

A14-3

Boring Log of Bareilly Bypass

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI-110016			PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).			BORING DATES : START : 03.12.97 FINISH : 05.12.97			TERMINATION DEPTH : 25.45 M WATER TABLE : 1.90 M			TABLE NO. : 1 BORE HOLE NO. : BH-1					
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	REMARKS
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)						
G.L.	D	DS1			10 20 30 40 50 60 70 80 90 100	SILTY SAND (SM)		0	74	26	0	N.	P.	13.7	2.62	1.57	
1.15	D	SPT1	4	6		SILTY SAND (SM-SC)		0	63	32	5	22	18	18.9	2.63	1.62	
2.15	D	SPT2	5	6		SILTY SAND (SM)		0	86	14	0	N.	P.	16.3	2.62	1.62	
3.15	D	SPT3	7	9													
4.15	D	SPT4	8	9													
5.15	D	SPT5	9	10													
6.15	D	SPT6	17	17													
7.15	D	SPT7	13	14													
8.15	D	SPT8	16	16													
9.15	D	SPT9	16	15													
10.15	D	SPT10	22	18													
11.15	D	SPT11	17	15													
12.15	D	SPT12	20	17													
13.15	D	SPT13	23	18													
14.15	D	SPT14	25	25													
15.00																	

D - DISTURBED SAMPLE

N.P. - NON PLASTIC

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI -110016			PROJECT NO. : 2075 A NAME OF THE PROJECT :GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).			BORING DATES : START : 03.12.97 FINISH : 05.12.97			TERMINATION DEPTH : 25.45 M WATER TABLE : 1.90 M			TABLE NO. : 2 BORE HOLE NO. : PH-1				
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS	LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	REMARKS			
			OBSERVED VALUE	CORRECTED VALUE												
15.00	D	SPT15	23	17		15.0	0	91	9	0	N.	P.	16.4	2.61	1.72	R E M A R K S
15.15	D	SPT16	26	18			0	96	4	0	N.	P.	15.7	2.62	1.72	
16.15	D	SPT17	27	16			0	96	4	0	N.	P.	15.7	2.62	1.72	
17.15	D	SPT18	39	23			0	96	4	0	N.	P.	15.7	2.62	1.72	
18.15	D	SPT19	28	18			0	96	4	0	N.	P.	15.7	2.62	1.72	
19.15	D	SPT20	24	17			0	96	4	0	N.	P.	15.7	2.62	1.72	
20.15	D	SPT21	28	18			0	96	4	0	N.	P.	15.7	2.62	1.72	
21.15	D	SPT22	37	21			0	96	4	0	N.	P.	15.7	2.62	1.72	
22.15	D	SPT23	41	22			0	96	4	0	N.	P.	15.7	2.62	1.72	
23.15	D	SPT24	47	24			0	96	4	0	N.	P.	15.7	2.62	1.72	
24.15	D	SPT25	54	26	0	96	4	0	N.	P.	15.7	2.62	1.72			
25.15	D	SPT26														
25.45																

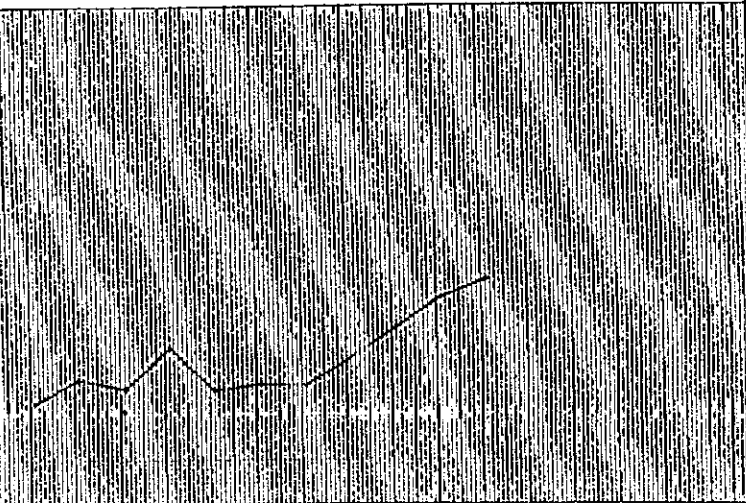
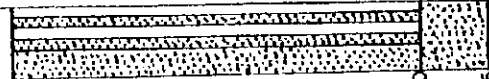
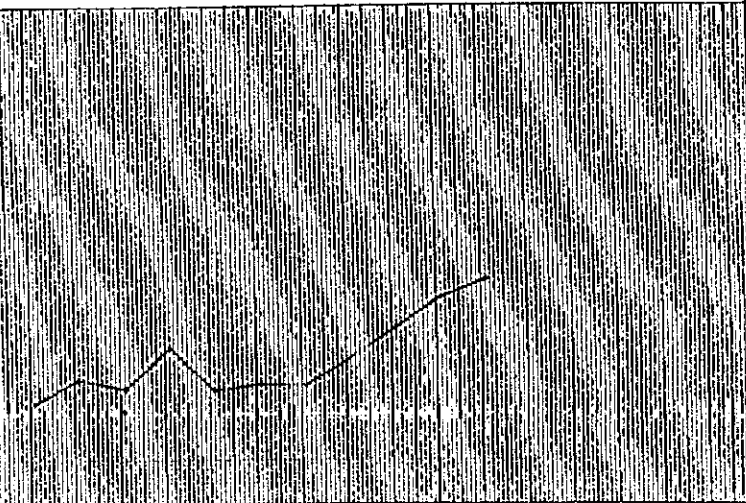
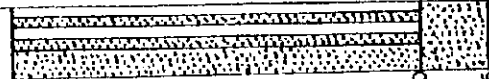
D - DISTURBED SAMPLE

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INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI-110016				PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).				BORING DATES : START : 01.12.97 FINISH : 03.12.97				TERMINATION DEPTH : 25.45 M WATER TABLE : 2.10 M				TABLE NO. : 3 BORE HOLE NO. : BH-2			
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	REMARKS		
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)								
G.L.	D	DS1			10 20 30 40 50 60 70 80 90 100	SILTY SAND (SM)	0	0	82	18	0	N.	P.	21.5	2.62	1.61			
1.15	D	SPT1	4	4	 G.W.T. 2.1M	SANDY SILT OF LOW PLASTICITY (ML-CL)	0	0	41	52	7	24	18	18.6	2.65	1.75			
2.15	D	SPT2	7	9															
3.15	D	SPT3	9	11															
4.15	D	SPT4	9	11															
5.15	D	SPT5	12	13															
6.15	D	SPT6	11	12															
7.15	D	SPT7	9	9															
8.15	D	SPT8	11	11															
9.15	D	SPT9	15	15															
10.15	D	SPT10	17	16															
11.15	D	SPT11	15	14															
12.15	D	SPT12	18	16															
13.15	D	SPT13	20	16															
14.25	D	SPT14	23	18		SILTY SAND (SM)	14.0 15.0	0	85	15	0	N.	P.	16.9	2.62	1.69			
15.00																			

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INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI-110016			PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).			BORING DATES : START : 01.12.97 FINISH : 03.12.97			TERMINATION DEPTH : 25.45 M WATER TABLE : 2.10 M			TABLE NO. : 4 BORE HOLE NO. : BH-2								
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 CM		STANDARD PENETRATION RESISTANCE CURVE (CORRECTED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	REMARKS			
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)									
15.00	D	SPT15	23	17		SILTY SAND (SM)		1	91	8	0	N.	P.	15.4	2.61	1.70				
15.15																				
16.15	D	SPT16	28	19																
17.15	D	SPT17	26	18																
18.15	D	SPT18	35	21																
19.15	D	SPT19	26	16																
20.15	D	SPT20	27	18																
21.15	D	SPT21	27	18																
22.15	D	SPT22	33	20																
23.15	D	SPT23	40	22																
24.15	D	SPT24	46	24		FINE SAND (SP)		0	98	2	0	N.	P.	16.3	2.61	1.79				
25.15	D	SPT25	50	25																
25.45																				

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INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI-110016			PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR N TIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).			BORING DATES : START : 28.11.97 FINISH : 30.11.97			TERMINATION DEPTH : 25.45 M WATER TABLE : 2.10 M			TABLE NO. : 5 BORE HOLE NO. : PH-3					
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 CM		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (kn/cc)	R E M A R K S
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)						
G.L.	D	DS1			10 20 30 40 50 60 70 80 90 100	CLAY OF LOW PLASTICITY (CL)	0	0	19	72	9	32	21	14.1	2.68	1.65	
1.65	D	SPT1	5	7	GWT 210CM Y	SILTY SAND (SM-SC)	1.0	0	54	40	6	23	18	18.0	2.64	1.51	
2.15	D	SPT2	4	4		CLAY OF LOW PLASTICITY (CL)	2.0	0	33	58	9	28	20	22.3	2.66	1.66	
3.15	D	SPT3	5	6		SILTY SAND (SM)	3.0	0	79	21	0	N.	P.	16.1	2.62	1.64	
4.15	D	SPT4	7	8			4.0	0	92	8	0	N.	P.	15.9	2.61	1.71	
5.15	D	SPT5	8	9													
6.15	D	SPT6	11	12													
7.15	D	SPT7	13	13													
8.15	D	SPT8	11	11													
9.15	D	SPT9	13	13		SILTY SAND (SP-SM)											
10.15	D	SPT10	14	13													
11.15	D	SPT11	17	15				0	94	6	0	N.	P.	18.1	2.62	1.76	
12.15	D	SPT12	19	16													
13.15	D	SPT13	22	17													
14.15	D	SPT14	26	19													
15.00																	

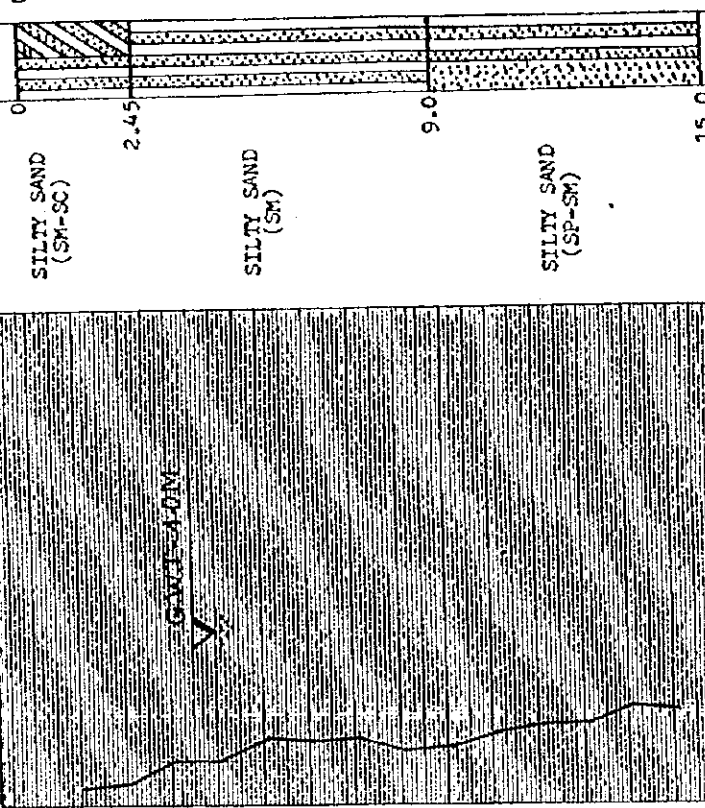
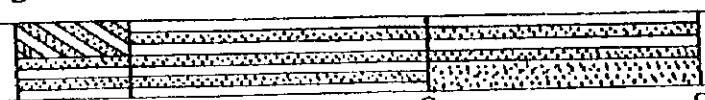
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INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI-110016			PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).			BORING DATES : START : 28.11.97 FINISH : 30.11.97			TERMINATION DEPTH : 25.45 M WATER TABLE : 2.10 M			TABLE NO. : 6 BORE HOLE NO. : BH-3					
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	R E M A R K S
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)						
15.00	D	SPT5	23	17	10 20 30 40 50 60 70 80 90 100	SILTY SAND (SP-SM)		0	91	9	0	N.	P.	16.5	2.61	1.74	
15.15																	
16.15	D	SPT6	24	17		SILTY SAND (SM)		2	67	27	4	N.	P.	15.2	2.63	1.68	
17.15	D	SPT7	28	19													
18.15	D	SPT8	36	22				2	91	7	0	N.	P.	17.1	2.61	1.71	
19.15	D	SPT9	24	17													
20.15	D	SPT20	27	18													
21.15	D	SPT21	27	18													
22.15	D	SPT22	32	19													
23.15	D	SPT23	37	21				0	95	5	0	N.	P.	16.6	2.62	1.73	
24.15	D	SPT24	38	21													
25.15	D	SPT25	43	22													
25.45																	

D - DISTURBED SAMPLE

N.P. - NON PLASTIC

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI -110016				PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).				BORING DATES : START : 30.11.97 FINISH : 02.12.97		TERMINATION DEPTH : 23.45 M WATER TABLE : 4.0 M		TABLE NO. : 7 BORE HOLE NO. : BH-4						
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	R E M A R K S	
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)							
G.L.	D	DST			10 20 30 40 50 60 70 80 90 100	SILTY SAND (SM-SC)			0	60	31	9	23	18	14.2	2.64	1.62	
1.15	D	SPT1	4	6														
2.15	D	SPT2	5	6														
3.15	D	SPT3	10	12					83	17	0	N.	P.	13.8	2.62	1.58		
4.15	D	SPT4	10	11														
5.15	D	SPT5	15	15														
6.15	D	SPT6	14	14														
7.15	D	SPT7	15	15														
8.15	D	SPT8	12	12					84	16	0	N.	P.	15.9	2.62	1.64		
9.15	D	SPT9	13	12					91	9	0	N.	P.	16.2	2.61	1.67		
10.15	D	SPT10	16	15														
11.15	D	SPT11	18	16														
12.15	D	SPT12	18	15														
13.15	D	SPT13	22	17														
14.15	D	SPT14	21	16														
15.00																		


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INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI -110016		PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).		BORING DATES : START : 30.11.97 FINISH : 02.12.97		TERMINATION DEPTH : 23.45 M WATER TABLE : 4.0 M		TABLE NO. : 8 BORE HOLE NO. : BH-4									
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH 1.5 CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	REMARKS
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)						
15.00	D	SPT15	19	15	10	15.0	SILTY SAND (SP-SM)	0	89	11	0	N.	P.	15.4	2.61	1.69	
15.15					20												
16.15	D	SPT16	22	16	30				44	47	9	24	18	18.1	2.65	1.70	
17.15	D	SPT17	16	16	40		SANDY SILT OF LOW PLASTICITY (ML-CL) 18.0	0	8	74	18	39	24	20.2	2.69	1.88	
18.15	D	SPT18	22	22	50		CLAY OF MEDIUM PLASTICITY (CI) 9.0	0	96	4	0	N.	P.	14.3	2.62	1.71	
19.15	D	SPT19	23	16	60												
20.15	D	SPT20	33	20	70		FINE SAND (SP)										
21.15	D	SPT21	36	21	80												
22.15	D	SPT22	61	29	90												
23.15	D	SPT23	68	31	100												
23.45						23.45											

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DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	R E M A R K S
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)						
G.L.	D	DS1			10 20 30 40 50 60 70 80 90 100			0	41	54	5	23	18	15.4	2.65	1.61	
1.15	D	SPT1	4	4		SANDY SILT OF LOW PLASTICITY (ML-CL)		0	48	46	4	22	18	13.7	2.64	1.65	
2.15	D	SPT2	5	6		SILTY SAND (SM)		0	61	39	0	N.	P.	14.2	2.62	1.61	
3.15	D	SPT3	10	12				0									
4.15	D	SPT4	10	11				0	89	11	0	N.	P.	16.1	2.62	1.58	
5.15	D	SPT5	13	14													
6.15	D	SPT6	12	12													
7.15	D	SPT7	22	18													
8.15	D	SPT8	16	15													
9.15	D	SPT9	14	13													
10.15	D	SPT10	15	14													
11.15	D	SPT11	16	14				0	88	12	0	N.	P.	15.7	2.61	1.64	
12.15	D	SPT12	15	13													
13.15	D	SPT13	18	15													
14.15	D	SPT14	21	16													
15.00																	

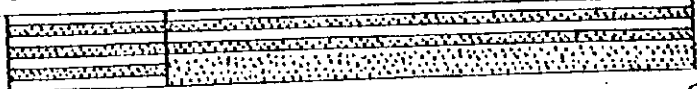
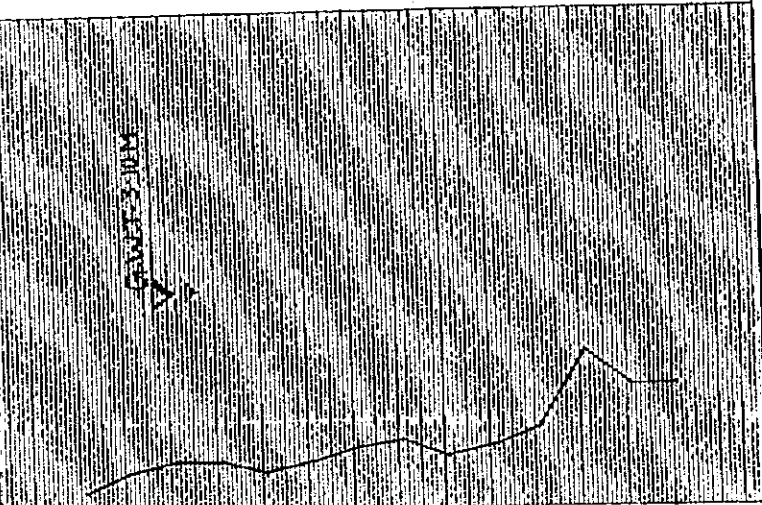
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DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (g/cc)	REMARKS
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)						
15.00 15.15	D	SPT15	25	16		SILTY SAND (SP-SM)	15.0	0	90	10	0	N.	P.	14.9	2.61	1.64	R E M A R K S
16.15	D	SPT16	16	13		SILTY SAND (SM)	17.0	0	82	18	0	N.	P.	15.4	2.62	1.68	
17.15	D	SPT17	25	17			19.0	0	95	5	0	N.	P.	15.7	2.62	1.68	
18.15	D	SPT18	28	18													
19.15	D	SPT19	28	18													
20.15	D	SPT20	24	16													
21.15	D	SPT21	33	20													
22.15	D	SPT22	31	18													
23.15	D	SPT23	36	20		SILTY SAND (SM)	23.0	0	69	31	0	N.	P.	15.1	2.63	1.73	
24.15 24.45	D	SPT24	41	22			24.45										

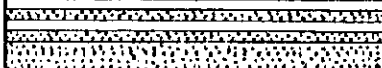
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N.P. - NON PLASTIC

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI -110016				PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).				BORING DATES : START : 24.11.97 FINISH : 26.11.97				TERMINATION DEPTH : 23.45 M WATER TABLE : 3.10 M				TABLE NO. : 11 BORE HOLE NO. : BH-6			
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	REMARKS		
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)								
C.L.	D	DS1			10 20 30 40 50 60 70 80 90 100	0		0	59	37	4	N.	P.	11.8	2.63	1.51			
1.15	D	SPT1	5	7		SLT SAND (SM)		0	63	32	5	N.	P.	14.9	2.63	1.48			
2.15	D	SPT2	9	12		3.45		0	78	22	0	N.	P.	15.1	2.62	1.61			
3.15	D	SPT3	11	13				0	93	7	0	N.	P.	17.4	2.60	1.64			
4.15	D	SPT4	11	12															
5.15	D	SPT5	9	10															
6.15	D	SPT6	11	11															
7.15	D	SPT7	14	14															
8.15	D	SPT8	16	15															
9.15	D	SPT9	12	12															
10.15	D	SPT10	14	13															
11.15	D	SPT11	18	16				0	95	5	0	N.	P.	15.7	2.62	1.67			
12.15	D	SPT12	36	24															
13.15	D	SPT13	28	20															
14.15	D	SPT14	28	19															
15.00								15.0											

D - DISTURBED SAMPLE

N.P. - NON PLASTIC

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI-110016				PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).				BORING DATES : START :24.11.97 FINISH :26.11.97				TERMINATION DEPTH : 23.45 M WATER TABLE : 3.10 M				TABLE NO. : 12 BORE HOLE NO. : PH-6			
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	REMARKS		
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)								
15.00	D	SPT15	29	19	10 20 30 40 50 60 70 80 90 100	15.0		0	97	0	0	N.	P.	16.4	2.61	1.72			
15.15																			
16.15	D	SPT16	29	19															
17.15	D	SPT17	35	21															
18.15	D	SPT18	28	18															
19.15	D	SPT19	28	18															
20.15	D	SPT20	33	20															
21.15	D	SPT21	36	21				0	92	8	0	N.	P.	15.1	2.61	1.75			
22.15	D	SPT22	34	20															
23.15	D	SPT23	37	20															
23.45						23.45													

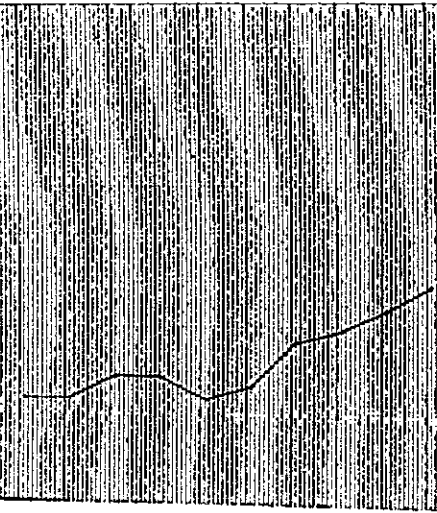
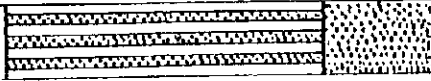
D - DISTURBED SAMPLE

N.P. - NON PLASTIC

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI -110016			PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).			BORING DATES : START :21.11.97 FINISH :23.11.97			TERMINATION DEPTH : 24.45 M WATER TABLE : 3.10 M			TABLE NO. : 13 BORE HOLE NO. : RH-7					
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	REMARKS
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)						
C.L.	D	DST			10 20 30 40 50 60 70 80 90 100	SANDY SILT OF LOW PLASTICITY (ML-CL)		0	45	49	6	23	18	14.7	2.64	1.61	
1.15	D	SPT1	5	7		SILTY SAND (SM)		0	70	26	4		N.	10.9	2.63	1.60	
2.15	D	SPT2	7	9									P.				
3.15	D	SPT3	8	9									P.				
4.15	D	SPT4	7	8									P.				
5.15	D	SPT5	7	8									P.				
6.15	D	SPT6	13	14									P.				
7.15	D	SPT7	14	14									P.				
8.15	D	SPT8	21	18									P.				
9.15	D	SPT9	24	19									P.				
10.15	D	SPT10	19	16									P.				
11.15	D	SPT11	21	19									P.				
12.15	D	SPT12	23	19									P.				
13.15	D	SPT13	26	19									P.				
14.15	D	SPT14	26	18									P.				
15.00																	

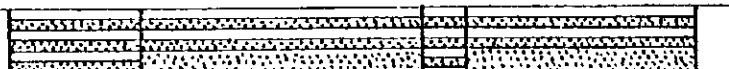

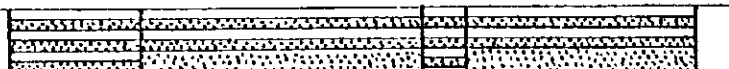
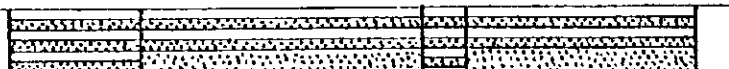
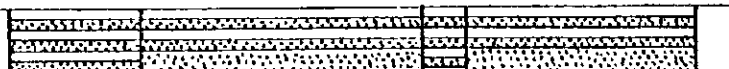
N.P. - NON PLASTIC

D - DISTURBED SAMPLE

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI-110016		PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).		BORING DATES : START : 21.11.97 FINISH : 23.11.97		TERMINATION DEPTH : 24.45 M WATER TABLE : 3.10 M		TABLE NO. : 14 BORE HOLE NO. : BH-7									
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (kg/cc)	REMARKS
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)						
15.00	D	SPT15	24	17		15.0		1	86	13	0	N.	P.	14.7	2.61	1.69	S I L T Y S A N D (S M) <

D - DISTURBED SAMPLE

N.P. - NON PLASTIC

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI-110016			PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).			BORING DATES : START : 23.11.97 FINISH : 24.11.97			TERMINATION DEPTH : 24.45M WATER TABLE : 3.20 M			TABLE NO. : 15 BORE HOLE NO. : BH-8					
DEPTH OF SAMPLING REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S.	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	REMARKS
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)						
G.L.	D	DS1	7	10	10 20 30 40 50 60 70 80 90 100	SILTY SAND (SM)		0	62	33	5	21	18	14.1	2.63	1.67	
1.15	D	SPT1	8	10		SILTY SAND (SP-SM)		1	72	27	0	N.	P.	13.7	2.61	1.61	
2.15	D	SPT2	9	11				0	90	10	0	N.	P.	15.1	2.62	1.60	
3.15	D	SPT3	7	8													
4.15	D	SPT4	9	10													
5.15	D	SPT5	11	11													
6.15	D	SPT6	12	12													
7.15	D	SPT7	15	15													
8.15	D	SPT8	21	18													
9.15	D	SPT9	13	12				0	66	30	4	N.	P.	14.7	2.63	1.64	
10.15	D	SPT10	16	15				0	93	7	0	N.	P.	14.4	2.62	1.65	
11.15	D	SPT11	22	17													
12.15	D	SPT12	22	17													
13.15	D	SPT13	22	17													
14.15	D	SPT14	22	17													
15.00																	

N.P. - NON PLASTIC

D - DISTURBED SAMPLE

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI-110016				PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).				BORING DATES : START : 23.11.97 FINISH : 24.11.97				TERMINATION DEPTH : 24.45 M WATER TABLE : 3.20 M				PAGE NO. : 16 SHEET NO. : RH-8			
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 CM		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	R E F A R E N C E S		
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)								
15.00	D	SPT5	27	19	10 20 30 40 50 60 70 80 90 100	SILTY SAND (SP-SM)	15.0	0	91	9	0	N.	P.	16.7	2.62	1.67			
16.15	D	SPT6	24	17															
17.15	D	SPT7	27	18															
17.45	D	DS6				CLAY OF MED- LOW PLASTICITY	17.45	0	11	72	17	38	23	18.9	2.68	1.90			
18.25	D	SPT8	43	24		CITY (CI)	18.10	0	86	14	0	N.	P.	15.5	2.62	1.72			
19.15	D	SPT9	28	18		SILTY SAND (SM)		0											
20.15	D	SPT20	28	18				0											
21.15	D	SPT21	43	23			21.0	0	90	10	0	N.	P.	15.1	2.62	1.74			
22.15	D	SPT22	51	26		SILTY SAND (SP-SM)													
23.15	D	SPT23	56	27															
24.15	D	SPT24	64	30			24.45												
24.45																			

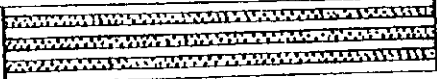
N.P. - NON PLASTIC

D - DISTURBED SAMPLE

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI - 110016				PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).				BORING DATES : START : 07.12.97 FINISH : 10.12.97				TERMINATION DEPTH 24.45 M WATER TABLE : 3.20 M				TABLE NO. : 17 BORE HOLE NO. : BH-9			
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	REMARKS		
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)								
G.L.	D	DS1			10 20 30 40 50 60 70 80 90 100	CLAY OF LOW PLASTICITY (CL)		0	26	62	12	30	20	15.1	2.67	1.65			
1.15	D	SPT1	14	18		SILTY SAND (SM)		0	94	16	0	N.	P.	13.6	2.62	1.60			
1.45	D	DS2																	
2.15	D	SPT2	9	12															
3.15	D	SPT3	11	11															
4.15	D	SPT4	10	10															
5.15	D	SPT5	16	16		CLAY OF MEDIUM PLASTICITY (CI)		0	5	82	13	42	25	17.5	2.70	1.85			
6.15	D	SPT6	11	11															
7.15	D	SPT7	12	12															
8.15	D	SPT8	13	13															
9.15	D	SPT9	16	15															
10.15	D	SPT10	13	12															
11.15	D	SPT11	17	15															
12.15	D	SPT12	21	17		SILTY SAND (SM)		0	62	38	0	N.	P.	14.9	2.63	1.71			
13.15	D	SPT13	25	18															
14.15	D	SPT14	27	19															
15.00																			

N.P. - NON PLASTIC

D - DISTURBED SAMPLE

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI - 110016				PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).				BORING DATES : START : 07.12.97 FINISH : 10.12.97				TERMINATION DEPTH : 24.45 M WATER TABLE : 3.20 M				TABLE NO. : 18 BORE HOLE NO. : BH-9			
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 CM		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)			
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)								
15.00	D	SPT15	22	17	10	15.0		0	82	18	0	N.	2.	14.2	2.62	1.74			
15.15					20														
16.15	D	SPT16	21	16	30														
17.15	D	SPT17	19	15	40														
18.15	D	SPT18	16	12	50														
19.15	D	SPT19	20	15	60														
20.15	D	SPT20	38	22	70														
21.15	D	SPT21	43	23	80														
22.15	D	SPT22	50	26	90														
23.15	D	SPT23	38	21															
24.15	D	SPT24	45	23															
24.45						24.45													

N.P. - NON PLASTIC

D - DISTURBED SAMPLE

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI-110016			PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).			BORING DATES : START : 04.12.97 FINISH : 06.12.97			TERMINATION DEPTH : 24.45 M WATER TABLE : 5.55 M			TABLE NO. : 19 BORE HOLE NO. : BH-10					
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	REMARKS
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)						
C.L.	D	DS1			10 20 30 40 50 60 70 80 90 100	FILLED UP SOIL 0		3	51	43	3	N.	P.	14.4	2.63	1.54	
1.15	D	SPT1	16	16		0.50 SANDY SILT OF LOW PLASTICITY (ML-CL)		0	41	53	6	26	19	12.6	2.65	1.72	
2.15	D	SPT2	21	21		3.0		5	7	76	12	39	24	15.7	2.69	1.84	
3.15	D	SPT3	9	9		CLAY OF MEDIUM PLASTICITY (CI)											
4.15	D	SPT4	13	13					36	60	4	23	18	18.1	2.64	1.79	
5.15	D	SPT5	16	16		6.0 SANDY SILT OF LOW PLASTICITY (ML-CL)		0									
6.15	D	SPT6	10	10		8.0 SILTY SAND (SM)		0	54	46	0	N.	P.	15.4	2.62	1.65	
7.15	D	SPT7	14	14													
8.15	D	SPT8	11	10													
9.15	D	SPT9	9	8													
10.15	D	SPT10	15	14													
11.15	D	SPT11	12	11													
12.15	D	SPT12	12	10													
13.15	D	SPT13	13	11													
14.15	D	SPT14	15	12				0	72	28	0	N.	P.	15.7	2.62	1.64	
15.00						15.0											

D - DISTURBED SAMPLE

N.P. - NON PLASTIC

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI -110016			PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).			BORING DATES : START :04.12.97 FINISH :06.12.97			TERMINATION DEPTH :24.45 M WATER TABLE : 5.55 M			TABLE NO. : 20 BORE HOLE NO. : PH-10						
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH 1.8. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	R E S U L T S	
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)							
15.00 15.15	D	SPT15	22	16		15.0 SILTY SAND (SM)		0	67	33	0	N.	P.	15.4	2.62	1.67		
16.15	D	SPT16	25	17		CLAY OF LOW PLASTICITY (CL), 18.0		2	12	75	11	33	21	18.4	2.67	1.78		
17.15 D 17.45 D 18.15 D	D	SPT17 DS8 SPT18	26 26 26	18 17		19.15 D	SILTY SAND (SP-SM)		0	93	7	0	N.	P.	14.4	2.61		1.69
20.15 D 21.15 D	D	SPT19 SPT20 SPT21	29 28 32	18 18 19		22.15 D			0	89	11	0	N.	P.	14.7	2.62		1.72
23.15 D 24.15 D 24.45	D	SPT22 SPT23 SPT24	58 56 56	23 27 27		24.45			0									

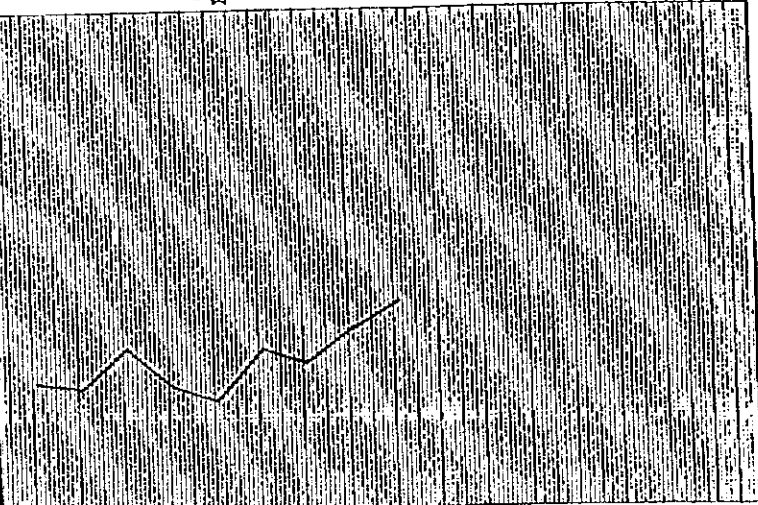
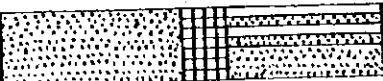
D - DISTURBED SAMPLE

N.P. - NON PLASTIC

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI -110016		PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).		BORING DATES : START : 15.12.97 FINISH : 17.12.97		TERMINATION DEPTH : 23.45M WATER TABLE : 0.55 M		TABLE NO. : 27 BORE HOLE NO. : BH-11									
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	REMARKS
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)						
G.L.	D	DS1			10 20 30 40 50 60 70 80 90 100 GWAT 0.55M Y	CLAY OF MEDIUM PLASTICITY (CI)		0	5	71	24	45	26	19.2	2.71	1.70	
1.15	D	SPT1	6	10		SILTY SAND (SM)		0	84	16	0	N.	P.	21.8	2.62	1.64	
2.15	D	SPT2	8	11													
3.15	D	SPT3	6	8													
4.15	D	SPT4	10	12													
5.15	D	SPT5	12	14													
6.15	D	SPT6	8	9													
7.15	D	SPT7	10	11													
8.15	D	SPT8	11	11													
9.15	D	SPT9	21	18													
10.15	D	SPT10	26	20													
11.15	D	SPT11	25	15													
12.15	D	SPT12	47	30													
13.15	D	SPT13	27	20													
14.15	D	SPT14	28	20													
15.00																	

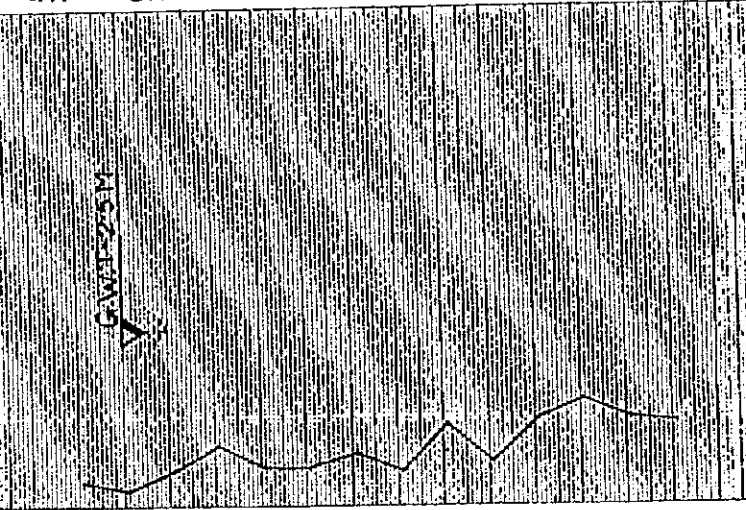
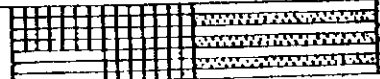
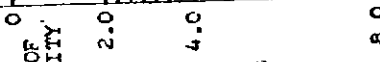
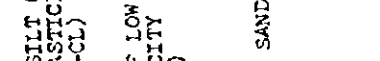
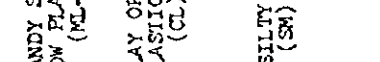

N.P. - NON PLASTIC

D - DISTURBED SAMPLE

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI -110016			PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).			BORING DATES : START :15.12.97 FINISH :17.12.97			TERMINATION DEPTH :23.45 M WATER TABLE : 0.55 M			TABLE NO. : 22 BORE HOLE NO. : BH-11						
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLER REFERENCE NO.	SPT BLOWS PER 30 CM		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	REMARKS	
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)							
15.00	D	SPT15	28	20		15.0		0	96	4	0	N.	P.	15.4	2.62	1.72		
15.15																		
16.15	D	SPT16	27	19		FINE SAND (SP)												
17.15	D	SPT17	36	22														
18.15	D	SPT18	27	18		CLAY OF LOW PLASTICITY (CL)			0	41	45	14	33	21	19.9	2.67	1.88	
19.15	D	SPT19	24	24		20.0												
20.15	D	SPT20	35	21														
21.15	D	SPT21	32	20		SILTY SAND (SP-SM)			0	91	9	0	N.	P.	14.7	2.62	1.76	
22.15	D	SPT22	40	22														
23.15	D	SPT23	47	25														
23.45																		

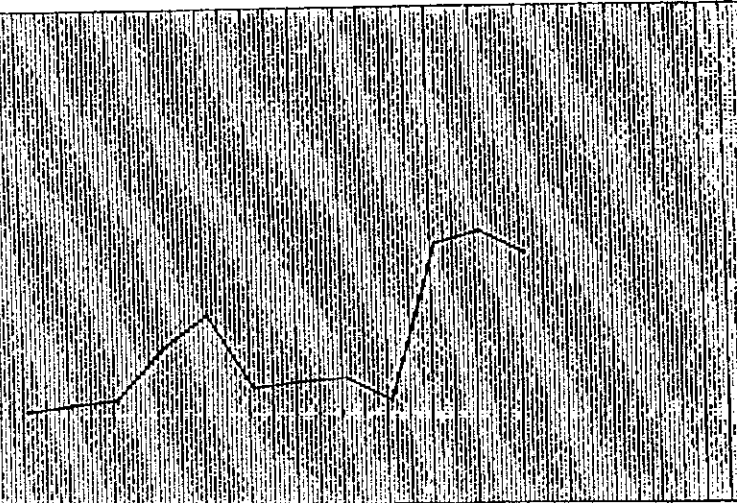

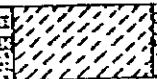

D - DISTURBED SAMPLE

N.P. - NON PLASTIC

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI-110016				PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).				BORING DATES : START : 12.12.97 FINISH : 14.12.97				TERMINATION DEPTH 26.45 M WATER TABLE : 2.50 M				TABLE NO. : 23 BORE HOLE NO. : BK-12			
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 CM		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	REMARKS		
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)								
G.L.	D	DS1			10 20 30 40 50 60 70 80 90 100														
1.15	D	SPT1	6	6		SANDY SILT OF LOW PLASTICITY (ML-CL)		3	44	47	6	23	18	28.0	2.65	1.70			
1.45	D	DS2					CLAY OF LOW PLASTICITY (CL)		0	7	80	13	31	21	21.4	2.67	1.71		
2.15	D	SPT2	4	4			SILTY SAND (SM)		0	86	14	0	N.	P.	16.4	2.62	1.64		
3.15	D	SPT3	8	8			FINE SAND (SP)		0	96	4	0	N.	P.	16.0	2.62	1.67		
4.15	D	SPT4	14	16		SILTY SAND (SM)		0											
5.15	D	SPT5	9	10															
6.15	D	SPT6	9	9															
7.15	D	SPT7	12	12															
8.15	D	SPT8	8	8															
9.15	D	SPT9	19	17															
10.15	D	SPT10	10	10															
11.15	D	SPT11	20	17															
12.15	D	SPT12	24	16															
13.15	D	SPT13	20	16															
14.15	D	SPT14	19	16															
15.00																			

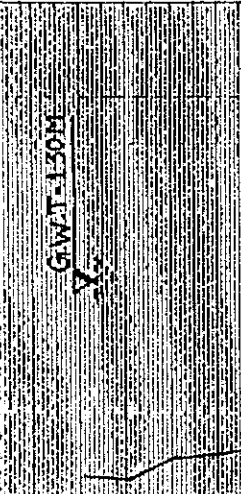
N.P. - NON PLASTIC

D - DISTURBED SAMPLE

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI -110016			PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).			BORING DATES : START 12.12.97 FINISH 14.12.97			TERMINATION DEPTH :26.45 M WATER TABLE : 2.50 M			TABLE NO. : 24 BORE HOLE NO. :PH-12							
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH 1 S.	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	REMARKS		
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)								
15.00	D	SPT15	21	16		SILTY SAND (SP-SM)		0	89	11	0	N.	P.	15.4	2.62	1.69			
15.15																			
16.15	D	SPT16	23	17															
17.15	D	SPT17	24	17															
18.15	D	SPT18	36	22		CLAY OF MEDIUM PLASTICITY (CI)		0	7	81	12	39	24	19.7	2.69	1.82			
19.15	D	SPT19	44	24															
20.15	D	SPT20	27	27															
21.15	D	SPT21	28	28															
22.15	D	SPT22	29	29		SILTY SAND (SP-SM)		0	17	70	13	37	23	18.3	2.68	1.94			
23.15	D	SPT23	24	16															
24.15	D	SPT24	59	28															
25.15	D	SPT25	62	29															
26.15	D	SPT26	57	27				0	89	11	0	N.	P.	15.7	2.62	1.66			
26.45																			

D - DISTURBED SAMPLE

N.P. - NON PLASTIC

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI -110016				PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).				BORING DATES : START : 16.12.97 FINISH : 17.12.97				TERMINATION DEPTH : 26.45 M WATER TABLE : 1.30 M				TABLE NO. : 25 BORE HOLE NO. : BH-13			
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	REMARKS		
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)								
G.L.	D	DS1			10 20 30 40 50 60 70 80 90 100			0	79	21	0	P.	P.	20.8	2.62	1.55			
1.15	D	SPT1	6	9		SILTY SAND (SM)		0	49	46	5	18	18.4	2.64	1.67				
2.15	D	SPT2	5	5		SANDY SILT OF LOW PLASTICITY (ML-CL)		0											
3.15	D	SPT3	10	12		SILTY SAND (SM)		0	87	13	0	N.	P.	16.4	2.62	1.61			
4.15	D	SPT4	11	13															
5.15	D	SPT5	13	15		MEDIUM TO FINE SAND (SP)		0	99	1	0	N.	P.	15.4	2.59	1.65			
6.15	D	SPT6	15	16															
7.15	D	SPT7	16	16															
8.15	D	SPT8	18	17				0	91	9	0	N.	P.	16.1	2.61	1.64			
9.15	D	SPT9	18	16															
10.15	D	SPT10	15	15															
11.15	D	SPT11	15	14															
12.15	D	SPT12	16	15															
13.15	D	SPT13	17	15															
14.15	D	SPT14	22	17															
15.00																			

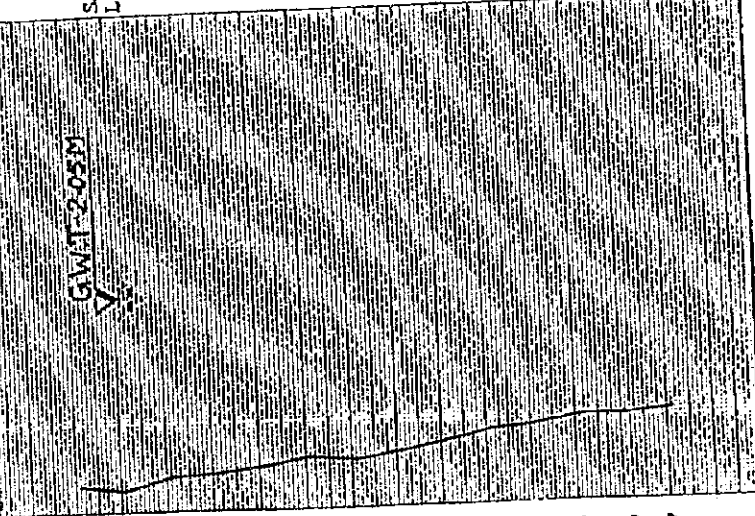

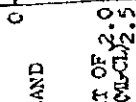
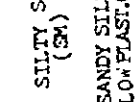
N.P. - NON PLASTIC

D - DISTURBED SAMPLE

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI -110016				PROJECT NO. : 2075 A NAME OF THE PROJECT :GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).				BORING DATES : START : 16.12.97 FINISH : 17.12.97				TERMINATION DEPTH :26.45 M WATER TABLE : 1.30 M				TABLE NO. :26 BORE HOLE NO. : BH-13			
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUES)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (g/cc)	R E M A R K S		
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)								
15.00					10														
15.15	D	SPT15	20	16	20	SILTY SAND (SP-SM)	15.0	0	94	6	0	N.	P.	14.4	2.62	1.67			
16.15	D	SPT16	22	17	22														
17.15	D	SPT17	31	20	20														
18.15	D	SPT18	27	18	27														
19.15	D	SPT19	25	17	25														
20.15	D	SPT20	27	18	27														
20.45	D	DS4				CLAY OF MED- IUM PLASTICITY (CI)	20.45	0	11	73	16	35	23	19.4	2.68	1.90			
21.15	D	SPT21	28	28	28	SANDY SILT OF 22.0 LOW PLASTICITY (ML-CI)	22.0	0	41	49	10	25	19	18.7	2.65	1.83			
22.15	D	SPT22	58	58	58														
23.15	D	SPT23	45	24	45														
24.15	D	SPT24	38	21	38	SILTY SAND (SP-SM)	24.15	0	92	8	0	N.	P.	15.4	2.62	1.74			
25.15	D	SPT25	31	18	31														
26.15	D	SPT26	34	19	34														
26.45							26.45												

N.P. - NO: PLASTIC

D - DISTURBED SAMPLE

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI -110016				PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).				BORING DATES : START : 14.12.97 FINISH : 15.12.97				TERMINATION DEPTH : 25.45 M WATER TABLE : 2.05 M				TABLE NO. : 27 BORE HOLE NO. : BH-14			
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 CM		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	REMARKS		
			OBSERVED VALUE	CONNECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)								
					10 20 30 40 50 60 70 80 90 100														
G.L. D	DS1					SILTY SAND (SM)		0	65	35	0	N.	P.	16.0	2.62	1.62			
1.15 D	SPT1	6 9		SANDY SILT OF 2.0 LOW PLAST.(MLCL/2.5)			0	45	49	6	22	18	19.4	2.64	1.67				
2.15 D	SPT2	5 5		SILTY SAND (SP-SM)			0	91	9	0	N.	P.	15.4	2.62	1.60				
3.15 D	SPT3	8 10																	
4.15 D	SPT4	9 11																	
5.15 D	SPT5	10 11																	
6.15 D	SPT6	12 13																	
7.15 D	SPT7	11 11																	
8.15 D	SPT8	13 13																	
9.15 D	SPT9	15 15																	
10.15 D	SPT10	17 16																	
11.15 D	SPT11	18 16																	
12.15 D	SPT12	20 17																	
13.15 D	SPT13	20 16																	
14.15 D	SPT14	21 17																	
15.00																			

N.P. - NON PLASTIC

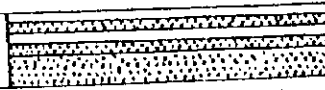
N.P. - NON PLASTIC

D - DISTURBED SAMPLE

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI-110016				PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).				BORING DATES : START :14.12.97 FINISH :15.12.97				TERMINATION DEPTH : 25.45 M WATER TABLE : 2.05 M				TABLE NO. : 28 BORE HOLE NO. : BH-14			
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	REMARKS		
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)								
15.00	D	SPT15	23	17		15.0		0	97	3	0	N.	P.	14.2	2.62	1.68	S E M A R K S		
15.15	D	SPT16	27	19		MEDIUM TO FINE SAND (SP)		0	97	3	0	N.	P.	14.2	2.62	1.68			
16.15	D	SPT17	26	18		CLAY OF LOW PLASTICITY (CL)		1	29	56	14	31	21	18.8	2.66	1.92			
17.15	D	SPT18	28	19				0	97	3	0	N.	P.	15.5	2.62	1.75			
18.15	D	SPT19	29	19		FINE SAND (SP)		0	97	3	0	N.	P.	15.5	2.62	1.75			
19.15	D	SPT20	28	18				23.0	0	97	3	0	N.	P.	15.5	2.62		1.75	
20.15	D	SPT21	31	31		21.0		0	97	3	0	N.	P.	15.5	2.62	1.75			
21.15	D	SPT22	35	35		23.0		0	97	3	0	N.	P.	15.5	2.62	1.75			
22.15	D	SPT23	51	26		25.45		0	97	3	0	N.	P.	15.5	2.62	1.75			
23.15	D	SPT24	53	26				0	97	3	0	N.	P.	15.5	2.62	1.75			
24.15	D	SPT25	60	28				0	97	3	0	N.	P.	15.5	2.62	1.75			
25.15	D																		
25.45	D																		

D - DISTURBED SAMPLE

N.P. - NON PLASTIC

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI - 110016				PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).				BORING DATES : START : 06.12.97 FINISH : 08.12.97		TERMINATION DEPTH : 26.45 M WATER TABLE : 2.0 M		TABLE NO. : 30 BORE HOLE NO. : BH-15					
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	R E S M A R T S
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)						
15.00	D	SPT15	21	16	10 20 30 40 50 60 70 80 90 100	15.0		0	92	8	0	N.	P.	15.1	2.62	1.68	
15.15	D	SPT16	23	17													
16.15	D	SPT17	23	17													
17.15	D	SPT18	27	18													
19.15	D	SPT19	31	20													
20.15	D	SPT20	32	20													
21.15	D	SPT21	26	17													
22.15	D	SPT22	26	17													
23.15	D	SPT23	32	19													
24.15	D	SPT24	36	20													
25.15	D	SPT25	39	21													
26.15	D	SPT26	41	21													
26.45																	

N.P. - NON PLASTIC

D - DISTURBED SAMPLE

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI-110016				PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT BAREILLY (U.P.).				BORING DATES : START : 09.12.97 FINISH : 11.12.97				TERMINATION DEPTH : 25.45 M WATER TABLE : 1.60 M				TABLE NO. : 31 BORE HOLE NO. : BH-16			
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (E _u /cc)	R E M A R K S		
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)								
G.L.	D	DS1			10 20 30 40 50 60 70 80 90 100	CLAY OF MEDIUM PLASTICITY (CL)		0	9	72	19	40	24	24.3	2.70	1.60			
1.15	D	SPT1	7	7		CLAY OF LOW PLASTICITY (CL)		0	11	81	8	30	20	27.0	2.68	1.64			
2.15	D	SPT2	8	8				0	24	71	5	29	20	21.2	2.65	1.73			
3.15	D	SPT3	10	10				0	85	15	0	N.	P.	17.4	2.62	1.64			
4.15	D	SPT4	7	8															
5.15	D	SPT5	8	9															
6.15	D	SPT6	9	10															
7.15	D	SPT7	9	9															
8.15	D	SPT8	11	11															
9.15	D	SPT9	13	13															
10.15	D	SPT10	14	13															
11.15	D	SPT11	18	16															
12.15	D	SPT12	18	16															
13.15	D	SPT13	15	14															
14.15	D	SPT14	17	15															
15.00																			

N.P. - NON PLASTIC

D - DISTURBED SAMPLE

INTERCONTINENTAL CONSULTANTS AND TECHNOCRATS PVT. LTD. NEW DELHI -110016			PROJECT NO. : 2075 A NAME OF THE PROJECT : GEOTECHNICAL INVESTIGATION WORK FOR NATIONAL HIGHWAY BY-PASS AT PAREILLY (U.P.).			BORING DATES : START :09.12.97 FINISH :12.12.97			TERMINATION DEPTH : 25.45 M WATER TABLE : 1.60 M			TABLE NO. : 32 BORE HOLE NO. : BH-16					
DEPTH OF SAMPLE BELOW REFERENCE LEVEL	NATURE OF SAMPLING	SAMPLE REFERENCE NO.	SPT BLOWS PER 30 cm		STANDARD PENETRATION RESISTANCE CURVE (OBSERVED VALUE)	VISUAL DESCRIPTION OF SOIL WITH I.S. CLASSIFICATION	SYMBOLIC REPRESENTATION	GRAIN SIZE ANALYSIS				LIQUID LIMIT	PLASTIC LIMIT	NATURAL MOISTURE CONTENT (%)	SPECIFIC GRAVITY	UNIT WEIGHT (gm/cc)	REMARKS
			OBSERVED VALUE	CORRECTED VALUE				GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)						
15.00	D	SPT15	19	15		15.0		0	91	9	0	N.	P. 16.2	2.61	1.68		
15.15						SILTY SAND (SP-SM)											
16.15	D	SPT16	23	17													
17.15	D	SPT17	26	18													
18.15	D	SPT18	22	16													
19.15	D	SPT19	26	18													
20.15	D	SPT20	25	17													
21.15	D	SPT21	27	18													
22.15	D	SPT22	42	23													
23.15	D	SPT23	46	24													
24.15	D	SPT24	50	25													
25.15	D	SPT25	51	25													
25.45																	

D - DISTURBED SAMPLE

N.P. - NON PLASTIC