

Natural Moisture Contents

&

Atterberg Limit

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO.	ADL02-TCU-17925	
LOCATION			DATE TESTED	SEPT. 13, 2002	
TEST PIT NO.	ATP-11	SAMPLE NO.	9-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Clayey SAND				

NATURAL MOISTURE CONTENTS(ASTM-D2216) / ATERBERG LIMIT (ASTM-D4316)

TYPE OF TEST	WMC	LIQUID LIMIT			PLASTIC LIMIT		LIQUID LIMIT FLOW CURVE
		1	2	3	1	2	
Number of blows	-	30	22	15	-	-	
Wet Soil + dish (g)	6674.00	36.36	35.40	34.12	23.48	24.18	
Dry Soil + dish (g)	5152.40	27.75	27.22	26.06	19.78	20.52	
Water (g)	1521.60	8.41	8.18	8.04	3.70	3.64	
Dish Wt (g)	87.20	9.75	10.15	9.65	8.60	9.55	
Dry Soil (g)	5065.20	18.00	17.07	18.43	11.18	10.97	
Moisture Content (%)	30.04	46.72	47.82	46.93	33.09	33.18	
Value	30	47			33		

SIEVE ANALYSIS (ASTM-D422)

O.D. Sample: 505.7

SIEVE NUMBER	Diameter of Opening (mm)	Retained wt. (g)	Cumulative % Retained	Percent Finer
2.00	85.0			
4.75	50.0	0.0	0.00	100.00
7.50	38.1	748.0	4.80	95.20
15.00	25.4	395.0	7.89	92.11
30.00	19.1	461.0	9.09	90.91
60.00	12.7			
125.00	9.52	895.0	13.74	86.26
250.00	4.75	930.0	15.36	84.64
500.00	2.00	1103.0	21.78	78.22
75.00	0.84	1225.0	24.16	75.84
150.00	0.42	2112.0	41.79	58.21
300.00	0.25	2484.0	46.05	53.95
600.00	0.105	2713.0	53.80	46.20
1200.00	0.075	2895.0	56.36	43.64

Remarks:

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO.	ADL02-TCU-17925	
LOCATION			DATE TESTED	SEPT. 14, 2002	
TEST PIT NO.	ATP-12	SAMPLE NO.	5-2	DEPTH (M)	1.30-3.00
DESCRIPTION	Clayey SILT				

NATURAL MOISTURE CONTENTS(ASTM-D2216) / ATERBERG LIMIT (ASTM-D4316)

TYPE OF TEST	WMC	LIQUID LIMIT			PLASTIC LIMIT		LIQUID LIMIT FLOW CURVE
		1	2	3	1	2	
Number of blows	-	14	28	41	-	-	
Wet Soil + dish (g)	690.28	42.70	46.40	41.82	28.18	28.43	
Dry Soil + dish (g)	526.90	30.10	33.24	30.34	23.36	23.77	
Water (g)	163.38	12.60	13.16	11.48	4.82	4.66	
Dish Wt (g)	76.20	8.48	9.85	9.45	9.74	9.72	
Dry Soil (g)	450.70	21.62	23.59	20.88	13.62	14.05	
Moisture Content (%)	36.25	58.28	56.79	54.98	35.59	33.17	
Value	36	56			34		

SIEVE ANALYSIS (ASTM-D422)

O.D. Sample: 450.7

SIEVE NUMBER	Diameter of Opening (mm)	Retained wt. (g)	Cumulative % Retained	Percent Finer
2.00	85.0			
4.75	50.0			
7.50	38.1			
15.00	25.4			
30.00	19.1			
60.00	12.7			
125.00	9.52	0.0	0.00	100.00
250.00	4.75	25.8	5.72	94.28
500.00	2.00	46.8	11.05	88.95
75.00	0.84	74.9	16.82	83.18
150.00	0.42	105.1	22.88	77.12
300.00	0.25	125.4	27.38	72.62
600.00	0.105	153.7	34.10	65.90
1200.00	0.075	180.0	35.52	64.48

Remarks:

06-18

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO.	AD102-TCU-17927
LOCATION			DATE TESTED	SEPT. 14, 2002
TEST PIT NO.	ATP-13	SAMPLE NO.	S-1	DEPTH (M)
DESCRIPTION	Silty CLAY			

NATURAL MOISTURE CONTENTS(ASTM-D2216) / ATERBERG LIMIT (ASTM-D4316)

TYPE OF TEST	NMC	LIQUID LIMIT			PLASTIC LIMIT		LIQUID LIMIT FLOW CURVE
		1	2	3	1	2	
Number of blows	-	12	21	32	-	-	
Wet Soil + dish (g)	625.04	43.72	46.41	44.00	27.54	26.55	
Dry Soil + dish (g)	476.20	29.36	31.20	29.88	73.55	22.66	
Water (g)	148.84	14.37	15.21	14.12	3.99	3.48	
Cons. Wt (g)	90.50	9.90	9.60	9.48	9.85	9.88	
Cons. Wt (g)	385.70	19.45	21.60	20.40	13.70	12.60	
Moisture Content (%)	38.58	73.88	70.42	69.22	29.12	27.27	
Value	39	70			28		

SIEVE ANALYSIS (ASTM-D422)

SIEVE NUMBER	Diameter of Opening (mm)	Cumulative wt. Ret. (g)	Cumulative % Retained	Percent Finer
2.0	83.5			
4	50.8			
10	20.0			
20	7.5			
40	3.75			
60	2.5			
80	1.75			
100	1.5			
150	1.0			
200	0.75			
250	0.6			
300	0.5			
400	0.375			
500	0.3			
600	0.25			
750	0.1875			
900	0.15			
1060	0.125			
1250	0.1			
1500	0.075			
1800	0.06			
2000	0.05			
2500	0.0375			
3000	0.03			
3500	0.025			
4250	0.01875			
5000	0.015			
6000	0.0125			
7500	0.009375			
9000	0.0075			
10600	0.00625			
12500	0.005			
15000	0.00375			
18000	0.003			
20000	0.0025			
25000	0.001875			
30000	0.0015			
35000	0.00125			
42500	0.0009375			
50000	0.00075			
60000	0.000625			
75000	0.00046875			
90000	0.000375			
106000	0.0003125			
125000	0.00025			
150000	0.0001875			
180000	0.00015			
200000	0.000125			
250000	9.375e-05			
300000	7.5e-05			
350000	6.25e-05			
425000	4.6875e-05			
500000	3.75e-05			
600000	3.125e-05			
750000	2.34375e-05			
900000	1.875e-05			
1060000	1.5625e-05			
1250000	1.25e-05			
1500000	9.375e-06			
1800000	7.5e-06			
2000000	6.25e-06			
2500000	4.6875e-06			
3000000	3.75e-06			
3500000	3.125e-06			
4250000	2.34375e-06			
5000000	1.875e-06			
6000000	1.5625e-06			
7500000	1.171875e-06			
9000000	9.375e-07			
10600000	7.8125e-07			
12500000	6.25e-07			
15000000	4.6875e-07			
18000000	3.75e-07			
20000000	3.125e-07			
25000000	2.34375e-07			
30000000	1.875e-07			
35000000	1.5625e-07			
42500000	1.171875e-07			
50000000	9.375e-08			
60000000	7.8125e-08			
75000000	5.859375e-08			
90000000	4.6875e-08			
106000000	3.90625e-08			
125000000	3.125e-08			
150000000	2.34375e-08			
180000000	1.875e-08			
200000000	1.5625e-08			
250000000	1.171875e-08			
300000000	9.375e-09			
350000000	7.8125e-09			
425000000	5.859375e-09			
500000000	4.6875e-09			
600000000	3.90625e-09			
750000000	2.9296875e-09			
900000000	2.34375e-09			
1060000000	1.953125e-09			
1250000000	1.5625e-09			
1500000000	1.171875e-09			
1800000000	9.375e-10			
2000000000	7.8125e-10			
2500000000	5.859375e-10			
3000000000	4.6875e-10			
3500000000	3.90625e-10			
4250000000	2.9296875e-10			
5000000000	2.34375e-10			
6000000000	1.953125e-10			
7500000000	1.4625e-10			
9000000000	1.171875e-10			
10600000000	9.765625e-11			
12500000000	7.8125e-11			
15000000000	5.859375e-11			
18000000000	4.6875e-11			
20000000000	3.90625e-11			
25000000000	2.9296875e-11			
30000000000	2.34375e-11			
35000000000	1.953125e-11			
42500000000	1.4625e-11			
50000000000	1.171875e-11			
60000000000	9.765625e-12			
75000000000	7.3125e-12			
90000000000	5.859375e-12			
106000000000	4.90625e-12			
125000000000	3.90625e-12			
150000000000	2.9296875e-12			
180000000000	2.34375e-12			
200000000000	1.953125e-12			
250000000000	1.4625e-12			
300000000000	1.171875e-12			
350000000000	9.765625e-13			
425000000000	7.3125e-13			
500000000000	5.859375e-13			
600000000000	4.90625e-13			
750000000000	3.6796875e-13			
900000000000	2.9296875e-13			
1060000000000	2.46875e-13			
1250000000000	1.953125e-13			
1500000000000	1.4625e-13			
1800000000000	1.171875e-13			
2000000000000	9.765625e-14			
2500000000000	7.3125e-14			
3000000000000	5.859375e-14			
3500000000000	4.90625e-14			
4250000000000	3.6796875e-14			
5000000000000	2.9296875e-14			
6000000000000	2.46875e-14			
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9000000000000	1.4625e-14			
10600000000000	1.21875e-14			
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15000000000000	7.3125e-15			
18000000000000	5.859375e-15			
20000000000000	4.90625e-15			
25000000000000	3.6796875e-15			
30000000000000	2.9296875e-15			
35000000000000	2.46875e-15			
42500000000000	1.8515625e-15			
50000000000000	1.4625e-15			
60000000000000	1.21875e-15			
75000000000000	9.1386875e-16			
90000000000000	7.3125e-16			
106000000000000	6.09375e-16			
125000000000000	4.90625e-16			
150000000000000	3.6796875e-16			
180000000000000	2.9296875e-16			
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250000000000000	1.8515625e-16			
300000000000000	1.4625e-16			
350000000000000	1.21875e-16			
425000000000000	9.1386875e-17			
500000000000000	7.3125e-17			
600000000000000	6.09375e-17			
750000000000000	4.5703125e-17			
900000000000000	3.6796875e-17			
1060000000000000	3.0625e-17			
1250000000000000	2.46875e-17			
1500000000000000	1.8515625e-17			
1800000000000000	1.4625e-17			
2000000000000000	1.21875e-17			
2500000000000000	9.1386875e-18			
3000000000000000	7.3125e-18			
3500000000000000	6.09375e-18			
4250000000000000	4.5703125e-18			
5000000000000000	3.6796875e-18			
6000000000000000	3.0625e-18			
7500000000000000	2.296875e-18			
9000000000000000	1.8515625e-18			
10600000000000000	1.546875e-18			
12500000000000000	1.21875e-18			
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18000000000000000	7.3125e-19			
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30000000000000000	3.6796875e-19			
35000000000000000	3.0625e-19			
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50000000000000000	1.8515625e-19			
60000000000000000	1.546875e-19			
75000000000000000	1.171875e-19			
90000000000000000	9.375e-20			
106000000000000000	7.8125e-20			
125000000000000000	6.25e-20			
150000000000000000	4.6875e-20			
180000000000000000	3.6796875e-20			
200000000000000000	3.0625e-20			
250000000000000000	2.296875e-20			
300000000000000000	1.8515625e-20			
350000000000000000	1.546875e-20			
425000000000000000	1.171875e-20			
500000000000000000	9.375e-21			
600000000000000000	7.8125e-21			
750000000000000000	5.859375e-21			
900000000000000000	4.6875e-21			
1060000000000000000	3.90625e-21			
1250000000000000000	3.125e-21			
1500000000000000000	2.34375e-21			
1800000000000000000	1.875e-21			
2000000000000000000	1.5625e-21			
2500000000000000000	1.171875e-21			
3000000000000000000	9.375e-22			
3500000000000000000	7.8125e-22			
4250000000000000000	5.859375e-22			
5000000000000000000	4.6875e-22			
6000000000000000000	3.90625e-22			
7500000000000000000	2.9296875e-22			
9000000000000000000	2.34375e-22			
10600000000000000000	1.953125e-22			
12500000000000000000	1.5625e-22			
15000000000000000000	1.171875e-22			
18000000000000000000	9.375e-23			
20000000000000000000	7.8125e-23			
25				

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO	ADL02-TCU-17991			
LOCATION		DATE TESTED	SEPT 14, 2002			
TEST PIT NO.	ATP-15	SAMPLE NO.	S-1			
DEPTH (M)			0.00-3.00			
DESCRIPTION	SILTY CLAY					
NATURAL MOISTURE CONTENTS(ASTM-D2216) / ATERBERG LIMIT (ASTM-D4316)						
TYPE OF TEST	MHC	LIQUID LIMIT			PLASTIC LIMIT	
		1	2	3	1	2
Number of blows	-	13	22	40	-	-
Wet Soil + dish (g)	631.00	50.65	44.00	52.66	28.10	26.83
Dry Soil + dish (g)	470.20	33.36	29.79	35.27	23.89	22.84
Water (g)	161.40	17.29	14.27	17.39	4.21	3.79
Shrinkage (%)	75.10	9.71	9.80	9.88	8.48	8.66
Dry Soil (g)	385.10	23.65	20.19	25.39	15.41	13.15
Moisture Content (%)	40.85	73.11	70.88	68.48	27.32	28.82
Value	47	20			28	
SIEVE NUMBER	Diameter of Opening (mm)	Quantity of Ret. (g)	% Retained	Percent Finer		
2.0	85.0					
4.75	50.0					
7.5	37.5					
15.0	25.0					
30.0	12.5					
60.0	6.25	2.0	3.00	96.99		
75.0	4.75	12.3	8.87	91.13		
100.0	3.0	26.5	7.18	92.82		
200.0	0.84	40.9	10.35	89.65		
400.0	0.42	55.9	14.75	85.25		
600.0	0.25	74.8	18.88	81.12		
840.0	0.105	108.8	28.98	71.02		
2000.0	0.075	154.0	24.85	75.15		

G6-20

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO.	ADL02-TCU-17920	
LOCATION			DATE TESTED	SEPT. 13, 2002	
TEST PIT NO.	KTP-5	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Clayey SILT				

NATURAL MOISTURE CONTENTS(ASTM-D2216) / ATERBERG LIMIT (ASTM-D4316)

TYPE OF TEST	NMC	LIQUID LIMIT			PLASTIC LIMIT		LIQUID LIMIT FLOW CURVE
		1	2	3	1	2	
Number of blows	-	12	27	36	-	-	
Wet Soil + dish (g)	798.86	49.29	41.30	40.40	28.31	28.50	
Dry Soil + dish (g)	559.95	35.00	30.08	33.57	23.75	23.80	
Water (g)	238.91	14.29	11.22	12.83	4.56	4.70	
Wet We (g)	74.85	9.89	9.60	9.86	8.80	9.65	
Dry Soil (g)	485.10	25.11	20.48	23.72	13.95	14.15	
Moisture Content (%)	49.25	58.91	54.79	54.09	32.68	33.22	
Value	49	55			33		

SIEVE ANALYSIS (ASTM-D422)

SIEVE NUMBER	Diameter of Opening (mm)	Cumulative wt. Ret. (g)	Cumulative % Retained	Percent Finer
2.5	85.0			
2	50.0			
1.18	37.5			
1	25.0			
3/4	19.0			
1/2	12.5			
3/8	9.5	0.0	0.00	100.00
4	4.75	28.9	5.59	94.41
10	2	79.3	15.92	84.08
20	0.84	100.0	20.01	79.99
40	0.42	112.4	23.17	76.83
80	0.25	123.4	25.44	74.56
140	0.105	143.4	29.89	70.11
200	0.075	148.6	30.67	69.33

Remarks:

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO.	ADL02-TCU-17920	
LOCATION			DATE TESTED	SEPT. 13, 2002	
TEST PIT NO.	KTP-7	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Silty CLAY				

NATURAL MOISTURE CONTENTS(ASTM-D2216) / ATERBERG LIMIT (ASTM-D4316)

TYPE OF TEST	NMC	LIQUID LIMIT			PLASTIC LIMIT		LIQUID LIMIT FLOW CURVE
		1	2	3	1	2	
Number of blows	-	13	28	40	-	-	
Wet Soil + dish (g)	672.97	41.48	45.99	46.17	28.16	24.97	
Dry Soil + dish (g)	481.20	27.27	30.23	30.44	22.23	21.55	
Water (g)	211.77	14.21	15.76	15.73	3.93	3.42	
Wet We (g)	73.70	9.74	9.60	9.66	9.75	9.91	
Dry Soil (g)	387.90	17.56	20.83	20.89	12.53	11.64	
Moisture Content (%)	54.65	80.82	78.39	75.30	81.36	29.38	
Value	55	77			30		

SIEVE ANALYSIS (ASTM-D422)

SIEVE NUMBER	Diameter of Opening (mm)	Cumulative wt. Ret. (g)	Cumulative % Retained	Percent Finer
2.5	85.0			
2	50.0			
1.18	37.5			
1	25.0			
3/4	19.0			
1/2	12.5			
3/8	9.5	0.0	0.00	100.00
4	4.75	4.8	1.15	98.85
10	2	12.2	3.15	96.85
20	0.84	22.4	5.78	94.22
40	0.42	27.8	7.17	92.83
80	0.25	39.3	13.14	86.86
140	0.105	41.7	13.76	86.24
200	0.075	43.7	14.76	85.24

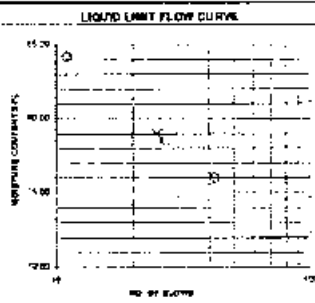
Remarks:

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PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTRACT NO.	ADJ-02-TCU-17922
LOCATION		DATE TESTED	SEPT. 13, 2002
TEST PIT NO.	KTP-5	SAMPLE NO.	S-1
DEPTH (M)	0.00-3.00		
DESCRIPTION	Silty CLAY		

NATURAL MOISTURE CONTENTS(ASTM-D2216) / ATERBERG LIMIT (ASTM-D4316)

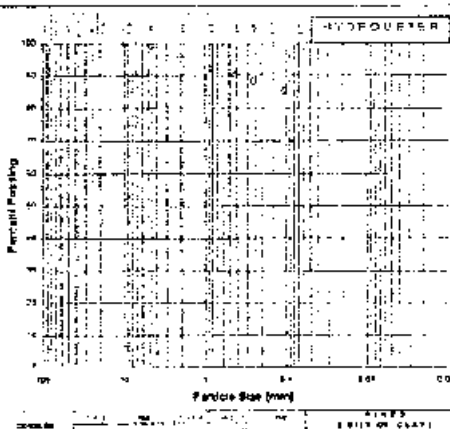
TYPE OF TEST	NMC	LIQUID LIMIT			PLASTIC LIMIT	
		1	2	3	1	2
Number of blows	-	11	27	42	-	-
Wet Soil + dish (g)	683.33	44.20	48.20	43.25	25.69	24.97
Dry Soil + dish (g)	498.70	28.65	31.20	28.72	22.57	21.64
Water (g)	184.63	15.65	17.00	14.53	4.12	3.33
Wet Wt (g)	68.60	9.98	8.55	9.80	8.15	9.47
Dry Soil (g)	420.10	18.59	21.65	19.12	13.42	12.17
Moisture Content (%)	46.33	64.19	70.52	75.99	30.70	27.36
Value	46	75			29	



SIEVE ANALYSIS (ASTM-D422)

O.D. Sample: 470.1

SIEVE NUMBER	Diameter of Opening (mm)	Cumulative wt. Ret. (g)	Cumulative % Retained	Percent Finer
2.0	85.0			
2	85.0			
1.1/2	38.1			
1	25.0			
3/4	19.0			
1/2	12.5			
3/8	9.5	0.0	0.00	100.00
4	4.75	3.4	0.51	99.49
60	2	20.4	3.08	96.92
20	0.84	32.6	4.87	95.13
40	0.42	41.7	6.14	93.86
60	0.25	46.0	6.88	93.12
100	0.15	51.7	7.69	92.31
200	0.075	65.5	9.69	90.31

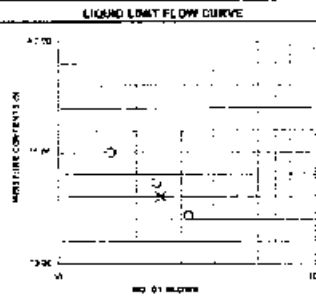


Remarks

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTRACT NO.	ADJ-02-TCU-17922
LOCATION		DATE TESTED	SEPT. 13, 2002
TEST PIT NO.	KTP-5	SAMPLE NO.	S-1
DEPTH (M)	0.00-3.00		
DESCRIPTION	Silty CLAY		

NATURAL MOISTURE CONTENTS(ASTM-D2216) / ATERBERG LIMIT (ASTM-D4316)

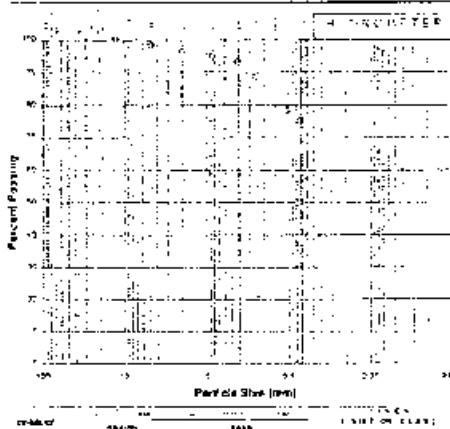
TYPE OF TEST	NMC	LIQUID LIMIT			PLASTIC LIMIT	
		1	2	3	1	2
Number of blows	-	32	24	15	-	-
Wet Soil + dish (g)	543.70	38.18	37.10	35.44	24.18	25.20
Dry Soil + dish (g)	471.40	26.34	25.57	24.41	20.79	21.59
Water (g)	172.30	11.82	11.53	11.03	3.39	3.61
Wet Wt (g)	60.70	2.88	9.91	9.70	9.55	9.60
Dry Soil (g)	410.70	16.38	15.66	14.71	11.24	11.98
Moisture Content (%)	41.95	72.16	73.63	74.98	30.16	30.11
Value	42	73			30	



SIEVE ANALYSIS (ASTM-D422)

O.D. Sample: 415.7

SIEVE NUMBER	Diameter of Opening (mm)	Cumulative wt. Ret. (g)	Cumulative % Retained	Percent Finer
2.0	85.0			
2	85.0			
1.1/2	38.1			
1	25.0			
3/4	19.0			
1/2	12.5	3.0	0.00	100.00
3/8	9.5	3.9	0.95	99.05
4	4.75	7.7	1.75	98.25
10	2	14.9	3.63	96.37
20	0.84	21.5	5.15	94.85
40	0.42	27.9	6.72	93.28
60	0.25	48.5	11.67	88.33
100	0.15	89.1	21.69	78.31
200	0.075	102.2	24.68	75.32



Remarks

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO.	ADLUG-FCU-12924
LOCATION		DATE TESTED	SEPT. 13, 2002

TEST PIT NO.	KTP-10	SAMPLE NO.	S-2	DEPTH (M)	0.00-3.00
DESCRIPTION	Silty CLAY				

NATURAL MOISTURE CONTENTS (ASTM-D2216) / ATERBERG LIMIT (ASTM-D4316)

TYPE OF TEST	NMC	LIQUID LIMIT			PLASTIC LIMIT		LIQUID LIMIT FLOW CURVE
		1	2	3	1	2	
Number of Moist		32	22	14			
Wet Soil + dish (g)	624.22	37.40	36.16	35.26	23.90	24.48	
Dry Soil + dish (g)	439.00	25.44	24.38	23.67	20.58	21.00	
Water (g)	185.22	11.95	11.78	11.41	3.32	3.48	
Wet Soil (g)	43.80	9.71	9.24	9.60	9.92	9.84	
Dry Soil (g)	395.10	15.73	15.14	14.27	10.66	11.15	
Moisture Content (%)	46.88	76.03	77.81	78.96	31.14	31.18	
Value	47	77			31		

Plasticity Index 46

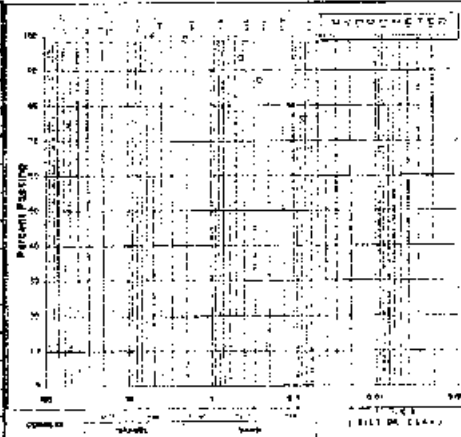
SIEVE ANALYSIS (ASTM-D422)

O.C. Sample 395.1

SIEVE NUMBER	Diameter of Opening (mm)	Cumulative wt. Ret. (g)	Cumulative % Retained	Percent Finer
2.0	85.0			
4	50.0			
10	20.0			
20	7.5			
40	3.75			
60	2.5			
80	1.75			
100	1.5			
150	1.0			
200	0.75			

SIEVE NUMBER	Diameter of Opening (mm)	Cumulative wt. Ret. (g)	Cumulative % Retained	Percent Finer
2.0	85.0			
4	50.0			
10	20.0			
20	7.5			
40	3.75			
60	2.5			
80	1.75			
100	1.5			
150	1.0			
200	0.75			

SIEVE NUMBER	Diameter of Opening (mm)	Cumulative wt. Ret. (g)	Cumulative % Retained	Percent Finer
2.0	85.0			
4	50.0			
10	20.0			
20	7.5			
40	3.75			
60	2.5			
80	1.75			
100	1.5			
150	1.0			
200	0.75			



Remarks:

G6-22

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-AL-17932	
LOCATION			DATE TESTED	SEPT. 20, 2002	
TEST ID NO.	WTP-3	SAMPLE NO.	S-1	DEPTH (ft)	0.00-3.00
DESCRIPTION	Clayey SILT				

NATURAL MOISTURE CONTENTS(ASTM-D2216) / ATERBERG LIMIT (ASTM-D4316)

TYPE OF TEST	NMC	LIQUID LIMIT			PLASTIC LIMIT		LIQUID LIMIT FLOW CURVE	
		1	2	3	1	2		
Number of Blows	-	11	22	38	-	-		
Wet Soil + dish (g)	955.80	38.29	42.87	36.78	26.62	26.02		
Dry Soil + dish (g)	674.10	28.17	31.55	27.59	22.58	22.34		
Water (g)	281.70	10.12	11.32	9.19	4.04	3.68		
Dish Wt (g)	78.90	9.75	9.90	9.64	9.80	10.69		
Dry Soil (g)	595.20	18.42	21.65	17.95	12.78	11.66		
Moisture Content (%)	47.33	54.93	52.29	51.20	31.61	31.59		
Value	47	52			32			
								Plasticity Index: 29

SIEVE ANALYSIS (ASTM-D422)

O.D. Sample: 995.2

SIEVE NUMBER	Diameter of Opening (mm)	Cumulative wt. Ret. (g)	Cumulative wt. Ret. (%)	Percent Finer	
2	85.0				
4	47.5				
10	1.75	3.0	0.00	100.00	
20	0.85	164.3	21.90	78.10	
40	0.425	314.0	38.29	61.71	
60	0.25	442.5	49.73	50.27	
100	0.15	495.7	59.84	40.16	
200	0.075	495.7	59.84	40.16	

Remarks:

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-A-17933	
LOCATION			DATE TESTED	SEPT. 20, 2002	
TEST ID NO.	WTP-4	SAMPLE NO.	S-1	DEPTH (ft)	0.00-3.00
DESCRIPTION	Clayey SILT				

NATURAL MOISTURE CONTENTS(ASTM-D2216) / ATERBERG LIMIT (ASTM-D4316)

TYPE OF TEST	NMC	LIQUID LIMIT			PLASTIC LIMIT		LIQUID LIMIT FLOW CURVE	
		1	2	3	1	2		
Number of Blows	-	14	24	38	-	-		
Wet Soil + dish (g)	982.30	43.64	42.05	38.45	25.84	25.31		
Dry Soil + dish (g)	711.10	31.53	30.87	28.54	21.75	21.59		
Water (g)	271.20	12.11	11.18	9.91	4.09	3.72		
Dish Wt (g)	90.41	9.99	10.24	9.95	9.60	9.90		
Dry Soil (g)	620.70	21.54	20.63	18.59	12.15	11.69		
Moisture Content (%)	43.89	58.22	54.19	53.31	33.86	31.82		
Value	44	54			33			
								Plasticity Index: 21

SIEVE ANALYSIS (ASTM-D422)

O.D. Sample: 550.7

SIEVE NUMBER	Diameter of Opening (mm)	Cumulative wt. Ret. (g)	Cumulative wt. Ret. (%)	Percent Finer	
2	85.0				
4	47.5				
10	1.75	0.0	0.00	100.00	
20	0.85	183.2	24.06	75.94	
40	0.425	212.2	34.95	65.05	
60	0.25	243.5	39.29	60.71	
100	0.15	278.6	44.51	55.49	
200	0.075	288.4	48.48	51.52	

Remarks:

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-AL-17934	
LOCATION			DATE TESTED	SEPT. 20, 2002	
TEST PIT NO.	WTP-5	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Clayey SAND				

NATURAL MOISTURE CONTENTS(ASTM-D2216) / ATERBERG LIMIT (ASTM-D4316)

TYPE OF TEST	NMC	LIQUID LIMIT			PLASTIC LIMIT		LIQUID LIMIT FLOW CURVE
		1	2	3	1	2	
Number of blows	-	11	27	40	-	-	
Wet Soil + dish (g)	951.20	42.09	46.72	44.25	28.19	26.52	
Dry Soil + dish (g)	696.10	31.69	35.20	33.47	23.66	22.52	
Water (g)	255.10	10.40	11.52	10.78	4.54	4.00	
Dish Wt. (g)	78.90	10.02	10.05	9.63	9.78	9.71	
Dry Soil (g)	617.20	21.67	25.15	23.84	13.87	12.81	
Moisture Content (%)	41.33	47.99	45.81	45.22	32.73	31.23	
Value	41	46			32		
		Plasticity Index			14		

SIEVE ANALYSIS (ASTM-D422)

O.D. Sample 817.2

SIEVE NUMBER	Diameter of Opening (mm)	Cumulative wt. Ret. (g)	Cumulative % Retained	Percent Finer
2 1/2	63.5			
2	50.8			
1 1/2	38.1			
1	25.4			
3/4	19.1			
1/2	12.7	0.0	0.00	100.00
3/8	9.52	95.5	15.47	84.53
4	4.76	158.5	25.68	74.32
10	2	236.9	38.38	61.62
20	0.84	268.9	43.57	56.43
40	0.42	286.1	46.68	53.32
60	0.25	299.3	48.49	51.51
140	0.105	318.0	51.95	48.05
200	0.074	323.8	52.48	47.54

Remarks:

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-AL-17935	
LOCATION			DATE TESTED	SEPT. 20, 2002	
TEST PIT NO.	WTP-6	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Clayey SILT				

NATURAL MOISTURE CONTENTS(ASTM-D2216) / ATERBERG LIMIT (ASTM-D4316)

TYPE OF TEST	NMC	LIQUID LIMIT			PLASTIC LIMIT		LIQUID LIMIT FLOW CURVE
		1	2	3	1	2	
Number of blows	-	12	27	33	-	-	
Wet Soil + dish (g)	809.00	42.52	47.14	40.92	29.02	27.77	
Dry Soil + dish (g)	603.40	31.20	34.66	30.66	24.38	23.17	
Water (g)	205.60	11.32	12.48	10.26	4.64	4.60	
Dish Wt. (g)	90.70	9.72	9.54	9.85	9.80	9.55	
Dry Soil (g)	512.70	21.48	25.12	20.81	14.58	13.62	
Moisture Content (%)	40.10	52.70	49.68	49.30	31.82	33.77	
Value	40	50			33		
		Plasticity Index			17		

SIEVE ANALYSIS (ASTM-D422)

O.D. Sample 512.7

SIEVE NUMBER	Diameter of Opening (mm)	Cumulative wt. Ret. (g)	Cumulative % Retained	Percent Finer
2 1/2	63.5			
2	50.8			
1 1/2	38.1			
1	25.4			
3/4	19.1	0.0	0.00	100.00
1/2	12.7			
3/8	9.52	59.0	11.51	88.49
4	4.76	115.9	22.61	77.39
10	2	152.5	29.74	70.26
20	0.84	177.3	34.58	65.42
40	0.42	208.2	40.61	59.39
60	0.25	228.9	44.65	55.35
140	0.105	247.4	48.25	51.75
200	0.074	254.9	49.72	50.28

Remarks:

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO.	ADL02-AL-17936	
LOCATION			DATE TESTED	SEPT. 21, 2002	
TEST PIT NO.	WTP-7	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Silty CLAY				

NATURAL MOISTURE CONTENTS(ASTM-D2216) / ATERBERG LIMIT (ASTM-D4316)

TYPE OF TEST	NMC	LIQUID LIMIT			PLASTIC LIMIT		LIQUID LIMIT FLOW CURVE
		1	2	3	1	2	
Number of blows	-	35	23	15	-	-	
Wet Soil + dish (g)	839.58	36.48	35.94	35.44	23.90	24.16	
Dry Soil + dish (g)	588.40	25.25	24.77	24.34	20.43	20.62	
Water (g)	261.18	11.23	11.17	11.10	3.47	3.54	
Dish Wt. (g)	72.10	9.66	9.60	9.56	9.60	9.66	
Dry Soil (g)	516.30	15.59	15.17	14.78	10.83	10.96	
Moisture Content (%)	48.65	72.03	73.63	75.10	32.04	32.30	
Value	49	73			32		
					Plasticity Index 41		

SIEVE ANALYSIS (ASTM-D422)

O.D. Sample 516.3

SIEVE NUMBER	Diameter of Opening (mm)	Cumulative wt. Ret. (g)	Cumulative % Retained	Percent Finer
2 1/2	63.5			
2	50.8			
1 1/2	38.1			
1	25.4			
3/4	19.1			
1/2	12.7			
3/8	9.52			
4	4.76			
10	2			
20	0.84	0.0	0.00	100.00
40	0.42	9.0	1.74	98.26
60	0.25	15.0	2.91	97.09
140	0.105	32.4	6.27	93.73
200	0.074	38.6	7.47	92.53

Remarks:

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO.	ADL02-AL-17937	
LOCATION			DATE TESTED	SEPT. 21, 2002	
TEST PIT NO.	WTP-8	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Silty CLAY				

NATURAL MOISTURE CONTENTS(ASTM-D2216) / ATERBERG LIMIT (ASTM-D4316)

TYPE OF TEST	NMC	LIQUID LIMIT			PLASTIC LIMIT		LIQUID LIMIT FLOW CURVE
		1	2	3	1	2	
Number of blows	-	35	24	15	-	-	
Wet Soil + dish (g)	935.30	35.72	35.41	34.92	24.50	24.16	
Dry Soil + dish (g)	615.80	24.71	24.37	23.98	20.87	20.63	
Water (g)	319.50	11.01	11.04	10.94	3.63	3.53	
Dish Wt. (g)	73.70	9.70	9.72	9.78	9.62	9.67	
Dry Soil (g)	542.10	15.01	14.65	14.20	11.25	10.96	
Moisture Content (%)	58.94	73.35	75.36	77.04	32.27	32.21	
Value	59	75			32		
					Plasticity Index 43		

SIEVE ANALYSIS (ASTM-D422)

O.D. Sample 542.1

SIEVE NUMBER	Diameter of Opening (mm)	Cumulative wt. Ret. (g)	Cumulative % Retained	Percent Finer
2 1/2	63.5			
2	50.8			
1 1/2	38.1			
1	25.4			
3/4	19.1			
1/2	12.7			
3/8	9.52			
4	4.76			
10	2	0.0	0.00	100.00
20	0.84	7.2	1.32	98.68
40	0.42	18.7	2.88	97.11
60	0.25	22.1	4.07	95.93
140	0.105	29.7	5.48	94.52
200	0.074	35.7	6.58	93.42

Remarks:

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO	ADL02-AL-17938
LOCATION		DATE TESTED	SEPT. 21, 2002
TEST PIT NO.	WTP-9	SAMPLE NO.	S-1
DEPTH (M)	0.00-3.00		
DESCRIPTION	Silty CLAY		

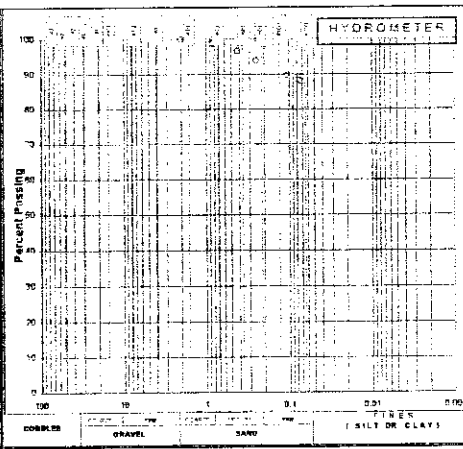
NATURAL MOISTURE CONTENTS(ASTM-D2216) / ATERBERG LIMIT (ASTM-D4316)

TYPE OF TEST	NMC	LIQUID LIMIT			PLASTIC LIMIT		LIQUID LIMIT FLOW CURVE
		1	2	3	1	2	
Number of blows	-	31	23	12	-	-	
Wet Soil + dish (g)	816.30	36.12	35.64	34.15	21.40	23.78	
Dry Soil + dish (g)	573.00	25.17	24.72	23.67	18.53	20.36	
Water (g)	243.30	10.95	10.92	10.48	2.87	3.42	
Dish Wt (g)	68.80	9.86	9.74	9.70	9.62	9.64	
Dry Soil (g)	504.20	15.31	14.98	13.97	8.91	10.72	
Moisture Content (%)	48.25	71.52	72.90	75.02	32.21	31.90	
Value	48	72			32		

SIEVE ANALYSIS (ASTM-D422)

O.D. Sample 504.2

SIEVE NUMBER	Diameter of Opening (mm)	Cumulative wt. Ret. (g)	Cumulative % Retained	Percent Finer
2 1/2	83.5			
2	50.8			
1 1/2	38.1			
1	25.4			
3/4	19.1			
1/2	12.7			
3/8	9.52			
4	4.76			
10	2	0.0	0.00	100.00
20	0.84	6.2	1.23	98.77
40	0.42	17.0	3.37	96.63
60	0.25	31.0	6.15	93.85
140	0.105	52.2	10.35	89.65
200	0.074	59.5	11.80	88.20



Remarks:

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO	ADL02-AL-17939
LOCATION		DATE TESTED	SEPT. 21, 2002
TEST PIT NO.	WTP-10	SAMPLE NO.	S-1
DEPTH (M)	0.00-3.00		
DESCRIPTION	Clayey SILT		

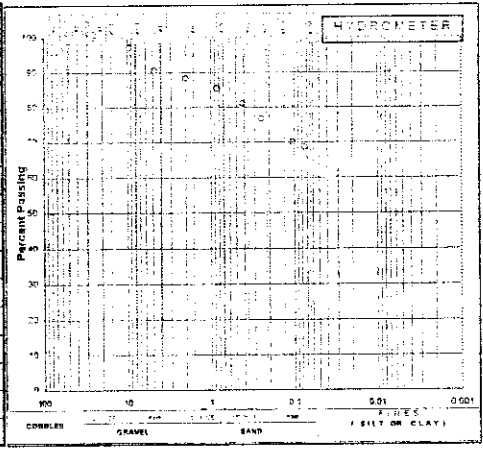
NATURAL MOISTURE CONTENTS(ASTM-D2216) / ATERBERG LIMIT (ASTM-D4316)

TYPE OF TEST	NMC	LIQUID LIMIT			PLASTIC LIMIT		LIQUID LIMIT FLOW CURVE
		1	2	3	1	2	
Number of blows	-	32	22	12	-	-	
Wet Soil + dish (g)	804.00	34.90	35.12	34.70	24.16	23.88	
Dry Soil + dish (g)	574.80	25.42	25.36	24.89	20.67	20.41	
Water (g)	229.20	9.48	9.76	9.81	3.49	3.47	
Dish Wt (g)	70.10	9.82	9.76	9.74	9.68	9.63	
Dry Soil (g)	504.70	15.60	15.60	15.15	10.99	10.78	
Moisture Content (%)	45.41	60.77	62.56	64.75	31.76	32.19	
Value	45	62			32		

SIEVE ANALYSIS (ASTM-D422)

O.D. Sample 504.7

SIEVE NUMBER	Diameter of Opening (mm)	Cumulative wt. Ret. (g)	Cumulative % Retained	Percent Finer
2 1/2	83.5			
2	50.8			
1 1/2	38.1			
1	25.4			
3/4	19.1	0.0	0.00	100.00
1/2	12.7			
3/8	9.52	14.6	2.89	97.11
4	4.76	47.4	9.39	90.61
10	2	68.8	11.85	88.35
20	0.84	73.7	14.60	85.40
40	0.42	95.3	18.88	81.12
60	0.25	117.4	23.26	76.74
140	0.105	151.5	30.02	69.99
200	0.074	159.6	31.42	68.58



Remarks:

G6-27

Specific Gravity
&
Water Absorption

G6-28

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-TCU-17861	
LOCATION			DATE TESTED	SEPT. 18, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	ATP-1	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Poorly graded GRAVEL				
FINE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			21 °C		
WEIGHT OF SAMPLE IN AIR	(gm)		486.4		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		500.0		
WEIGHT OF PYC WITH WATER	(gm)		683.7		
WEIGHT OF PYC + WATER + SAMPLE	(gm)		993.7		
SPECIFIC GRAVITY (BULK S.S.D.)			2.63		
ABSORPTION	(%)		2.80		
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			21 °C	21 °C	
WEIGHT OF SAMPLE IN AIR	(gm)		4206	4331	
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		4284	4412	
WEIGHT IN WATER	(gm)		2695	2771	
SPECIFIC GRAVITY (BULK S.S.D.)			2.65	2.64	
ABSORPTION			1.85	1.87	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.64		
AVERAGE ABSORPTION	(%)		1.86		

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-TCU-17862	
LOCATION			DATE TESTED	SEPT. 18, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	ATP-2	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Poorly graded GRAVEL				
FINE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			20 °C		
WEIGHT OF SAMPLE IN AIR	(gm)		486.9		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		500.0		
WEIGHT OF PYC WITH WATER	(gm)		654.0		
WEIGHT OF PYC + WATER + SAMPLE	(gm)		964.1		
SPECIFIC GRAVITY (BULK S.S.D.)			2.63		
ABSORPTION	(%)		2.69		
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			20 °C	20 °C	
WEIGHT OF SAMPLE IN AIR	(gm)		3790	3526	
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		3860	3590	
WEIGHT IN WATER	(gm)		2427	2258	
SPECIFIC GRAVITY (BULK S.S.D.)			2.64	2.65	
ABSORPTION			1.85	1.82	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.65		
AVERAGE ABSORPTION	(%)		1.83		

G6-29

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-TCU-17864	
LOCATION			DATE TESTED	SEPT. 18, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	ATP-3	SAMPLE NO.	S-1	DEPTH (M)	0.00-1.80
DESCRIPTION	Poorly graded GRAVEL				
FINE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			21 °C		
WEIGHT OF SAMPLE IN AIR	(gm)		486.2		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		500.0		
WEIGHT OF PYC WITH WATER	(gm)		648.0		
WEIGHT OF PYC + WATER + SAMPLE	(gm)		957.7		
SPECIFIC GRAVITY (BULK S.S.D.)			2.63		
ABSORPTION	(%)		2.84		
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			21 °C	21 °C	
WEIGHT OF SAMPLE IN AIR	(gm)		4339	4447	
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		4415	4528	
WEIGHT IN WATER	(gm)		2769	2838	
SPECIFIC GRAVITY (BULK S.S.D.)			2.64	2.63	
ABSORPTION			1.75	1.82	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.63		
AVERAGE ABSORPTION	(%)		1.79		

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-TCU-17865	
LOCATION			DATE TESTED	SEPT. 18, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	ATP-3	SAMPLE NO.	S-2	DEPTH (M)	1.80-3.00
DESCRIPTION	Poorly graded GRAVEL				
FINE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			21 °C		
WEIGHT OF SAMPLE IN AIR	(gm)		485.9		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		500.0		
WEIGHT OF PYC WITH WATER	(gm)		637.3		
WEIGHT OF PYC + WATER + SAMPLE	(gm)		946.8		
SPECIFIC GRAVITY (BULK S.S.D.)			2.62		
ABSORPTION	(%)		2.90		
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			21 °C	21 °C	
WEIGHT OF SAMPLE IN AIR	(gm)		3891	4006	
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		3958	4074	
WEIGHT IN WATER	(gm)		2491	2566	
SPECIFIC GRAVITY (BULK S.S.D.)			2.65	2.66	
ABSORPTION			1.72	1.70	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.65		
AVERAGE ABSORPTION	(%)		1.71		

CG-30

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-TCU-17865	
LOCATION			DATE TESTED	SEPT. 19, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	ATP-4	SAMPLE NO.	S-1	DEPTH (M)	0.00-0.90
DESCRIPTION	Poorly graded GRAVEL				
FINE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			20 °C		
WEIGHT OF SAMPLE IN AIR	(gm)		487.8		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		500.0		
WEIGHT OF PYC WITH WATER	(gm)		683.7		
WEIGHT OF PYC + WATER + SAMPLE	(gm)		993.0		
SPECIFIC GRAVITY (BULK S.S.D.)			2.62		
ABSORPTION	(%)		2.50		
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			20 °C	20 °C	
WEIGHT OF SAMPLE IN AIR	(gm)		4583	4805	
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		4650	4876	
WEIGHT IN WATER	(gm)		2920	3065	
SPECIFIC GRAVITY (BULK S.S.D.)			2.65	2.65	
ABSORPTION			1.46	1.48	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.65		
AVERAGE ABSORPTION	(%)		1.47		

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-TCU-17866	
LOCATION			DATE TESTED	SEPT. 19, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	ATP-4	SAMPLE NO.	S-2	DEPTH (M)	0.90-3.00
DESCRIPTION	Poorly graded GRAVEL				
FINE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			20 °C		
WEIGHT OF SAMPLE IN AIR	(gm)		487.5		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		500.0		
WEIGHT OF PYC WITH WATER	(gm)		682.5		
WEIGHT OF PYC + WATER + SAMPLE	(gm)		992.7		
SPECIFIC GRAVITY (BULK S.S.D.)			2.63		
ABSORPTION	(%)		2.56		
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			20 °C	20 °C	
WEIGHT OF SAMPLE IN AIR	(gm)		4415	4655	
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		4478	4720	
WEIGHT IN WATER	(gm)		2816	2969	
SPECIFIC GRAVITY (BULK S.S.D.)			2.66	2.66	
ABSORPTION			1.43	1.40	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.66		
AVERAGE ABSORPTION	(%)		1.41		

G6-31

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-TCU-17867	
LOCATION			DATE TESTED	SEPT. 19, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	ATP-5	SAMPLE NO.	S-1	DEPTH (M)	0.00-1.50
DESCRIPTION	Poorly graded GRAVEL				
FINE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			20 °C		
WEIGHT OF SAMPLE IN AIR	(gm)		488.2		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		500.0		
WEIGHT OF PYC WITH WATER	(gm)		654.0		
WEIGHT OF PYC + WATER + SAMPLE	(gm)		966.1		
SPECIFIC GRAVITY (BULK S.S.D.)			2.66		
ABSORPTION	(%)		2.42		
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			20 °C	20 °C	
WEIGHT OF SAMPLE IN AIR	(gm)		4817	4859	
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		4886	4928	
WEIGHT IN WATER	(gm)		3075	3102	
SPECIFIC GRAVITY (BULK S.S.D.)			2.66	2.66	
ABSORPTION			1.43	1.42	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.66		
AVERAGE ABSORPTION	(%)		1.43		

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-TCU-17868	
LOCATION			DATE TESTED	SEPT. 19, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	ATP-5	SAMPLE NO.	S-2	DEPTH (M)	1.50-3.00
DESCRIPTION	Poorly graded GRAVEL				
FINE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			20 °C		
WEIGHT OF SAMPLE IN AIR	(gm)		488.1		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		500.0		
WEIGHT OF PYC WITH WATER	(gm)		683.6		
WEIGHT OF PYC + WATER + SAMPLE	(gm)		995.1		
SPECIFIC GRAVITY (BULK S.S.D.)			2.65		
ABSORPTION	(%)		2.44		
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			21 °C	21 °C	
WEIGHT OF SAMPLE IN AIR	(gm)		4618	4783	
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		4686	4854	
WEIGHT IN WATER	(gm)		2947	3051	
SPECIFIC GRAVITY (BULK S.S.D.)			2.66	2.65	
ABSORPTION			1.47	1.48	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.65		
AVERAGE ABSORPTION	(%)		1.48		

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-TCU-17869	
LOCATION			DATE TESTED	SEPT. 20, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	ATP-6	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Poorly graded GRAVEL				
FINE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			22 °C		
WEIGHT OF SAMPLE IN AIR	(gm)		487.2		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		500.0		
WEIGHT OF PYC WITH WATER	(gm)		648.0		
WEIGHT OF PYC + WATER + SAMPLE	(gm)		959.5		
SPECIFIC GRAVITY (BULK S.S.D.)			2.65		
ABSORPTION	(%)		2.63		
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			22 °C	22 °C	
WEIGHT OF SAMPLE IN AIR	(gm)		3889	4465	
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		3948	4532	
WEIGHT IN WATER	(gm)		2477	2845	
SPECIFIC GRAVITY (BULK S.S.D.)			2.64	2.65	
ABSORPTION			1.52	1.50	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.65		
AVERAGE ABSORPTION	(%)		1.51		

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-TCU-17870	
LOCATION			DATE TESTED	SEPT. 20, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	ATP-7	SAMPLE NO.	S-1	DEPTH (M)	0.00-0.70
DESCRIPTION	Silty SAND				
FINE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			20 °C		
WEIGHT OF SAMPLE IN AIR	(gm)		481.7		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		500.0		
WEIGHT OF PYC WITH WATER	(gm)		682.8		
WEIGHT OF PYC + WATER + SAMPLE	(gm)		991.4		
SPECIFIC GRAVITY (BULK S.S.D.)			2.61		
ABSORPTION	(%)		3.80		
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			20 °C		
WEIGHT OF SAMPLE IN AIR	(gm)		4315		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		4392		
WEIGHT IN WATER	(gm)		2746		
SPECIFIC GRAVITY (BULK S.S.D.)			2.62		
ABSORPTION			1.78		
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.62		
AVERAGE ABSORPTION	(%)		1.78		

G6-33

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA			CONTROL NO	ADL02-TCU-17873
LOCATION				DATE TESTED	SEPT. 21, 2002
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	ATP-8	SAMPLE NO.	S-1	DEPTH (M)	0.00-2.00
DESCRIPTION	Poorly graded GRAVEL				
FINE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			20 °C		
WEIGHT OF SAMPLE IN AIR	(gm)	486.6			
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)	500.0			
WEIGHT OF PYC WITH WATER	(gm)	682.4			
WEIGHT OF PYC + WATER + SAMPLE	(gm)	992.7			
SPECIFIC GRAVITY (BULK S.S.D.)			2.64		
ABSORPTION	(%)	2.75			
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			20 °C	20 °C	
WEIGHT OF SAMPLE IN AIR	(gm)	4438	4600		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)	4510	4674		
WEIGHT IN WATER	(gm)	2853	2955		
SPECIFIC GRAVITY (BULK S.S.D.)			2.68	2.68	
ABSORPTION			1.62	1.61	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.68		
AVERAGE ABSORPTION	(%)	1.62			

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA			CONTROL NO	ADL02-TCU-17874
LOCATION				DATE TESTED	SEPT. 21, 2002
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	ATP-8	SAMPLE NO.	S-2	DEPTH (M)	2.00-3.00
DESCRIPTION	Poorly graded GRAVEL with silt				
FINE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			20 °C		
WEIGHT OF SAMPLE IN AIR	(gm)	486.6			
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)	500.0			
WEIGHT OF PYC WITH WATER	(gm)	648.2			
WEIGHT OF PYC + WATER + SAMPLE	(gm)	957.7			
SPECIFIC GRAVITY (BULK S.S.D.)			2.62		
ABSORPTION	(%)	2.75			
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			20 °C	20 °C	
WEIGHT OF SAMPLE IN AIR	(gm)	4028	4118		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)	4092	4184		
WEIGHT IN WATER	(gm)	2591	2641		
SPECIFIC GRAVITY (BULK S.S.D.)			2.68	2.67	
ABSORPTION			1.59	1.60	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.68		
AVERAGE ABSORPTION	(%)	1.60			

G6-34

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-TCU-17871	
LOCATION			DATE TESTED	SEPT. 20, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	ATP-9	SAMPLE NO.	S-1	DEPTH (M)	0.00-0.90
DESCRIPTION	Poorly graded GRAVEL				
FINE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			21 °C		
WEIGHT OF SAMPLE IN AIR	(gm)		488.4		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		500.0		
WEIGHT OF PYC WITH WATER	(gm)		637.3		
WEIGHT OF PYC + WATER + SAMPLE	(gm)		949.1		
SPECIFIC GRAVITY (BULK S.S.D.)			2.66		
ABSORPTION	(%)		2.38		
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			21 °C	21 °C	
WEIGHT OF SAMPLE IN AIR	(gm)		4328	4532	
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		4388	4594	
WEIGHT IN WATER	(gm)		2764	2896	
SPECIFIC GRAVITY (BULK S.S.D.)			2.67	2.67	
ABSORPTION			1.39	1.37	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.67		
AVERAGE ABSORPTION	(%)		1.38		

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-TCU-17872	
LOCATION			DATE TESTED	SEPT. 20, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	ATP-9	SAMPLE NO.	S-2	DEPTH (M)	0.90-3.00
DESCRIPTION	Poorly graded GRAVEL				
FINE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			20 °C		
WEIGHT OF SAMPLE IN AIR	(gm)		488.5		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		500.0		
WEIGHT OF PYC WITH WATER	(gm)		683.8		
WEIGHT OF PYC + WATER + SAMPLE	(gm)		996.3		
SPECIFIC GRAVITY (BULK S.S.D.)			2.67		
ABSORPTION	(%)		2.35		
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			20 °C	20 °C	
WEIGHT OF SAMPLE IN AIR	(gm)		4622	4852	
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		4684	4916	
WEIGHT IN WATER	(gm)		2954	3103	
SPECIFIC GRAVITY (BULK S.S.D.)			2.67	2.68	
ABSORPTION			1.34	1.32	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.67		
AVERAGE ABSORPTION	(%)		1.33		

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO	ADL02-TCU-17875
LOCATION		DATE TESTED	SEPT. 21, 2002

SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES
(ASTM-D127 & D128)

TEST PIT NO.	ATP-10	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Poorly graded GRAVEL				

FINE AGGREGATES

TRIAL NUMBER		1	
TEMPERATURE		21 °C	
WEIGHT OF SAMPLE IN AIR	(gm)	486.6	
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)	500.0	
WEIGHT OF PYC WITH WATER	(gm)	654.3	
WEIGHT OF PYC + WATER + SAMPLE	(gm)	963.5	
SPECIFIC GRAVITY (BULK S.S.D.)		2.621	
ABSORPTION	(%)	2.75	

COARSE AGGREGATES

TRIAL NUMBER		1	2
TEMPERATURE		21 °C	21 °C
WEIGHT OF SAMPLE IN AIR	(gm)	3710	3788
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)	3770	3849
WEIGHT IN WATER	(gm)	2378	2430
SPECIFIC GRAVITY (BULK S.S.D.)		2.67	2.67
ABSORPTION		1.62	1.61
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)		2.67	
AVERAGE ABSORPTION	(%)	1.61	

G6-35

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-TCU-17876	
LOCATION			DATE TESTED	SEPT. 21, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	KTP-1	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Poorly graded GRAVEL				
FINE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			20 °C		
WEIGHT OF SAMPLE IN AIR	(gm)		486.1		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		500.0		
WEIGHT OF PYC WITH WATER	(gm)		682.8		
WEIGHT OF PYC + WATER + SAMPLE	(gm)		991.8		
SPECIFIC GRAVITY (BULK S.S.D.)			2.62		
ABSORPTION	(%)		2.86		
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			20 °C	20 °C	
WEIGHT OF SAMPLE IN AIR	(gm)		4778	4852	
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		4854	4928	
WEIGHT IN WATER	(gm)		3017	3064	
SPECIFIC GRAVITY (BULK S.S.D.)			2.60	2.60	
ABSORPTION			1.59	1.57	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.60		
AVERAGE ABSORPTION	(%)		1.58		

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-TCU-17877	
LOCATION			DATE TESTED	SEPT. 22, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	KTP-2	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Poorly graded GRAVEL				
FINE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			20 °C		
WEIGHT OF SAMPLE IN AIR	(gm)		486.0		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		500.0		
WEIGHT OF PYC WITH WATER	(gm)		654.1		
WEIGHT OF PYC + WATER + SAMPLE	(gm)		963.4		
SPECIFIC GRAVITY (BULK S.S.D.)			2.62		
ABSORPTION	(%)		2.88		
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			20 °C	20 °C	
WEIGHT OF SAMPLE IN AIR	(gm)		4122	4256	
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		4188	4324	
WEIGHT IN WATER	(gm)		2606	2690	
SPECIFIC GRAVITY (BULK S.S.D.)			2.61	2.60	
ABSORPTION			1.60	1.60	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.61		
AVERAGE ABSORPTION	(%)		1.60		

G6-37

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-TCU-17878	
LOCATION			DATE TESTED	SEPT. 22, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	KTP-3	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Poorly graded SAND				
FINE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			20 °C		
WEIGHT OF SAMPLE IN AIR	(gm)		485.2		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		500.0		
WEIGHT OF PYC WITH WATER	(gm)		683.7		
WEIGHT OF PYC + WATER + SAMPLE	(gm)		992.3		
SPECIFIC GRAVITY (BULK S.S.D.)			2.61		
ABSORPTION	(%)		3.05		
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			20 °C	20 °C	
WEIGHT OF SAMPLE IN AIR	(gm)		4700	4885	
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		4778	4966	
WEIGHT IN WATER	(gm)		2965	3081	
SPECIFIC GRAVITY (BULK S.S.D.)			2.59	2.59	
ABSORPTION			1.66	1.66	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.59		
AVERAGE ABSORPTION	(%)		1.66		

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-TCU-17879	
LOCATION			DATE TESTED	SEPT. 22, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	KTP-4	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Poorly graded SAND				
FINE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			21 °C		
WEIGHT OF SAMPLE IN AIR	(gm)		484.9		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		500.0		
WEIGHT OF PYC WITH WATER	(gm)		647.8		
WEIGHT OF PYC + WATER + SAMPLE	(gm)		956.5		
SPECIFIC GRAVITY (BULK S.S.D.)			2.614		
ABSORPTION	(%)		3.11		
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			21 °C	21 °C	
WEIGHT OF SAMPLE IN AIR	(gm)		4732	4837	
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		4810	4918	
WEIGHT IN WATER	(gm)		2989	3054	
SPECIFIC GRAVITY (BULK S.S.D.)			2.60	2.59	
ABSORPTION			1.65	1.67	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.60		
AVERAGE ABSORPTION	(%)		1.66		

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO	ADL02-TCU-17880
LOCATION		DATE TESTED	SEPT. 22, 2002

SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES
(ASTM-D127 & D128)

TEST PIT NO.	KTP-5	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Poorly graded GRAVEL				

FINE AGGREGATES		
TRIAL NUMBER		1
TEMPERATURE		20 °C
WEIGHT OF SAMPLE IN AIR	(gm)	484.4
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)	500.0
WEIGHT OF PYC WITH WATER	(gm)	637.1
WEIGHT OF PYC + WATER + SAMPLE	(gm)	945.1
SPECIFIC GRAVITY (BULK S.S.D.)		2.60
ABSORPTION	(%)	3.22

COARSE AGGREGATES			
TRIAL NUMBER		1	2
TEMPERATURE		20 °C	20 °C
WEIGHT OF SAMPLE IN AIR	(gm)	4918	4795
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)	4998	4872
WEIGHT IN WATER	(gm)	3113	3036
SPECIFIC GRAVITY (BULK S.S.D.)		2.61	2.61
ABSORPTION		1.63	1.61
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)		2.61	
AVERAGE ABSORPTION	(%)	1.62	

G6-38

G6-39

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-SGA-18003
LOCATION			DATE TESTED	OCT. 5, 2002
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)				
TEST PIT NO.	AD-2	SAMPLE NO.	C	DEPTH (M)
				37.60-37.80
DESCRIPTION				
FINE AGGREGATES				
TRIAL NUMBER				
TEMPERATURE				
WEIGHT OF SAMPLE IN AIR	(gm)			
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)			
WEIGHT OF PYC WITH WATER	(gm)			
WEIGHT OF PYC + WATER + SAMPLE	(gm)			
SPECIFIC GRAVITY (BULK S.S.D.)				
ABSORPTION	(%)			
COARSE AGGREGATES				
TRIAL NUMBER			1	
TEMPERATURE			20 °C	
WEIGHT OF SAMPLE IN AIR	(gm)		392	
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		398.4	
WEIGHT IN WATER	(gm)		253.1	
SPECIFIC GRAVITY (BULK S.S.D.)			2.70	
ABSORPTION			1.63	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.70	
AVERAGE ABSORPTION	(%)		1.63	

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-SGA-17997
LOCATION			DATE TESTED	OCT. 4, 2002
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)				
TEST PIT NO.	AD-4	SAMPLE NO.	A	DEPTH (M)
				16.40-16.60
DESCRIPTION				
FINE AGGREGATES				
TRIAL NUMBER				
TEMPERATURE				
WEIGHT OF SAMPLE IN AIR	(gm)			
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)			
WEIGHT OF PYC WITH WATER	(gm)			
WEIGHT OF PYC + WATER + SAMPLE	(gm)			
SPECIFIC GRAVITY (BULK S.S.D.)				
ABSORPTION	(%)			
COARSE AGGREGATES				
TRIAL NUMBER			1	
TEMPERATURE			21 °C	
WEIGHT OF SAMPLE IN AIR	(gm)		422.1	
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		428.7	
WEIGHT IN WATER	(gm)		275.2	
SPECIFIC GRAVITY (BULK S.S.D.)			2.75	
ABSORPTION			1.56	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.75	
AVERAGE ABSORPTION	(%)		1.56	

G6-40

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-SGA-18004	
LOCATION			DATE TESTED	OCT. 6, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	AD-5	SAMPLE NO.	A	DEPTH (M)	35.70-35.85
DESCRIPTION					
FINE AGGREGATES					
TRIAL NUMBER					
TEMPERATURE					
WEIGHT OF SAMPLE IN AIR	(gm)				
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)				
WEIGHT OF PYC WITH WATER	(gm)				
WEIGHT OF PYC + WATER + SAMPLE	(gm)				
SPECIFIC GRAVITY (BULK S.S.D.)					
ABSORPTION	(%)				
COARSE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			20 °C		
WEIGHT OF SAMPLE IN AIR	(gm)		343.2		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		348.1		
WEIGHT IN WATER	(gm)		221.8		
SPECIFIC GRAVITY (BULK S.S.D.)			2.72		
ABSORPTION			1.43		
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.72		
AVERAGE ABSORPTION	(%)		1.43		

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-SGA-18005	
LOCATION			DATE TESTED	OCT. 6, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	AD-6	SAMPLE NO.	A	DEPTH (M)	59.40-59.55
DESCRIPTION					
FINE AGGREGATES					
TRIAL NUMBER					
TEMPERATURE					
WEIGHT OF SAMPLE IN AIR	(gm)				
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)				
WEIGHT OF PYC WITH WATER	(gm)				
WEIGHT OF PYC + WATER + SAMPLE	(gm)				
SPECIFIC GRAVITY (BULK S.S.D.)					
ABSORPTION	(%)				
COARSE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			20 °C		
WEIGHT OF SAMPLE IN AIR	(gm)		343.2		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)		348.1		
WEIGHT IN WATER	(gm)		221.8		
SPECIFIC GRAVITY (BULK S.S.D.)			2.72		
ABSORPTION			1.43		
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.72		
AVERAGE ABSORPTION	(%)		1.43		

G6-41

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-SGA-17998
LOCATION			DATE TESTED	OCT. 4, 2002
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)				
TEST PIT NO.	AD-7	SAMPLE NO.	A	DEPTH (M)
DESCRIPTION				
FINE AGGREGATES				
TRIAL NUMBER				
TEMPERATURE				
WEIGHT OF SAMPLE IN AIR	(gm)			
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)			
WEIGHT OF PYC WITH WATER	(gm)			
WEIGHT OF PYC + WATER + SAMPLE	(gm)			
SPECIFIC GRAVITY (BULK S.S.D.)				
ABSORPTION	(%)			
COARSE AGGREGATES				
TRIAL NUMBER	1			
TEMPERATURE	21 °C			
WEIGHT OF SAMPLE IN AIR	(gm)	447.6		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)	454.2		
WEIGHT IN WATER	(gm)	293.7		
SPECIFIC GRAVITY (BULK S.S.D.)	2.79			
ABSORPTION	1.47			
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)	2.79			
AVERAGE ABSORPTION	(%)	1.47		

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-SGA-17999
LOCATION			DATE TESTED	OCT. 4, 2002
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)				
TEST PIT NO.	AD-7	SAMPLE NO.	B	DEPTH (M)
DESCRIPTION				
FINE AGGREGATES				
TRIAL NUMBER				
TEMPERATURE				
WEIGHT OF SAMPLE IN AIR	(gm)			
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)			
WEIGHT OF PYC WITH WATER	(gm)			
WEIGHT OF PYC + WATER + SAMPLE	(gm)			
SPECIFIC GRAVITY (BULK S.S.D.)				
ABSORPTION	(%)			
COARSE AGGREGATES				
TRIAL NUMBER	1			
TEMPERATURE	21 °C			
WEIGHT OF SAMPLE IN AIR	(gm)	466		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)	472.8		
WEIGHT IN WATER	(gm)	304		
SPECIFIC GRAVITY (BULK S.S.D.)	2.76			
ABSORPTION	1.46			
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)	2.76			
AVERAGE ABSORPTION	(%)	1.46		

G6-42

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-SGA-18000	
LOCATION			DATE TESTED	OCT. 4, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	AD-8	SAMPLE NO.	A	DEPTH (M)	15.25-15.40
DESCRIPTION					
FINE AGGREGATES					
TRIAL NUMBER					
TEMPERATURE					
WEIGHT OF SAMPLE IN AIR	(gm)				
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)				
WEIGHT OF PYC WITH WATER	(gm)				
WEIGHT OF PYC + WATER + SAMPLE	(gm)				
SPECIFIC GRAVITY (BULK S.S.D.)					
ABSORPTION	(%)				
COARSE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			21 °C		
WEIGHT OF SAMPLE IN AIR	(gm)	413.9			
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)	420.8			
WEIGHT IN WATER	(gm)	266.1			
SPECIFIC GRAVITY (BULK S.S.D.)					
ABSORPTION			1.67		
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)				2.68	
AVERAGE ABSORPTION				(%)	1.67

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-SGA-18006	
LOCATION			DATE TESTED	OCT. 6, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	AD-8	SAMPLE NO.	B	DEPTH (M)	23.15-23.58
DESCRIPTION					
FINE AGGREGATES					
TRIAL NUMBER					
TEMPERATURE					
WEIGHT OF SAMPLE IN AIR	(gm)				
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)				
WEIGHT OF PYC WITH WATER	(gm)				
WEIGHT OF PYC + WATER + SAMPLE	(gm)				
SPECIFIC GRAVITY (BULK S.S.D.)					
ABSORPTION	(%)				
COARSE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE			20 °C		
WEIGHT OF SAMPLE IN AIR	(gm)	433.7			
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)	438.9			
WEIGHT IN WATER	(gm)	282.8			
SPECIFIC GRAVITY (BULK S.S.D.)					
ABSORPTION			1.20		
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)				2.78	
AVERAGE ABSORPTION				(%)	1.20

G6-43

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-SPG-17966	
LOCATION			DATE TESTED	SEPT. 18, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	AQ-1	SAMPLE NO.	-	DEPTH (M)	-
SOURCE	AGOS QUARRY SITE		DESCRIPTION	Sand Stone	
FINE AGGREGATES					
TRIAL NUMBER					
TEMPERATURE					
WEIGHT OF SAMPLE IN AIR	(gm)				
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)				
WEIGHT OF PYC WITH WATER	(gm)				
WEIGHT OF PYC + WATER + SAMPLE	(gm)				
SPECIFIC GRAVITY (BULK S.S.D.)					
ABSORPTION	(%)				
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			20 °C	20 °C	
WEIGHT OF SAMPLE IN AIR	(gm)	5029	5018		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)	5101	5096		
WEIGHT IN WATER	(gm)	3233	3187		
SPECIFIC GRAVITY (BULK S.S.D.)			2.69	2.63	
ABSORPTION			1.43	1.55	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.66		
AVERAGE ABSORPTION	(%)			1.49	

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-SPG-17967	
LOCATION			DATE TESTED	SEPT. 18, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	AQ-2	SAMPLE NO.	-	DEPTH (M)	-
SOURCE	AGOS QUARRY SITE		DESCRIPTION	Sand Stone	
FINE AGGREGATES					
TRIAL NUMBER			1		
TEMPERATURE					
WEIGHT OF SAMPLE IN AIR	(gm)				
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)				
WEIGHT OF PYC WITH WATER	(gm)				
WEIGHT OF PYC + WATER + SAMPLE	(gm)				
SPECIFIC GRAVITY (BULK S.S.D.)					
ABSORPTION	(%)				
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			20 °C	20 °C	
WEIGHT OF SAMPLE IN AIR	(gm)	5013	5022		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)	5077	5094		
WEIGHT IN WATER	(gm)	3197	3235		
SPECIFIC GRAVITY (BULK S.S.D.)			2.67	2.70	
ABSORPTION			1.28	1.43	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.68		
AVERAGE ABSORPTION	(%)			1.36	

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO	ADL02-SPG-17968
LOCATION		DATE TESTED	SEPT. 18, 2002

SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES
(ASTM-D127 & D128)

TEST PIT NO.	AQ-3	SAMPLE NO.	-	DEPTH (M)	-
SOURCE	AGOS QUARRY SITE	DESCRIPTION	Sand Stone		

FINE AGGREGATES

TRIAL NUMBER		
TEMPERATURE		
WEIGHT OF SAMPLE IN AIR (gm)		
WEIGHT OF S.S.D. SAMPLE IN AIR (gm)		
WEIGHT OF PYC WITH WATER (gm)		
WEIGHT OF PYC + WATER + SAMPLE (gm)		
SPECIFIC GRAVITY (BULK S.S.D.)		
ABSORPTION (%)		

COARSE AGGREGATES

TRIAL NUMBER		1	2
TEMPERATURE		20 °C	20 °C
WEIGHT OF SAMPLE IN AIR (gm)		5129	5066
WEIGHT OF S.S.D. SAMPLE IN AIR (gm)		5195	5135
WEIGHT IN WATER (gm)		3278	3254
SPECIFIC GRAVITY (BULK S.S.D.)		2.68	2.69
ABSORPTION		1.29	1.36
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)		2.68	
AVERAGE ABSORPTION (%)		1.32	

GG-44

G6-45

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-SPG-17969	
LOCATION			DATE TESTED	SEPT. 19, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	KQ-1	SAMPLE NO.	-	DEPTH (M)	-
SOURCE	KALIWA QUARRY SITE		DESCRIPTION	Sand Stone	
FINE AGGREGATES					
TRIAL NUMBER					
TEMPERATURE					
WEIGHT OF SAMPLE IN AIR	(gm)				
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)				
WEIGHT OF PYC WITH WATER	(gm)				
WEIGHT OF PYC + WATER + SAMPLE	(gm)				
SPECIFIC GRAVITY (BULK S.S.D.)					
ABSORPTION	(%)				
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			20 °C	20 °C	
WEIGHT OF SAMPLE IN AIR	(gm)	5133	5097		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)	5237	5204		
WEIGHT IN WATER	(gm)	3276	3269		
SPECIFIC GRAVITY (BULK S.S.D.)			2.62	2.63	
ABSORPTION			2.03	2.10	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.63		
AVERAGE ABSORPTION	(%)			2.06	

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-SPG-17970	
LOCATION			DATE TESTED	SEPT. 19, 2002	
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)					
TEST PIT NO.	KQ-2	SAMPLE NO.	-	DEPTH (M)	-
SOURCE	KALIWA QUARRY SITE		DESCRIPTION	Sand Stone	
FINE AGGREGATES					
TRIAL NUMBER					
TEMPERATURE					
WEIGHT OF SAMPLE IN AIR	(gm)				
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)				
WEIGHT OF PYC WITH WATER	(gm)				
WEIGHT OF PYC + WATER + SAMPLE	(gm)				
SPECIFIC GRAVITY (BULK S.S.D.)					
ABSORPTION	(%)				
COARSE AGGREGATES					
TRIAL NUMBER			1	2	
TEMPERATURE			20 °C	20 °C	
WEIGHT OF SAMPLE IN AIR	(gm)	5011	5009		
WEIGHT OF S.S.D. SAMPLE IN AIR	(gm)	5119	5128		
WEIGHT IN WATER	(gm)	3216	3178		
SPECIFIC GRAVITY (BULK S.S.D.)			2.63	2.57	
ABSORPTION			2.16	2.38	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)			2.60		
AVERAGE ABSORPTION	(%)			2.27	

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO	ADL02-SPG-17971
LOCATION		DATE TESTED	SEPT. 19, 2002

SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES
(ASTM-D127 & D128)

TEST PIT NO.	KQ-3	SAMPLE NO.	-	DEPTH (M)	-
SOURCE	KALIWA QUARRY SITE		DESCRIPTION	Sand Stone	

FINE AGGREGATES		
TRIAL NUMBER		
TEMPERATURE		
WEIGHT OF SAMPLE IN AIR (gm)		
WEIGHT OF S.S.D. SAMPLE IN AIR (gm)		
WEIGHT OF PYC WITH WATER (gm)		
WEIGHT OF PYC + WATER + SAMPLE (gm)		
SPECIFIC GRAVITY (BULK S.S.D.)		
ABSORPTION (%)		

COARSE AGGREGATES		
TRIAL NUMBER	1	2
TEMPERATURE	20 °C	20 °C
WEIGHT OF SAMPLE IN AIR (gm)	5031	5012
WEIGHT OF S.S.D. SAMPLE IN AIR (gm)	5143	5131
WEIGHT IN WATER (gm)	3224	3173
SPECIFIC GRAVITY (BULK S.S.D.)	2.62	2.56
ABSORPTION	2.23	2.37
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)	2.59	
AVERAGE ABSORPTION (%)	2.30	

G6-46

G6-47

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO	ADL02-TCU-17995
LOCATION		DATE TESTED	OCT. 2-3, 2002
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)			
TEST PIT NO.	TD-3	SAMPLE NO.	A
		DEPTH (M)	100.00-100.20
DESCRIPTION	Conglo Merate		
FINE AGGREGATES			
TRIAL NUMBER			
TEMPERATURE			
WEIGHT OF SAMPLE IN AIR (gm)			
WEIGHT OF S.S.D. SAMPLE IN AIR (gm)			
WEIGHT OF PYC WITH WATER (gm)			
WEIGHT OF PYC + WATER + SAMPLE (gm)			
SPECIFIC GRAVITY (BULK S.S.D.)			
ABSORPTION (%)			
COARSE AGGREGATES			
TRIAL NUMBER		1	
TEMPERATURE		21 °C	
WEIGHT OF SAMPLE IN AIR (gm)		481.2	
WEIGHT OF S.S.D. SAMPLE IN AIR (gm)		486.5	
WEIGHT IN WATER (gm)		313.5	
SPECIFIC GRAVITY (BULK S.S.D.)		2.79	
ABSORPTION		1.10	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)		2.79	
AVERAGE ABSORPTION (%)		1.10	

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO	ADL02-TCU-17994
LOCATION		DATE TESTED	OCT. 2-3, 2002
SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES (ASTM-D127 & D128)			
TEST PIT NO.	TD-3	SAMPLE NO.	B
		DEPTH (M)	142.70-142.90
DESCRIPTION	Sand Stone		
FINE AGGREGATES			
TRIAL NUMBER			
TEMPERATURE			
WEIGHT OF SAMPLE IN AIR (gm)			
WEIGHT OF S.S.D. SAMPLE IN AIR (gm)			
WEIGHT OF PYC WITH WATER (gm)			
WEIGHT OF PYC + WATER + SAMPLE (gm)			
SPECIFIC GRAVITY (BULK S.S.D.)			
ABSORPTION (%)			
COARSE AGGREGATES			
TRIAL NUMBER		1	
TEMPERATURE		21 °C	
WEIGHT OF SAMPLE IN AIR (gm)		484.0	
WEIGHT OF S.S.D. SAMPLE IN AIR (gm)		489.5	
WEIGHT IN WATER (gm)		314.6	
SPECIFIC GRAVITY (BULK S.S.D.)		2.77	
ABSORPTION		1.14	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)		2.77	
AVERAGE ABSORPTION (%)		1.14	

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO	ADL02-TCU-17993
LOCATION		DATE TESTED	OCT. 2-3, 2002

SPECIFIC GRAVITY AND ABSORPTION OF AGREGGATES
(ASTM-D127 & D128)

TEST PIT NO.	TD-3	SAMPLE NO.	C	DEPTH (M)	154.60-154.80
DESCRIPTION	Shale				

FINE AGGREGATES		
TRIAL NUMBER		
TEMPERATURE		
WEIGHT OF SAMPLE IN AIR (gm)		
WEIGHT OF S.S.D. SAMPLE IN AIR (gm)		
WEIGHT OF PYC WITH WATER (gm)		
WEIGHT OF PYC + WATER + SAMPLE (gm)		
SPECIFIC GRAVITY (BULK S.S.D.)		
ABSORPTION (%)		

COARSE AGGREGATES		
TRIAL NUMBER	1	
TEMPERATURE	21 °C	
WEIGHT OF SAMPLE IN AIR (gm)	510.3	
WEIGHT OF S.S.D. SAMPLE IN AIR (gm)	516.3	
WEIGHT IN WATER (gm)	329.4	
SPECIFIC GRAVITY (BULK S.S.D.)	2.73	
ABSORPTION	1.18	
AVERAGE SPECIFIC GRAVITY (BULK S.S.D.)		2.73
AVERAGE ABSORPTION (%)		1.18

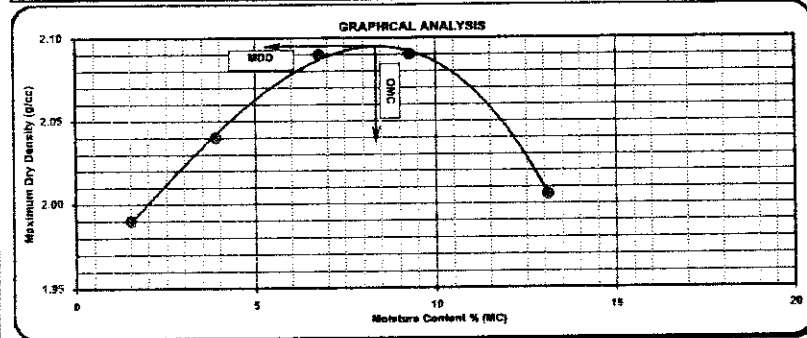
G6-48

G6-49

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO	ADL02-MDR-17853
LOCATION		DATE TESTED	SEPT. 16, 2002

MOISTURE - DENSITY RELATIONS OF SOILS
(ASTM - D1557)

TEST PIT NO.	ATP-4	SAMPLE NO.	S-1 & S-2	DEPTH (M)	0.00-3.00
DESCRIPTION	Poorly graded GRAVEL				



Method		D	D	D	D	D
Trial no		1	2	3	4	5
Wt. of Mold + Sample	g	11256.0	11466.0	11704.0	11816.0	11782.0
Wt. of Mold	g	6974.0	6974.0	6974.0	6974.0	6974.0
Wt. of Sample	g	4282.0	4492.0	4730.0	4842.0	4808.0
Vol. of Mold	cc	2119.7	2119.7	2119.7	2119.7	2119.7
Wet Density	g/cc	2.020	2.119	2.231	2.284	2.268
Wt. of Tin + Wet Spl.	g	78.30	81.46	86.90	90.24	102.10
Wt. of Tin + Dry Spl.	g	77.27	78.77	82.00	83.39	91.41
Wt. of Tin	g	9.64	9.68	9.71	9.75	9.84
Wt. of Moisture	g	1.03	2.69	4.90	6.85	10.69
Wt. of Dry Sample	g	67.63	69.09	72.29	73.64	81.57
Moisture Content	%	1.52	3.89	6.78	9.30	13.11
Dry Density	g/cc	1.990	2.040	2.090	2.090	2.005

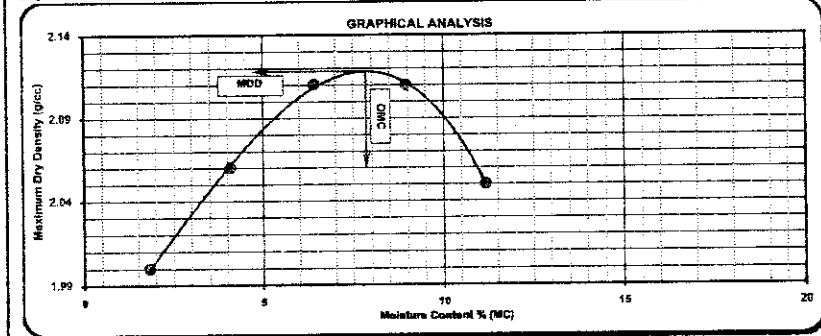
M.D.D.	g/cc	2.096	Diameter (cm)	15.24	Height of Fall	18	Drops / Layer	
O.M.C.	%	8.40	Height (cm)	11.62	Number of Layer	5		56

REMARKS:

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO	ADL02-MDR-17864
LOCATION		DATE TESTED	SEPT. 16, 2002

MOISTURE - DENSITY RELATIONS OF SOILS
(ASTM - D1557)

TEST PIT NO.	ATP-5	SAMPLE NO.	S-1 & S-2	DEPTH (M)	0.00-3.00
DESCRIPTION	Poorly graded GRAVEL				



Method		D	D	D	D	D
Trial no		1	2	3	4	5
Wt. of Mold + Sample	g	11291.0	11519.0	11734.0	11847.0	11805.0
Wt. of Mold	g	6974.0	6974.0	6974.0	6974.0	6974.0
Wt. of Sample	g	4317.0	4545.0	4760.0	4873.0	4831.0
Vol. of Mold	cc	2119.7	2119.7	2119.7	2119.7	2119.7
Wet Density	g/cc	2.037	2.144	2.246	2.299	2.279
Wt. of Tin + Wet Spl.	g	79.48	83.15	87.90	95.87	103.16
Wt. of Tin + Dry Spl.	g	78.23	80.27	83.19	88.79	93.78
Wt. of Tin	g	9.74	9.76	9.79	9.81	9.86
Wt. of Moisture	g	1.25	2.88	4.71	7.08	9.36
Wt. of Dry Sample	g	68.49	70.51	73.40	78.98	83.92
Moisture Content	%	1.83	4.08	6.42	8.96	11.18
Dry Density	g/cc	2.000	2.060	2.110	2.110	2.050

M.D.D.	g/cc	2.120	Diameter (cm)	15.24	Height of Fall	18	Drops / Layer	
O.M.C.	%	7.85	Height (cm)	11.62	Number of Layer	5		56

REMARKS:

G6-50

PROJECT	STUDY ON WATER REOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO	ADL02-MDR-17865					
LOCATION		DATE TESTED	SEPT. 17, 2002					
MOISTURE - DENSITY RELATIONS OF SOILS (ASTM - D1557)								
TEST PIT NO.	ATP-6	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00			
DESCRIPTION	Poorly graded GRAVEL							
GRAPHICAL ANALYSIS								
Method		D	D	D	D	D		
Trial no		1	2	3	4	5		
Wt. of Mold + Sample	g	11286.0	11491.0	11684.0	11793.0	11755.0		
Wt. of Mold	g	6974.0	6974.0	6974.0	6974.0	6974.0		
Wt. of Sample	g	4312.0	4517.0	4710.0	4819.0	4781.0		
Vol. of Mold	cc	2119.7	2119.7	2119.7	2119.7	2119.7		
Wet Density	g/cc	2.034	2.131	2.222	2.273	2.256		
Wt. of Tin + Wet Spl.	g	84.16	87.90	92.48	98.72	104.24		
Wt. of Tin + Dry Spl.	g	82.54	84.57	87.20	91.15	94.38		
Wt. of Tin	g	9.70	9.69	9.74	9.78	9.82		
Wt. of Moisture	g	1.62	3.33	5.28	7.57	9.86		
Wt. of Dry Sample	g	72.84	74.88	77.46	81.37	84.56		
Moisture Content	%	2.22	4.45	6.82	9.30	11.66		
Dry Density	g/cc	1.990	2.040	2.080	2.080	2.020		
M.D.D.	g/cc	2.088	Diameter (cm)	15.24	Height of Fall	18	Drops / Layer	
O.M.C.	%	8.10	Height (cm)	11.62	Number of Layer	5		56

PROJECT	STUDY ON WATER REOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO	ADL02-MDR-17866					
LOCATION		DATE TESTED	SEPT. 17, 2002					
MOISTURE - DENSITY RELATIONS OF SOILS (ASTM - D1557)								
TEST PIT NO.	ATP-9	SAMPLE NO.	S-1 & S-2	DEPTH (M)	0.00-3.00			
DESCRIPTION	Poorly graded GRAVEL							
GRAPHICAL ANALYSIS								
Method		D	D	D	D	D		
Trial no		1	2	3	4	5		
Wt. of Mold + Sample	g	11380.0	11646.0	11869.0	11878.0			
Wt. of Mold	g	6974.0	6974.0	6974.0	6974.0			
Wt. of Sample	g	4406.0	4672.0	4895.0	4904.0			
Vol. of Mold	cc	2119.7	2119.7	2119.7	2119.7			
Wet Density	g/cc	2.079	2.204	2.359	2.314			
Wt. of Tin + Wet Spl.	g	90.74	93.16	97.84	102.50			
Wt. of Tin + Dry Spl.	g	89.24	89.60	91.77	93.94			
Wt. of Tin	g	9.68	9.74	9.77	9.86			
Wt. of Moisture	g	1.50	3.56	6.07	8.56			
Wt. of Dry Sample	g	79.56	79.86	82.00	84.08			
Moisture Content	%	1.89	4.46	7.40	10.18			
Dry Density	g/cc	2.040	2.110	2.150	2.100			
M.D.D.	g/cc	2.150	Diameter (cm)	15.24	Height of Fall	18	Drops / Layer	
O.M.C.	%	7.40	Height (cm)	11.62	Number of Layer	5		56

G6-51

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-MDR-17868
LOCATION			DATE TESTED	SEPT. 18, 2002

MOISTURE - DENSITY RELATIONS OF SOILS
(ASTM - D698)

TEST PIT NO.	ATP-12	SAMPLE NO.	S-1 & S-2	DEPTH (M)	0.00-3.00
DESCRIPTION	Clayey SILT				

GRAPHICAL ANALYSIS

Method	A	A	A	A	A
Trial no	1	2	3	4	
Wt. of Mold + Sample	g 5588.0	5847.0	5977.0	5866.0	
Wt. of Mold	g 3940.0	3940.0	3940.0	3940.0	
Wt. of Sample	g 1648.0	1907.0	2037.0	1926.0	
Vol. of Mold	cc 1147.2	1147.2	1147.2	1147.2	
Wet Density	g/cc 1.437	1.662	1.776	1.679	
Wt. of Tin + Wet Spl.	g 31.13	33.57	37.62	33.40	
Wt. of Tin + Dry Spl.	g 28.48	29.96	32.34	28.31	
Wt. of Tin	g 9.73	9.81	9.69	9.60	
Wt. of Moisture	g 2.65	3.61	5.28	5.09	
Wt. of Dry Sample	g 18.75	20.15	22.65	18.71	
Moisture Content	% 14.13	17.92	23.31	27.20	
Dry Density	g/cc 1.259	1.410	1.440	1.320	

M.D.D.	g/cc	1.460	Diameter (cm)	11.28	Height of Fall	12	Drops / Layer	
O.M.C.	%	21.20	Height (cm)	11.48	Number of Layer	5		25

REMARKS:

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PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA		CONTROL NO	ADL02-MDR-17869
LOCATION			DATE TESTED	SEPT. 18, 2002

MOISTURE - DENSITY RELATIONS OF SOILS
(ASTM - D698)

TEST PIT NO.	ATP-13	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Silty CLAY				

GRAPHICAL ANALYSIS

Method	A	A	A	A	A
Trial no	1	2	3	4	4
Wt. of Mold + Sample	g 5512.0	5751.0	5911.0	5964.0	5821.0
Wt. of Mold	g 3940.0	3940.0	3940.0	3940.0	3940.0
Wt. of Sample	g 1572.0	1811.0	1971.0	2024.0	1881.0
Vol. of Mold	cc 1147.2	1147.2	1147.2	1147.2	1147.2
Wet Density	g/cc 1.370	1.579	1.718	1.764	1.640
Wt. of Tin + Wet Spl.	g 31.43	40.08	48.02	60.70	56.64
Wt. of Tin + Dry Spl.	g 29.01	35.60	41.33	50.62	46.31
Wt. of Tin	g 9.36	10.45	9.48	10.47	9.56
Wt. of Moisture	g 2.42	4.48	6.69	19.08	10.33
Wt. of Dry Sample	g 19.65	25.15	31.85	40.15	36.75
Moisture Content	% 12.32	17.81	21.00	25.11	28.11
Dry Density	g/cc 1.220	1.340	1.420	1.410	1.280

M.D.D.	g/cc	1.435	Diameter (cm)	11.28	Height of Fall	12	Drops / Layer	
O.M.C.	%	23.00	Height (cm)	11.48	Number of Layer	3		25

REMARKS:

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PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO	ADL02-MDR-17870				
LOCATION		DATE TESTED	SEPT. 19, 2002				
MOISTURE - DENSITY RELATIONS OF SOILS (ASTM - D698)							
TEST PIT NO.	ATP-14	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00		
DESCRIPTION	Silty CLAY						
Method	A	A	A	A	A		
Trial no	1	2	3	4	4		
Wt. of Mold + Sample	g 5464.0	5675.0	5865.0	5942.0	5871.0		
Wt. of Mold	g 3940.0	3940.0	3940.0	3940.0	3940.0		
Wt. of Sample	g 1524.0	1735.0	1925.0	2002.0	1931.0		
Vol. of Mold	cc 1147.2	1147.2	1147.2	1147.2	1147.2		
Wet Density	g/cc 1.328	1.512	1.678	1.745	1.683		
Wt. of Tin + Wet Spl.	g 63.22	71.74	60.64	92.50	73.65		
Wt. of Tin + Dry Spl.	g 55.75	61.40	50.90	74.65	58.31		
Wt. of Tin	g 10.50	9.75	10.15	9.52	9.60		
Wt. of Moisture	g 7.47	10.34	9.74	17.85	15.34		
Wt. of Dry Sample	g 45.25	51.65	40.75	65.13	48.71		
Moisture Content	% 16.51	20.02	23.90	27.41	31.49		
Dry Density	g/cc 1.140	1.260	1.354	1.370	1.280		
N.D.D.	g/cc 1.375	Diameter (cm)	11.28	Height of Fall	12	Drops / Layer	
O.M.C.	% 26.30	Height (cm)	11.48	Number of Layer	3		25

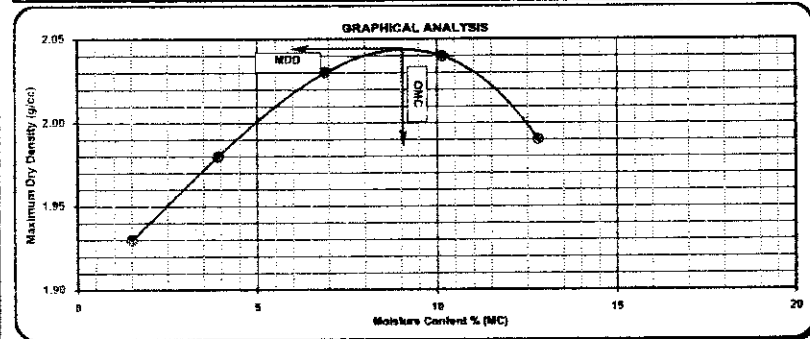
PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO	ADL02-MDR-17871				
LOCATION		DATE TESTED	SEPT. 19, 2002				
MOISTURE - DENSITY RELATIONS OF SOILS (ASTM - D698)							
TEST PIT NO.	ATP-15	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00		
DESCRIPTION	Silty CLAY						
Method	A	A	A	A	A		
Trial no	1	2	3	4	4		
Wt. of Mold + Sample	g 5579.0	5718.0	5944.0	5904.0			
Wt. of Mold	g 3940.0	3940.0	3940.0	3940.0			
Wt. of Sample	g 1639.0	1778.0	2004.0	1964.0			
Vol. of Mold	cc 1147.2	1147.2	1147.2	1147.2			
Wet Density	g/cc 1.429	1.550	1.747	1.712			
Wt. of Tin + Wet Spl.	g 62.12	57.61	69.73	74.44			
Wt. of Tin + Dry Spl.	g 55.17	50.51	58.52	60.84			
Wt. of Tin	g 9.42	9.70	9.84	10.09			
Wt. of Moisture	g 6.95	7.10	11.21	13.60			
Wt. of Dry Sample	g 45.75	40.81	48.68	50.75			
Moisture Content	% 15.19	17.40	23.03	26.80			
Dry Density	g/cc 1.240	1.320	1.420	1.350			
N.D.D.	g/cc 1.420	Diameter (cm)	11.28	Height of Fall	12	Drops / Layer	
O.M.C.	% 22.80	Height (cm)	11.48	Number of Layer	3		25

G6-53

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO	ADL02-MDR-17861
LOCATION		DATE TESTED	SEPT. 16, 2002

MOISTURE - DENSITY RELATIONS OF SOILS
(ASTM - D1557)

TEST PIT NO.	KTP-1	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Poorly graded GRAVEL				



Method		D	D	D	D	D
Trial no		1	2	3	4	5
Wt. of Mold + Sample	g	11126.0	11335.0	11574.0	11736.0	11732.0
Wt. of Mold	g	6974.0	6974.0	6974.0	6974.0	6974.0
Wt. of Sample	g	4152.0	4361.0	4600.0	4762.0	4758.0
Vol. of Mold	cc	2119.7	2119.7	2119.7	2119.7	2119.7
Wet Density	g/cc	1.959	2.057	2.170	2.247	2.245
Wt. of Tin + Wet Spl.	g	88.74	92.48	97.36	101.46	103.90
Wt. of Tin + Dry Spl.	g	87.57	89.36	91.71	93.02	93.22
Wt. of Tin	g	9.70	9.72	9.76	9.78	9.80
Wt. of Moisture	g	1.17	3.12	5.65	8.44	10.68
Wt. of Dry Sample	g	77.87	79.64	81.95	83.24	83.42
Moisture Content	%	1.50	3.92	6.89	10.14	12.80
Dry Density	g/cc	1.930	1.980	2.030	2.040	1.990

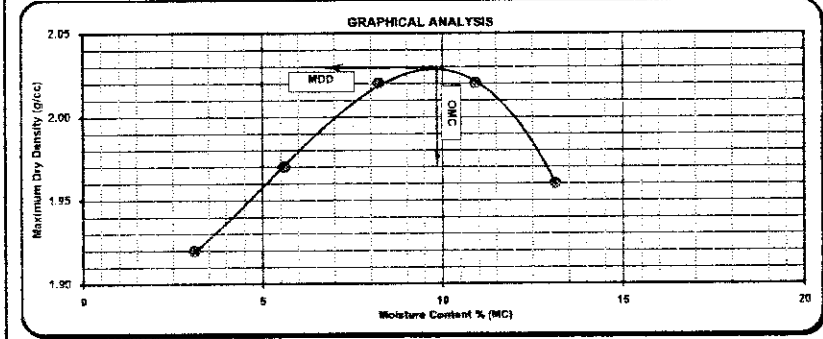
M.D.D.	g/cc	2.044	Diameter (cm)	15.24	Height of Fall	18	Drops / Layer	
O.M.C.	%	9.00	Height (cm)	11.62	Number of Layer	5		56

REMARKS:

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO	ADL02-MDR-17862
LOCATION		DATE TESTED	SEPT. 16, 2002

MOISTURE - DENSITY RELATIONS OF SOILS
(ASTM - D1557)

TEST PIT NO.	KTP-3	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Poorly graded SAND				



Method		D	D	D	D	D
Trial no		1	2	3	4	5
Wt. of Mold + Sample	g	11170.0	11384.0	11608.0	11724.0	11674.0
Wt. of Mold	g	6974.0	6974.0	6974.0	6974.0	6974.0
Wt. of Sample	g	4196.0	4410.0	4634.0	4750.0	4700.0
Vol. of Mold	cc	2119.7	2119.7	2119.7	2119.7	2119.7
Wet Density	g/cc	1.980	2.081	2.186	2.241	2.217
Wt. of Tin + Wet Spl.	g	84.90	87.84	92.76	96.64	102.26
Wt. of Tin + Dry Spl.	g	82.63	83.69	86.45	88.09	91.53
Wt. of Tin	g	9.73	9.77	9.81	9.84	9.86
Wt. of Moisture	g	2.27	4.15	6.31	8.55	10.73
Wt. of Dry Sample	g	72.90	73.92	76.64	78.25	81.67
Moisture Content	%	3.11	5.61	8.23	10.93	13.14
Dry Density	g/cc	1.920	1.970	2.020	2.020	1.960

M.D.D.	g/cc	2.030	Diameter (cm)	15.24	Height of Fall	18	Drops / Layer	
O.M.C.	%	9.80	Height (cm)	11.62	Number of Layer	5		56

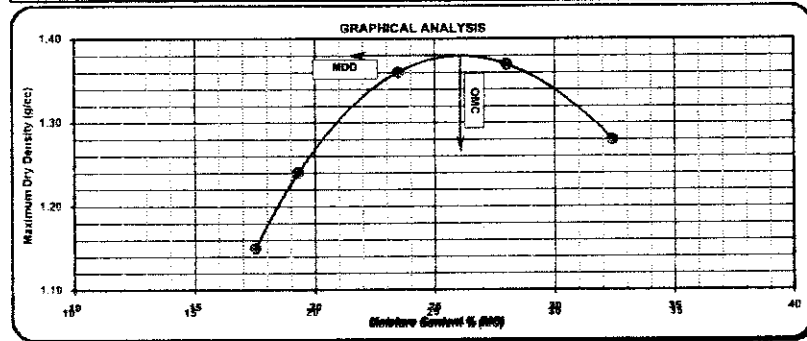
REMARKS:

G6-54

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO	ADL02-MDR-17866
LOCATION		DATE TESTED	SEPT. 17, 2002

MOISTURE - DENSITY RELATIONS OF SOILS
(ASTM - D698)

TEST PIT NO.	KTP-B	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Silty CLAY				



Method		A	A	A	A	A
Trial no		1	2	3	4	5
Wt. of Mold + Sample	g	5430.0	5637.0	5867.0	5952.0	5884.0
Wt. of Mold	g	3940.0	3940.0	3940.0	3940.0	3940.0
Wt. of Sample	g	1550.0	1697.0	1927.0	2012.0	1944.0
Vol. of Mold	cc	1147.2	1147.2	1147.2	1147.2	1147.2
Wet Density	g/cc	1.351	1.479	1.680	1.754	1.695
Wt. of Tin + Wet Spl.	g	63.40	58.38	73.51	68.43	74.41
Wt. of Tin + Dry Spl.	g	55.39	50.49	61.37	55.61	58.63
Wt. of Tin	g	9.64	9.60	9.72	9.84	9.92
Wt. of Moisture	g	8.01	7.89	12.14	12.62	15.78
Wt. of Dry Sample	g	45.75	40.89	51.65	45.77	48.71
Moisture Content	%	17.51	19.30	23.50	28.01	32.40
Dry Density	g/cc	1.150	1.240	1.360	1.370	1.280

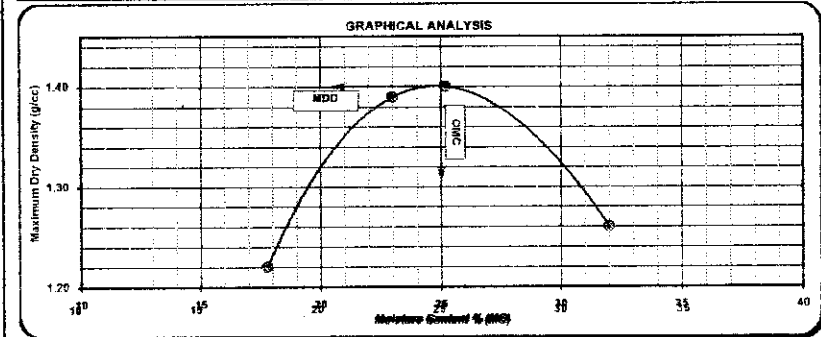
M.D.D.	g/cc	1.390	Diameter (cm)	11.28	Height of Fall	12	Drops / Layer	
O.M.C.	%	26.00	Height (cm)	11.48	Number of Layer	5		25

REMARKS: _____

PROJECT	STUDY ON WATER RESOURCES DEVELOPMENT FOR METRO MANILA	CONTROL NO	ADL02-MDR-17867
LOCATION		DATE TESTED	SEPT. 18, 2002

MOISTURE - DENSITY RELATIONS OF SOILS
(ASTM - D698)

TEST PIT NO.	KTP-9	SAMPLE NO.	S-1	DEPTH (M)	0.00-3.00
DESCRIPTION	Silty CLAY				



Method		A	A	A	A	A
Trial no		1	2	3	4	5
Wt. of Mold + Sample	g	5599.0	5901.0	5951.0	5846.0	
Wt. of Mold	g	3940.0	3940.0	3940.0	3940.0	
Wt. of Sample	g	1649.0	1961.0	2011.0	1906.0	
Vol. of Mold	cc	1147.2	1147.2	1147.2	1147.2	
Wet Density	g/cc	1.437	1.709	1.753	1.663	
Wt. of Tin + Wet Spl.	g	63.46	71.47	64.51	81.85	
Wt. of Tin + Dry Spl.	g	55.33	59.95	53.45	64.35	
Wt. of Tin	g	9.63	9.86	9.55	9.65	
Wt. of Moisture	g	8.13	11.52	11.06	17.50	
Wt. of Dry Sample	g	45.70	50.09	43.90	54.70	
Moisture Content	%	17.79	23.00	25.19	31.99	
Dry Density	g/cc	1.220	1.390	1.400	1.260	

M.D.D.	g/cc	1.400	Diameter (cm)	11.28	Height of Fall	12	Drops / Layer	
O.M.C.	%	25.00	Height (cm)	11.48	Number of Layer	5		25

REMARKS: _____