

GRADATION ANALYSIS REPORT  
TOWN OF PALM BEACH  
TESTED BY: RW ON: 4/99

SAMPLE NO.: VC99 3#1  
SAMPLE ELEV. (FT. NGVD): -34.4  
SAMPLE DEPTH (FT.): 1.5  
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 83.12  
SAMPLE WEIGHT AFTER WASH (GRAMS): 81.36

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	0.00	0.00	100.00
7	-1.50	2.800	0.00	0.00	100.00
10	-1.00	2.000	0.05	0.06	99.94
14	-0.50	1.400	0.11	0.13	99.87
18	0.00	1.000	0.21	0.25	99.75
25	0.50	0.710	0.38	0.46	99.54
35	1.00	0.500	0.89	1.07	98.93
45	1.50	0.355	1.90	2.29	97.71
60	2.00	0.250	5.37	6.46	93.54
80	2.50	0.180	12.78	15.38	84.62
120	3.00	0.125	46.71	56.20	43.80
170	3.50	0.090	80.35	96.67	3.33
200	3.75	0.075	81.15	97.63	2.37
230	4.00	0.063	82.17	98.86	1.14
PAN			83.08	99.95	0.05

PHI(5): 1.83 PHI(16): 2.51 PHI(25): 2.62  
PHI(50): 2.92 PHI(75): 3.23 PHI(84): 3.34  
PHI(95): 3.48

SIEVE LOSS(g): 0.04 SILT/CLAY: 2.37%  
SKEWNESS: -0.651 KURTOSIS: 1.103

GRAPHIC METHOD

MEAN (PHI): 2.82 SORTING: 0.42  
MEAN (mm): 0.14 MEDIAN (mm): 0.13  
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.85 SORTING: 0.53  
MEAN (mm): 0.14

DATA FILE NAME: VC99-3#1.TAB

GRADATION ANALYSIS REPORT  
TOWN OF PALM BEACH  
TESTED BY: RW      ON: 4/99

SAMPLE NO.: VC99 3#2  
SAMPLE ELEV. (FT. NGVD): -36.5  
SAMPLE DEPTH (FT.): 3.6  
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 90.58  
SAMPLE WEIGHT AFTER WASH (GRAMS): 89.77

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	0.59	0.65	99.35
7	-1.50	2.800	1.00	1.10	98.90
10	-1.00	2.000	1.80	1.99	98.01
14	-0.50	1.400	4.01	4.43	95.57
18	0.00	1.000	6.42	7.09	92.91
25	0.50	0.710	11.94	13.18	86.82
35	1.00	0.500	24.63	27.19	72.81
45	1.50	0.355	42.10	46.48	53.52
60	2.00	0.250	56.58	62.46	37.54
80	2.50	0.180	68.00	75.07	24.93
120	3.00	0.125	81.45	89.92	10.08
170	3.50	0.090	89.23	98.51	1.49
200	3.75	0.075	89.65	98.97	1.03
230	4.00	0.063	90.10	99.48	0.52
PAN			90.54	99.96	0.04

PHI(5): -0.39	PHI(16): 0.60	PHI(25): 0.92
PHI(50): 1.61	PHI(75): 2.50	PHI(84): 2.80
PHI(95): 3.30		

SIEVE LOSS(g): 0.04	SILT/CLAY: 1.03%
SKEWNESS: -0.144	KURTOSIS: 0.959

GRAPHIC METHOD

MEAN (PHI): 1.58	SORTING: 1.10
MEAN (mm): 0.33	MEDIAN (mm): 0.33
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD	

MOMENT METHOD

MEAN (PHI): 1.60	SORTING: 1.11
MEAN (mm): 0.33	

DATA FILE NAME: VC99-3#2.TAB

## GRADATION ANALYSIS REPORT

TOWN OF PALM BEACH

TESTED BY: ID ON: 10/99

SAMPLE NO.: VC-99#3-3

SAMPLE ELEV. (FT. NGVD): 0.0

SAMPLE DEPTH (FT.): 5.0

SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 100.09

SAMPLE WEIGHT AFTER WASH (GRAMS): 98.77

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	0.65	0.65	99.35
7	-1.50	2.800	0.91	0.91	99.09
10	-1.00	2.000	1.20	1.20	98.80
14	-0.50	1.400	1.65	1.65	98.35
18	0.00	1.000	2.55	2.55	97.45
25	0.50	0.710	4.50	4.50	95.50
35	1.00	0.500	9.82	9.81	90.19
45	1.50	0.355	19.40	19.38	80.62
60	2.00	0.250	38.56	38.53	61.47
80	2.50	0.180	55.71	55.66	44.34
120	3.00	0.125	77.19	77.12	22.88
170	3.50	0.090	98.22	98.13	1.87
200	3.75	0.075	98.71	98.62	1.38
230	4.00	0.063	99.43	99.34	0.66
PAN			100.09	100.00	0.00

PHI(5): 0.55	PHI(16): 1.32	PHI(25): 1.65
PHI(50): 2.33	PHI(75): 2.95	PHI(84): 3.16
PHI(95): 3.43		

SIEVE LOSS(g): 0.00	SILT/CLAY: 1.38%
SKEWNESS: -0.379	KURTOSIS: 0.905

## GRAPHIC METHOD

MEAN (PHI): 2.16	SORTING: 0.92
MEAN (mm): 0.22	MEDIAN (mm): 0.20
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD	

## MOMENT METHOD

MEAN (PHI): 2.19	SORTING: 0.98
MEAN (mm): 0.22	

DATA FILE NAME: VC-99#3-3.TAB

GRADATION ANALYSIS REPORT  
TOWN OF PALM BEACH 4/99  
TESTED BY: ID ON: 4/99

SAMPLE NO.: VC99 3#4  
SAMPLE ELEV. (FT. NGVD): -38.5  
SAMPLE DEPTH (FT.): 5.6  
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 91.43  
SAMPLE WEIGHT AFTER WASH (GRAMS): 90.66

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	1.28	1.40	98.60
5	-2.00	4.000	2.24	2.45	97.55
7	-1.50	2.800	3.54	3.87	96.13
10	-1.00	2.000	5.96	6.52	93.48
14	-0.50	1.400	10.65	11.65	88.35
18	0.00	1.000	15.74	17.22	82.78
25	0.50	0.710	24.05	26.30	73.70
35	1.00	0.500	38.13	41.70	58.30
45	1.50	0.355	53.54	58.56	41.44
60	2.00	0.250	66.74	73.00	27.00
80	2.50	0.180	77.56	84.83	15.17
120	3.00	0.125	86.83	94.97	5.03
170	3.50	0.090	90.46	98.94	1.06
200	3.75	0.075	90.61	99.10	0.90
230	4.00	0.063	91.01	99.55	0.45
PAN			91.42	99.99	0.01

PHI (5): -1.29 PHI (16): -0.11 PHI (25): 0.43  
PHI (50): 1.25 PHI (75): 2.08 PHI (84): 2.46  
PHI (95): 3.00

SIEVE LOSS (g): 0.01 SILT/CLAY: 0.90%  
SKEWNESS: -0.301 KURTOSIS: 1.062

GRAPHIC METHOD

MEAN (PHI): 1.06 SORTING: 1.29  
MEAN (mm): 0.48 MEDIAN (mm): 0.42  
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 1.12 SORTING: 1.34  
MEAN (mm): 0.46

DATA FILE NAME: VC99-3#4.TAB

GRADATION ANALYSIS REPORT  
TOWN OF PALM BEACH  
TESTED BY: ID ON: 10/99

SAMPLE NO.: VC-99#3-5  
SAMPLE ELEV. (FT. NGVD): 0.0  
SAMPLE DEPTH (FT.): 9.5  
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 103.28  
SAMPLE WEIGHT AFTER WASH (GRAMS): 98.81

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	0.04	0.04	99.96
7	-1.50	2.800	0.22	0.21	99.79
10	-1.00	2.000	0.46	0.45	99.55
14	-0.50	1.400	1.00	0.97	99.03
18	0.00	1.000	1.88	1.82	98.18
25	0.50	0.710	3.74	3.62	96.38
35	1.00	0.500	7.82	7.57	92.43
45	1.50	0.355	13.43	13.00	87.00
60	2.00	0.250	24.23	23.46	76.54
80	2.50	0.180	44.13	42.73	57.27
120	3.00	0.125	77.18	74.73	25.27
170	3.50	0.090	98.21	95.09	4.91
200	3.75	0.075	98.73	95.59	4.41
230	4.00	0.063	101.04	97.84	2.16
PAN			103.28	100.00	0.00

PHI(5): 0.67      PHI(16): 1.64      PHI(25): 2.04  
PHI(50): 2.61      PHI(75): 3.01      PHI(84): 3.23  
PHI(95): 3.50

SIEVE LOSS(g): 0.00      SILT/CLAY: 4.41%  
SKEWNESS: -0.666      KURTOSIS: 1.197

GRAPHIC METHOD

MEAN (PHI): 2.33      SORTING: 0.79  
MEAN (mm): 0.20      MEDIAN (mm): 0.16  
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.40      SORTING: 0.87  
MEAN (mm): 0.19

DATA FILE NAME: VC-99#3-5.TAB

GRADATION ANALYSIS REPORT  
TOWN OF PALM BEACH 4/99  
TESTED BY: ID ON: 4/99

SAMPLE NO.: VC99 3#6  
SAMPLE ELEV. (FT. NGVD): -44.4  
SAMPLE DEPTH (FT.): 11.5  
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 97.74  
SAMPLE WEIGHT AFTER WASH (GRAMS): 96.32

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	4.00	4.09	95.91
5	-2.00	4.000	7.47	7.64	92.36
7	-1.50	2.800	10.15	10.38	89.62
10	-1.00	2.000	13.99	14.31	85.69
14	-0.50	1.400	21.44	21.94	78.06
18	0.00	1.000	28.48	29.14	70.86
25	0.50	0.710	41.38	42.34	57.66
35	1.00	0.500	56.79	58.10	41.90
45	1.50	0.355	65.36	66.87	33.13
60	2.00	0.250	71.14	72.78	27.22
80	2.50	0.180	77.78	79.58	20.42
120	3.00	0.125	88.11	90.15	9.85
170	3.50	0.090	95.81	98.03	1.97
200	3.75	0.075	96.21	98.43	1.57
230	4.00	0.063	97.00	99.24	0.76
PAN			97.73	99.99	0.01

PHI (5): -2.74 PHI (16): -0.89 PHI (25): -0.29  
PHI (50): 0.74 PHI (75): 2.16 PHI (84): 2.71  
PHI (95): 3.31

SIEVE LOSS (g): 0.01 SILT/CLAY: 1.57%  
SKEWNESS: -0.256 KURTOSIS: 1.012

GRAPHIC METHOD

MEAN (PHI): 0.63 SORTING: 1.80  
MEAN (mm): 0.65 MEDIAN (mm): 0.60  
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 0.71 SORTING: 1.73  
MEAN (mm): 0.61

DATA FILE NAME: VC99-3#6.TAB

GRADATION ANALYSIS REPORT  
TOWN OF PALM BEACH  
TESTED BY: RW ON: 5/99

SAMPLE NO.: VC99 3#7  
SAMPLE ELEV. (FT. NGVD): -48.4  
SAMPLE DEPTH (FT.): 15.5  
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 88.59  
SAMPLE WEIGHT AFTER WASH (GRAMS): 86.86

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	0.00	0.00	100.00
7	-1.50	2.800	0.03	0.03	99.97
10	-1.00	2.000	0.05	0.06	99.94
14	-0.50	1.400	0.14	0.16	99.84
18	0.00	1.000	0.25	0.28	99.72
25	0.50	0.710	0.44	0.50	99.50
35	1.00	0.500	0.89	1.00	99.00
45	1.50	0.355	1.72	1.94	98.06
60	2.00	0.250	4.33	4.89	95.11
80	2.50	0.180	15.24	17.20	82.80
120	3.00	0.125	53.27	60.13	39.87
170	3.50	0.090	85.22	96.20	3.80
200	3.75	0.075	86.75	97.92	2.08
230	4.00	0.063	87.70	99.00	1.00
PAN			88.59	100.00	0.00

PHI(5): 2.00 PHI(16): 2.45 PHI(25): 2.59  
PHI(50): 2.88 PHI(75): 3.21 PHI(84): 3.33  
PHI(95): 3.48

SIEVE LOSS(g): 0.00 SILT/CLAY: 2.08%  
SKEWNESS: -0.314 KURTOSIS: 0.985

GRAPHIC METHOD

MEAN (PHI): 2.83 SORTING: 0.44  
MEAN (mm): 0.14 MEDIAN (mm): 0.14  
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.83 SORTING: 0.51  
MEAN (mm): 0.14

DATA FILE NAME: VC99-3#7.TAB

GRADATION ANALYSIS REPORT  
TOWN OF PALM BEACH  
TESTED BY: RW ON: 4/99

SAMPLE NO.: VC99-3 #8  
SAMPLE ELEV. (FT. NGVD): -39.9  
SAMPLE DEPTH (FT.): 7.0  
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 157.42  
SAMPLE WEIGHT AFTER WASH (GRAMS): 155.91

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	0.00	0.00	100.00
7	-1.50	2.800	0.07	0.04	99.96
10	-1.00	2.000	0.22	0.14	99.86
14	-0.50	1.400	0.64	0.41	99.59
18	0.00	1.000	1.57	1.00	99.00
25	0.50	0.710	3.57	2.27	97.73
35	1.00	0.500	9.22	5.86	94.14
45	1.50	0.355	18.33	11.64	88.36
60	2.00	0.250	30.50	19.37	80.63
80	2.50	0.180	44.99	28.58	71.42
120	3.00	0.125	118.36	75.19	24.81
170	3.50	0.090	154.12	97.90	2.10
200	3.75	0.075	155.64	98.87	1.13
230	4.00	0.063	156.61	99.48	0.52
PAN			157.40	99.99	0.01

PHI(5): 0.88 PHI(16): 1.78 PHI(25): 2.31  
PHI(50): 2.73 PHI(75): 3.00 PHI(84): 3.19  
PHI(95): 3.44

SIEVE LOSS(g): 0.02 SILT/CLAY: 1.13%  
SKEWNESS: -0.809 KURTOSIS: 1.513

GRAPHIC METHOD

MEAN (PHI): 2.40 SORTING: 0.71  
MEAN (mm): 0.19 MEDIAN (mm): 0.15  
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.53 SORTING: 0.77  
MEAN (mm): 0.17

DATA FILE NAME: VC99-3#8.TAB



## GRADATION ANALYSIS REPORT

TOWN OF PALM BEACH

TESTED BY: ID ON: 10/99

SAMPLE NO.: VC-99#3-9

SAMPLE ELEV. (FT. NGVD): 0.0

SAMPLE DEPTH (FT.): 11.0

SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 101.06

SAMPLE WEIGHT AFTER WASH (GRAMS): 99.58

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	1.03	1.02	98.98
5	-2.00	4.000	2.92	2.89	97.11
7	-1.50	2.800	5.51	5.45	94.55
10	-1.00	2.000	9.02	8.93	91.07
14	-0.50	1.400	14.62	14.47	85.53
18	0.00	1.000	22.26	22.03	77.97
25	0.50	0.710	34.53	34.17	65.83
35	1.00	0.500	47.87	47.37	52.63
45	1.50	0.355	56.34	55.75	44.25
60	2.00	0.250	66.68	65.98	34.02
80	2.50	0.180	73.89	73.11	26.89
120	3.00	0.125	83.82	82.94	17.06
170	3.50	0.090	99.04	98.00	2.00
200	3.75	0.075	99.47	98.43	1.57
230	4.00	0.063	100.30	99.25	0.75
PAN			101.06	100.00	0.00

PHI(5): -1.59

PHI(16): -0.40

PHI(25): 0.12

PHI(50): 1.16

PHI(75): 2.60

PHI(84): 3.04

PHI(95): 3.40

SIEVE LOSS(g): 0.00

SILT/CLAY: 1.57%

SKEWNESS: -0.146

KURTOSIS: 0.827

## GRAPHIC METHOD

MEAN (PHI): 1.12

SORTING: 1.72

MEAN (mm): 0.46

MEDIAN (mm): 0.45

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

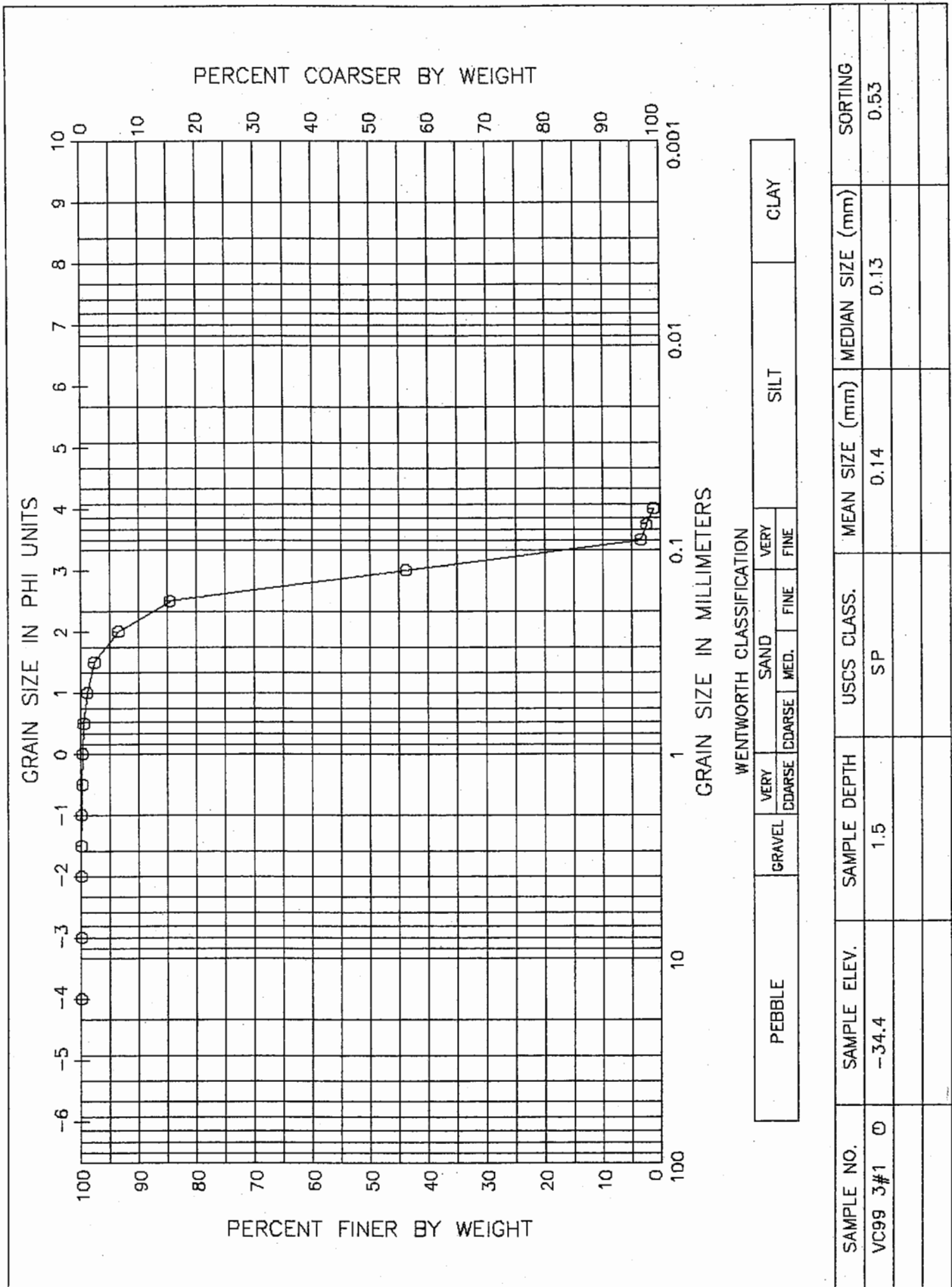
## MOMENT METHOD

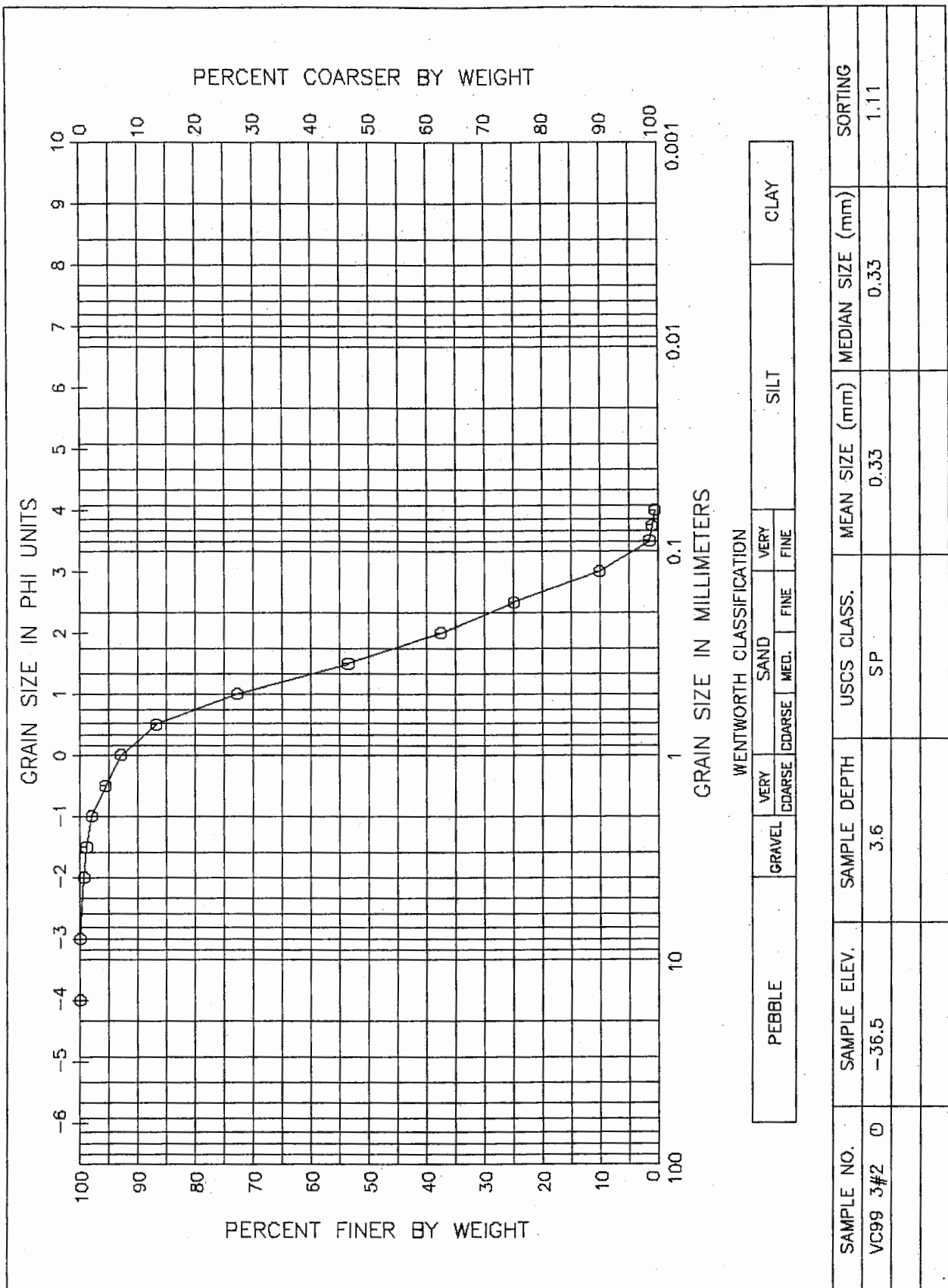
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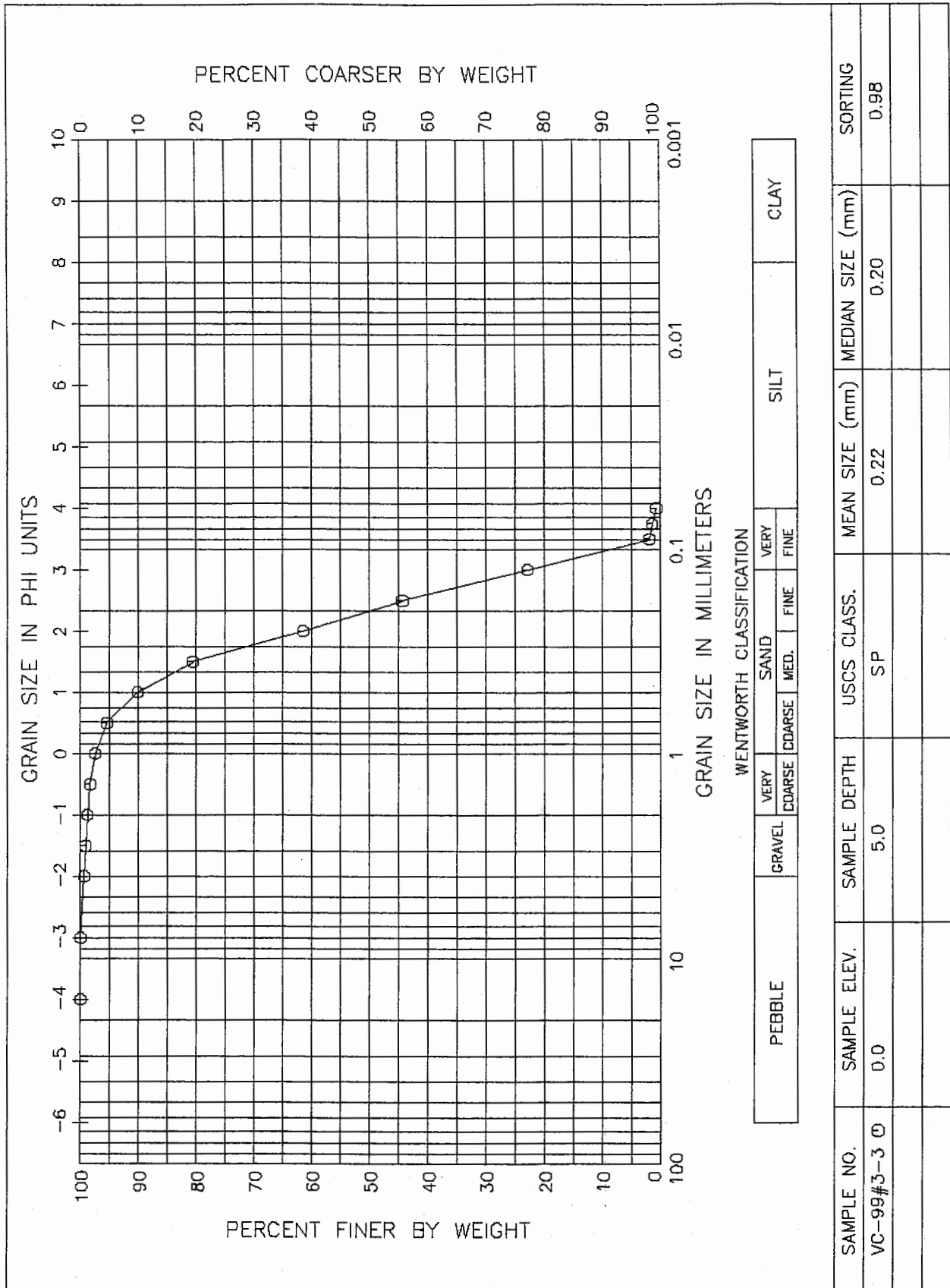
SORTING: 1.58

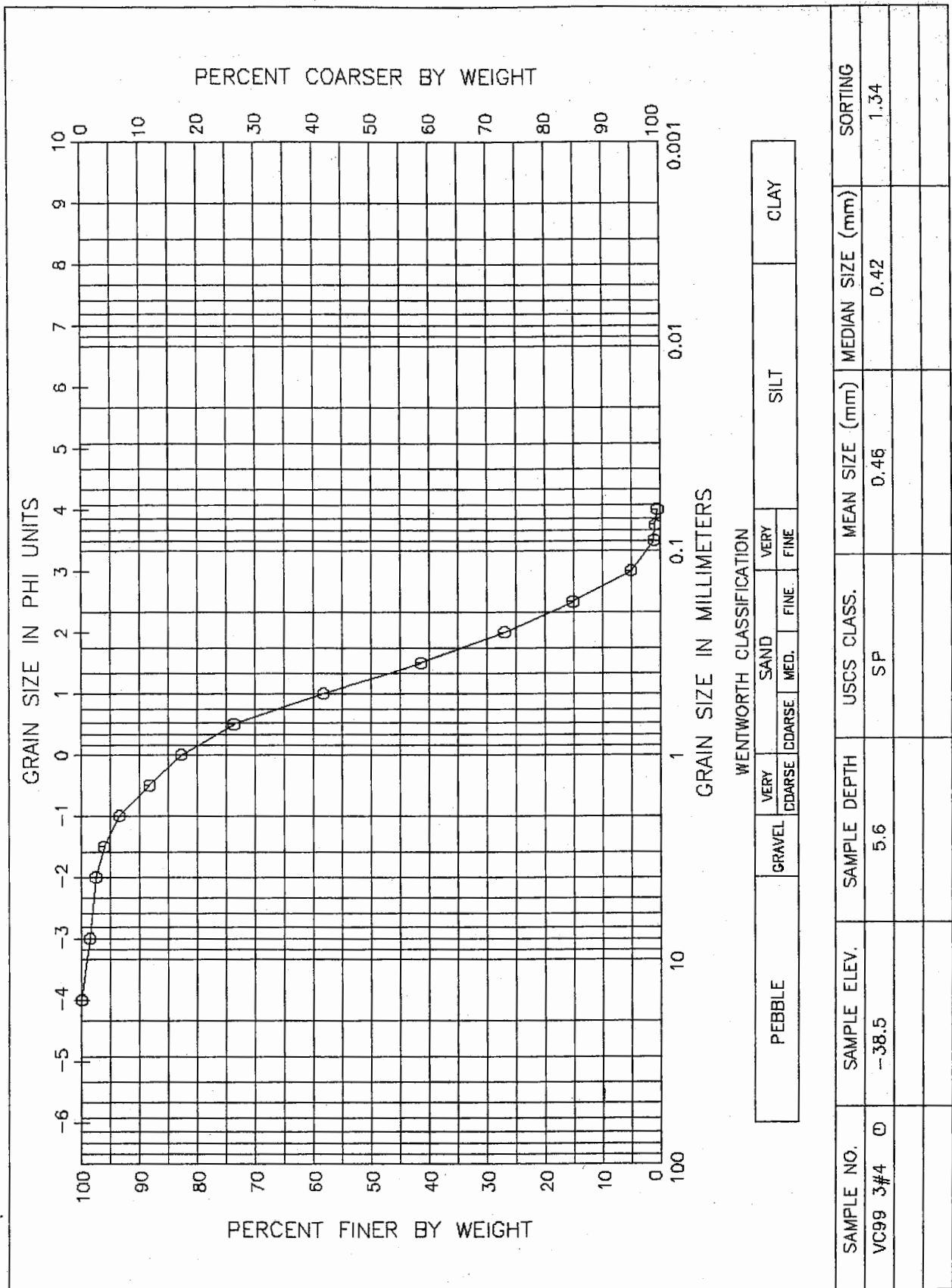
MEAN (mm): 0.45

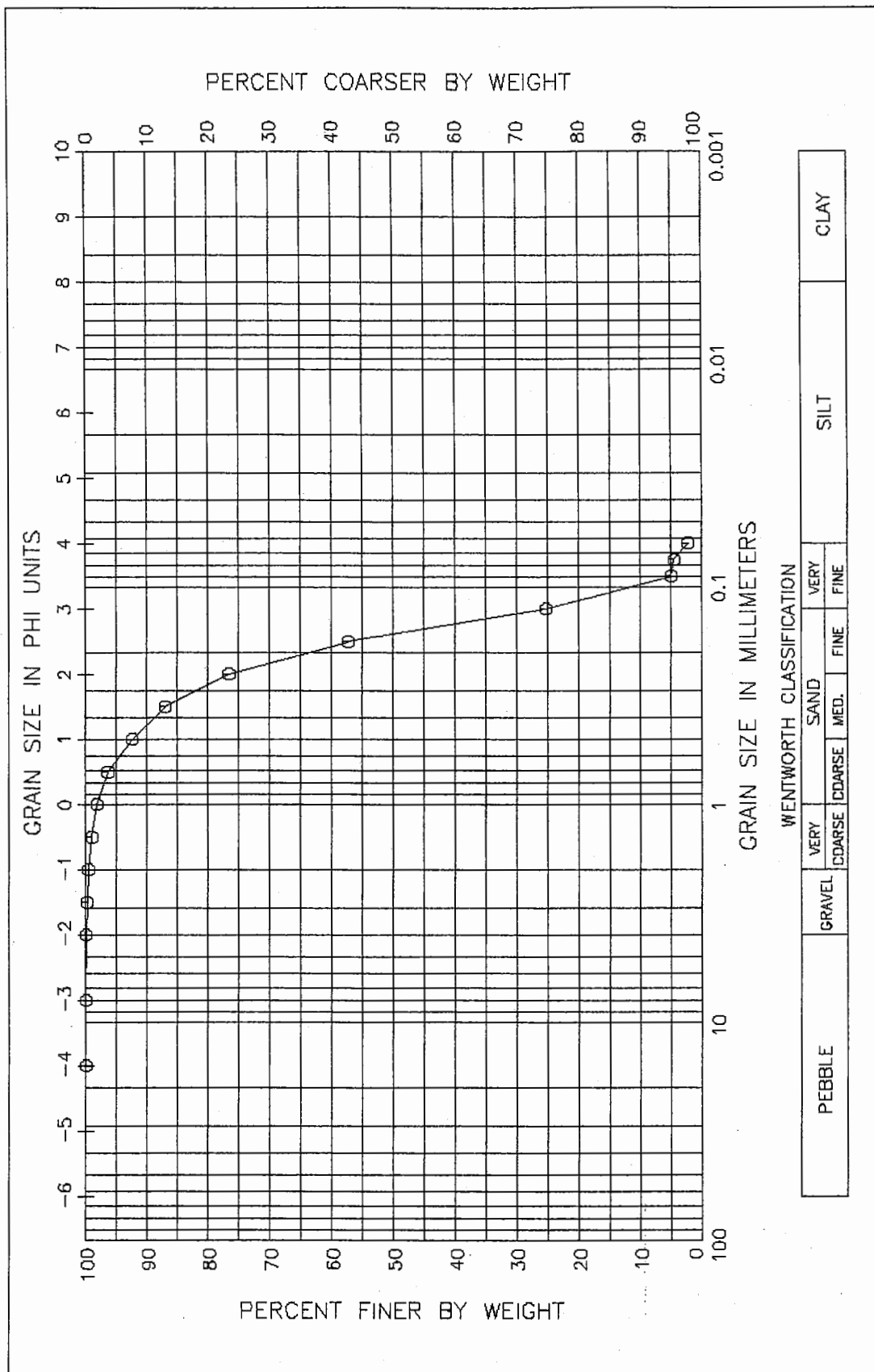
DATA FILE NAME: VC-99#3-9.TAB





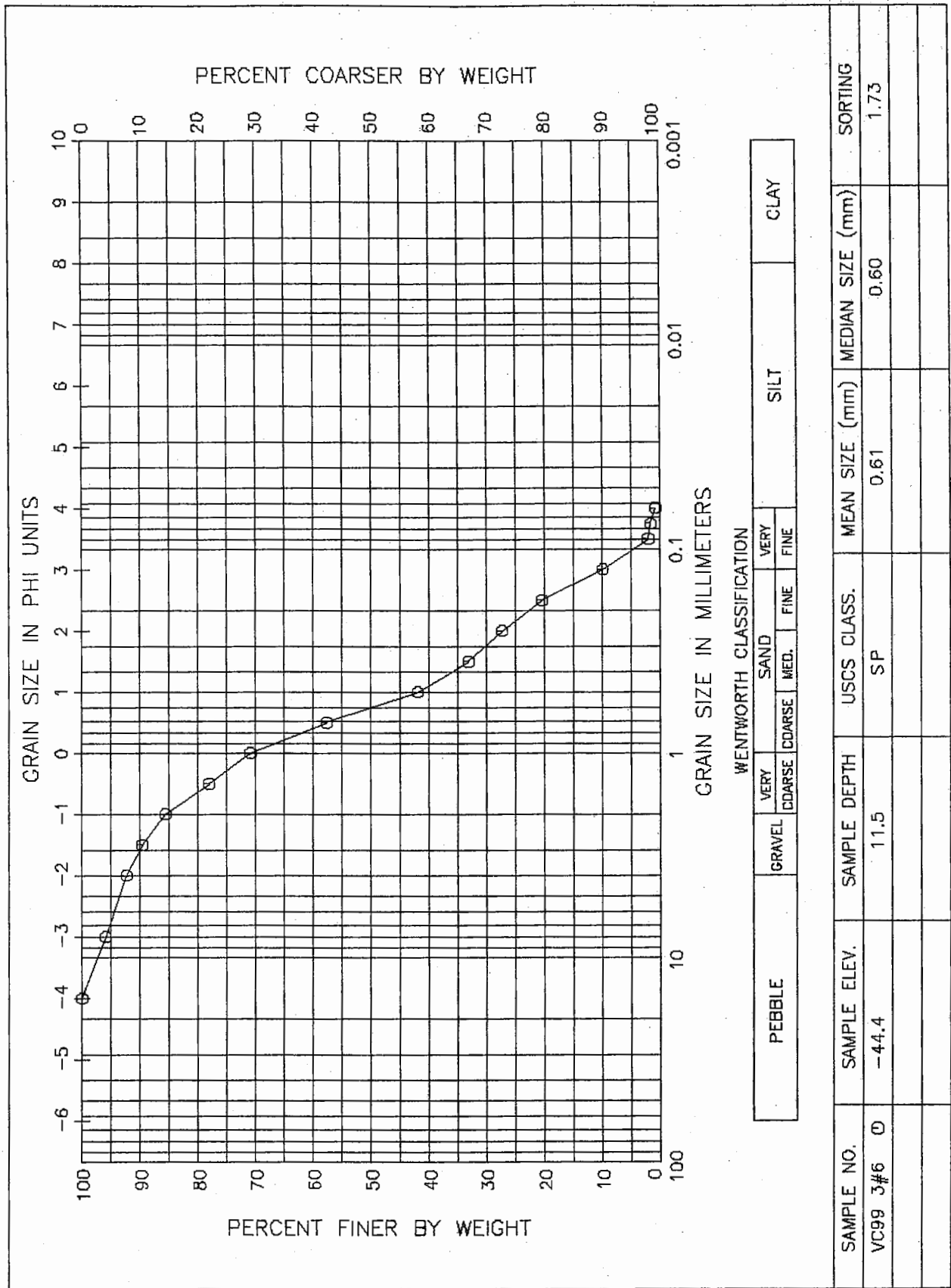




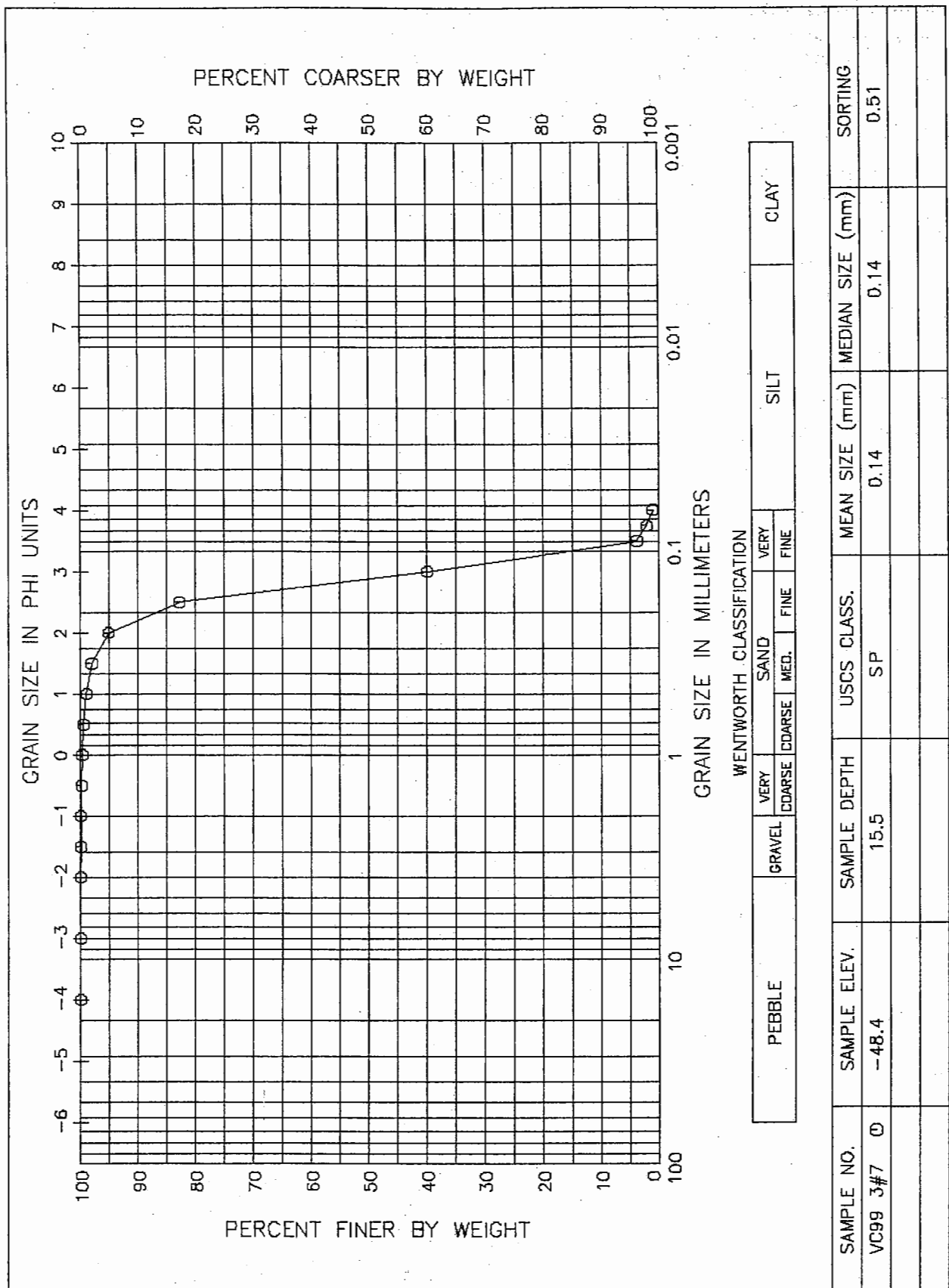


SAMPLE NO.	SAMPLE ELEV.	SAMPLE DEPTH	USCS CLASS.	MEAN SIZE (mm)	MEDIAN SIZE (mm)	SORTING
VC-99#3-5 ①	0.0	9.5	SP	0.19	0.16	0.87

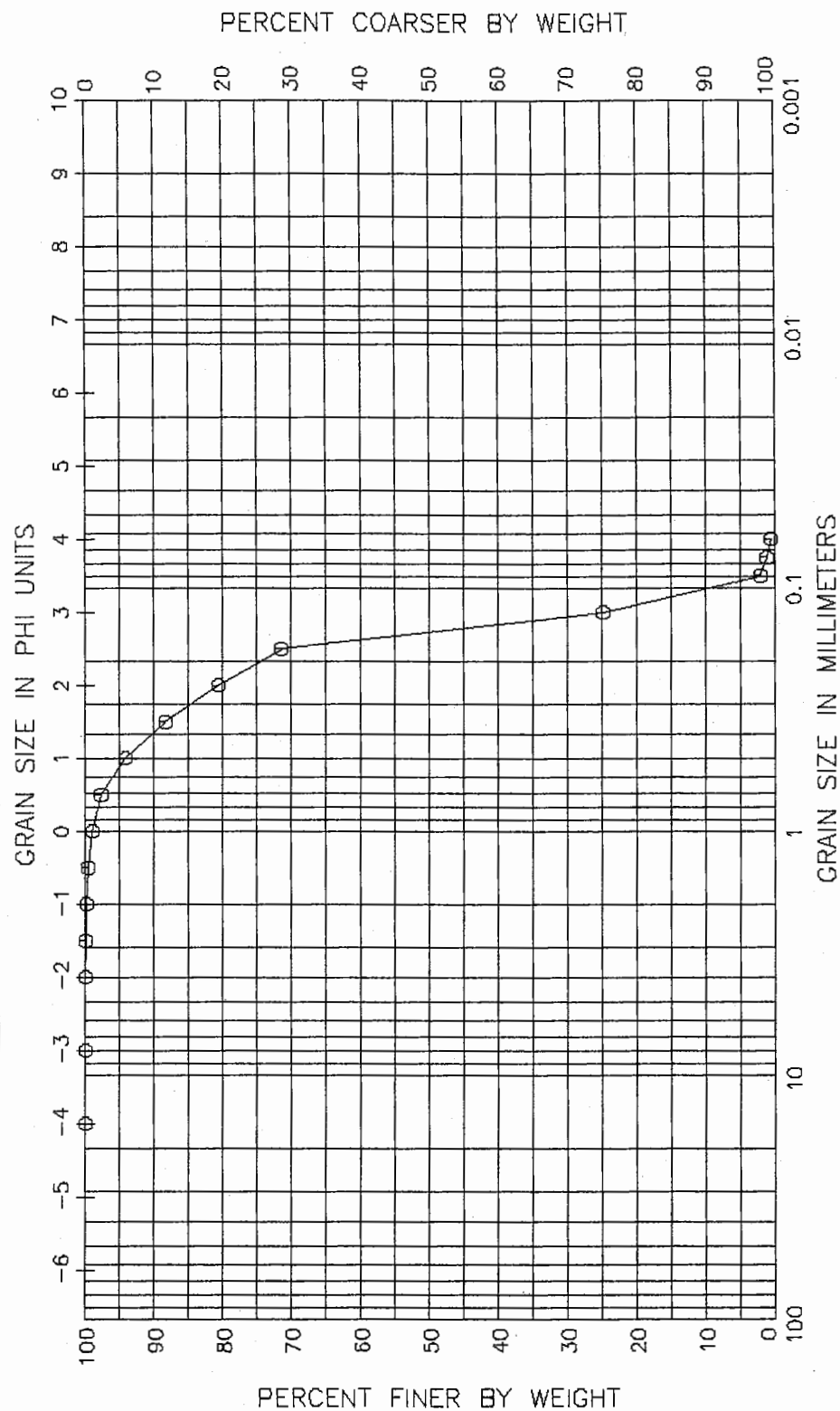
GRAIN SIZE DISTRIBUTION CURVE  
TOWN OF PALM BEACH

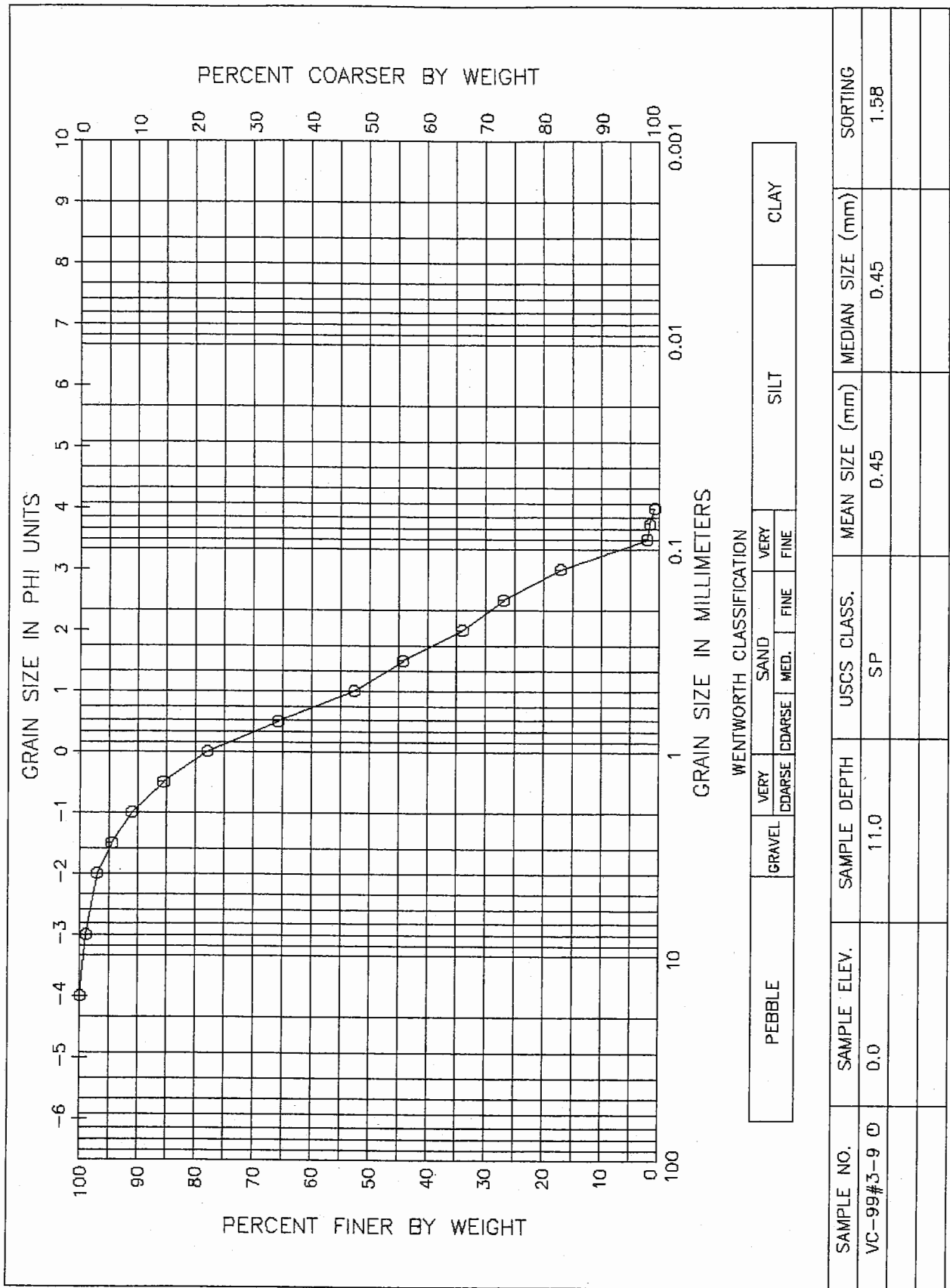


GRAIN SIZE DISTRIBUTION CURVE  
TOWN OF PALM BEACH 4/99









GRAIN SIZE DISTRIBUTION CURVE  
TOWN OF PALM BEACH