: 1342		Test Report No: XPL/2015-16/02

Tested by:  Date: 16/5/18	Checked by:  Date: 28/3/16	Authorised Signatory:  Date: 28/3/18
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Sample Details


Dry-density, (mg/m³) = 1.58
Brownish Silty SAND (SM)

Test Result

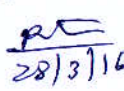
$c = 0.0$ kPa
 $\phi = 29.9^\circ$

BH No: 1	Chainage 2286	Sample No.: SPT-1	Depth (m): 1.50
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			


Tested by:

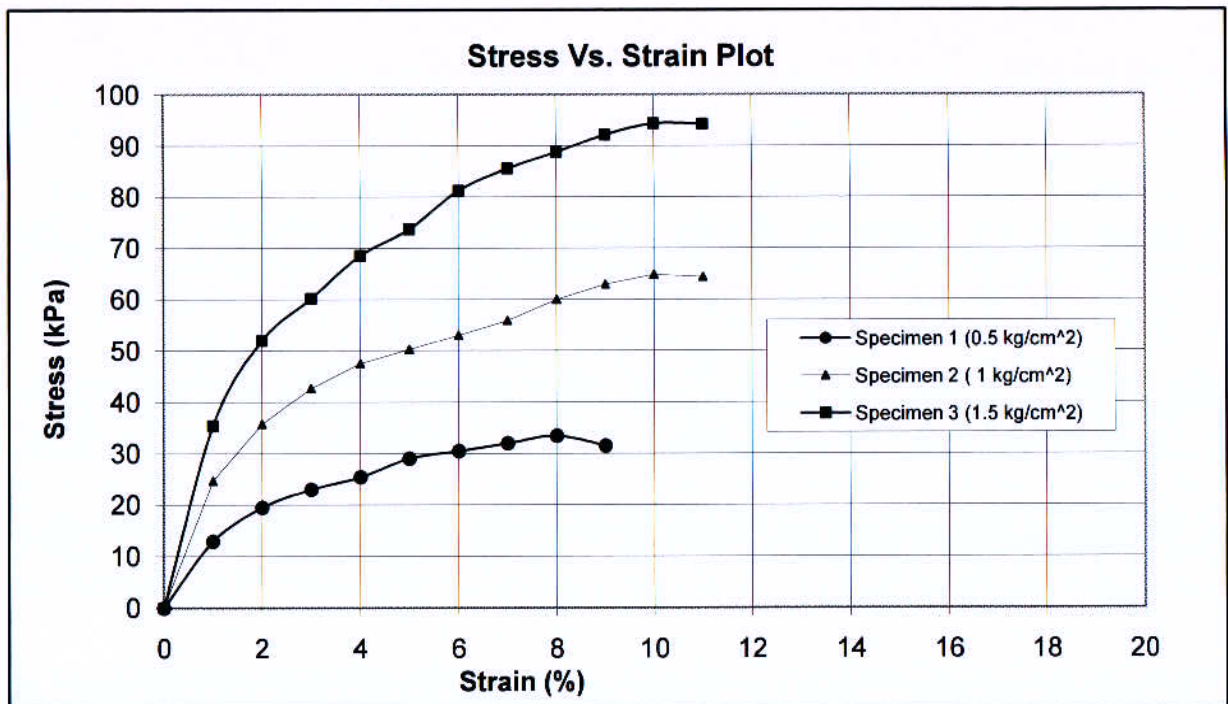
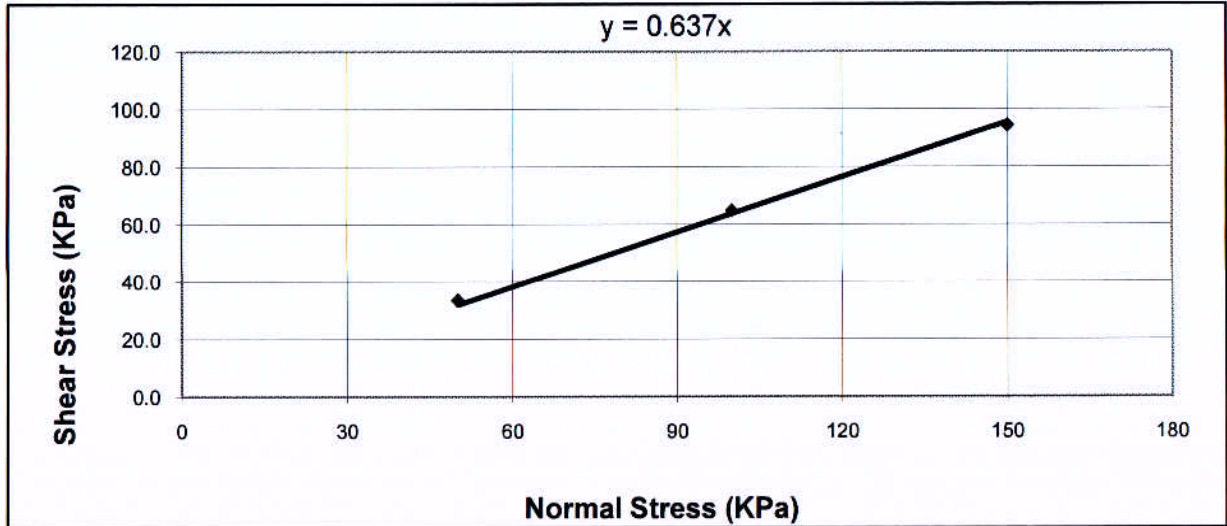

Date: 16/3/16

Checked by:


Date: 28/3/16

Authorised Signatory:


Date: 28/3/16




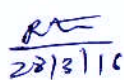

Sample Details

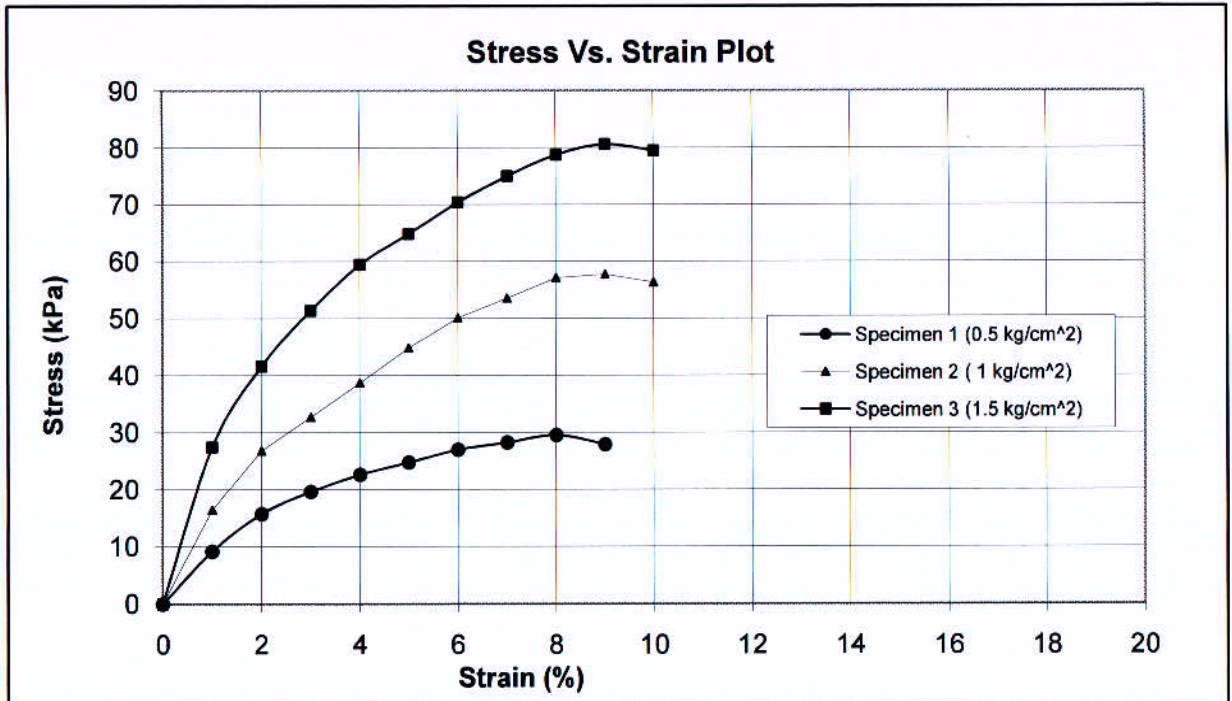
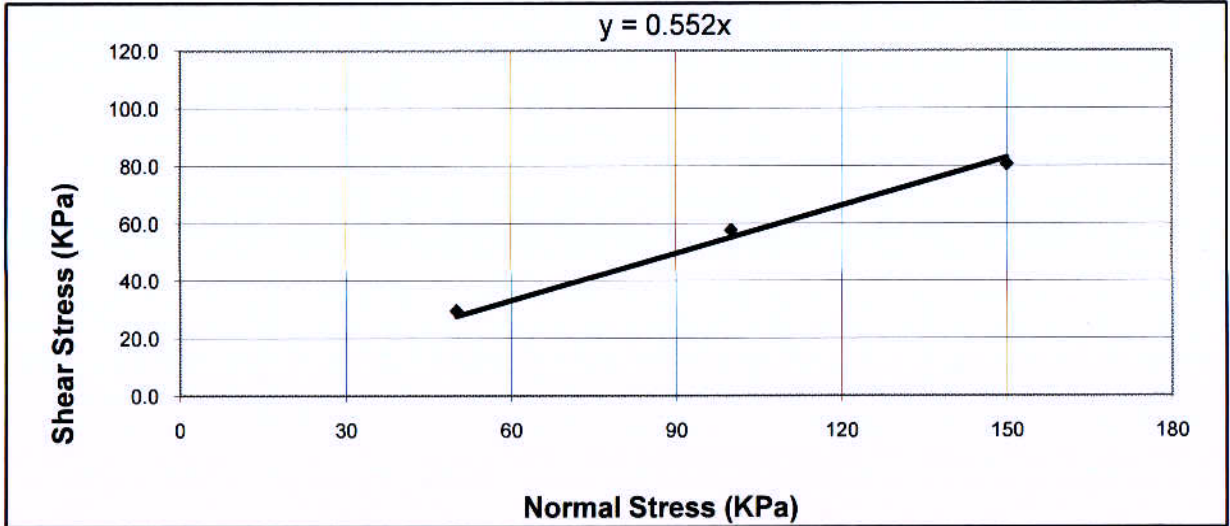
Dry-density, (mg/m³) = 1.70
Poorly Graded SAND (SP)

Test Result

$c = 0.0$ kPa
 $\phi = 32.5^\circ$

BH No: 1	Chainage 2286	Sample No.: SPT-7	Depth (m): 10.50
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:  Date: 16/3/16	Checked by:  Date: 22/3/16	Authorised Signatory:  Date: 28/07/16
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Sample Details

Dry-density, (mg/m³) = 1.55
Brownish Sandy SILT (ML)

Test Result

$c = 0.0$ kPa
 $\phi = 28.9^\circ$

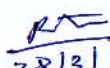
BH No: 1	Chainage 3360	Sample No.: SPT-1	Depth (m): 1.50
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			


Tested by:

Checked by:

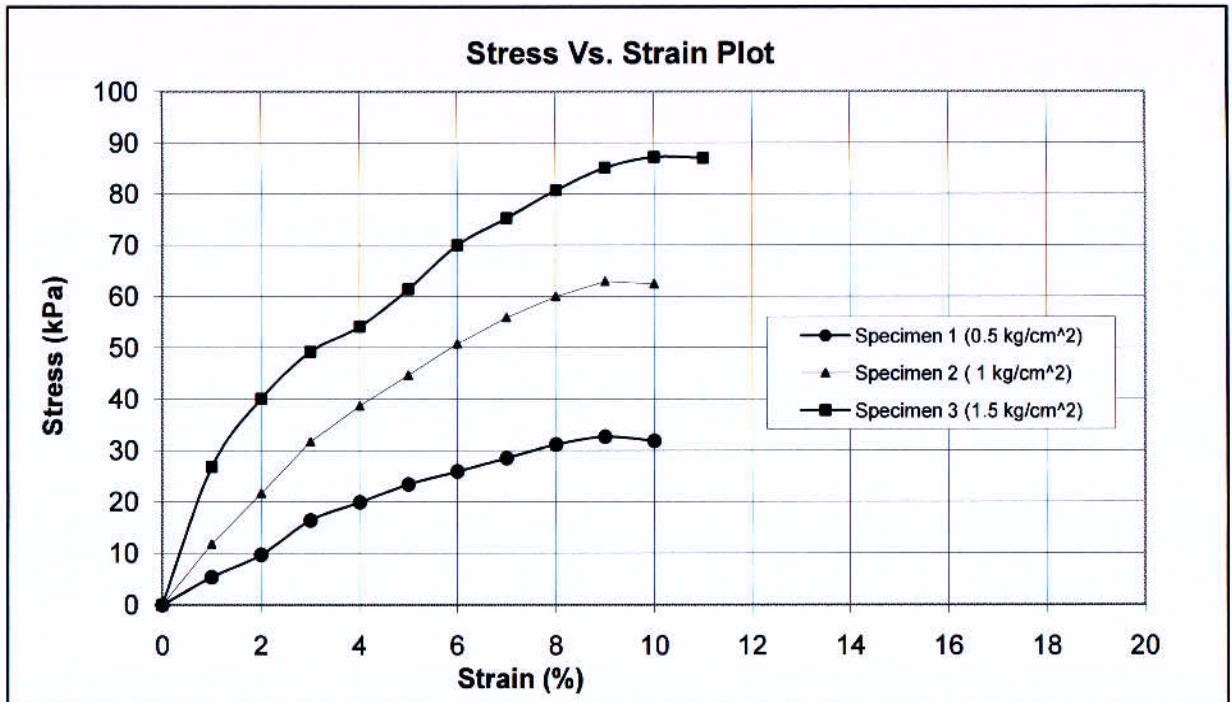
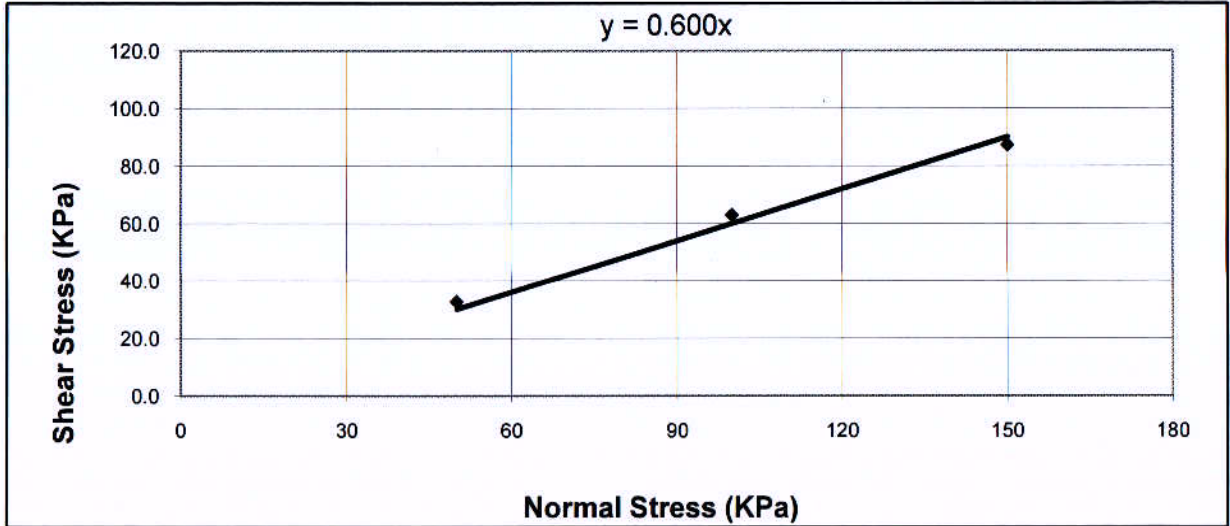
Authorised Signatory:


Date: 10/3/2016


Date: 28/3/16


Date: 28/3/16

DIRECT SHEAR TEST RESULT
I.S.: 2720 : PART XIII



Sample Details

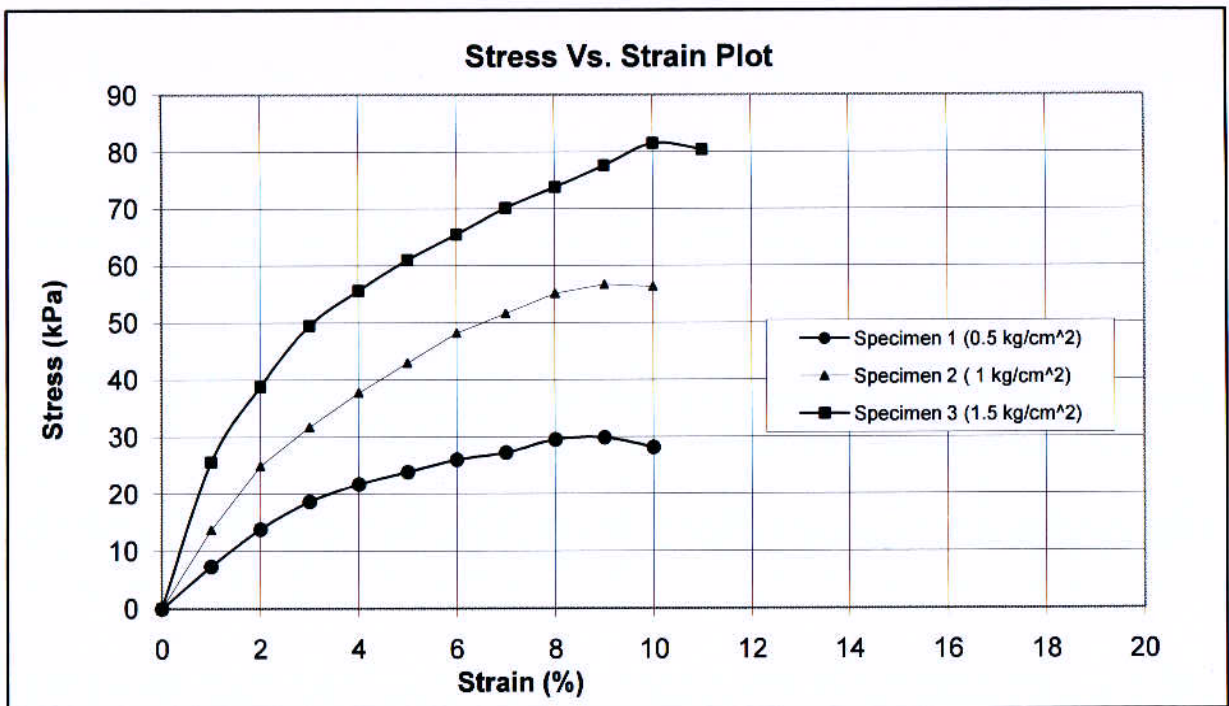
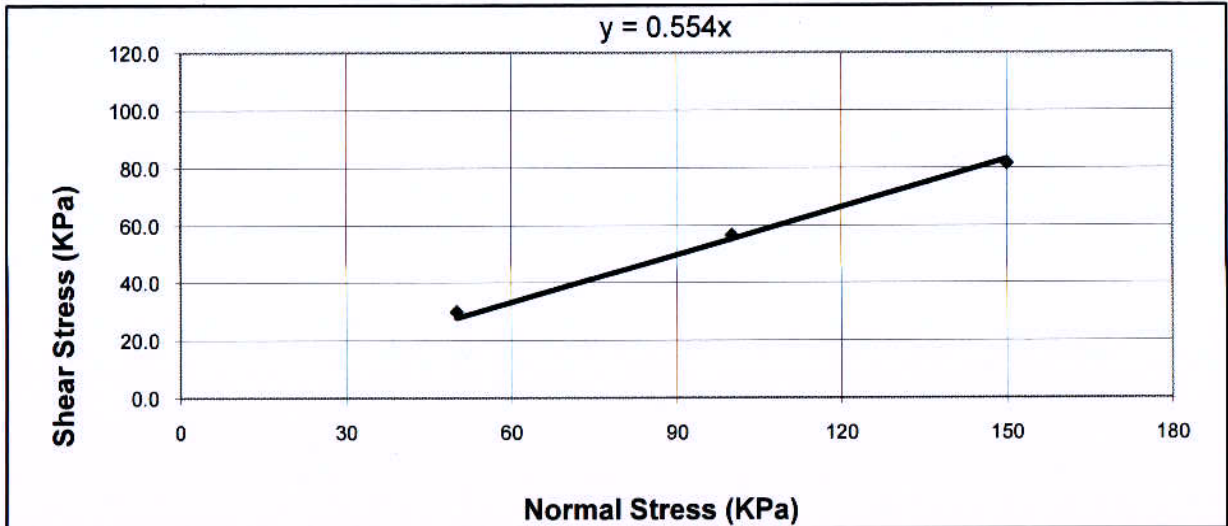
Dry-density, (mg/m³) = 1.63
Brownish Sandy SILT (ML)

Test Result

$c = 0.0$ kPa
 $\phi = 31.0^\circ$

BH No: 1	Chainage 3360	Sample No.: UDS-4	Depth (m): 11.00
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:	Checked by:	Authorised Signatory:
Date: 17/3/16	Date: 28/3/16	Date: 27/3/16



Sample Details

Dry-density, (mg/m³) = 1.58

Brownish Sandy SILT (ML)

Test Result

$c = 0.0$ kPa

$\phi = 29.0^\circ$

BH No: 1	Chainage 11+753	Sample No.: UDS-1	Depth (m): 2.00
Site Ref: Muzaffarnagar to Saharanpur	Job No: 1342		Test Report No: XPL/2015-16/02

Tested by:

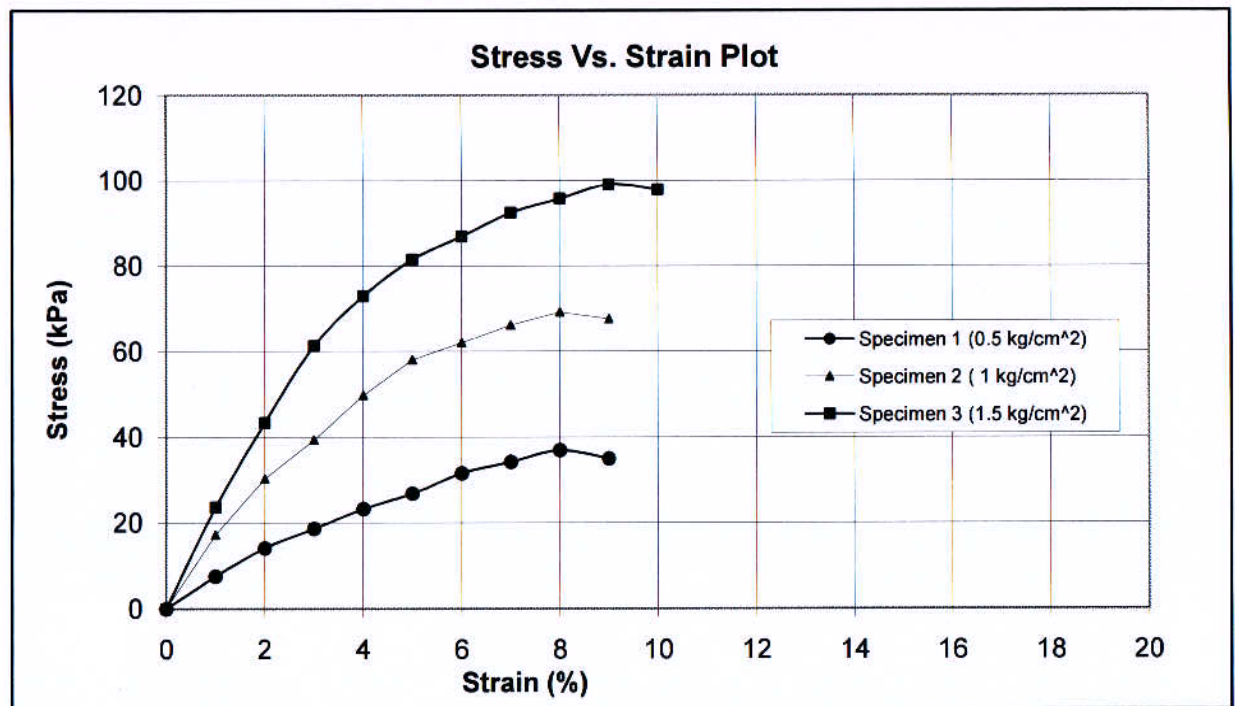
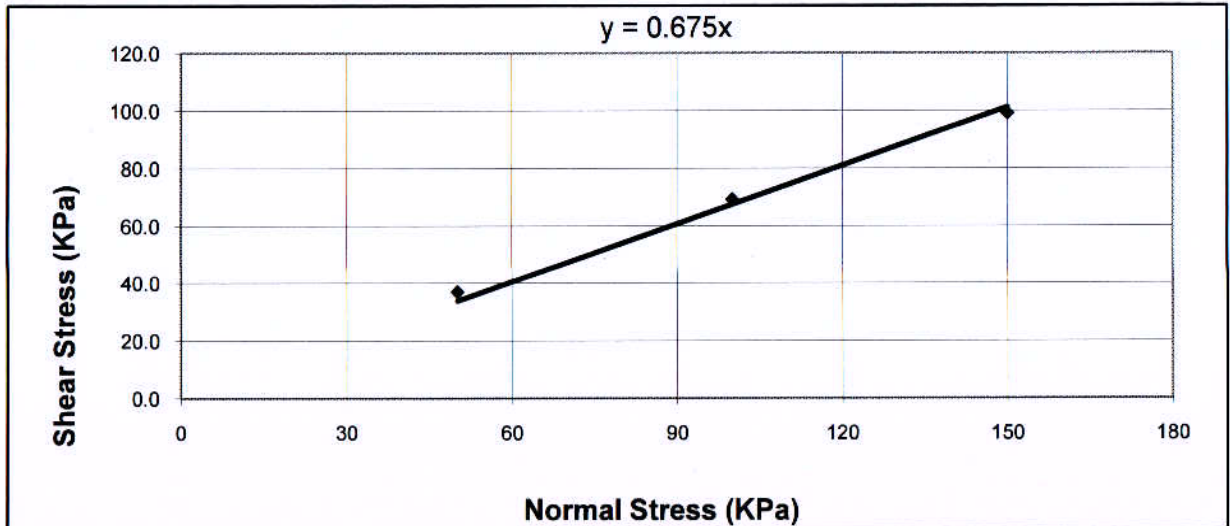
Date: 17/3/16

Checked by:

Date: 28/3/16

Authorised Signatory:

Date: 27/3/16




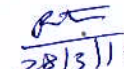

Sample Details

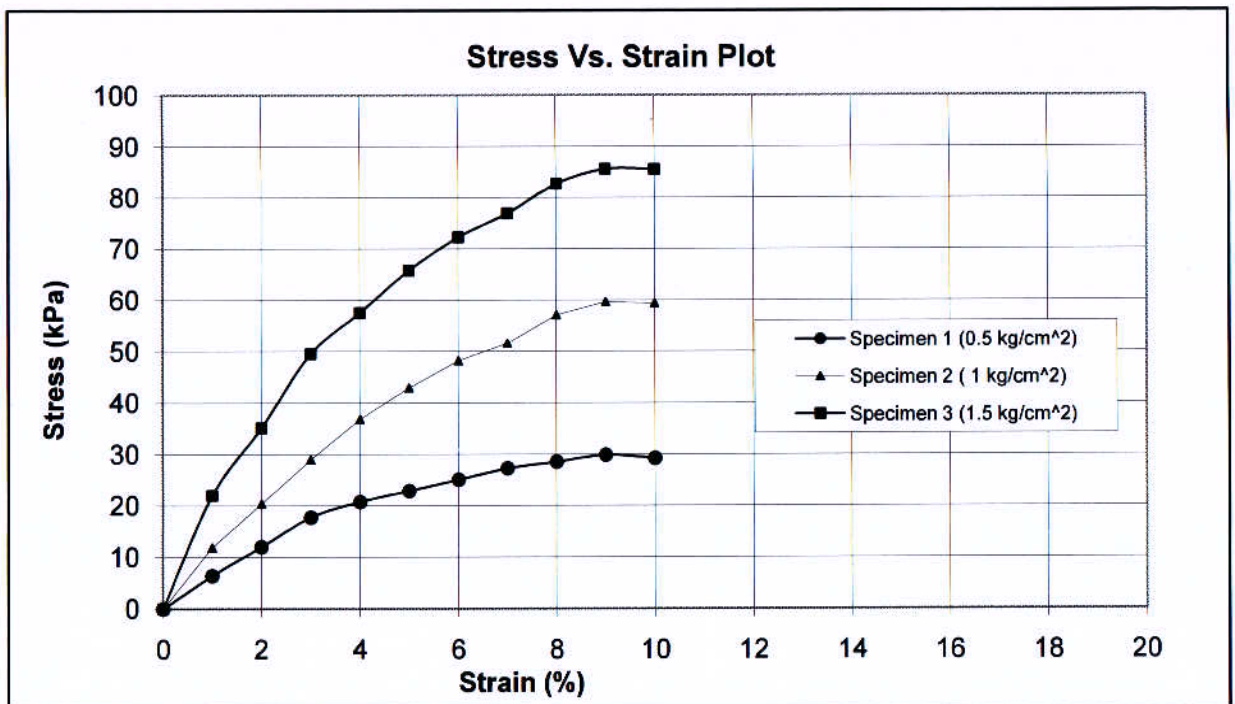
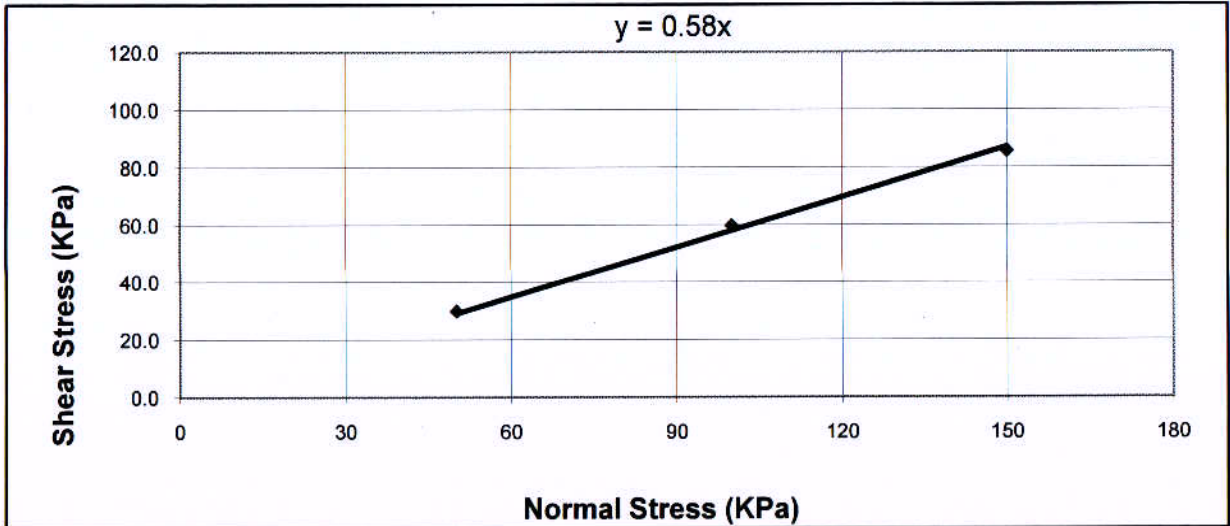
Dry-density, (mg/m³) = 1.81
Greyish Poorly Graded SAND (SP)

Test Result

$c = 0.0$ kPa
 $\phi = 34.0^\circ$

BH No: 1	Chainage 11+753	Sample No.: SPT-17	Depth (m): 25.50
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:  Date: 17/13/16	Checked by:  Date: 28/3/16	Authorised Signatory:  Date: 27/7/16
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Sample Details

Dry-density, (mg/m³) = 1.79
Brownish Silty SAND (SW-SM)

Test Result

$c = 0.0$ kPa
 $\phi = 30.1^\circ$

BH No: 1	Chainage 10+540	Sample No.: SPT-1	Depth (m): 1.50
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			


Tested by:

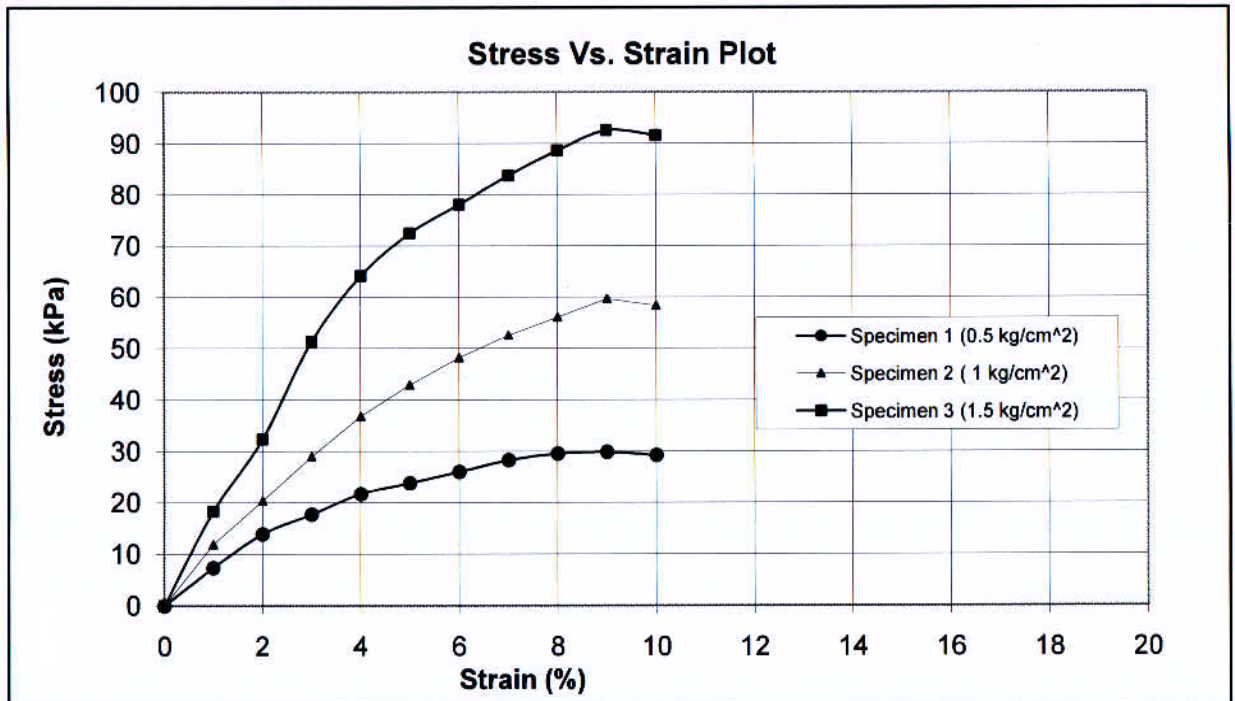
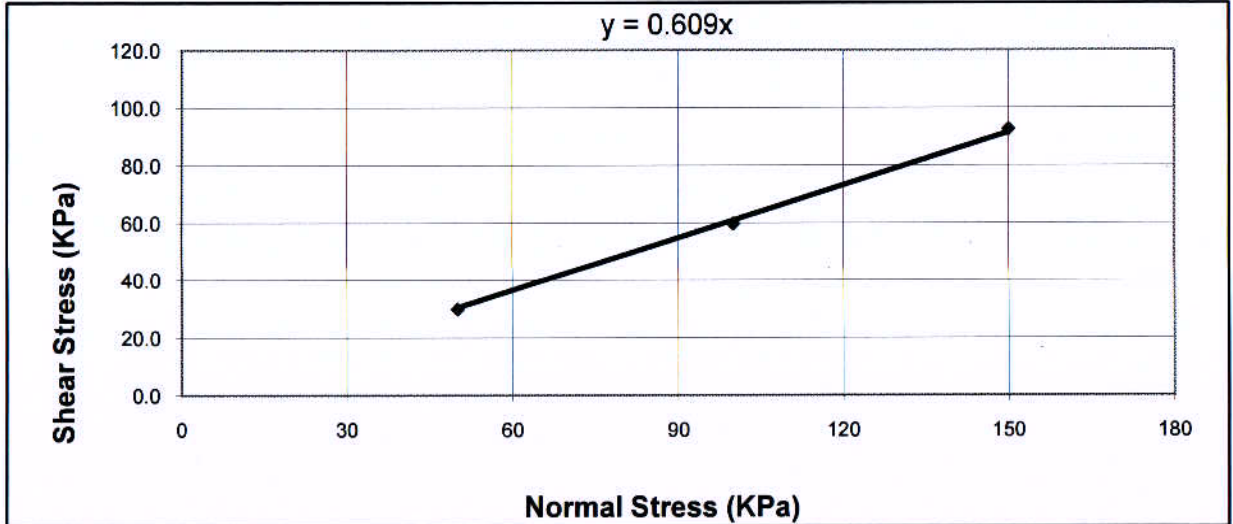

Date: 17/3/16

Checked by:


Date: 22/3/16

Authorised Signatory:


Date: 28/3/16



Sample Details

Dry-density, (mg/m³) = 1.80
Brownish Silty SAND (SM)

Test Result

$c = 0.0$ kPa
 $\phi = 31.3^\circ$

BH No: 1	Chainage 10+540	Sample No.: SPT-17	Depth (m): 25.50
Site Ref: Muzaffarnagar to Saharanpur	Job No : 1342		Test Report No: XPL/2015-16/02

Tested by:

(Signature)

Date: 17/3/16

Checked by:

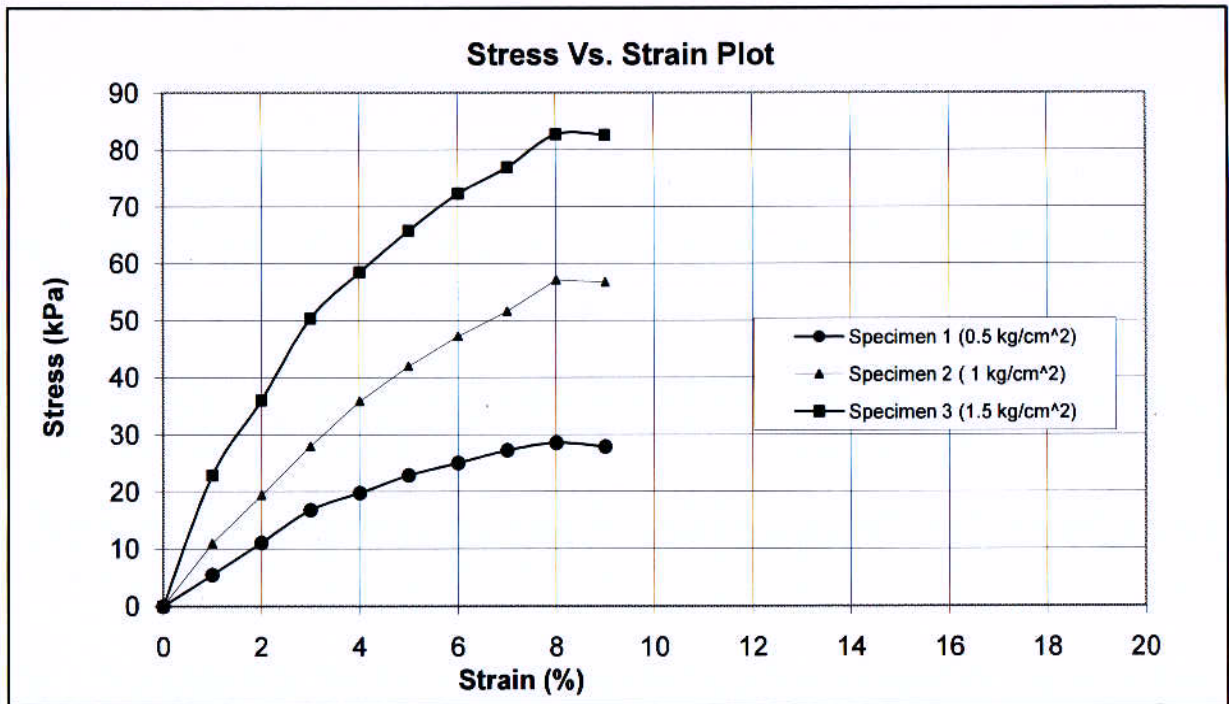
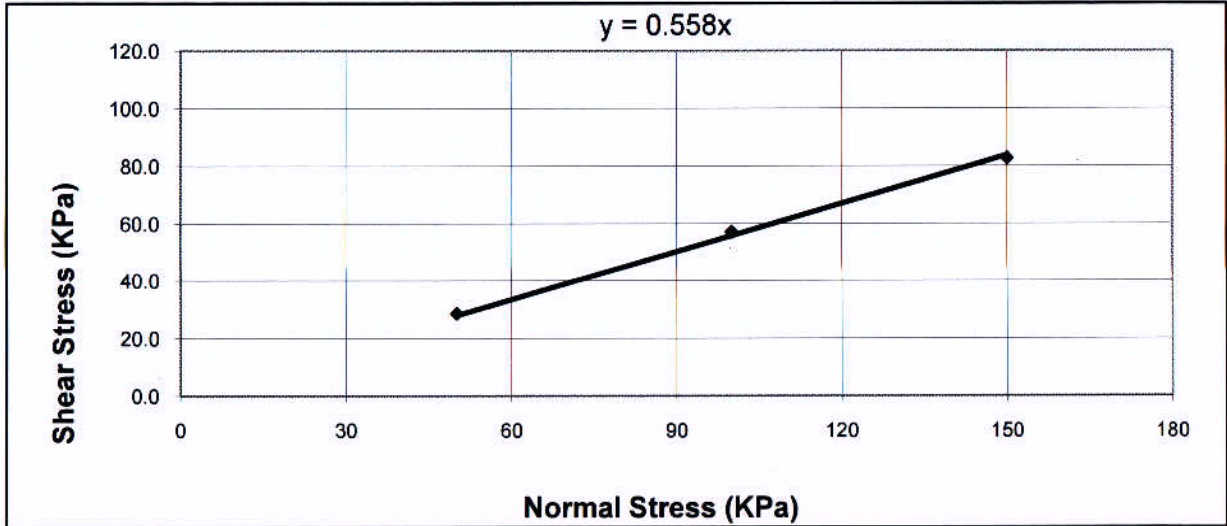
(Signature)
28/3/16

Date:

Authorised Signatory:

(Signature)

Date: 28/3/16




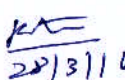

Sample Details

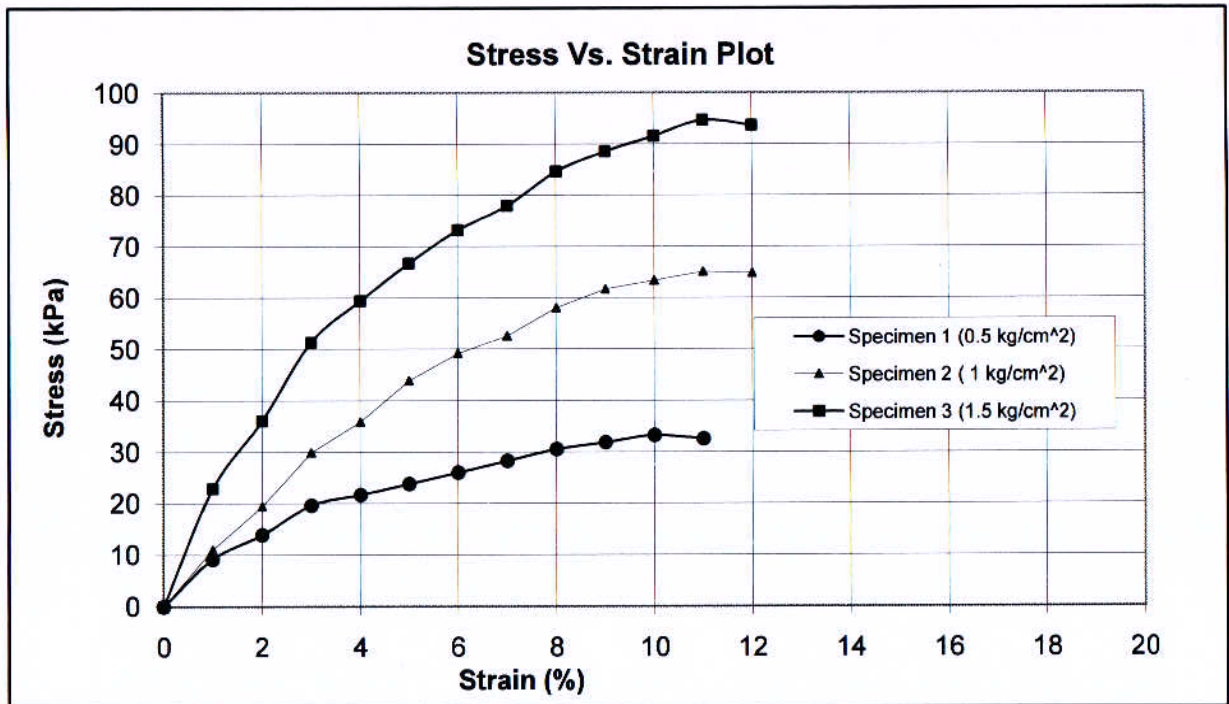
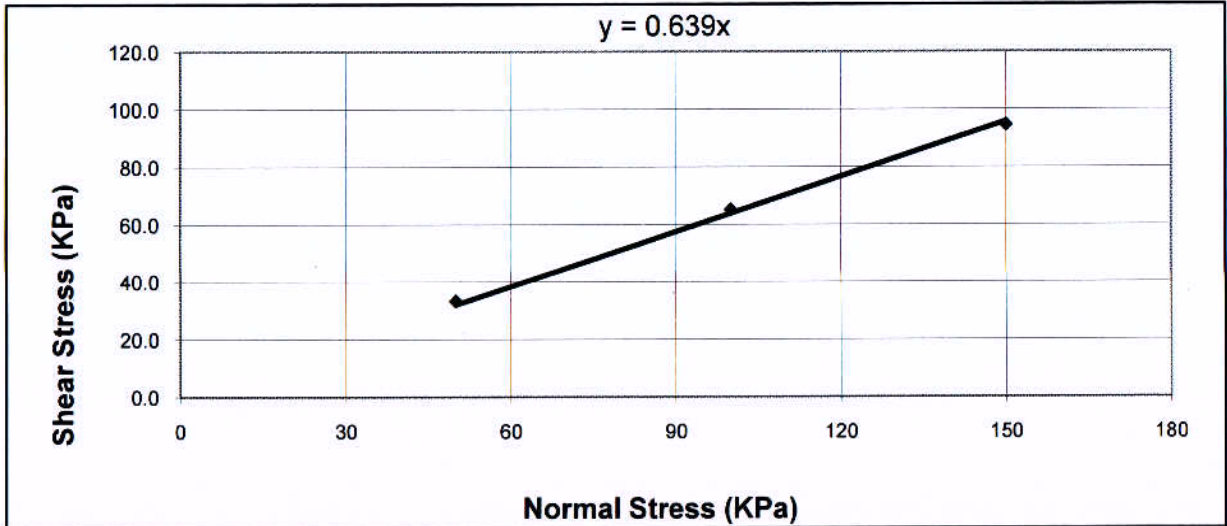
Dry-density, (mg/m³) = 1.68
Brownish Silty SAND (ML)

Test Result

$c = 0.0$ kPa
 $\phi = 29.1^\circ$

BH No: 1	Chainage 15+800	Sample No.: UDS-1	Depth (m): 2.00
Site Ref: Muzaffarnagar to Saharanpur		Job No : 1342	
Test Report No: XPL/2015-16/02			

Tested by:  Date: 17/10/18	Checked by:  Date: 28/3/16	Authorised Signatory:  Date: 28/8/12
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Sample Details

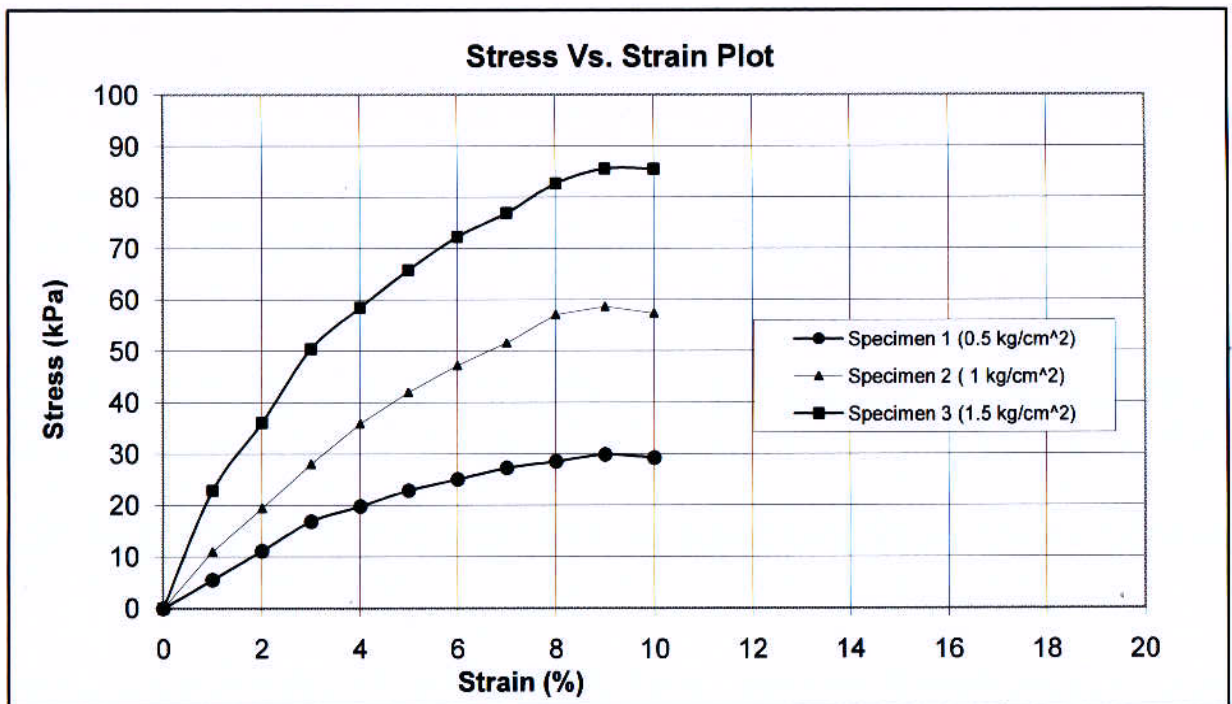
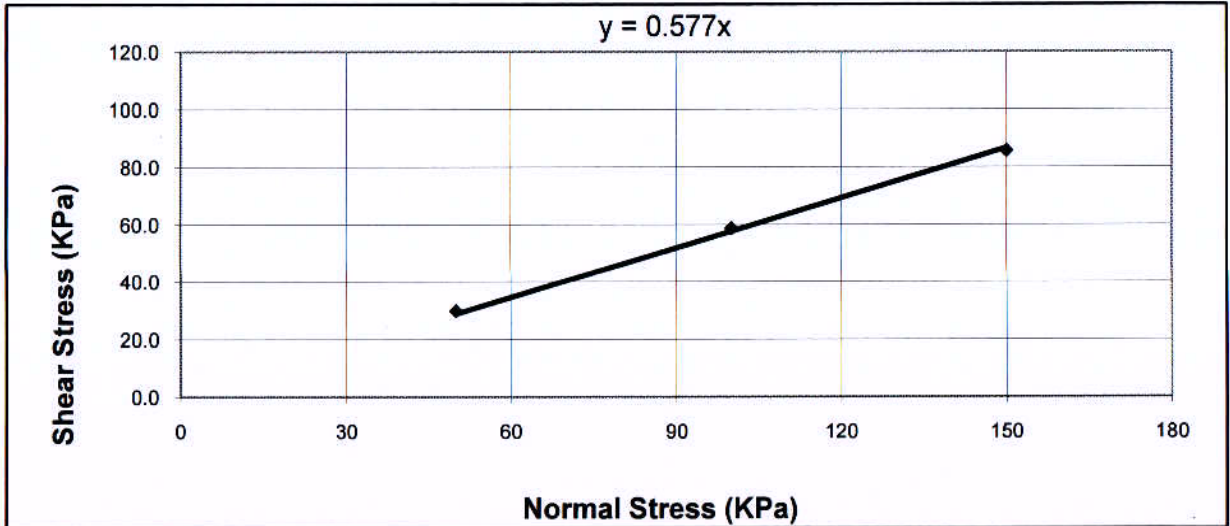
Dry-density, (mg/m³) = 1.89
Brownish Silty SAND (SW-SM)

Test Result

$c = 0.0$ kPa
 $\phi = 32.6^\circ$

BH No: 1	Chainage 15+800	Sample No.: SPT-17	Depth (m): 25.50
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by: 	Checked by: 	Authorised Signatory:
Date: 17/3/16	Date: 28/3/16	Date: 28/3/16



Sample Details

Dry-density, (mg/m³) = 1.64
Brownish Silty SAND (ML)

Test Result

$c = 0.0$ kPa
 $\phi = 30.0^\circ$

BH No: 1	Chainage 14+150	Sample No.: UDS-1	Depth (m): 2.00
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:

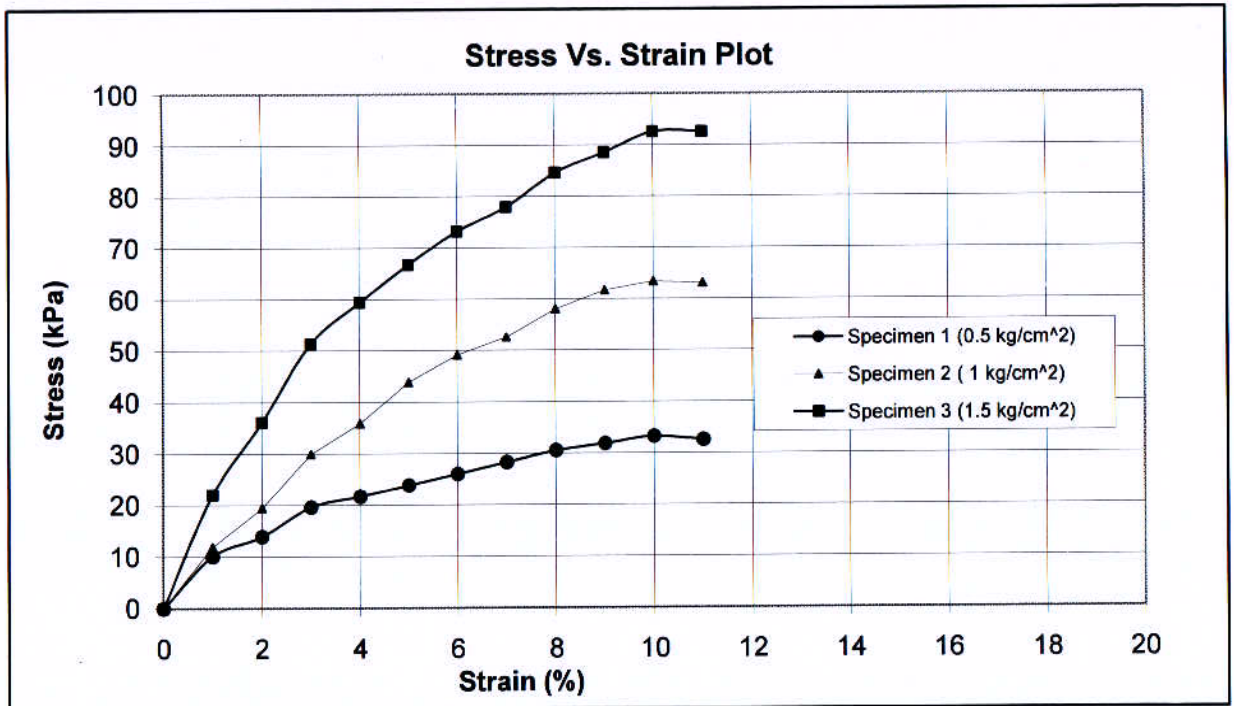
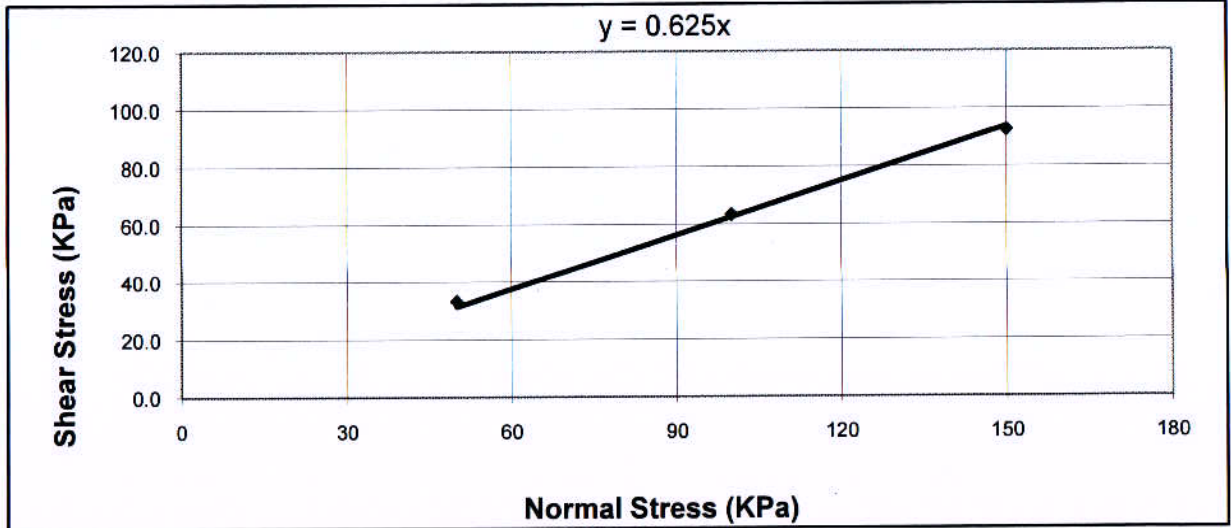
Date: 17/3/16

Checked by:

Date:

Authorised Signatory:

Date: 27/3/16



Sample Details

Dry-density, (mg/m³) = 1.62
Brownish Silty SAND (SM)

Test Result

$c = 0.0$ kPa
 $\phi = 32.0^\circ$

BH No: 1	Chainage 13+260	Sample No.: SPT-8	Depth (m): 12.00
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:

(Signature)

Date: 18/3/16

Checked by:

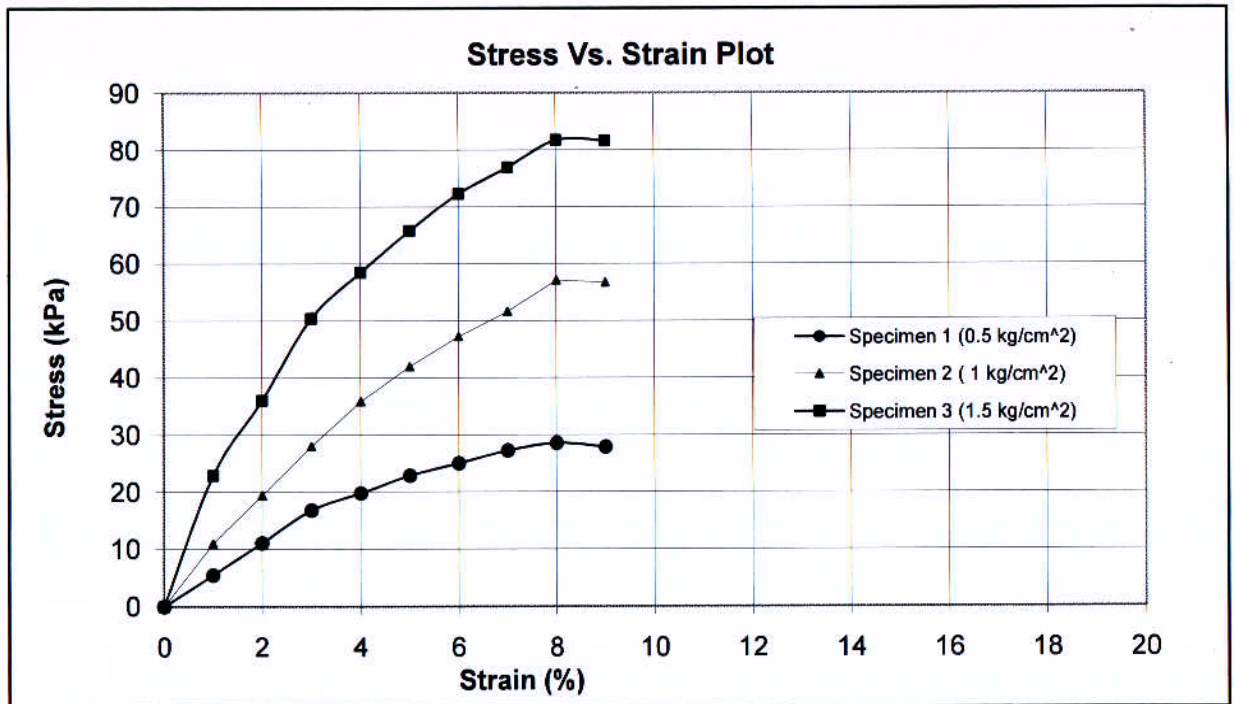
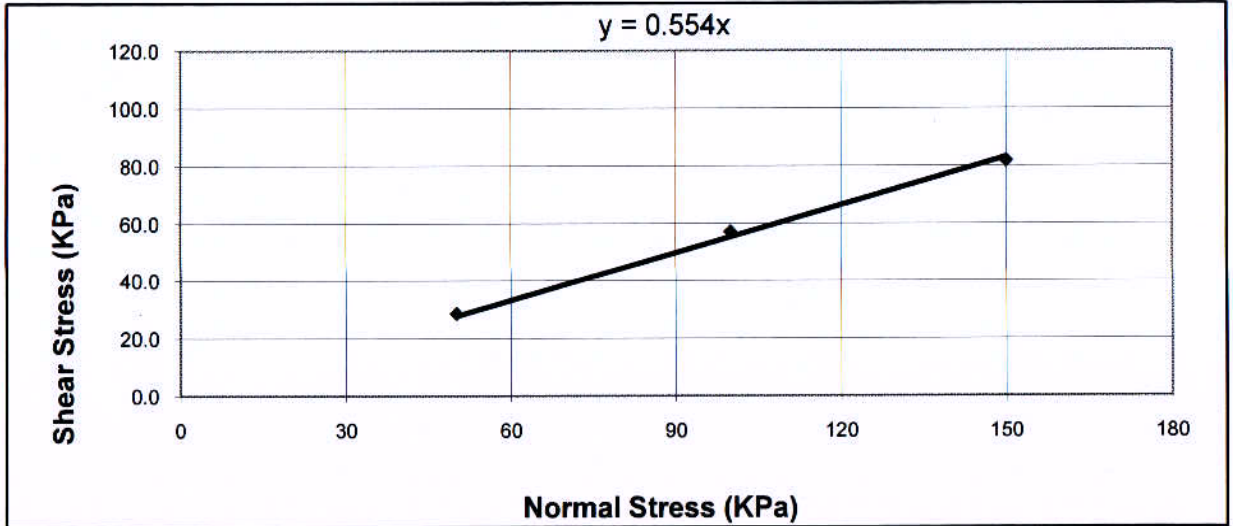
(Signature)
28/3/16

Date:

Authorised Signatory:

(Signature)

Date: 28/3/16



Sample Details

Dry-density, (mg/m³) = 1.81
Brownish Silty SAND (ML)

Test Result

c = 0.0 kPa
 $\phi = 29.0^\circ$

BH No: 1	Chainage 17+790	Sample No.: UDS-1	Depth (m): 2.00
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:

(Signature)

Date: 18/3/16

Checked by:

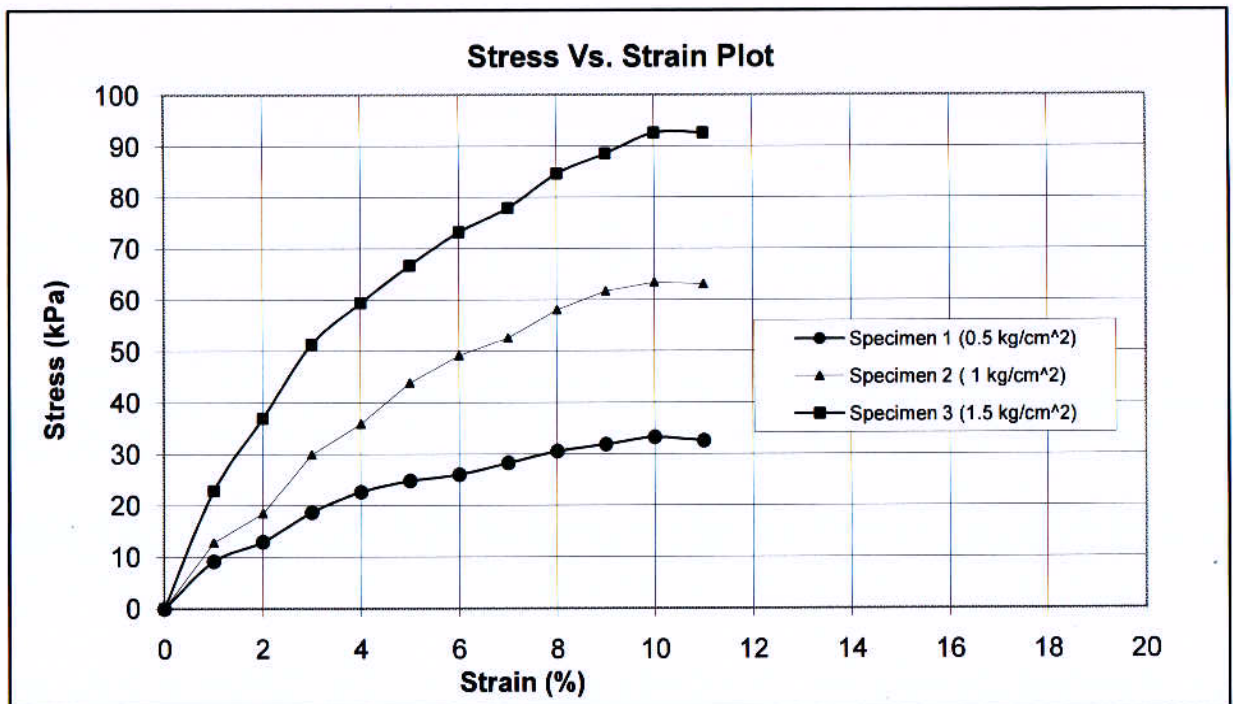
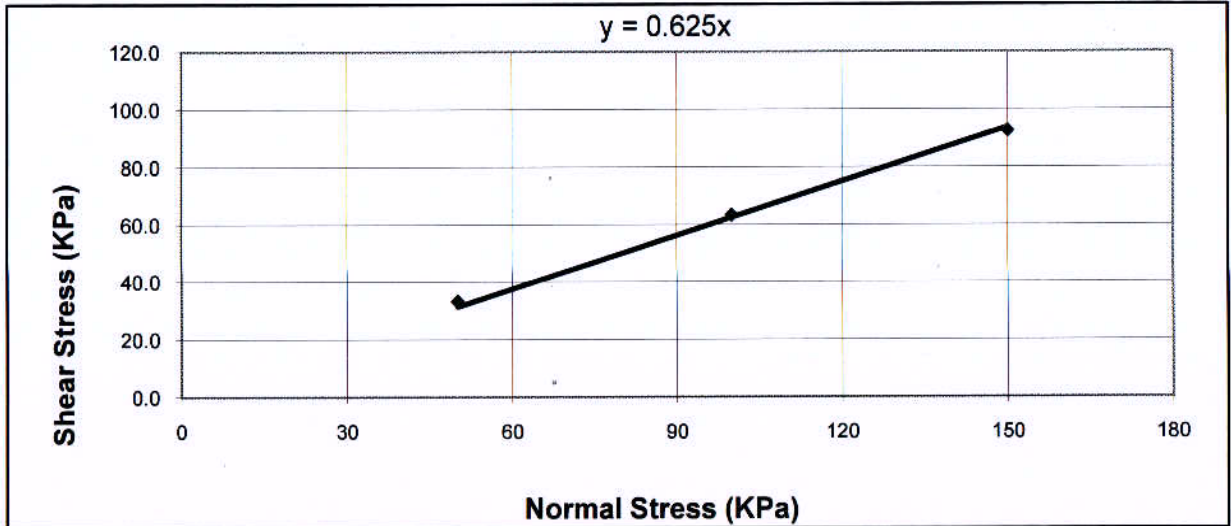
(Signature)

Date:

Authorised Signatory:

(Signature)

Date: 28/3/16



Sample Details

Dry-density, (mg/m³) = 1.66
Brownish Sandy SILT (ML)

Test Result

$c = 0.0$ kPa
 $\phi = 32.0^\circ$

BH No: 1	Chainage 17+790	Sample No.: UDS-8	Depth (m): 23.00
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:

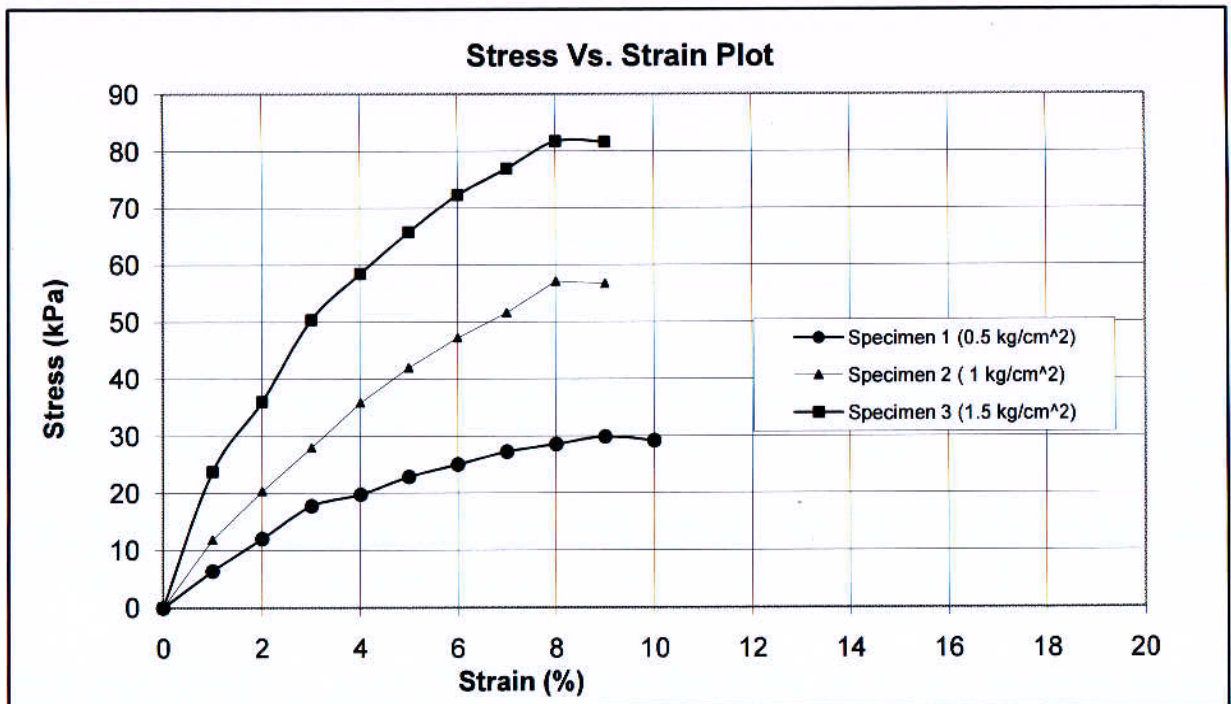
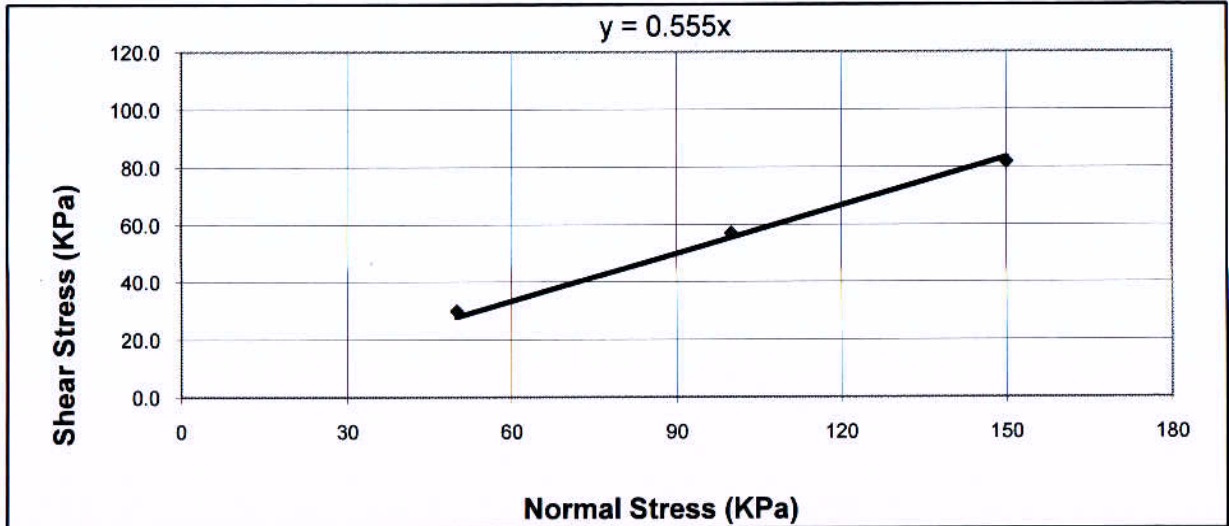
Date: 18/12/16

Checked by:

Date: 22/13/16

Authorised Signatory:

Date: 27/12/16






Sample Details

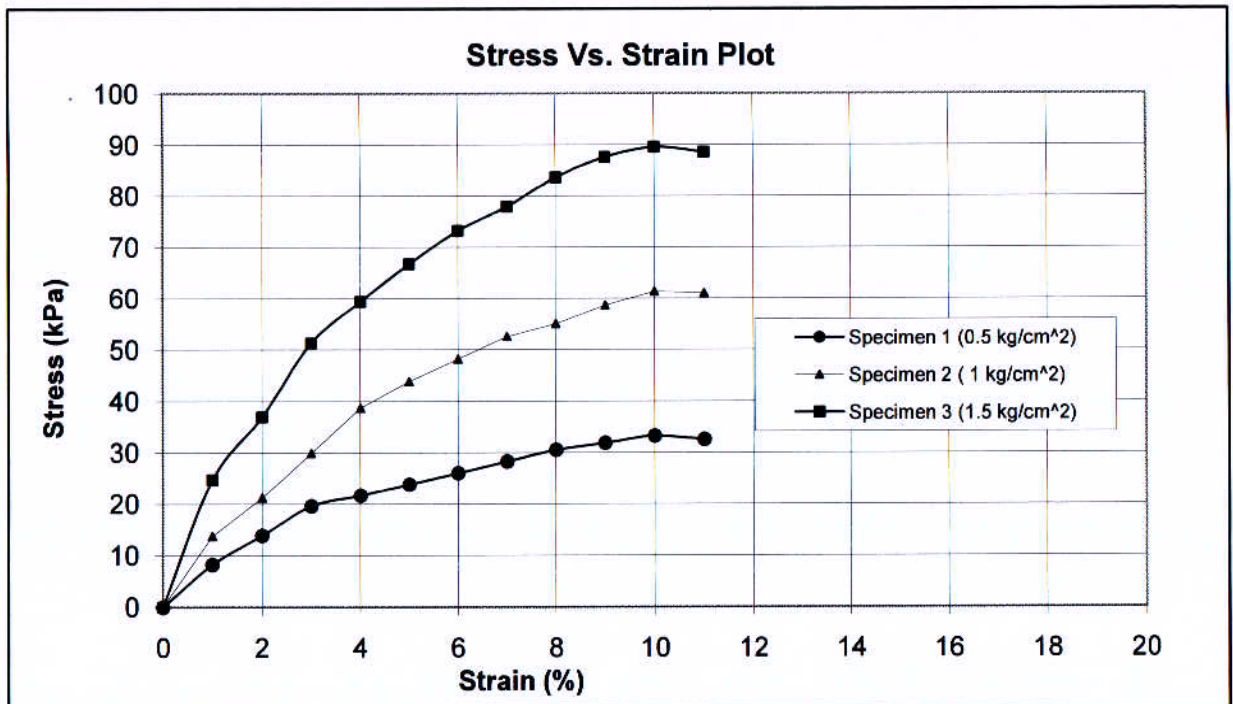
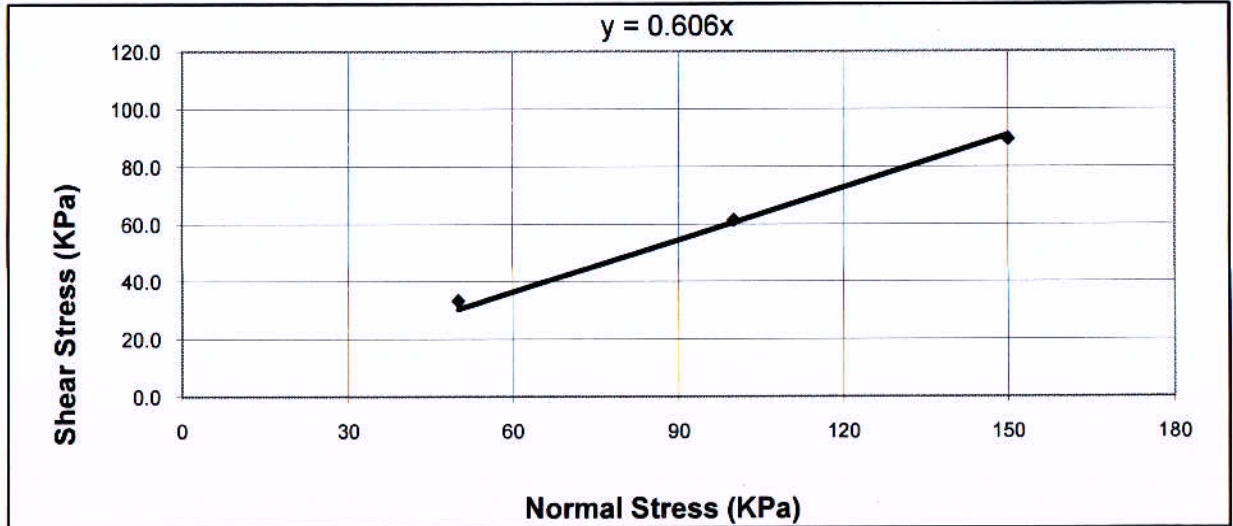
Dry-density, (mg/m³) = 1.79
Brownish Sandy SILT (ML)

Test Result

$c = 0.0$ kPa
 $\phi = 29.0^\circ$

BH No: 1	Chainage 19+680	Sample No.: SPT-1	Depth (m): 1.50
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:  Date: 18/3/16	Checked by:  Date: 28/3/16	Authorised Signatory:  Date: 28/3/16
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Sample Details

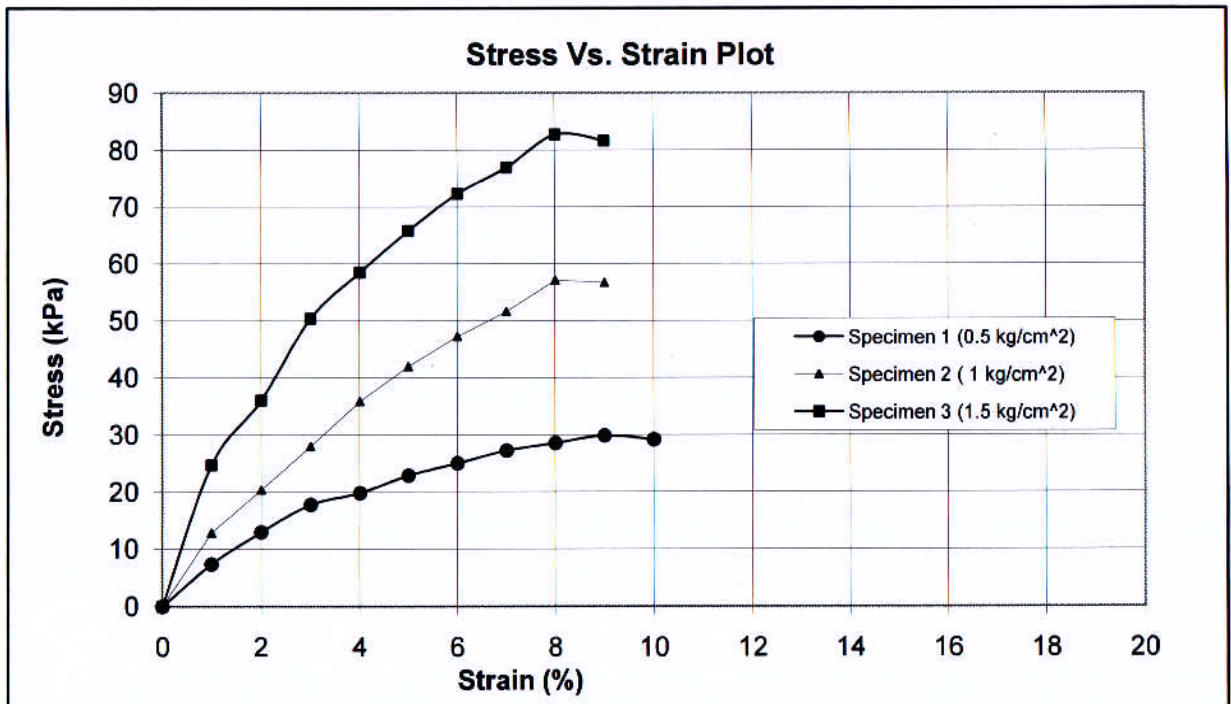
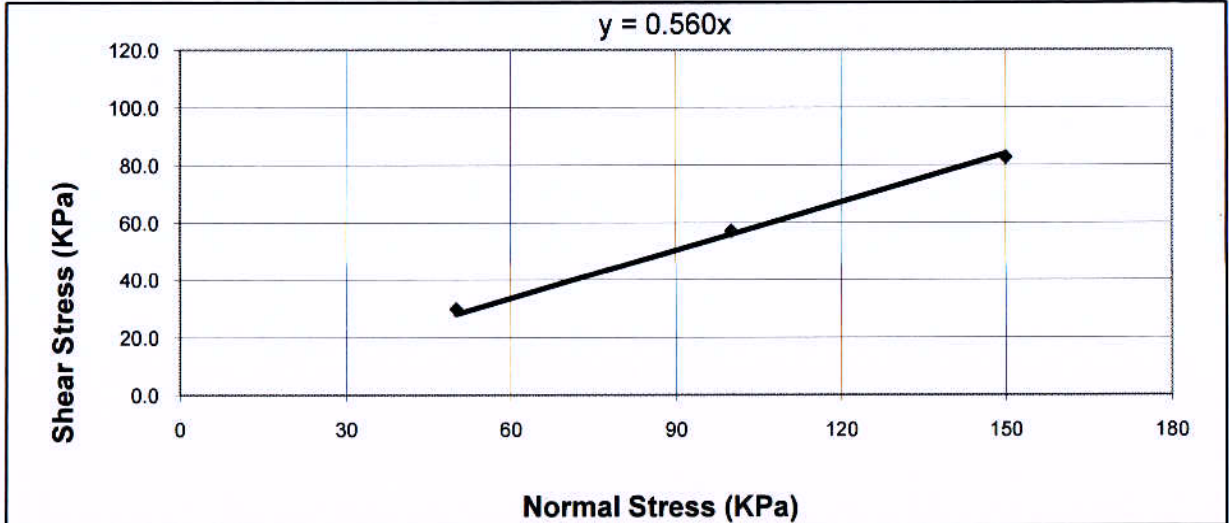
Dry-density, (mg/m³) = 1.82
Brownish Silty SAND (SM)

Test Result

$c = 0.0$ kPa
 $\phi = 31.2^\circ$

BH No: 1	Chainage 19+680	Sample No.: SPT-6	Depth (m): 9.00
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by: 	Checked by: 	Authorised Signatory: 
Date: 18/3/16	Date: 28/3/16	Date: 28/3/16



Sample Details

Dry-density, (mg/m³) = 1.64

Brownish Sandy SILT (ML)

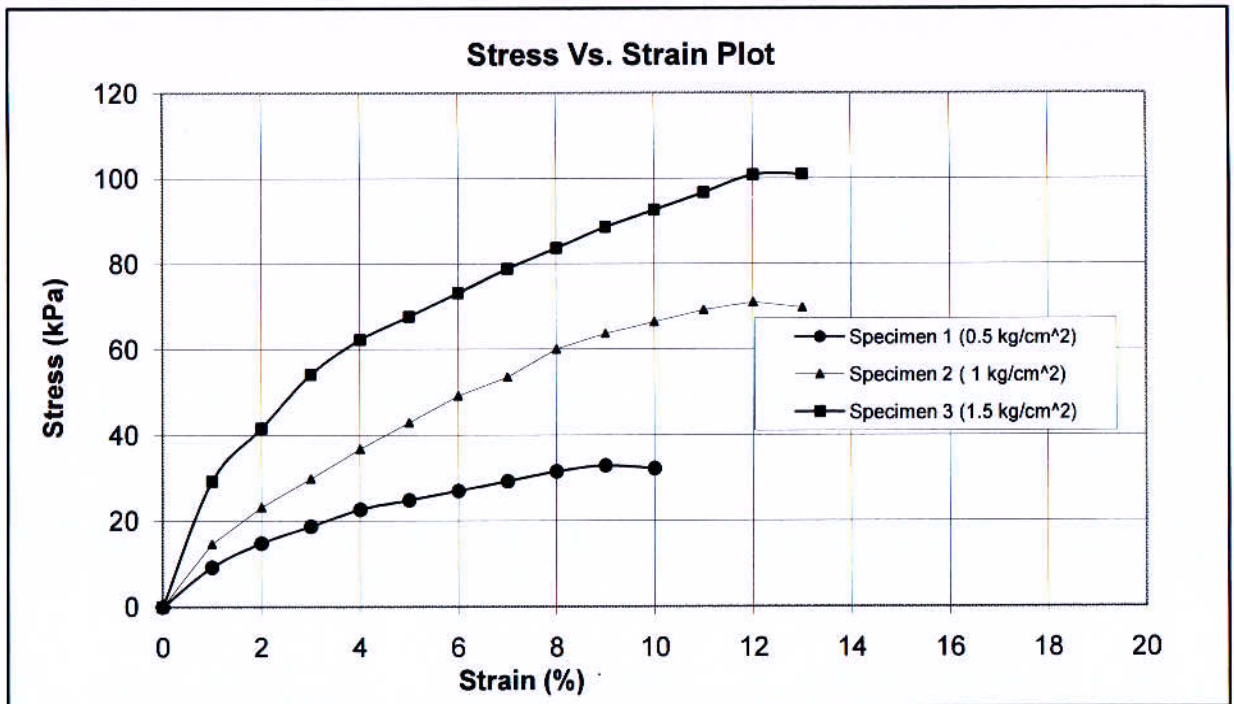
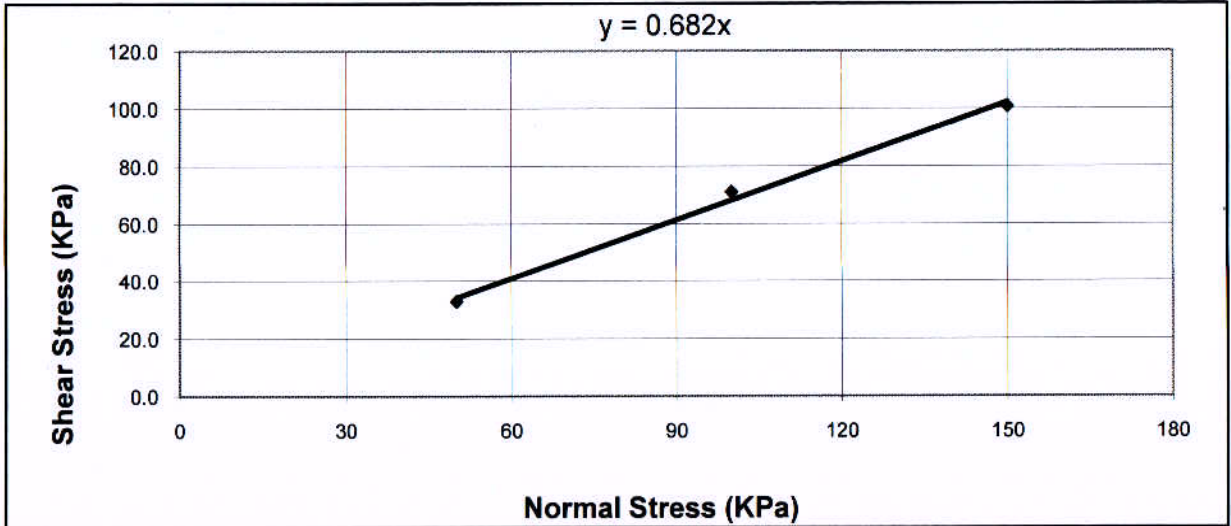
Test Result

c = 0.0 kPa

ϕ = 29.2 °

BH No: 1	Chainage 24+269	Sample No.: UDS-1	Depth (m): 2.00
Site Ref: Muzaffarnagar to Saharanpur	Job No: 1342		Test Report No: XPL/2015-16/02

Tested by: 	Checked by: 	Authorised Signatory:
Date: 18/3/16	Date: 28/3/16	Date: 28/3/16



Sample Details

Dry-density, (mg/m³) = 1.88
Brownish Silty SAND (SW-SM)

Test Result

$c = 0.0$ kPa
 $\phi = 34.3^\circ$

BH No: 1	Chainage 24+269	Sample No.: SPT-17	Depth (m): 25.50
Site Ref: Muzaffarnagar to Saharanpur		Job No : 1342	
Test Report No: XPL/2015-16/02			

Tested by:

(Signature)

Date: 18/3/16

Checked by:

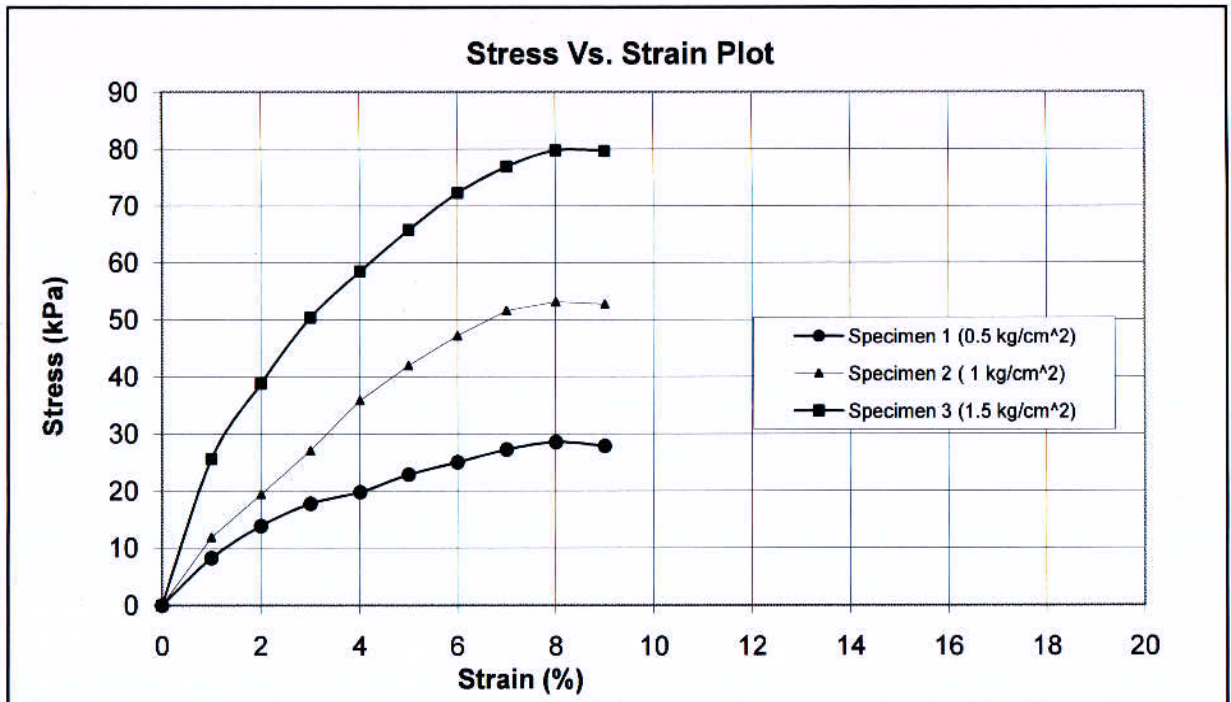
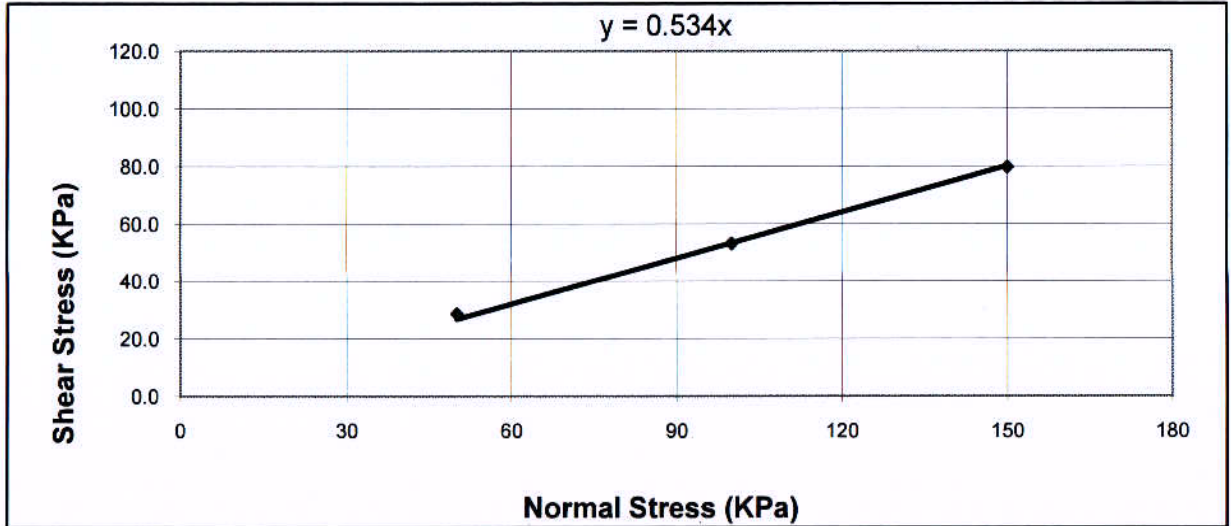
(Signature)
28/3/16

Date:

Authorised Signatory:

(Signature)

Date: 28/3/16



Sample Details

Dry-density, (mg/m³) = 1.65
Brownish Sandy SILT (ML)

Test Result

$c = 0.0$ kPa
 $\phi = 28.1^\circ$

BH No: 1	Chainage 20+960	Sample No.: UDS-1	Depth (m): 2.00
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:

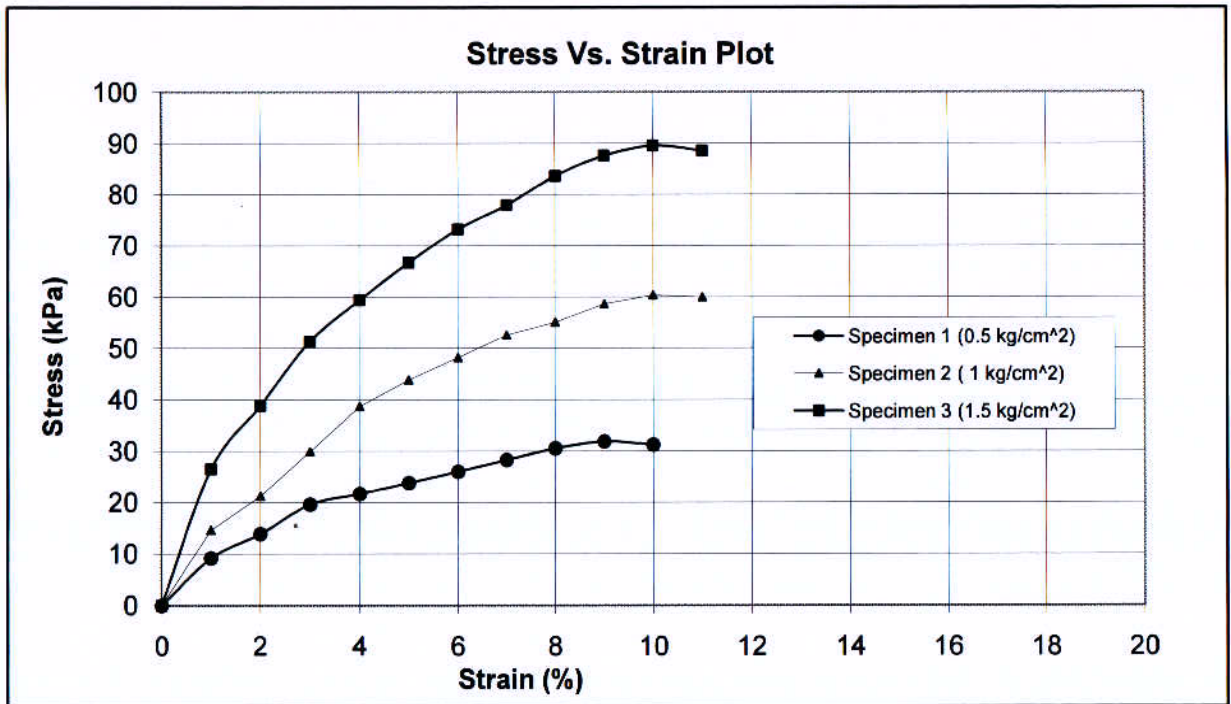
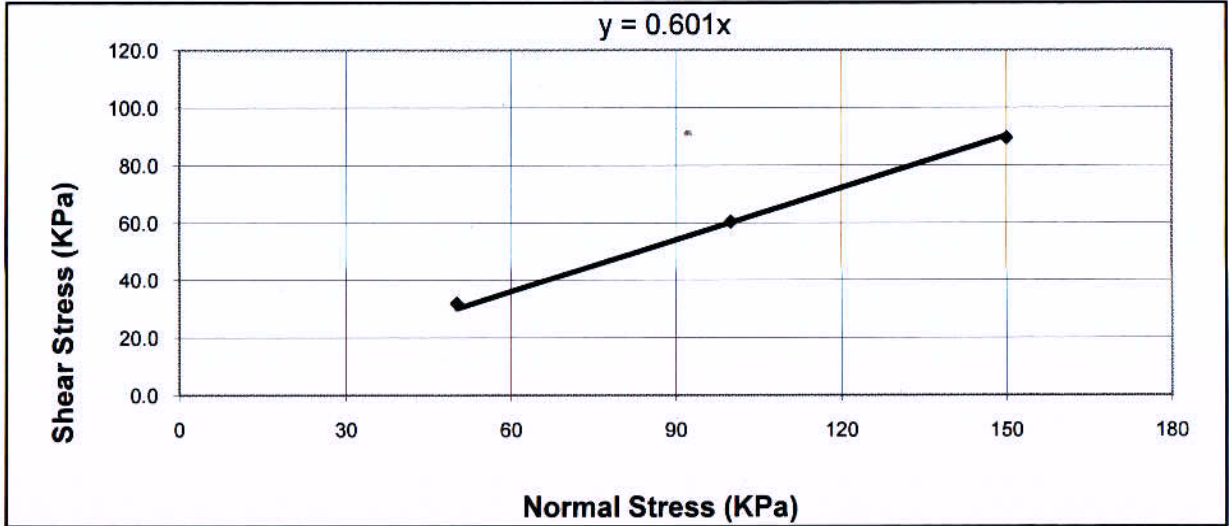
Date: 19/3/16

Checked by:

Date: 28/3/16

Authorised Signatory:

Date: 28/3/16



Sample Details

Dry-density, (mg/m³) = 1.80
Brownish Silty SAND (SW-SM)

Test Result

$c = 0.0$ kPa
 $\phi = 31.0^\circ$

BH No: 1	Chainage 20+960	Sample No.: SPT-6	Depth (m): 9.00
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:

(Signature)

Date: 19/3/16

Checked by:

(Signature)
28/3/16

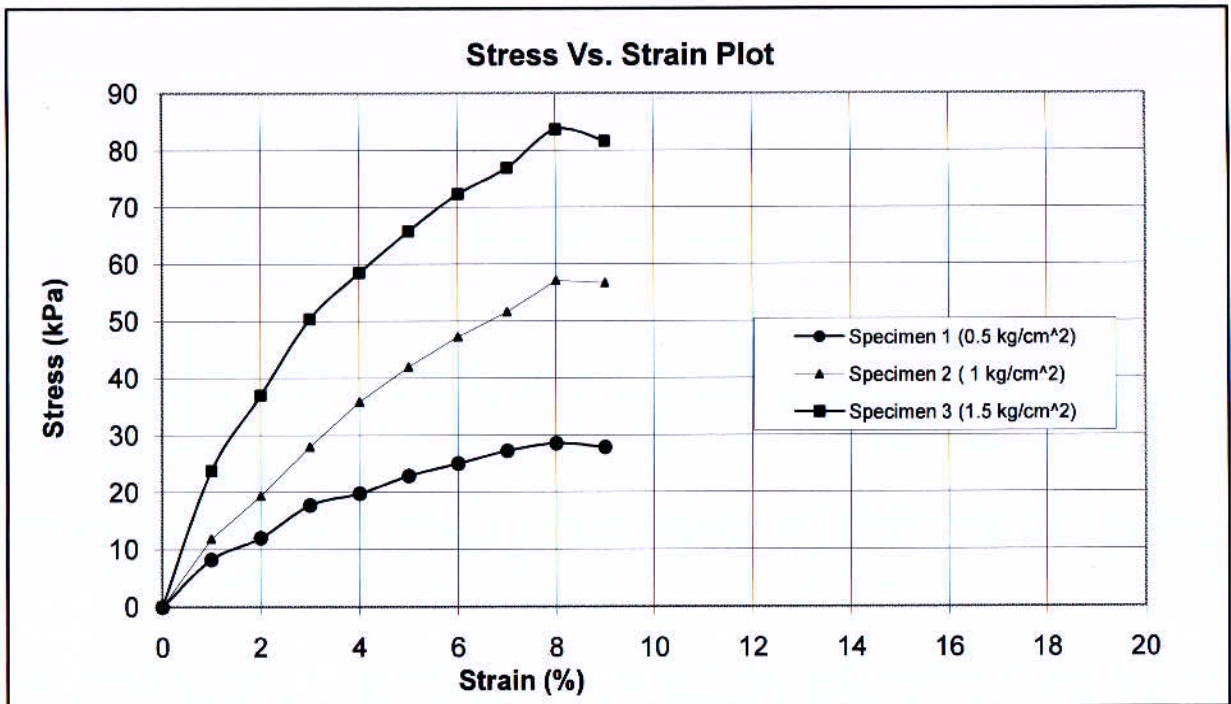
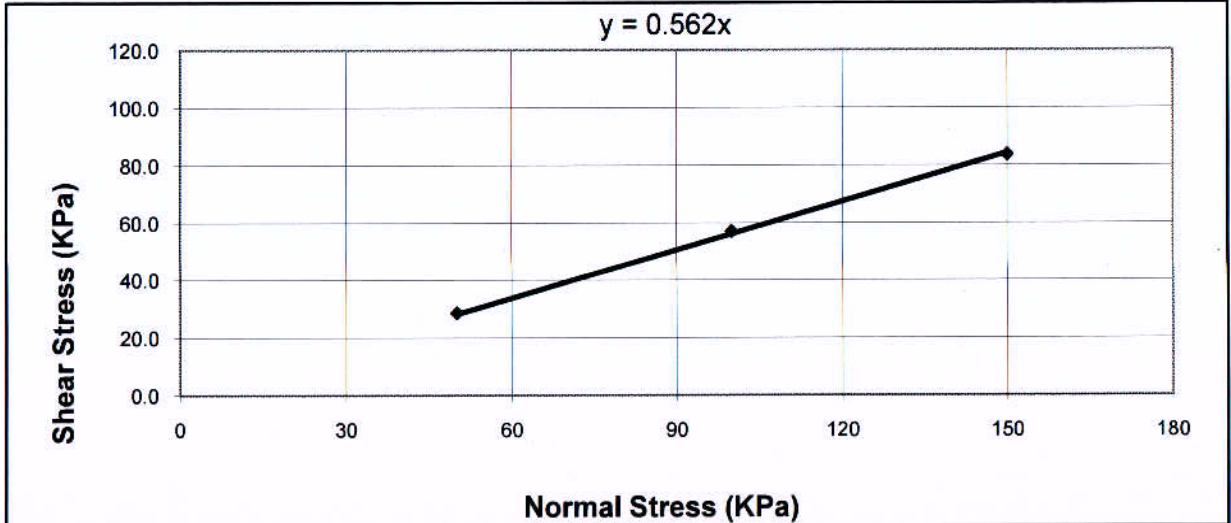
Date:

Authorised Signatory:

(Signature)

Date:

25/3/16



Sample Details

Dry-density, (mg/m³) = 1.71

Brownish Sandy SILT (ML)

Test Result

$c = 0.0$ kPa

$\phi = 29.3^\circ$

BH No: 1	Chainage 22+700	Sample No.: UDS-1	Depth (m): 2.00
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			


Tested by:

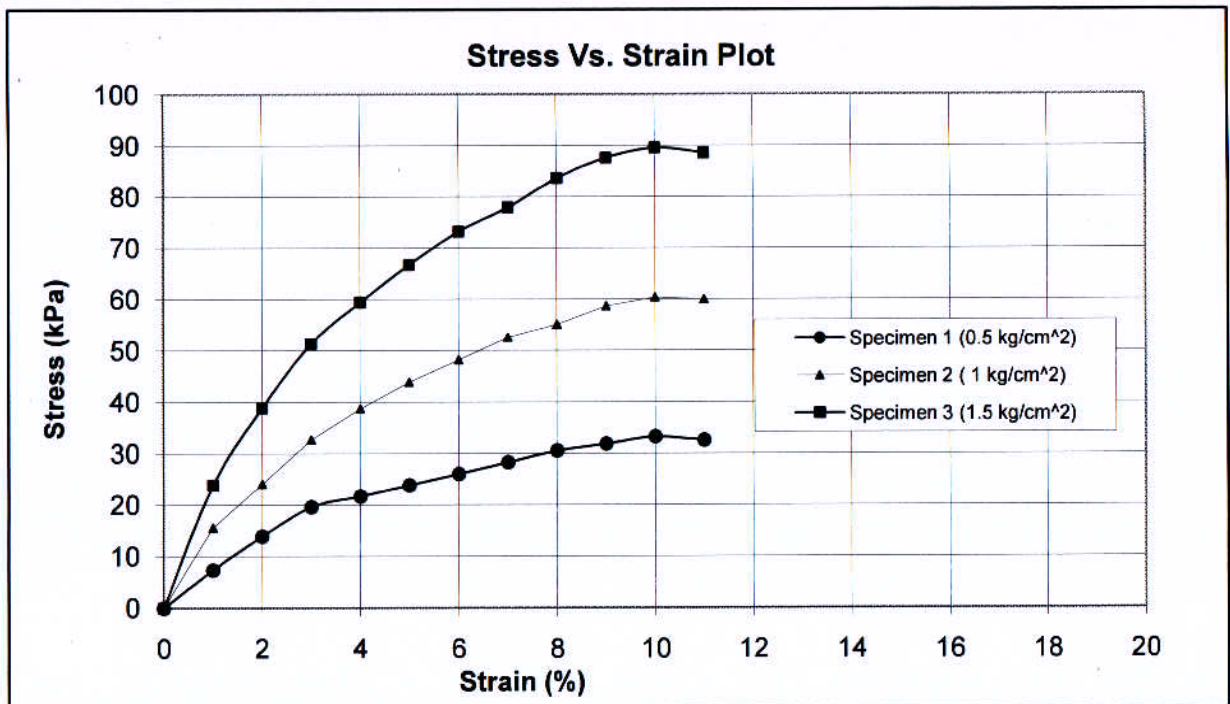
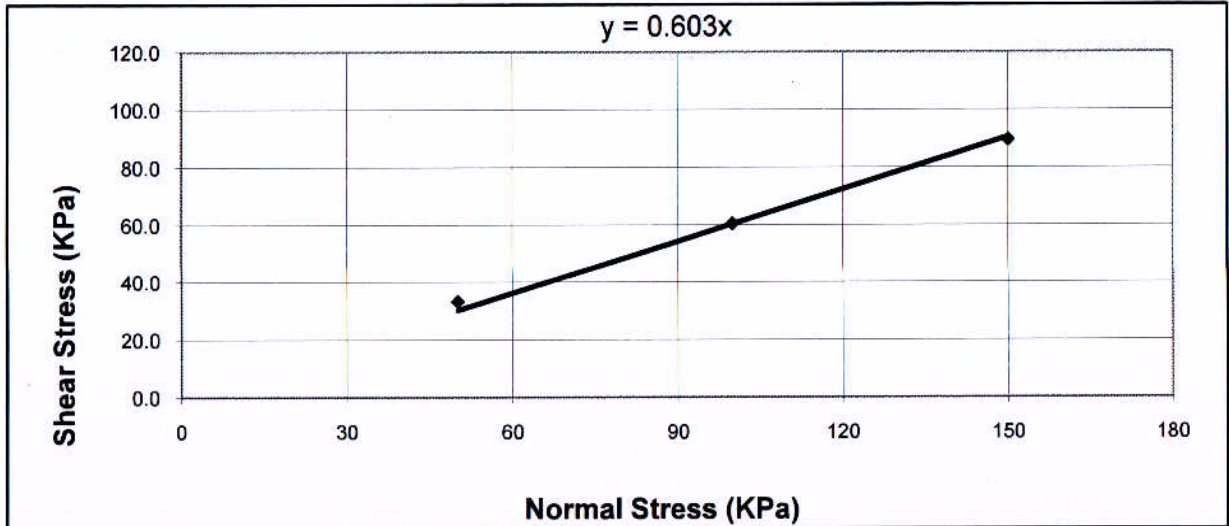
Checked by:

Authorised Signatory:


Date: 19/3/16


Date: 28/3/16


Date: 28/3/16



Sample Details

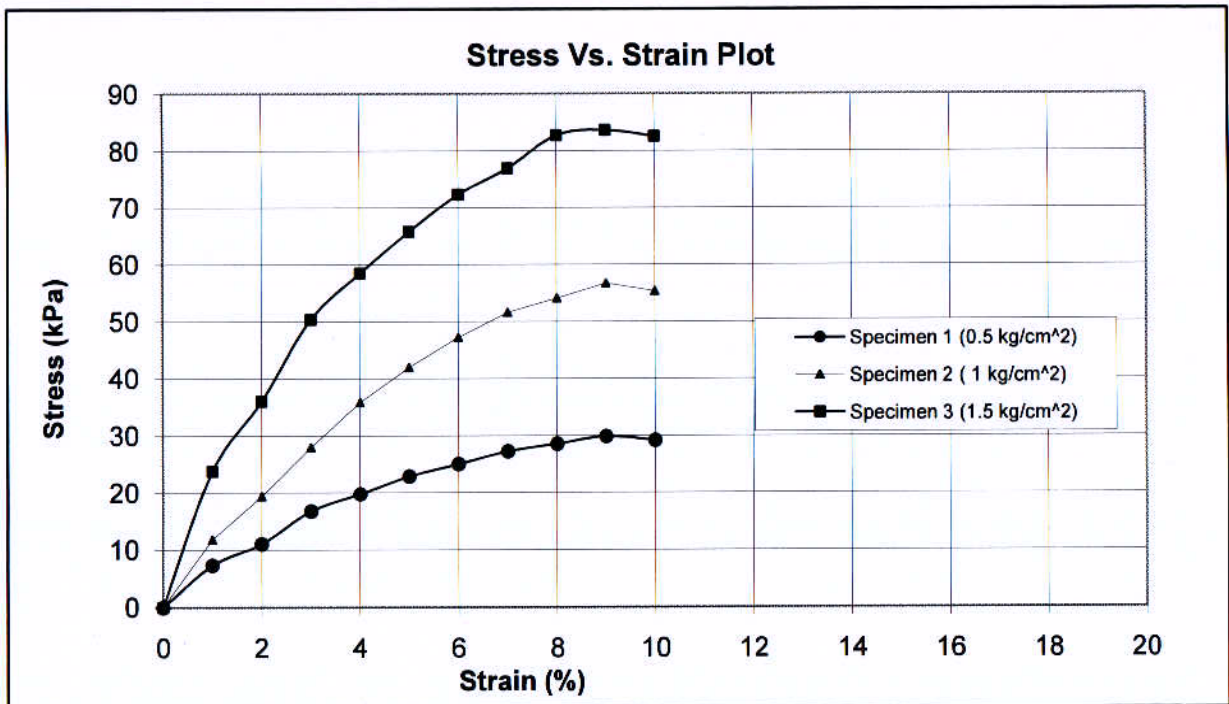
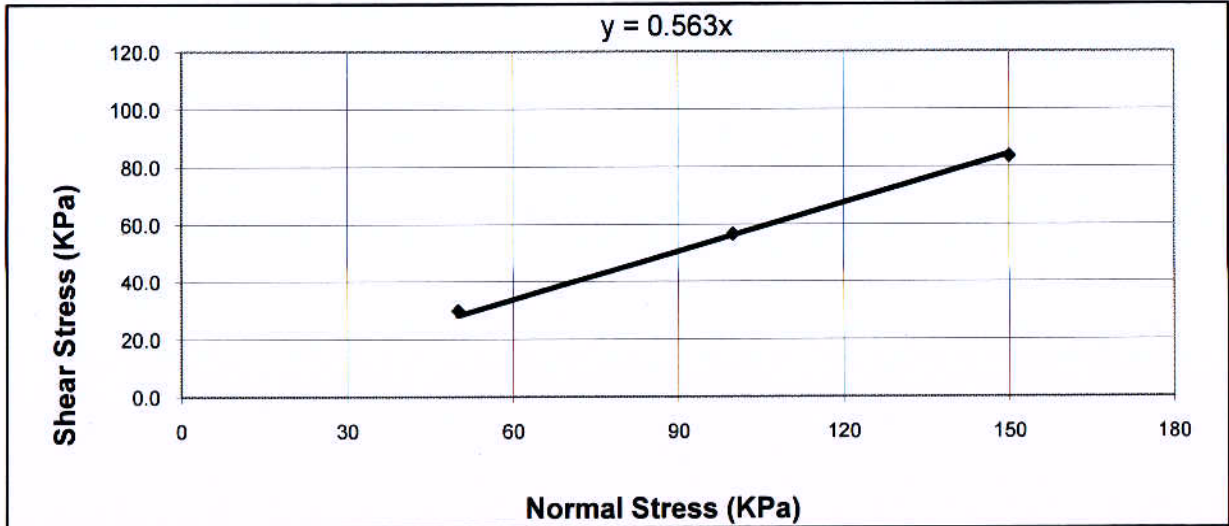
Dry-density, (mg/m³) = 1.85
Brownish Silty SAND (SW-SM)

Test Result

$c = 0.0$ kPa
 $\phi = 31.1^\circ$

BH No: 1	Chainage 22+700	Sample No.: SPT-8	Depth (m): 12.00
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by: 	Checked by: 	Authorised Signatory:
Date: 19/3/16	Date: 28/3/16	Date: 28/3/16



Sample Details

Dry-density, (mg/m³) = 1.72
Brownish Silty SAND (ML)

Test Result

c = 0.0 kPa
 $\phi = 29.4^\circ$

BH No: 1	Chainage 25+880	Sample No.: UDS-1	Depth (m): 2.00
Site Ref: Muzaffarnagar to Saharanpur		Job No : 1342	
Test Report No: XPL/2015-16/02			

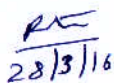
Tested by:



Date:

19/3/16

Checked by:



Date:

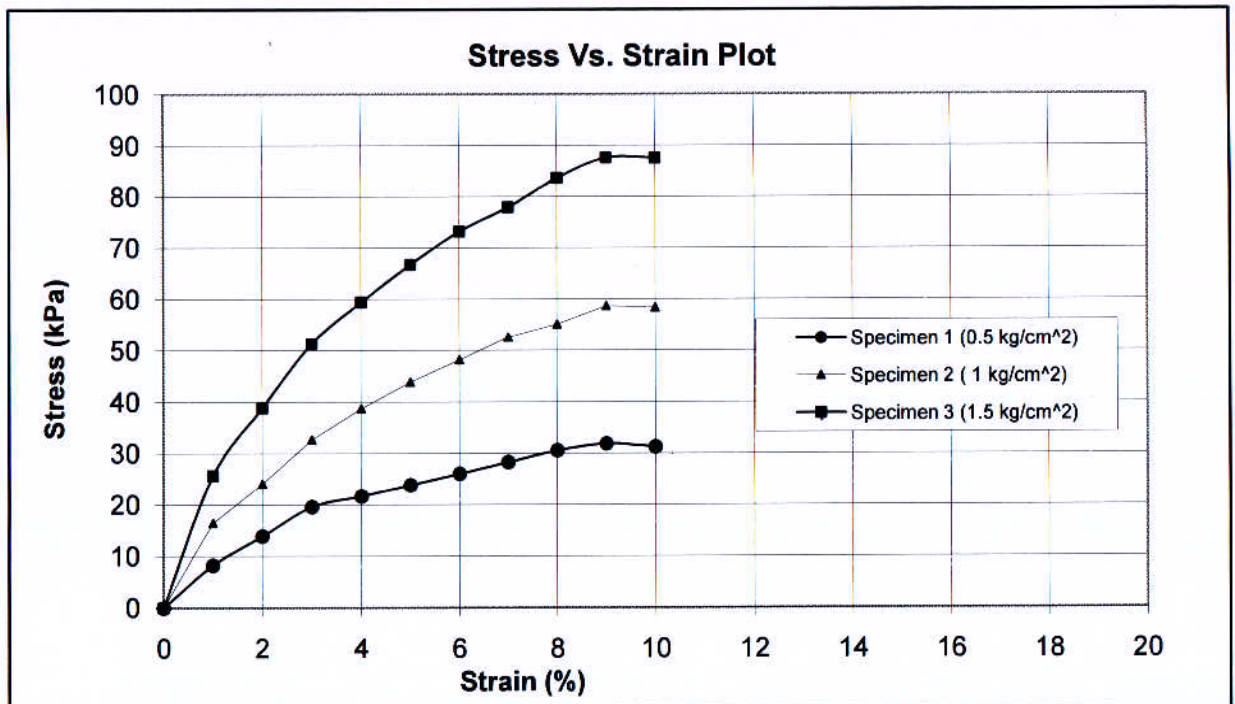
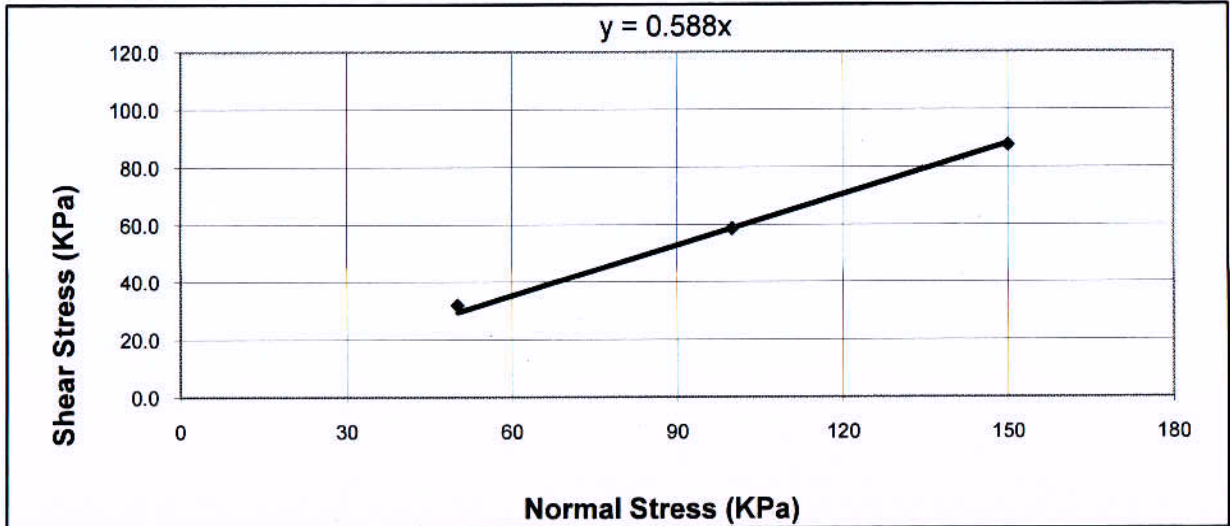
28/3/16

Authorised Signatory:



Date:

28/3/16



Sample Details

Dry-density, (mg/m³) = 1.82
Poorly Graded SAND (SP)

Test Result

$c = 0.0$ kPa
 $\phi = 30.4^\circ$

BH No: 1	Chainage 25+880	Sample No.: SPT-8	Depth (m): 12.00
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:

(Signature)

Date: 19/3/16

Checked by:

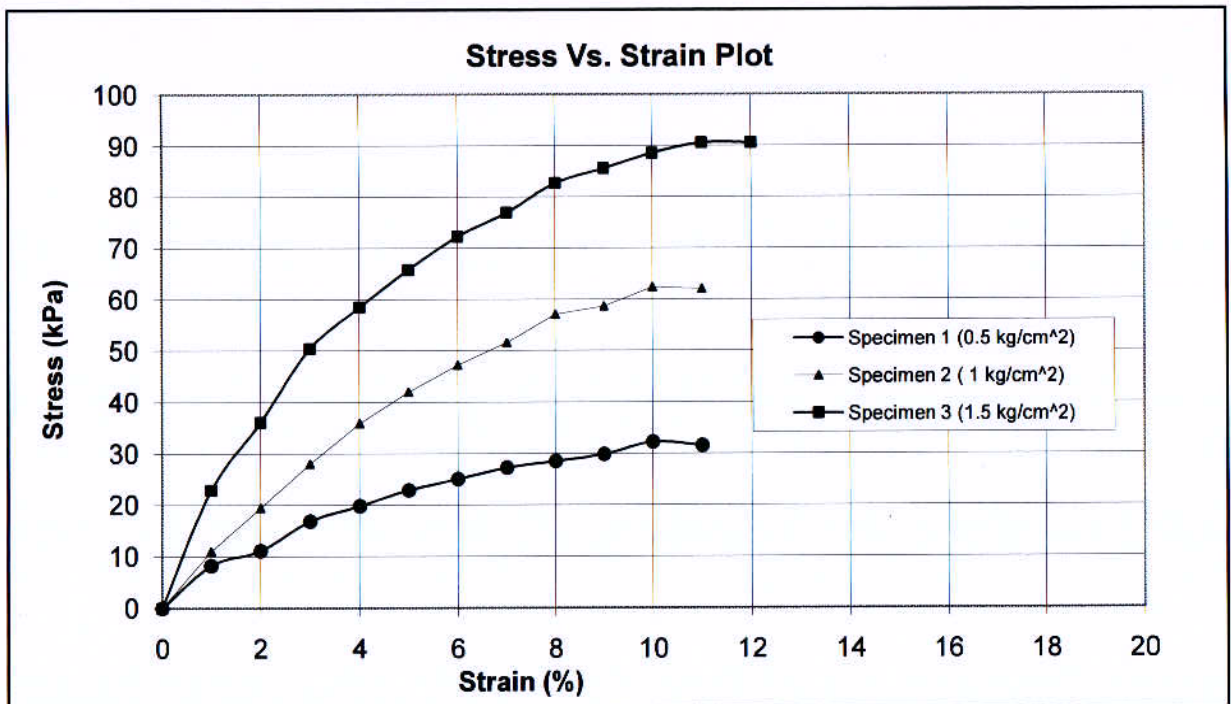
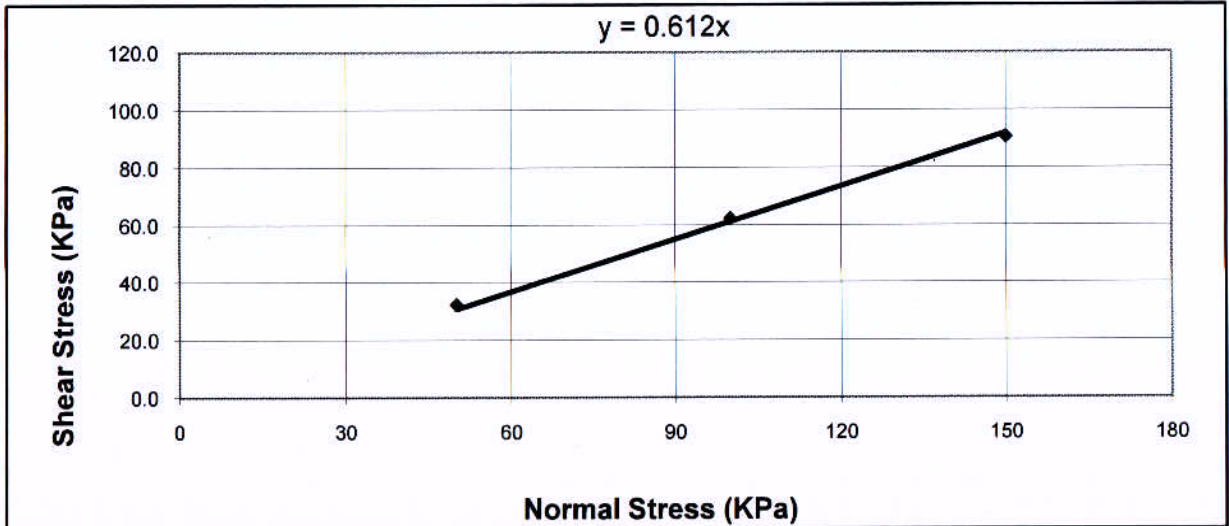
(Signature)
28/3/16

Date:

Authorised Signatory:

(Signature)

Date: 24/3/16



Sample Details

Dry-density, (mg/m³) = 1.69
Brownish Silty SAND (ML)

Test Result

c = 0.0 kPa
φ = 31.5 °

BH No: 1	Chainage 28+840	Sample No.: UDS-5	Depth (m): 14.00
Site Ref: Muzaffarnagar to Saharanpur		Job No : 1342	
Test Report No: XPL/2015-16/02			

Tested by:

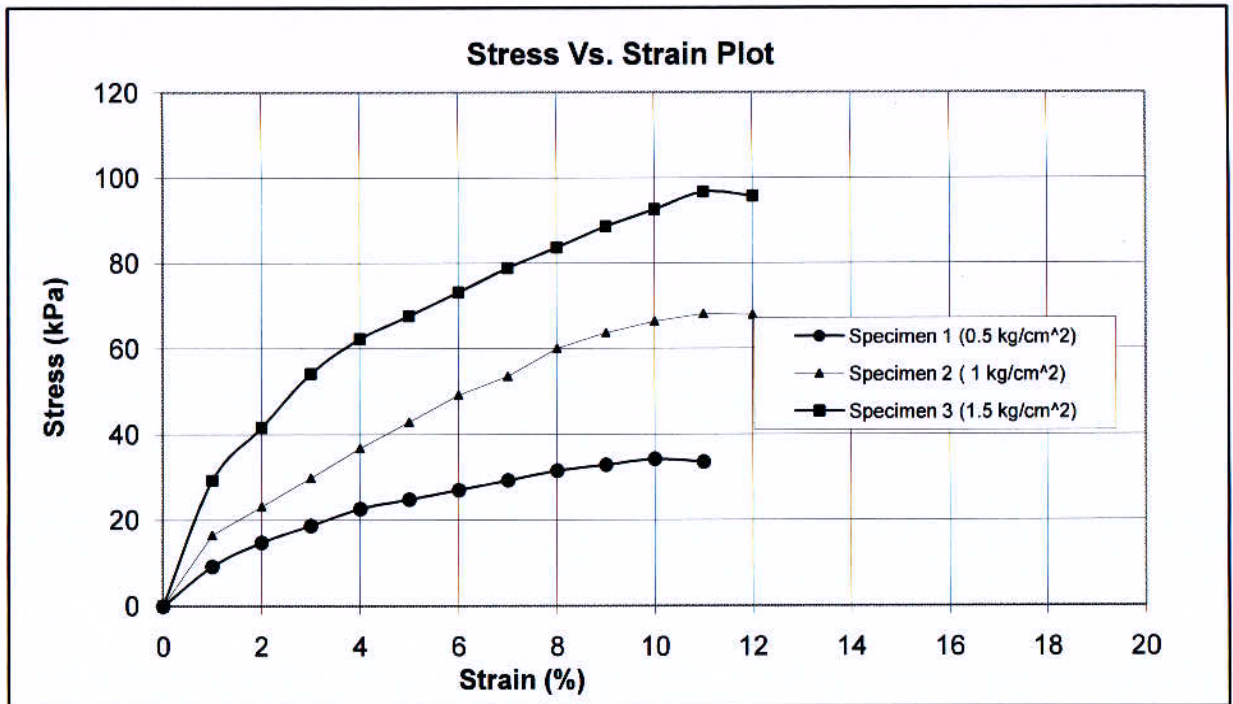
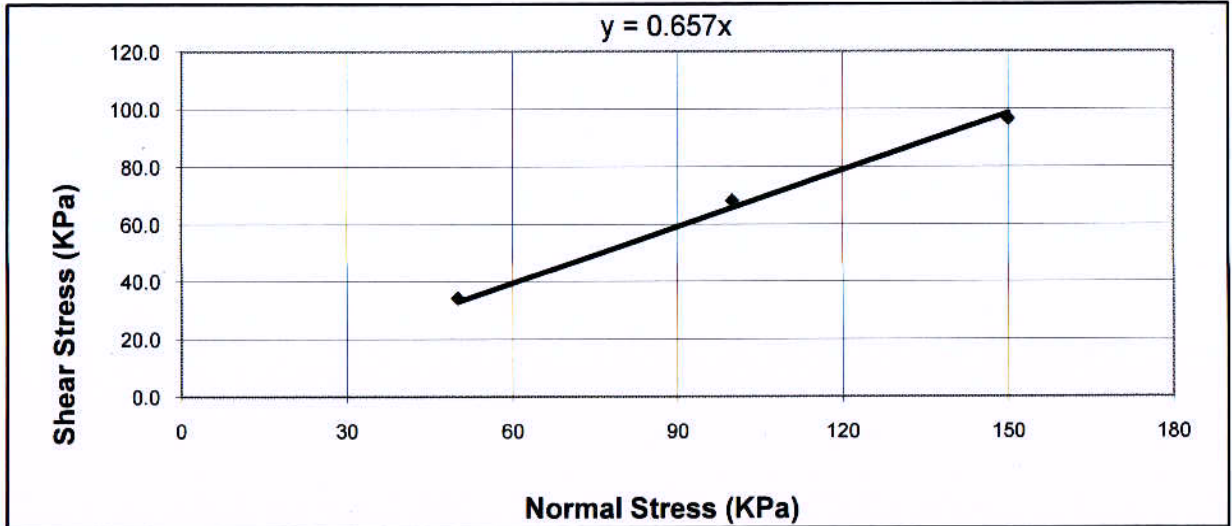
(Signature)
Date: 19/3/16

Checked by:

(Signature)
Date: 28/3/16

Authorised Signatory:

(Signature)
Date: 28/3/16




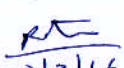

Sample Details

Dry-density, (mg/m³) = 1.87
Poorly Graded SAND (SP)

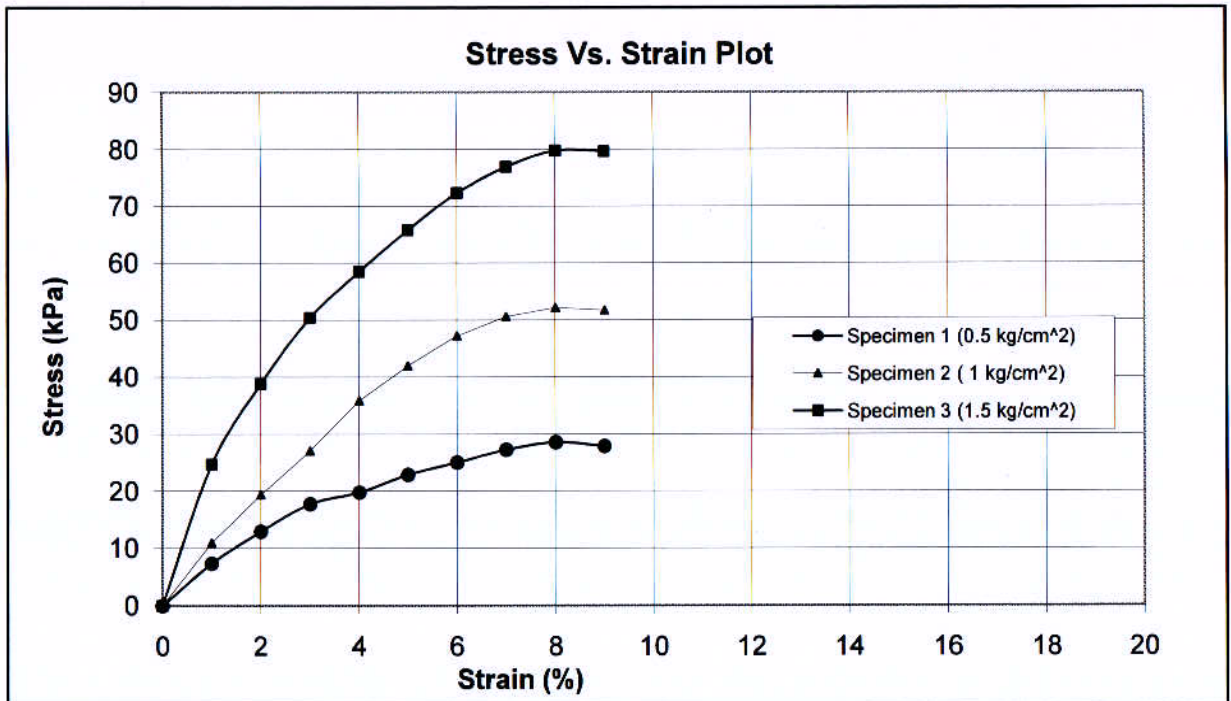
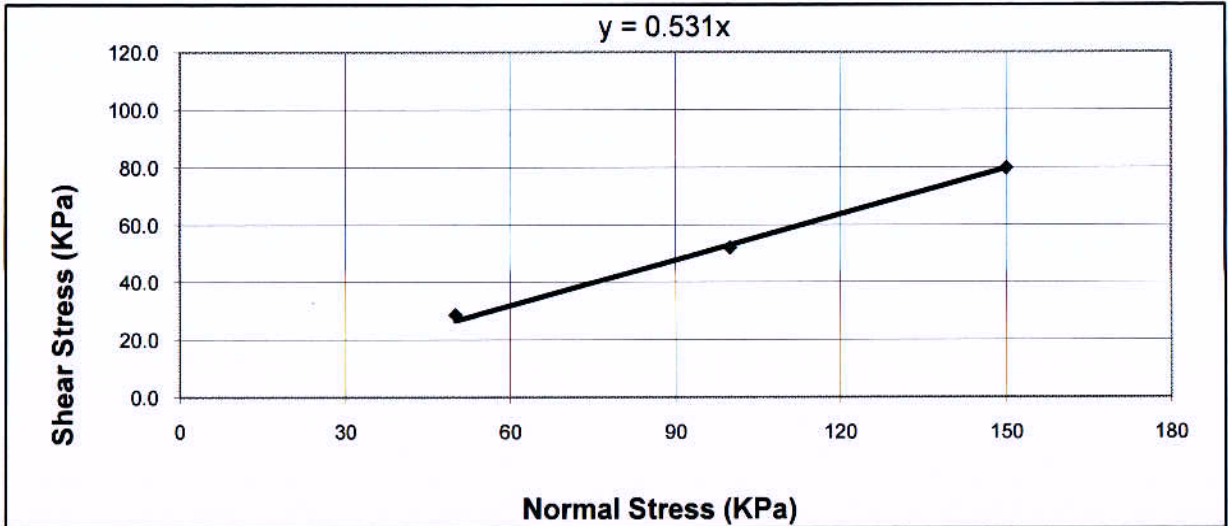
Test Result

$c = 0.0$ kPa
 $\phi = 33.3^\circ$

BH No: 1	Chainage 28+840	Sample No.: SPT-17	Depth (m): 25.50
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	Test Report No: XPL/2015-16/02

<p>Tested by:</p>  <p>Date: 19/3/16</p>	<p>Checked by:</p>  <p>Date: 28/3/16</p>	<p>Authorised Signatory:</p>  <p>Date: 28/3/16</p>
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DIRECT SHEAR TEST RESULT
I.S.: 2720 : PART XIII



Sample Details

Dry-density, (mg/m³) = 1.73
Brownish Sandy SILT (ML)

Test Result

c = 0.0 kPa
φ = 28.0 °

BH No: 1	Chainage 27+960	Sample No.: UDS-1	Depth (m): 2.00
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:

(Signature)

Date: 19/3/16

Checked by:

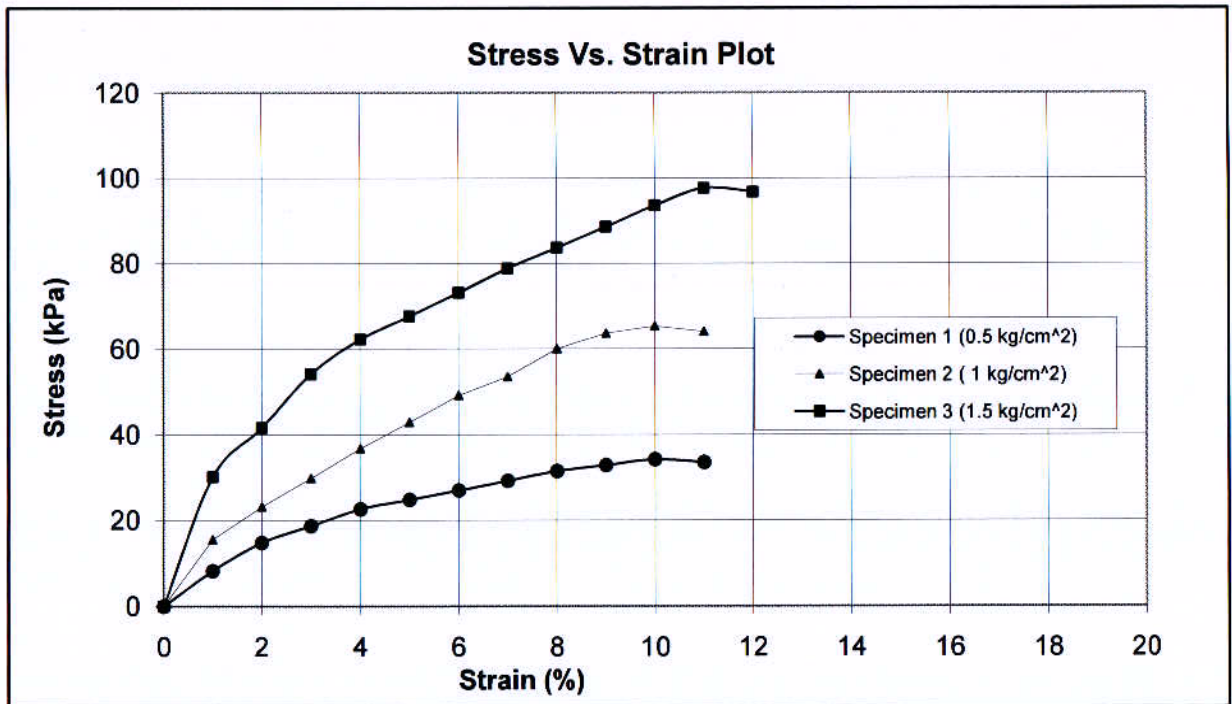
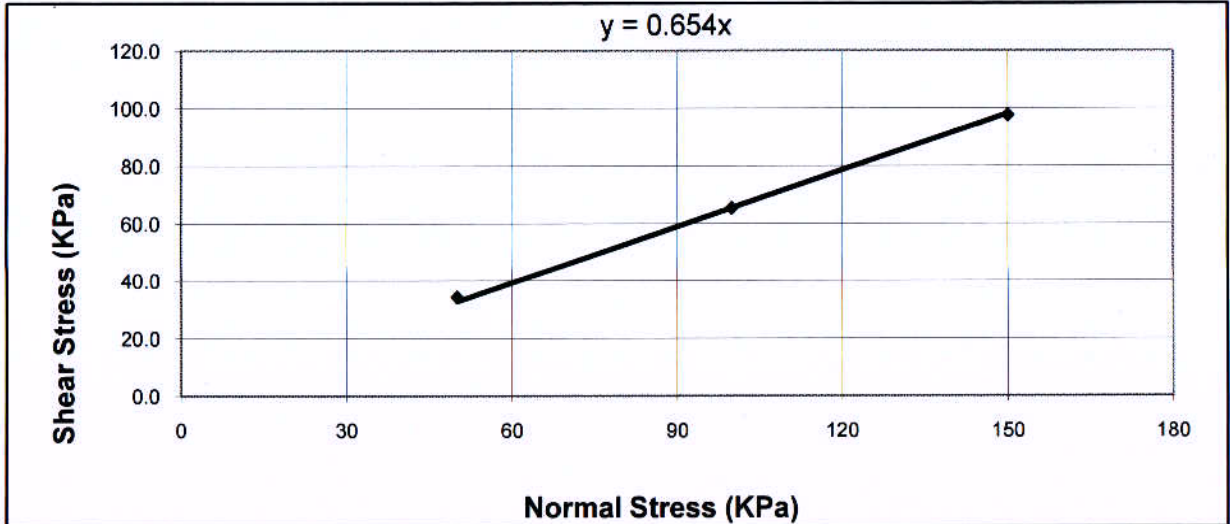
(Signature)
28/3/16

Date:

Authorised Signatory:

(Signature)

Date: 28/3/16



Sample Details

Dry-density, (mg/m³) = 1.82
Poorly Graded SAND (SP)

Test Result

$c = 0.0$ kPa
 $\phi = 33.2^\circ$

BH No: 1	Chainage 27+960	Sample No.: SPT-17	Depth (m): 25.50
Site Ref: Muzaffarnagar to Saharanpur		Job No: 1342	
Test Report No: XPL/2015-16/02			

Tested by:

(Signature)

Date: 20/3/16

Checked by:

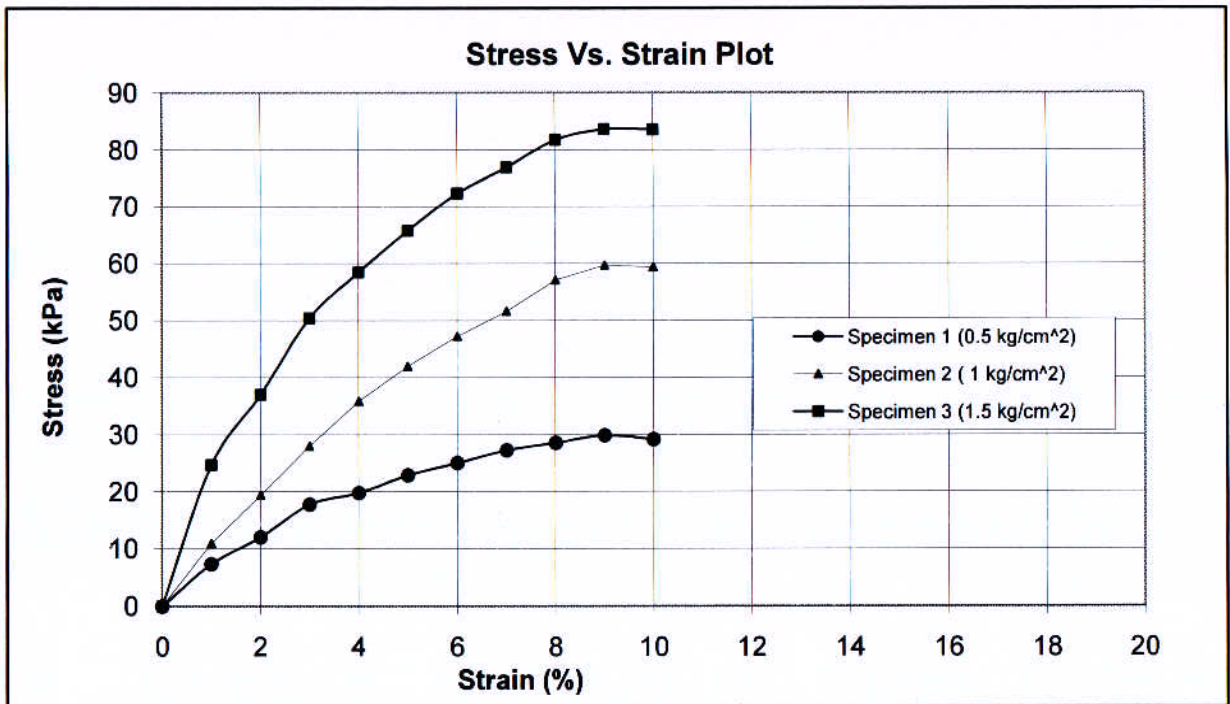
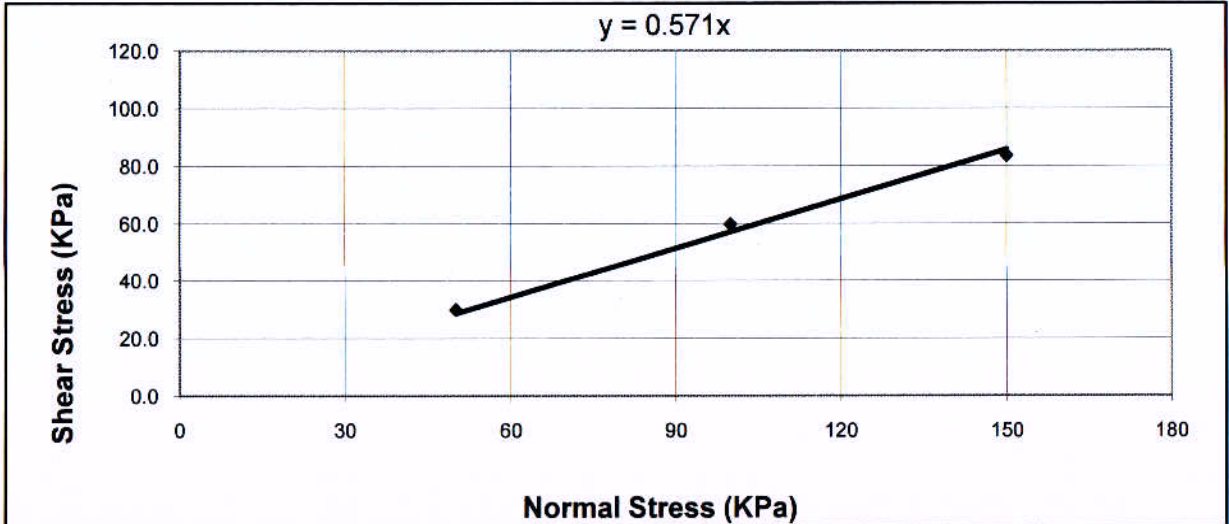
(Signature)
28/3/16

Date:

Authorised Signatory:

(Signature)

Date: 28/3/16






Sample Details

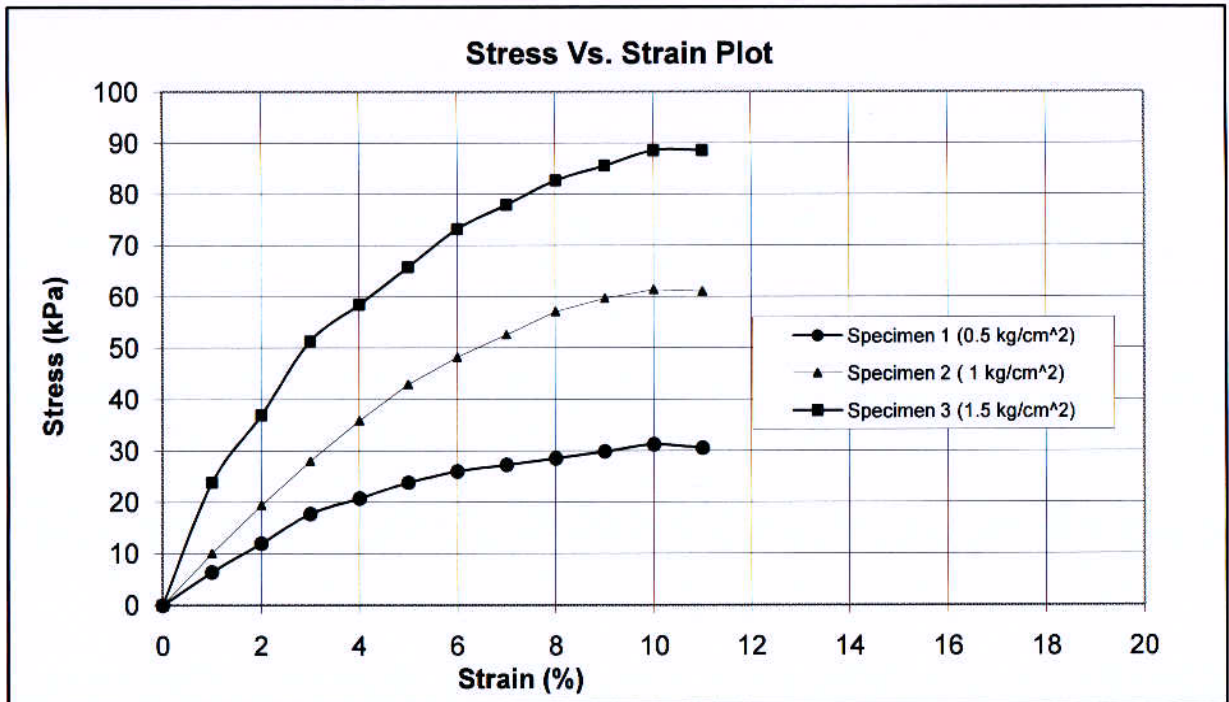
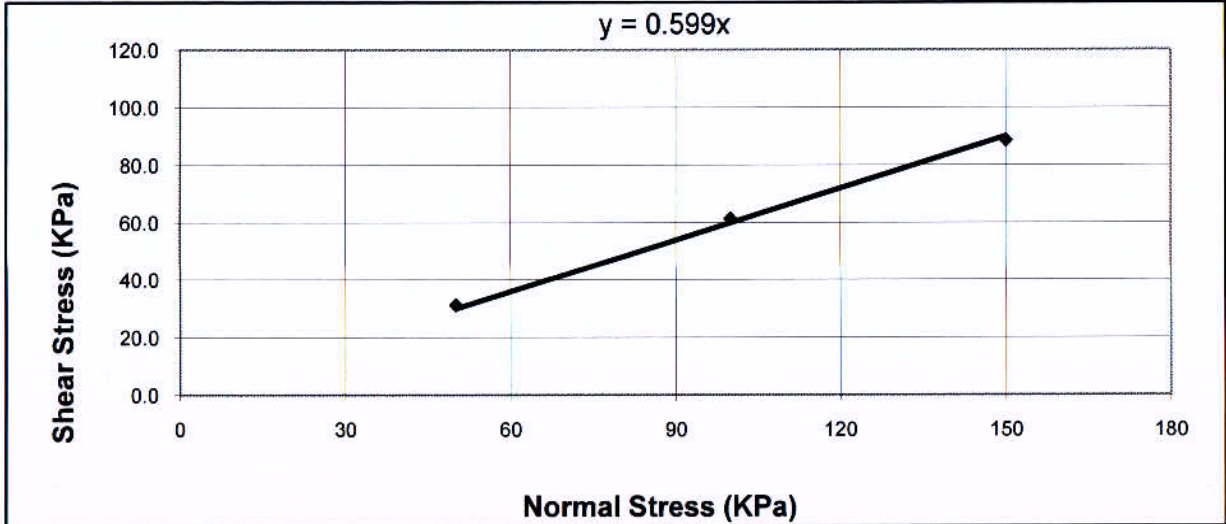
Dry-density, (mg/m³) = 1.71
Brownish Sandy SILT (ML)

Test Result

$c = 0.0$ kPa
 $\phi = 29.7^\circ$

BH No: 1	Chainage 30+236	Sample No.: UDS-1	Depth (m): 2.00
Site Ref: Muzaffarnagar to Saharanpur	Job No: 1342		Test Report No: XPL/2015-16/02

Tested by:  Date: 20/3/16	Checked by:  Date: 28/3/16	Authorised Signatory:  Date: 28/3/16
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Sample Details

Dry-density, (mg/m³) = 1.53
Brownish Sandy SILT (ML)

Test Result

c = 0.0 kPa
 $\phi = 30.9^\circ$

BH No: 1	Chainage 30+236	Sample No.: UDS-5	Depth (m): 14.00
Site Ref: Muzaffarnagar to Saharanpur		Job No : 1342	
Test Report No: XPL/2015-16/02			

Tested by:

(Signature)

Date: 20/3/16

Checked by:

(Signature)
28/3/16

Date:

Authorised Signatory:

(Signature)

Date: 28/3/16