

GRADATION ANALYSIS REPORT
TOWN OF PALM BEACH
TESTED BY: RW ON: 6/9/99

SAMPLE NO.: VC99 33#1
SAMPLE ELEV. (FT. NGVD): -33.5
SAMPLE DEPTH (FT.): 1.0
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 234.38
SAMPLE WEIGHT AFTER WASH (GRAMS): 229.05

SIEVE SIZE	PHI SIZE	MESH SIZE (mm)	RETAINED (GRAMS)	RETAINED (%)	PASSED (%)
5/8	-4.00	16.000	0.00	0.00	100.00
5/16	-3.00	8.000	0.17	0.07	99.93
5	-2.00	4.000	0.53	0.23	99.77
7	-1.50	2.800	0.96	0.41	99.59
10	-1.00	2.000	1.39	0.59	99.41
14	-0.50	1.400	2.12	0.90	99.10
18	0.00	1.000	3.05	1.30	98.70
25	0.50	0.710	4.60	1.96	98.04
35	1.00	0.500	6.73	2.87	97.13
45	1.50	0.355	9.29	3.96	96.04
60	2.00	0.250	16.16	6.89	93.11
80	2.50	0.180	37.30	15.91	84.09
120	3.00	0.125	141.87	60.53	39.47
170	3.50	0.090	226.86	96.79	3.21
200	3.75	0.075	228.73	97.59	2.41
230	4.00	0.063	231.63	98.82	1.18
PAN			234.38	100.00	0.00

PHI (5): 1.68 PHI (16): 2.50 PHI (25): 2.60
PHI (50): 2.88 PHI (75): 3.20 PHI (84): 3.32
PHI (95): 3.48

SIEVE LOSS (g): 0.00 SILT/CLAY: 2.41%
SKEWNESS: -0.744 KURTOSIS: 1.233

GRAPHIC METHOD

MEAN (PHI): 2.77 SORTING: 0.41
MEAN (mm) : 0.15 MEDIAN (mm): 0.14

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.78 SORTING: 0.69
MEAN (mm) : 0.15

DATA FILE NAME: VC99-33#1.TAB

GRADATION ANALYSIS REPORT
 TOWN OF PALM BEACH
 TESTED BY: RW ON: 6/9/99

SAMPLE NO.: VC99 33#2
 SAMPLE ELEV. (FT. NGVD): -34.3
 SAMPLE DEPTH (FT.): 1.8
 SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 257.19
 SAMPLE WEIGHT AFTER WASH (GRAMS): 251.53

SIEVE SIZE	PHI SIZE	MESH SIZE (mm)	RETAINED (GRAMS)	RETAINED (%)	PASSED (%)
5/8	-4.00	16.000	0.00	0.00	100.00
5/16	-3.00	8.000	8.94	3.48	96.52
5	-2.00	4.000	14.15	5.50	94.50
7	-1.50	2.800	17.79	6.92	93.08
10	-1.00	2.000	20.69	8.04	91.96
14	-0.50	1.400	24.42	9.49	90.51
18	0.00	1.000	28.12	10.93	89.07
25	0.50	0.710	32.87	12.78	87.22
35	1.00	0.500	38.48	14.96	85.04
45	1.50	0.355	43.90	17.07	82.93
60	2.00	0.250	53.97	20.98	79.02
80	2.50	0.180	79.32	30.84	69.16
120	3.00	0.125	182.48	70.95	29.05
170	3.50	0.090	249.64	97.06	2.94
200	3.75	0.075	251.11	97.64	2.36
230	4.00	0.063	254.17	98.83	1.17
PAN			257.17	99.99	0.01

PHI (5): -2.25 PHI (16): 1.25 PHI (25): 2.20
 PHI (50): 2.74 PHI (75): 3.08 PHI (84): 3.25
 PHI (95): 3.46

SIEVE LOSS (g): 0.02 SILT/CLAY: 2.36%
 SKEWNESS: -2.129 KURTOSIS: 2.677

GRAPHIC METHOD

MEAN (PHI): 1.69 SORTING: 1.00
 MEAN (mm) : 0.31 MEDIAN (mm): 0.15
 NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.16 SORTING: 1.67
 MEAN (mm) : 0.22

DATA FILE NAME: VC99-33#2.TAB

GRADATION ANALYSIS REPORT
TOWN OF PALM BEACH
TESTED BY: RW ON: 6/9/99

SAMPLE NO.: VC99 33#3
SAMPLE ELEV. (FT. NGVD): -36.5
SAMPLE DEPTH (FT.): 4.0
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 250.15
SAMPLE WEIGHT AFTER WASH (GRAMS): 244.26

SIEVE SIZE	PHI SIZE	MESH SIZE (mm)	RETAINED (GRAMS)	RETAINED (%)	PASSED (%)
5/8	-4.00	16.000	0.00	0.00	100.00
5/16	-3.00	8.000	0.15	0.06	99.94
5	-2.00	4.000	0.74	0.30	99.70
7	-1.50	2.800	1.20	0.48	99.52
10	-1.00	2.000	1.65	0.66	99.34
14	-0.50	1.400	2.38	0.95	99.05
18	0.00	1.000	3.11	1.24	98.76
25	0.50	0.710	4.85	1.94	98.06
35	1.00	0.500	8.36	3.34	96.66
45	1.50	0.355	14.26	5.70	94.30
60	2.00	0.250	33.43	13.36	86.64
80	2.50	0.180	80.75	32.28	67.72
120	3.00	0.125	196.59	78.59	21.41
170	3.50	0.090	242.87	97.09	2.91
200	3.75	0.075	243.72	97.43	2.57
230	4.00	0.063	247.10	98.78	1.22
PAN			250.14	100.00	0.00

PHI(5): 1.35 PHI(16): 2.07 PHI(25): 2.31
PHI(50): 2.69 PHI(75): 2.96 PHI(84): 3.15
PHI(95): 3.44

SIEVE LOSS(g): 0.01 SILT/CLAY: 2.57%
SKEWNESS: -0.546 KURTOSIS: 1.312

GRAPHIC METHOD

MEAN (PHI): 2.54 SORTING: 0.54
MEAN (mm): 0.17 MEDIAN (mm): 0.15
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.56 SORTING: 0.73
MEAN (mm): 0.17

DATA FILE NAME: VC99-33#3.TAB

GRADATION ANALYSIS REPORT

TOWN OF PALM BEACH

TESTED BY: RW ON: 6/9/99

SAMPLE NO.: VC99 33#4
 SAMPLE ELEV. (FT. NGVD): -37.5
 SAMPLE DEPTH (FT.): 5.0
 SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 248.73
 SAMPLE WEIGHT AFTER WASH (GRAMS): 241.79

SIEVE SIZE	PHI SIZE	MESH SIZE (mm)	RETAINED (GRAMS)	RETAINED (%)	PASSED (%)
5/8	-4.00	16.000	0.00	0.00	100.00
5/16	-3.00	8.000	2.54	1.02	98.98
5	-2.00	4.000	3.50	1.41	98.59
7	-1.50	2.800	5.30	2.13	97.87
10	-1.00	2.000	10.95	4.40	95.60
14	-0.50	1.400	12.72	5.11	94.89
18	0.00	1.000	16.57	6.66	93.34
25	0.50	0.710	23.74	9.54	90.46
35	1.00	0.500	41.04	16.50	83.50
45	1.50	0.355	67.72	27.23	72.77
60	2.00	0.250	98.46	39.59	60.41
80	2.50	0.180	144.15	57.95	42.05
120	3.00	0.125	218.38	87.80	12.20
170	3.50	0.090	239.65	96.35	3.65
200	3.75	0.075	241.43	97.07	2.93
230	4.00	0.063	244.97	98.49	1.51
PAN			248.73	100.00	0.00

PHI(5): -0.58 PHI(16): 0.96 PHI(25): 1.40
 PHI(50): 2.28 PHI(75): 2.79 PHI(84): 2.94
 PHI(95): 3.42

SIEVE LOSS (g): 0.00 SILT/CLAY: 2.93%
 SKEWNESS: -0.875 KURTOSIS: 1.180

GRAPHIC METHOD

MEAN (PHI): 1.80 SORTING: 0.99
 MEAN (mm) : 0.29 MEDIAN (mm): 0.21
 NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 1.94 SORTING: 1.24
 MEAN (mm) : 0.26

DATA FILE NAME: VC99-33#4.TAB

GRADATION ANALYSIS REPORT
TOWN OF PALM BEACH
TESTED BY: RW ON: 7-20-99

SAMPLE NO.: VC99 33#5
SAMPLE ELEV. (FT. NGVD): -40.0
SAMPLE DEPTH (FT.): 7.5
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 207.50
SAMPLE WEIGHT AFTER WASH (GRAMS): 203.53

SIEVE SIZE	PHI SIZE	MESH SIZE (mm)	RETAINED (GRAMS)	RETAINED (%)	PASSED (%)
5/8	-4.00	16.000	0.00	0.00	100.00
5/16	-3.00	8.000	0.00	0.00	100.00
5	-2.00	4.000	0.18	0.09	99.91
7	-1.50	2.800	0.54	0.26	99.74
10	-1.00	2.000	0.95	0.46	99.54
14	-0.50	1.400	2.20	1.06	98.94
18	0.00	1.000	4.85	2.34	97.66
25	0.50	0.710	10.17	4.90	95.10
35	1.00	0.500	22.89	11.03	88.97
45	1.50	0.355	44.54	21.47	78.53
60	2.00	0.250	73.91	35.62	64.38
80	2.50	0.180	109.80	52.92	47.08
120	3.00	0.125	175.41	84.53	15.47
170	3.50	0.090	202.05	97.37	2.63
200	3.75	0.075	203.13	97.89	2.11
230	4.00	0.063	205.41	99.00	1.00
PAN			207.47	99.99	0.01

PHI (5): 0.51 PHI (16): 1.24 PHI (25): 1.62
PHI (50): 2.42 PHI (75): 2.85 PHI (84): 2.99
PHI (95): 3.41

SIEVE LOSS (g): 0.03 SILT/CLAY: 2.11%
SKEWNESS: -0.522 KURTOSIS: 0.971

GRAPHIC METHOD

MEAN (PHI): 2.11 SORTING: 0.88
MEAN (mm): 0.23 MEDIAN (mm): 0.19
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.17 SORTING: 0.91
MEAN (mm): 0.22

DATA FILE NAME: VC99-33#5.TAB

GRADATION ANALYSIS REPORT
TOWN OF PALM BEACH
TESTED BY: RW ON: 7-20-99

SAMPLE NO.: VC99 33#6
SAMPLE ELEV. (FT. NGVD): -41.8
SAMPLE DEPTH (FT.): 9.3
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 224.40
SAMPLE WEIGHT AFTER WASH (GRAMS): 218.13

SIEVE SIZE	PHI SIZE	MESH SIZE (mm)	RETAINED (GRAMS)	RETAINED (%)	PASSED (%)
5/8	-4.00	16.000	0.00	0.00	100.00
5/16	-3.00	8.000	0.49	0.22	99.78
5	-2.00	4.000	0.49	0.22	99.78
7	-1.50	2.800	0.68	0.30	99.70
10	-1.00	2.000	1.00	0.45	99.55
14	-0.50	1.400	1.85	0.82	99.18
18	0.00	1.000	2.65	1.18	98.82
25	0.50	0.710	3.94	1.76	98.24
35	1.00	0.500	6.05	2.70	97.30
45	1.50	0.355	8.95	3.99	96.01
60	2.00	0.250	18.91	8.43	91.57
80	2.50	0.180	56.10	25.00	75.00
120	3.00	0.125	164.64	73.37	26.63
170	3.50	0.090	194.73	86.78	13.22
200	3.75	0.075	217.14	96.76	3.24
230	4.00	0.063	220.74	98.37	1.63
PAN			224.38	99.99	0.01

PHI (5): 1.61 PHI (16): 2.23 PHI (25): 2.50
PHI (50): 2.76 PHI (75): 3.06 PHI (84): 3.40
PHI (95): 3.71

SIEVE LOSS (g): 0.02 SILT/CLAY: 3.24%
SKEWNESS: -0.169 KURTOSIS: 1.529

GRAPHIC METHOD
MEAN (PHI): 2.74 SORTING: 0.58
MEAN (mm) : 0.15 MEDIAN (mm): 0.15
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD
MEAN (PHI): 2.69 SORTING: 0.73
MEAN (mm) : 0.15

DATA FILE NAME: VC99-33#6.TAB

GRADATION ANALYSIS REPORT
 TOWN OF PALM BEACH
 TESTED BY: RW ON: 6/9/99

SAMPLE NO.: VC99 33#7
 SAMPLE ELEV. (FT. NGVD): -42.6
 SAMPLE DEPTH (FT.): 10.1
 SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 182.13
 SAMPLE WEIGHT AFTER WASH (GRAMS): 179.13

SIEVE SIZE	PHI SIZE	MESH SIZE (mm)	RETAINED (GRAMS)	RETAINED (%)	PASSED (%)
5/8	-4.00	16.000	0.00	0.00	100.00
5/16	-3.00	8.000	1.85	1.02	98.98
5	-2.00	4.000	6.51	3.57	96.43
7	-1.50	2.800	10.55	5.79	94.21
10	-1.00	2.000	16.32	8.96	91.04
14	-0.50	1.400	28.88	15.86	84.14
18	0.00	1.000	45.75	25.12	74.88
25	0.50	0.710	70.44	38.68	61.32
35	1.00	0.500	92.36	50.71	49.29
45	1.50	0.355	101.84	55.92	44.08
60	2.00	0.250	112.08	61.54	38.46
80	2.50	0.180	130.66	71.74	28.26
120	3.00	0.125	164.86	90.52	9.48
170	3.50	0.090	177.94	97.70	2.30
200	3.75	0.075	178.72	98.13	1.87
230	4.00	0.063	180.55	99.13	0.87
PAN			182.13	100.00	0.00

PHI(5): -1.68 PHI(16): -0.49 PHI(25): -0.01
 PHI(50): 0.97 PHI(75): 2.59 PHI(84): 2.83
 PHI(95): 3.31

SIEVE LOSS(g): 0.00 SILT/CLAY: 1.87%
 SKEWNESS: -0.093 KURTOSIS: 0.789

GRAPHIC METHOD
 MEAN (PHI): 0.99 SORTING: 1.66
 MEAN (mm): 0.50 MEDIAN (mm): 0.51
 NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD
 MEAN (PHI): 1.08 SORTING: 1.60
 MEAN (mm): 0.47

DATA FILE NAME: VC99-33#7.TAB

GRADATION ANALYSIS REPORT
TOWN OF PALM BEACH
TESTED BY: RW ON: 6/9/99

SAMPLE NO.: VC99 33#8
SAMPLE ELEV. (FT. NGVD): -45.5
SAMPLE DEPTH (FT.): 13.0
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP-SM

DRY SAMPLE WEIGHT (GRAMS): 255.15
SAMPLE WEIGHT AFTER WASH (GRAMS): 239.32

SIEVE SIZE	PHI SIZE	MESH SIZE (mm)	RETAINED (GRAMS)	RETAINED (%)	PASSED (%)
5/8	-4.00	16.000	0.00	0.00	100.00
5/16	-3.00	8.000	0.62	0.24	99.76
5	-2.00	4.000	0.83	0.33	99.67
7	-1.50	2.800	1.43	0.56	99.44
10	-1.00	2.000	2.23	0.87	99.13
14	-0.50	1.400	2.90	1.14	98.86
18	0.00	1.000	3.61	1.41	98.59
25	0.50	0.710	4.58	1.80	98.20
35	1.00	0.500	6.72	2.63	97.37
45	1.50	0.355	11.52	4.51	95.49
60	2.00	0.250	23.52	9.22	90.78
80	2.50	0.180	56.42	22.11	77.89
120	3.00	0.125	164.83	64.60	35.40
170	3.50	0.090	236.29	92.61	7.39
200	3.75	0.075	238.58	93.51	6.49
230	4.00	0.063	247.14	96.86	3.14
PAN			255.13	99.99	0.01

PHI (5): 1.55 PHI (16): 2.26 PHI (25): 2.53
PHI (50): 2.83 PHI (75): 3.19 PHI (84): 3.35
PHI (95): 3.86

SIEVE LOSS (g): 0.02 SILT/CLAY: 6.49%
SKEWNESS: -0.225 KURTOSIS: 1.453

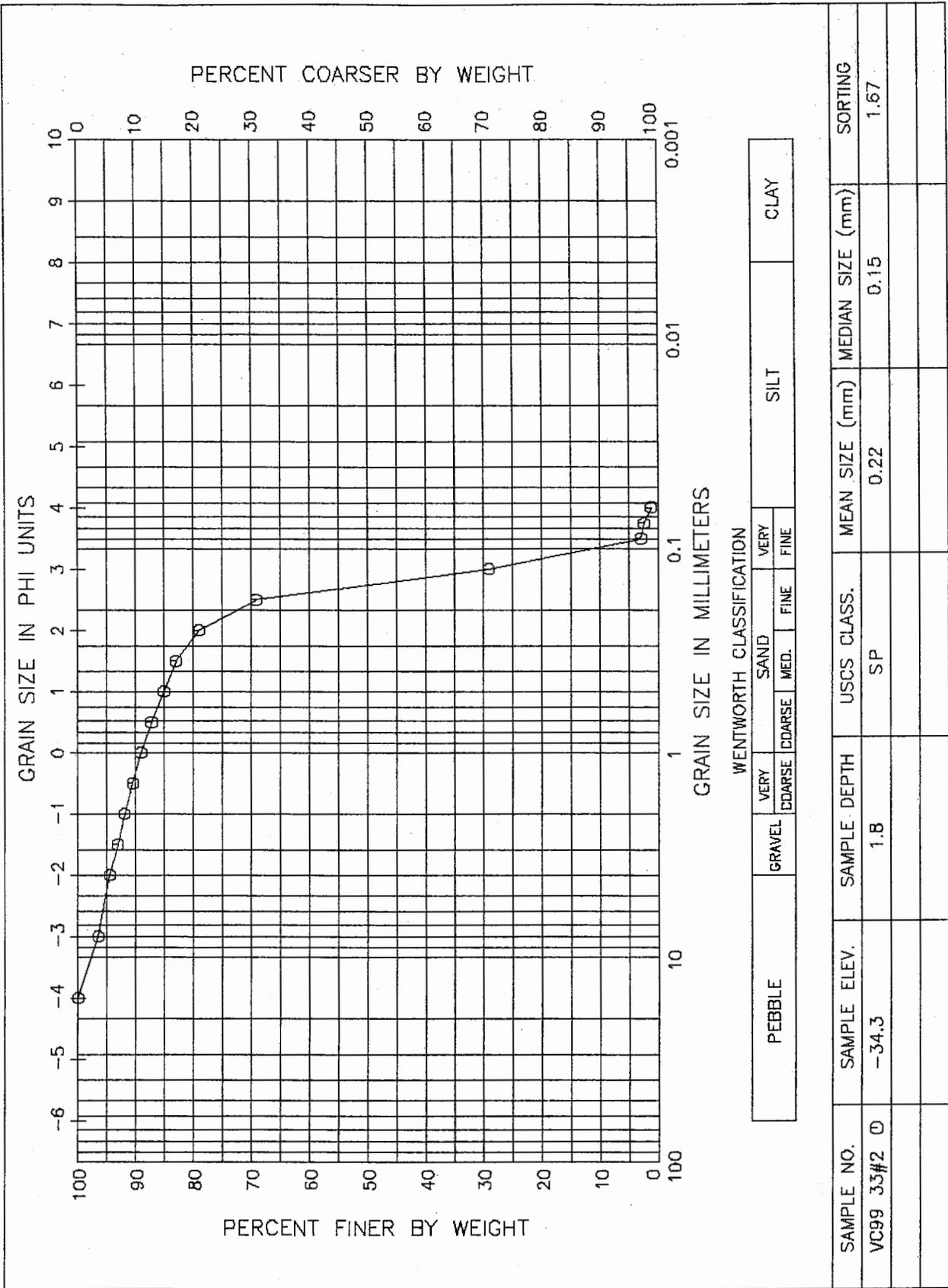
GRAPHIC METHOD

MEAN (PHI): 2.77 SORTING: 0.54
MEAN (mm) : 0.15 MEDIAN (mm): 0.14
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

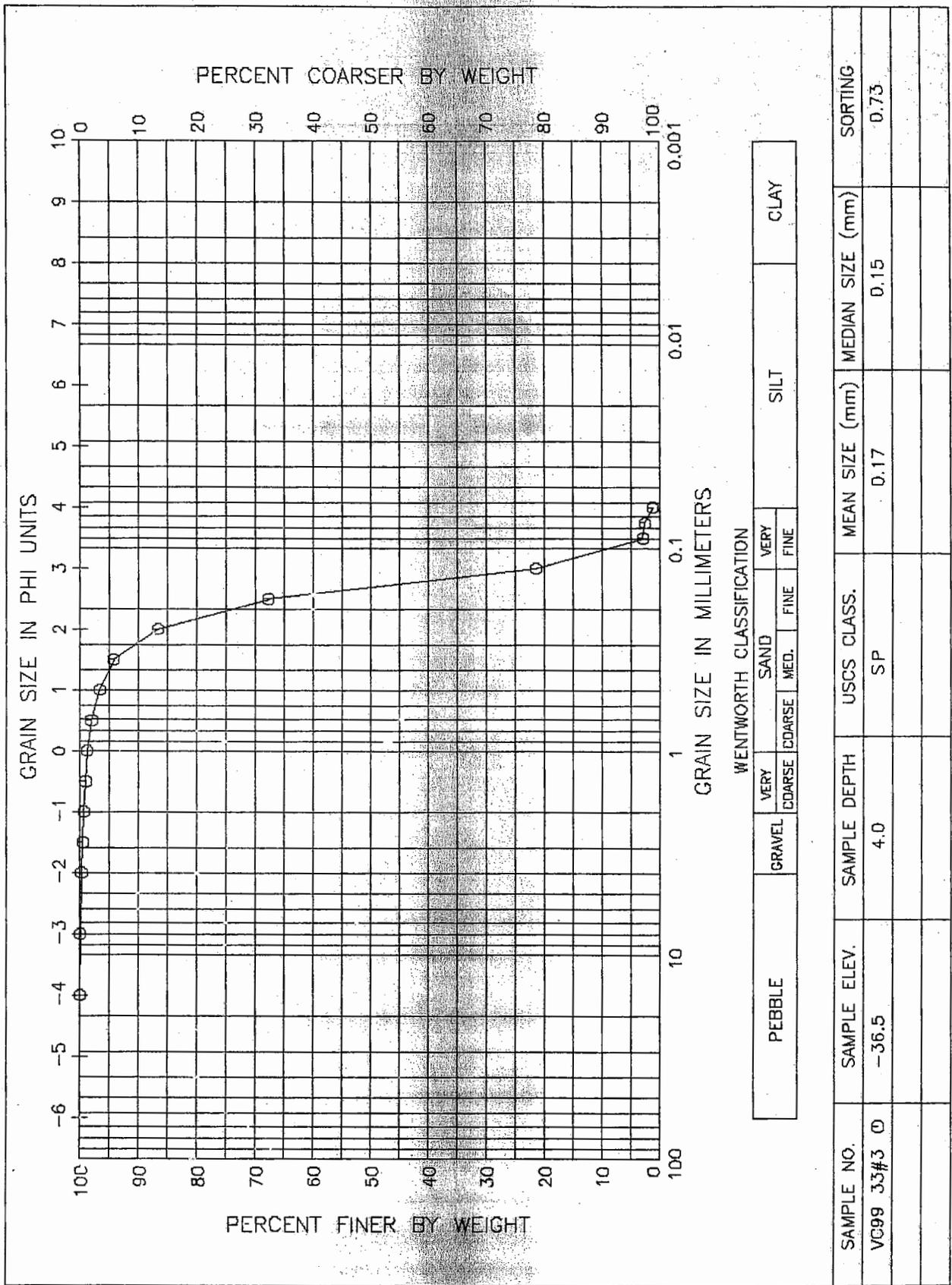
MOMENT METHOD

MEAN (PHI): 2.71 SORTING: 0.77
MEAN (mm) : 0.15

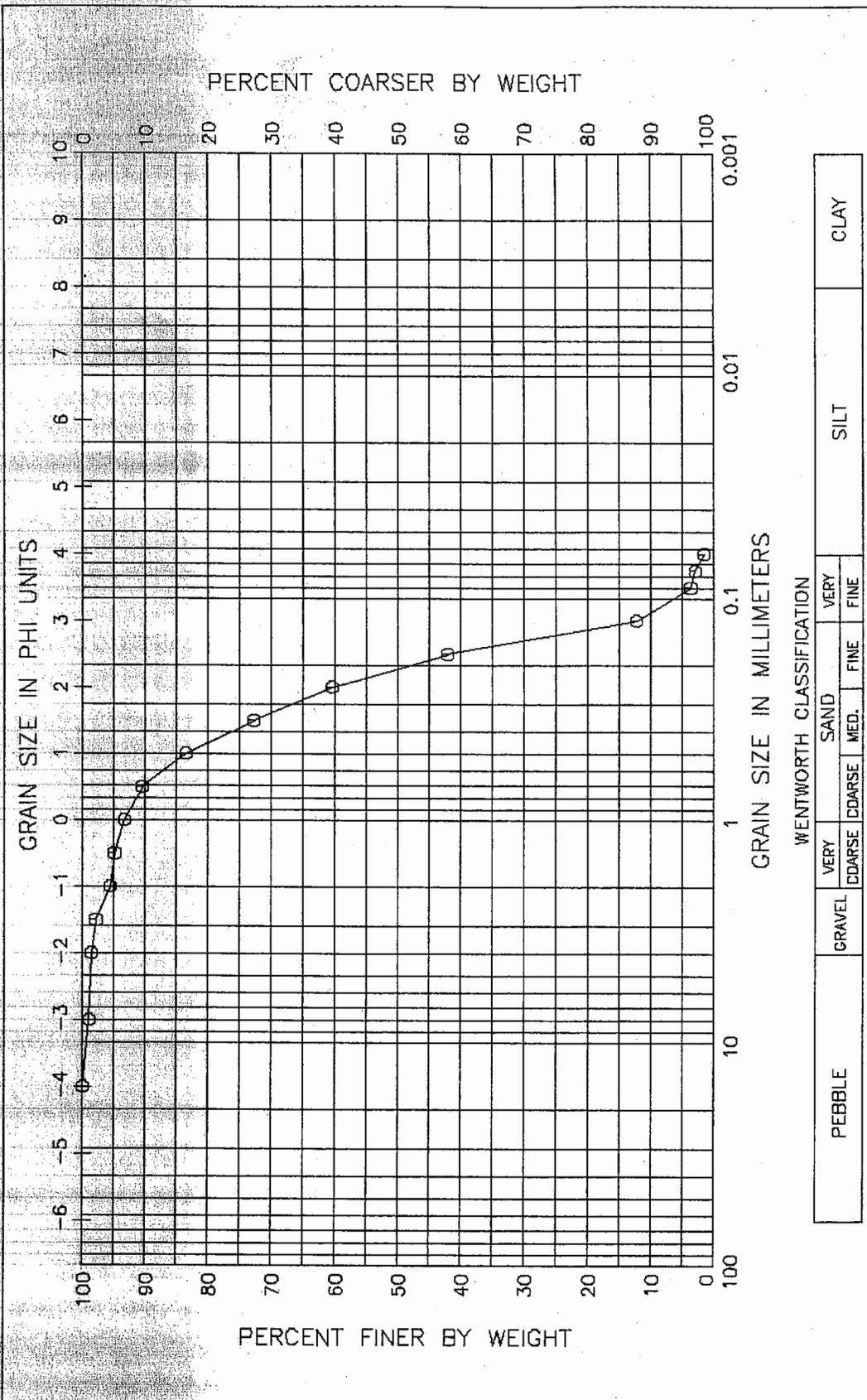
DATA FILE NAME: VC99-33#8.TAB



GRAIN SIZE DISTRIBUTION CURVE
TOWN OF PALM BEACH

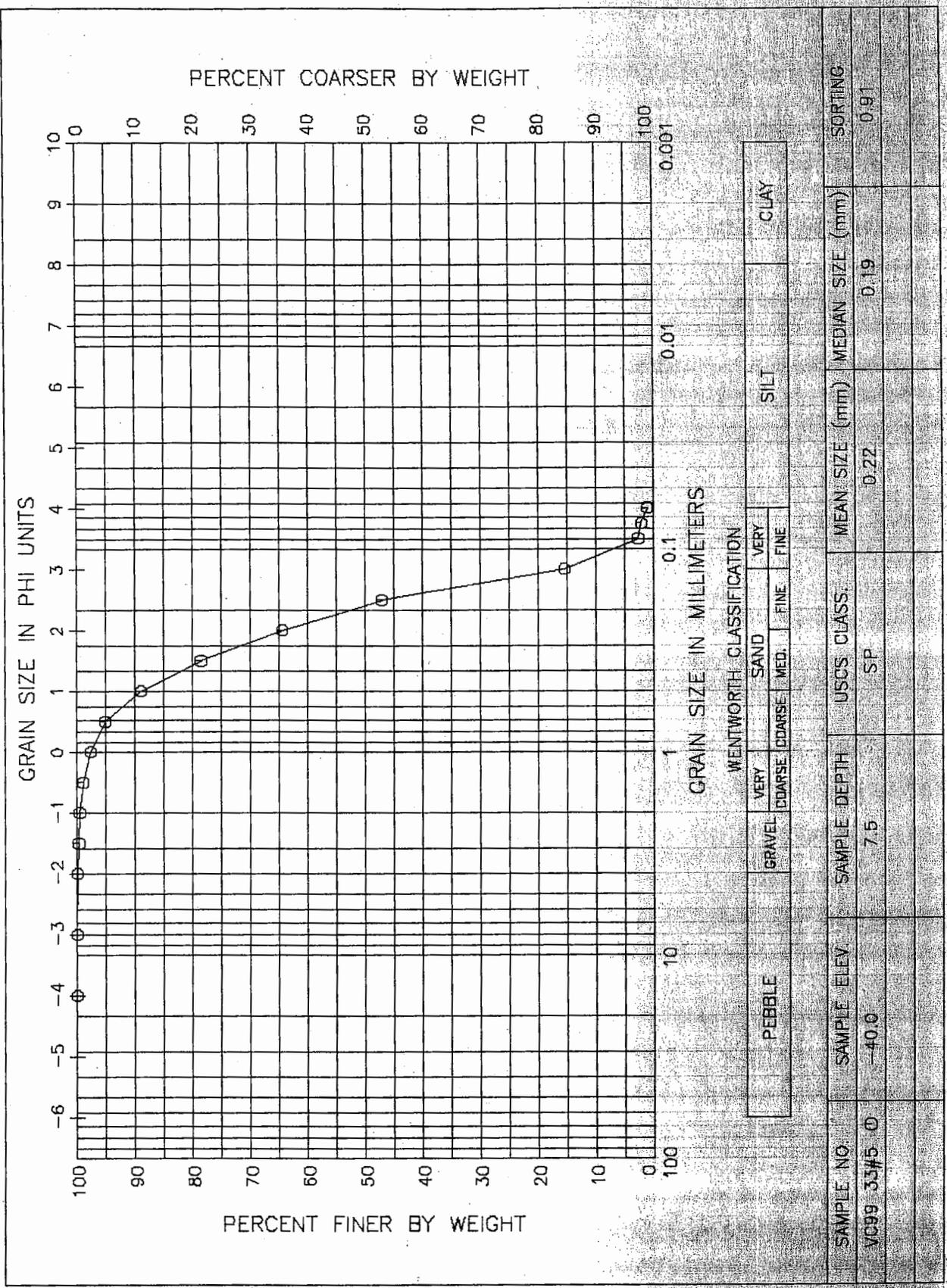


GRAIN SIZE DISTRIBUTION CURVE
TOWN OF PALM BEACH

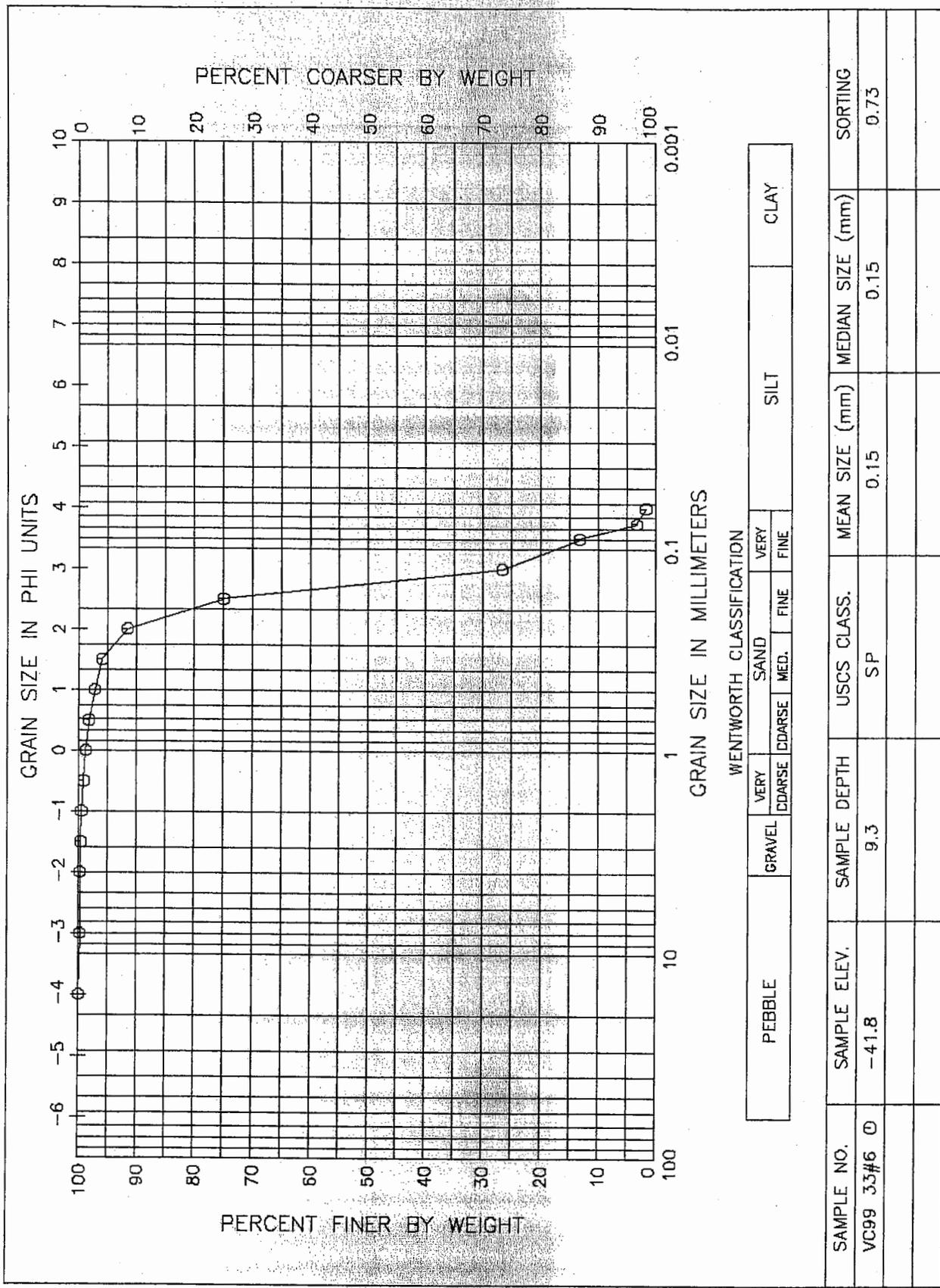


SAMPLE NO.	SAMPLE ELEV.	SAMPLE DEPTH	USCS CLASS.	MEAN SIZE (mm)	MEDIAN SIZE (mm)	SORTING
VC99 33#4	-37.5	5.0	SP	0.26	0.21	1.24

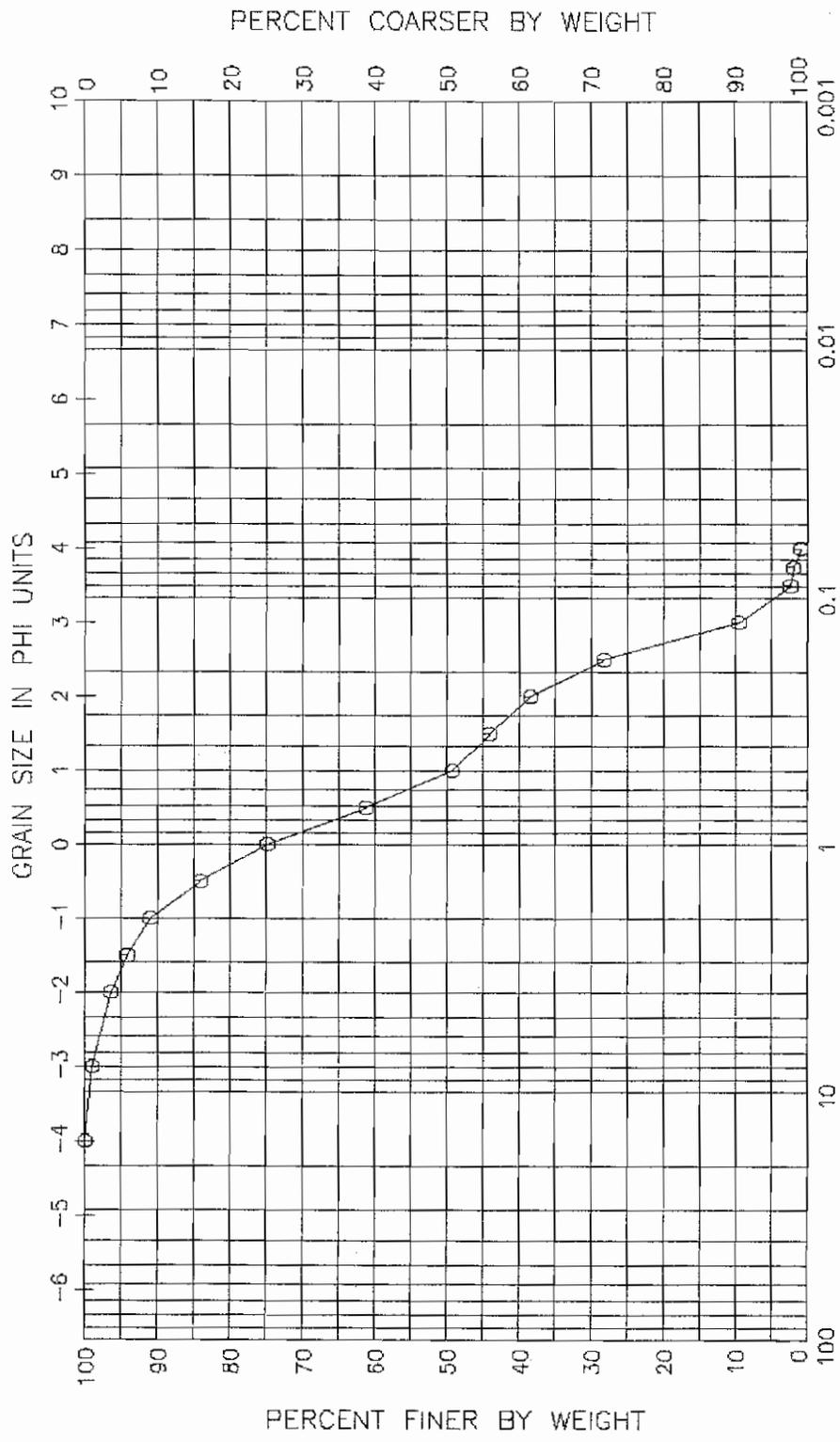
GRAIN SIZE DISTRIBUTION CURVE
TOWN OF PALM BEACH



GRAIN SIZE DISTRIBUTION CURVE
TOWN OF PALM BEACH



GRAIN SIZE DISTRIBUTION CURVE
TOWN OF PALM BEACH

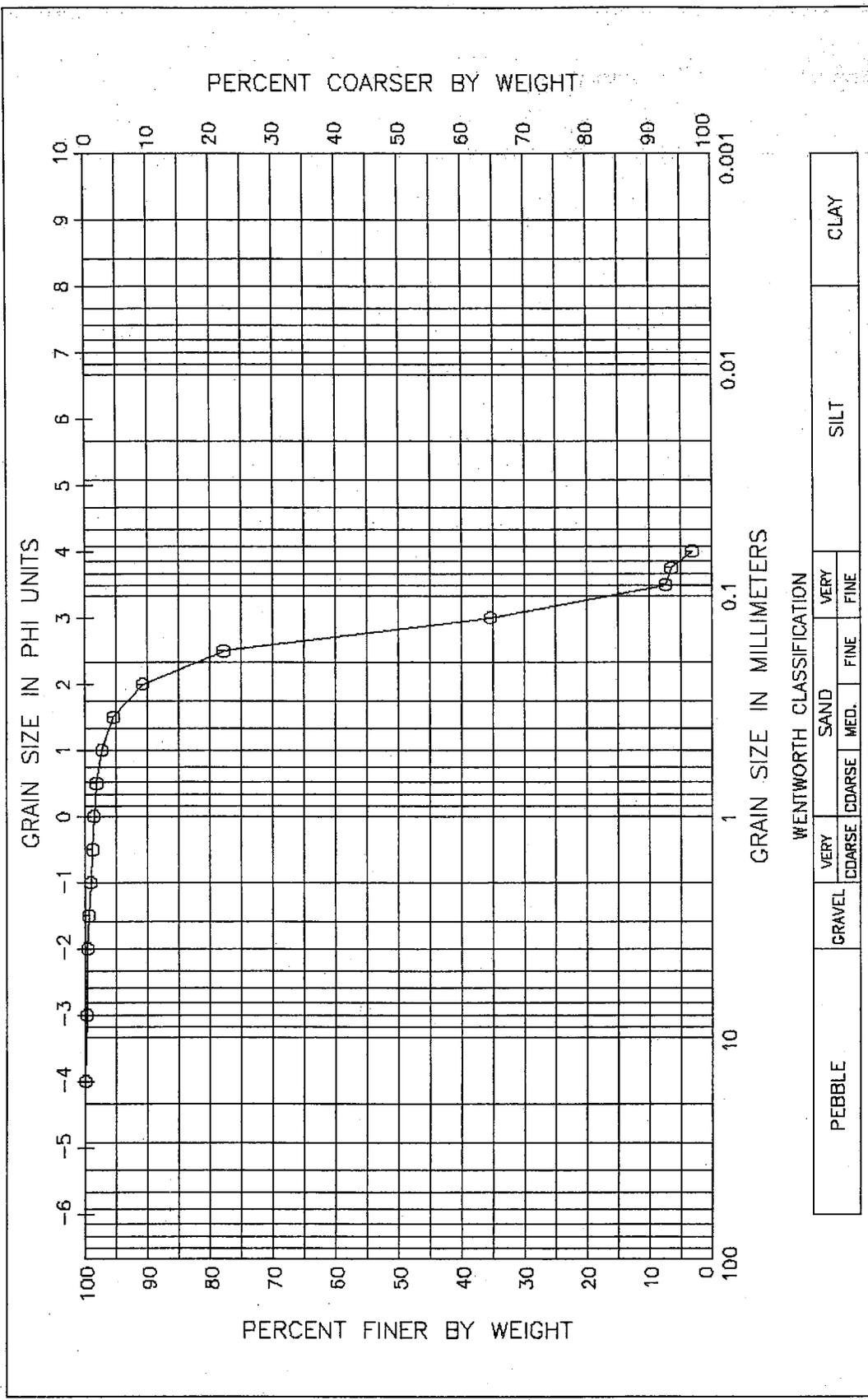


WENTWORTH CLASSIFICATION

PEBBLE	GRAVEL	SAND		SILT	CLAY
		VERY COARSE	VERY FINE		

SAMPLE NO.	SAMPLE ELEV.	SAMPLE DEPTH	USCS CLASS.	MEAN SIZE (mm)	MEDIAN SIZE (mm)	SORTING
VC99 33#7 0	-42.5	10.1	SP	0.47	0.51	1.60

GRAIN SIZE DISTRIBUTION CURVE
TOWN OF PALM BEACH



GRAIN SIZE DISTRIBUTION CURVE
TOWN OF PALM BEACH