

DRILLING LOG		DIVISION: South Atlantic		INSTALLATION: Jacksonville District		SHEET 1 of 1	
1. PROJECT ESTERO ISLAND BEACH RESTORATION		10. SIZE AND TYPE OF BIT 3 5/8"					
(Coordinates or Station)		11. DATUM FOR ELEVATION SHOWN (TBM or MSL)					
2. LOCATION X= 665747 Y= 765365		NGVD					
3. DRILLING AGENCY: Alpine Ocean Seismic Survey Inc.		12. MANUFACTURER'S DESIGNATION OF DRILL		ALPINE PNEUMATIC VIBRACORE			
4. HOLE NO. (As shown on drawing title and file number)		13. TOT NO. OF OVERBURDEN SAMPLES TAKEN		Disturbed: 0.0 Undisturbed: 0.0			
EI-00-02		14. TOTAL NO. OF CORE BOXES					
5. NAME OF DRILLER MAURIZIO ROSSI		15. ELEVATION GROUND WATER					
6. DIRECTION OF HOLE VERTICAL		16. DATE HOLE		Started		Completed	
		8/5/00		1152			
7. THICKNESS OF BURDEN 0.0 FT		17. ELEVATION TOP OF HOLE -15.5 ft					
8. DEPTH DRILLED INTO ROCK N/A		18. TOTAL CORE RECOVERY FOR BORING 65%					
9. TOTAL DEPTH OF HOLE 18.4 ft		19. SIGNATURE OF GEOLOGIST SYED KHALIL					

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	SAMPLE NUMBER	REMARKS
-15.5	0		SILT, some clay, some shell hash/shell fragments, Dark gray (5Y-4/1) (ML)		1	Sample #1, Depth = 1' Mean (mm): 0.21, Phi Sorting: 1.86 Silt: 35.8%
	1					
	2		SILTY CLAY, some shell hash/shell fragments/ whole shell, Dark gray (5Y-4/1) (ML-CL)		2	Sample #2, Depth = 3.0' Mean (mm): 0.40, Phi Sorting: 2.07 Silt: 15.5%
	3					
-19.9	4					
-21	5		SILTY SAND, mixed zone, mottled, White (5Y-8/1) - Dark gray (5Y-4/1), sand/silt/clay (SM)		3	Sample #3, Depth = 5.0' Mean (mm): 0.27, Phi Sorting: 1.61 Silt: 15.5
	6					
	7		SILTY CLAY, Olive (5Y-4/3 - 4/4), (ML-CL)			
-22.7	8					
	9		SILTY SAND, fine-grained, White (5Y-8/1) (SM)		4	Sample #4, Depth = 7.7' Mean (mm): 0.15, Phi Sorting: 0.76 Silt: 12.7%
-23.9	10					
	11		mixed zone, fine-grained, White (5Y-8/1), little silty clay, Dark gray (5Y-4/1) (SP) (-23.9' to -25.7')			
-25.7	12					
	13		CARBONATE CLASTS, embedded in carbonate fines, very hard and compact. Mottle colored Gray (5Y-5/1) from 10.2' to 10.8' and Yellow (10Y-7/4) from 10.8' to 12.3'. (GP)			
-27.8	14					
	15					
	16					
	17					
	18		NO RECOVERY			
-33.9	19					
	20		End of Boring			
	21					
	22		Note:			
	23		1) Soils are field visually classified in accordance with the Unified Soil Classification System.			
	24					

PROJECT: Estero Beach Restoration	HOLE NUMBER:
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LAT - LONG

26 26.359 N  
81 58.238 W

## GRADATION ANALYSIS REPORT

ESTERO VC 2000

TESTED BY: ID ON: 9/00

SAMPLE NO.: EI-00-02#1

SAMPLE ELEV. (FT. NGVD): 1.0

SAMPLE DEPTH (FT.): 1.0

SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP-SM

DRY SAMPLE WEIGHT (GRAMS): 107.44

SAMPLE WEIGHT AFTER WASH (GRAMS): 77.19

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	2.88	2.68	97.32
7	-1.50	2.800	6.01	5.59	94.41
10	-1.00	2.000	9.15	8.52	91.48
14	-0.50	1.400	12.51	11.64	88.36
18	0.00	1.000	15.28	14.22	85.78
25	0.50	0.710	18.66	17.37	82.63
35	1.00	0.500	21.86	20.35	79.65
45	1.50	0.355	24.70	22.99	77.01
60	2.00	0.250	28.62	26.64	73.36
80	2.50	0.180	32.11	29.89	70.11
120	3.00	0.125	43.26	40.26	59.74
170	3.50	0.090	66.85	62.22	37.78
200	3.75	0.075	68.95	64.18	35.82
230	4.00	0.063	91.30	84.98	15.02
PAN			107.43	99.99	0.01

PHI(5): -1.60

PHI(16): 0.28

PHI(25): 1.78

PHI(50): 3.22

PHI(75): 3.88

PHI(84): 3.99

PHI(95): 4.12

SIEVE LOSS(g): 0.01

SILT/CLAY: 35.82%

SKEWNESS: -1.059

KURTOSIS: 1.114

## GRAPHIC METHOD

MEAN (PHI): 2.00

SORTING: 1.85

MEAN (mm): 0.25

MEDIAN (mm): 0.11

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

## MOMENT METHOD

MEAN (PHI): 2.23

SORTING: 1.86

MEAN (mm): 0.21

DATA FILE NAME: EI-00-02#1.tab



## GRADATION ANALYSIS REPORT

ESTERO VC 2000

TESTED BY: ID ON: 9/00

SAMPLE NO.: EI-00-02#2

SAMPLE ELEV. (FT. NGVD): 3.0

SAMPLE DEPTH (FT.): 3.0

SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP-SM

DRY SAMPLE WEIGHT (GRAMS): 96.59

SAMPLE WEIGHT AFTER WASH (GRAMS): 84.31

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	8.35	8.64	91.36
7	-1.50	2.800	13.64	14.12	85.88
10	-1.00	2.000	18.73	19.39	80.61
14	-0.50	1.400	23.35	24.17	75.83
18	0.00	1.000	26.36	27.29	72.71
25	0.50	0.710	28.85	29.87	70.13
35	1.00	0.500	32.02	33.15	66.85
45	1.50	0.355	37.18	38.49	61.51
60	2.00	0.250	44.47	46.04	53.96
80	2.50	0.180	52.87	54.74	45.26
120	3.00	0.125	66.85	69.21	30.79
170	3.50	0.090	78.75	81.53	18.47
200	3.75	0.075	81.64	84.52	15.48
230	4.00	0.063	89.80	92.97	7.03
PAN			96.58	99.99	0.01

PHI (5): -2.42

PHI (16): -1.32

PHI (25): -0.37

PHI (50): 2.23

PHI (75): 3.23

PHI (84): 3.71

PHI (95): 4.06

SIEVE LOSS (g): 0.01

SILT/CLAY: 15.48%

SKEWNESS: -0.560

KURTOSIS: 0.737

## GRAPHIC METHOD

MEAN (PHI): 1.25

SORTING: 2.51

MEAN (mm): 0.42

MEDIAN (mm): 0.21

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

## MOMENT METHOD

MEAN (PHI): 1.33

SORTING: 2.07

MEAN (mm): 0.40

DATA FILE NAME: EI-00-02#2.TAB

## GRADATION ANALYSIS REPORT

ESTERO VC 2000

TESTED BY: ID ON: 9/00

SAMPLE NO.: EI-00-02#3

SAMPLE ELEV. (FT. NGVD): 5.0

SAMPLE DEPTH (FT.): 5.0

SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP-SM

DRY SAMPLE WEIGHT (GRAMS): 99.42

SAMPLE WEIGHT AFTER WASH (GRAMS): 94.51

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	0.00	0.00	100.00
14	-0.50	1.400	0.04	0.04	99.96
18	0.00	1.000	0.08	0.08	99.92
25	0.50	0.710	0.25	0.25	99.75
35	1.00	0.500	1.71	1.72	98.28
45	1.50	0.355	7.42	7.46	92.54
60	2.00	0.250	18.57	18.68	81.32
80	2.50	0.180	27.51	27.67	72.33
120	3.00	0.125	52.29	52.60	47.40
170	3.50	0.090	83.83	84.32	15.68
200	3.75	0.075	84.00	84.49	15.51
230	4.00	0.063	96.52	97.09	2.91
PAN			99.41	99.99	0.01

PHI(5): 1.29

PHI(16): 1.88

PHI(25): 2.35

PHI(50): 2.95

PHI(75): 3.35

PHI(84): 3.49

PHI(95): 3.96

SIEVE LOSS(g): 0.01

SILT/CLAY: 15.51%

SKEWNESS: -0.404

KURTOSIS: 1.094

## GRAPHIC METHOD

MEAN (PHI): 2.71

SORTING: 0.81

MEAN (mm): 0.15

MEDIAN (mm): 0.13

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

## MOMENT METHOD

MEAN (PHI): 2.77

SORTING: 0.77

MEAN (mm): 0.15

DATA FILE NAME: EI-00-02#3.tab

## GRADATION ANALYSIS REPORT

ESTERO VC 2000

TESTED BY: ID ON: 9/00

SAMPLE NO.: EI-00-02#4

SAMPLE ELEV. (FT. NGVD): 7.7

SAMPLE DEPTH (FT.): 7.7

SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP-SM

DRY SAMPLE WEIGHT (GRAMS): 98.12

SAMPLE WEIGHT AFTER WASH (GRAMS): 96.13

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	0.00	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	0.00	0.00	100.00
14	-0.50	1.400	0.00	0.00	100.00
18	0.00	1.000	0.02	0.02	99.98
25	0.50	0.710	0.16	0.16	99.84
35	1.00	0.500	1.72	1.75	98.25
45	1.50	0.355	6.95	7.08	92.92
60	2.00	0.250	18.76	19.12	80.88
80	2.50	0.180	28.37	28.91	71.09
120	3.00	0.125	53.13	54.15	45.85
170	3.50	0.090	84.52	86.14	13.86
200	3.75	0.075	85.66	87.30	12.70
230	4.00	0.063	96.44	98.29	1.71
PAN			98.11	99.99	0.01

PHI (5): 1.30

PHI (16): 1.87

PHI (25): 2.30

PHI (50): 2.92

PHI (75): 3.33

PHI (84): 3.47

PHI (95): 3.93

SIEVE LOSS (g): 0.01

SILT/CLAY: 12.70%

SKEWNESS: -0.380

KURTOSIS: 1.047

## GRAPHIC METHOD

MEAN (PHI): 2.70

SORTING: 0.80

MEAN (mm): 0.15

MEDIAN (mm): 0.13

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

## MOMENT METHOD

MEAN (PHI): 2.76

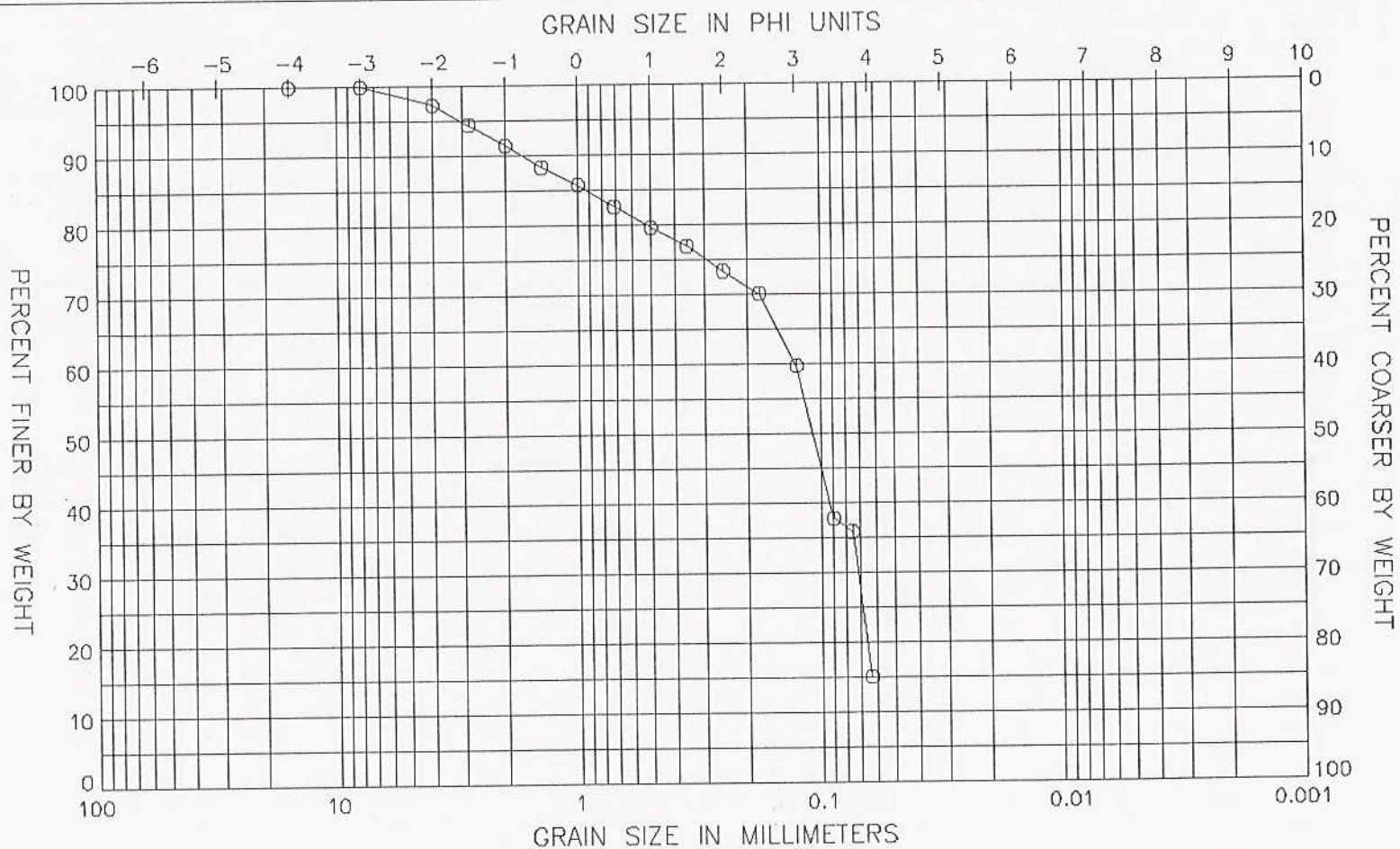
SORTING: 0.76

MEAN (mm): 0.15

DATA FILE NAME: EI-00-02#4.TAB



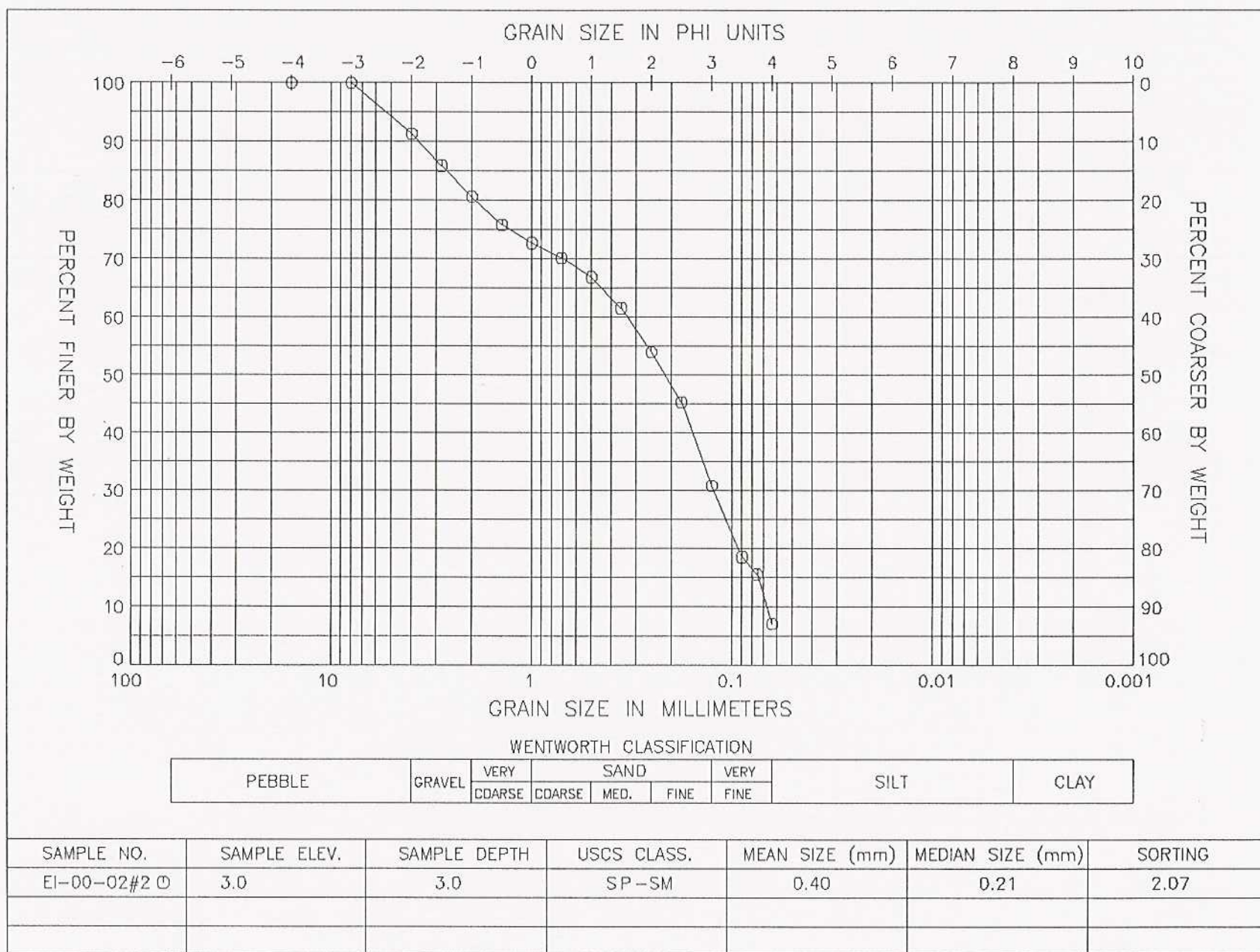
GRAIN SIZE DISTRIBUTION CURVE  
ESTERO VC 2000



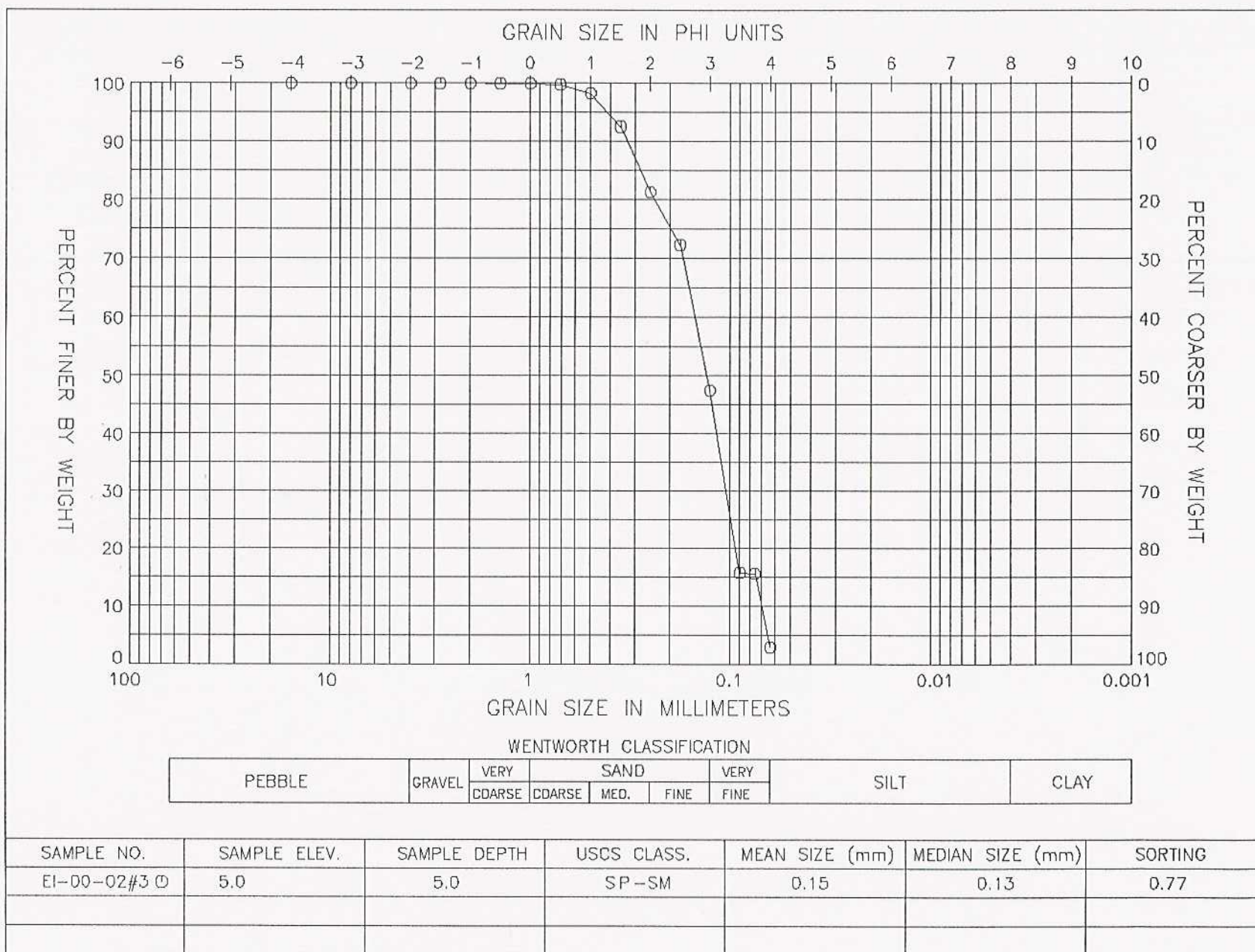
WENTWORTH CLASSIFICATION								
PEBBLE	GRAVEL	VERY	SAND			VERY	SILT	CLAY
		COARSE	COARSE	MED.	FINE	FINE		

SAMPLE NO.	SAMPLE ELEV.	SAMPLE DEPTH	USCS CLASS.	MEAN SIZE (mm)	MEDIAN SIZE (mm)	SORTING
EI-00-02#1 Ø	1.0	1.0	SP-SM	0.21	0.11	1.86

# GRAIN SIZE DISTRIBUTION CURVE ESTERO VC 2000



GRAIN SIZE DISTRIBUTION CURVE  
ESTERO VC 2000





GRAIN SIZE DISTRIBUTION CURVE  
ESTERO VC 2000

