

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"	
2. LOCATION		(Coordinates or Station) X= 661988 Y= 765973		11. DATUM FOR ELEVATION SHOWN		(TBM or MSL) 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) EI-00-19		13. TOT NO. OF OVERBURDEN SAMPLES TAKEN		Disturbed: 0.0 Undisturbed: 0.0	
5. NAME OF DRILLER		MAURIZIO ROSSI		14. TOTAL NO. OF CORE BOXES			
6. DIRECTION OF HOLE		VERTICAL		15. ELEVATION GROUND WATER			
7. THICKNESS OF BURDEN		0.0 FT		16. DATE HOLE		Started Completed 8/15/00 1027	
8. DEPTH DRILLED INTO ROCK		N/A		17. ELEVATION TOP OF HOLE		-6.0 ft	
9. TOTAL DEPTH OF HOLE		20 ft		18. TOTAL CORE RECOVERY FOR BORING		67%	
				19. SIGNATURE OF GEOLOGIST		SYED KHALIL	

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	SAMPLE NUMBER	REMARKS
-6	0					
	1		SAND, fine-grained, trace shell hash/shell fragments & whole shell, Light gray (5Y-7/1) (SP)		1	Sample #1, Depth = 1.5' Mean (mm): 0.10, Phi Sorting: 0.66 Silt: 4.8%
-8.7	2					
-9.5	3		fine-grained, Light gray (5Y-7/1) (SP) from -8.7' to -9.5'			
-10.4	4		medium-grained, some shell hash/shell fragments, Light gray (5Y-7/1) (SP) from -9.5' to -10.4'		2	Sample #2, Depth = 4.0' Mean (mm): 0.21, Phi Sorting: 1.35 Silt: 4.3%
	5					
	6		fine-grained, trace shell hash/shell fragments, Light gray (5Y-7/1) (SP) -10.4 to -13.4'		3	Sample #3, Depth = 6.0' Mean (mm): 0.16, Phi Sorting: 0.88 Silt: 4.4%
-13.4	7					
-14.4	8		SILTY SAND, fine-grained, little clay, trace shell hash/shell fragments & whole shell 1.5", Gray (5Y-5/1) (SM)		4	Sample #4, Depth = 8.0' Mean (mm): 0.17, Phi Sorting: 1.68 Silt: 25.5%
	9				5	Sample #5, Depth = 9.5' Mean (mm): 0.24, Phi Sorting: 2.13 Silt: 25.6%
	10					
	11		SILTY CLAY, soft, some shell hash/shell fragments, Gray (5Y-5/1) (ML)			
	12					
-19.5	13					
	14					
	15					
	16					
	17		NO RECOVERY			
	18					
	19					
-26	20					
	21		End of Boring			
	22		Note: 1) Soils are field visually classified in accordance with the Unified Soil Classification System.			LAT - LONG 26 26.461 N 81 58.935 W
	23					
	24					

GRADATION ANALYSIS REPORT

ESTERO VC 2000

TESTED BY: ID ON: 9/00

SAMPLE NO.: EI-00-19#1

SAMPLE ELEV. (FT. NGVD): 1.5

SAMPLE DEPTH (FT.): 1.5

SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 98.25

SAMPLE WEIGHT AFTER WASH (GRAMS): 96.23

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	0.07	0.07	99.93
14	-0.50	1.400	0.08	0.08	99.92
18	0.00	1.000	1.26	1.28	98.72
25	0.50	0.710	1.76	1.79	98.21
35	1.00	0.500	4.06	4.13	95.87
45	1.50	0.355	4.14	4.21	95.79
60	2.00	0.250	4.14	4.21	95.79
80	2.50	0.180	4.31	4.39	95.61
120	3.00	0.125	5.21	5.30	94.70
170	3.50	0.090	57.46	58.48	41.52
200	3.75	0.075	93.53	95.20	4.80
230	4.00	0.063	97.07	98.80	1.20
PAN			98.24	99.99	0.01

PHI (5): 2.83

PHI (16): 3.10

PHI (25): 3.19

PHI (50): 3.42

PHI (75): 3.61

PHI (84): 3.67

PHI (95): 3.75

SIEVE LOSS (g): 0.01

SILT/CLAY: 4.80%

SKEWNESS: -0.449

KURTOSIS: 0.877

GRAPHIC METHOD

MEAN (PHI): 3.36

SORTING: 0.29

MEAN (mm): 0.10

MEDIAN (mm): 0.09

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 3.28

SORTING: 0.66

MEAN (mm): 0.10

DATA FILE NAME: EI-00-19#1.TAB

GRADATION ANALYSIS REPORT
ESTERO VC 2000
TESTED BY: ID ON: 9/00

SAMPLE NO.: EI-00-19#2
SAMPLE ELEV. (FT. NGVD): 4.0
SAMPLE DEPTH (FT.): 4.0
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 97.33
SAMPLE WEIGHT AFTER WASH (GRAMS): 93.65

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	0.25	0.26	99.74
5	-2.00	4.000	1.01	1.04	98.96
7	-1.50	2.800	1.76	1.81	98.19
10	-1.00	2.000	3.28	3.37	96.63
14	-0.50	1.400	5.74	5.90	94.10
18	0.00	1.000	8.69	8.93	91.07
25	0.50	0.710	13.06	13.42	86.58
35	1.00	0.500	17.52	18.00	82.00
45	1.50	0.355	21.22	21.80	78.20
60	2.00	0.250	26.80	27.54	72.46
80	2.50	0.180	35.50	36.47	63.53
120	3.00	0.125	63.64	65.39	34.61
170	3.50	0.090	90.88	93.37	6.63
200	3.75	0.075	93.13	95.68	4.32
230	4.00	0.063	95.39	98.01	1.99
PAN			97.33	100.00	0.00

PHI (5): -0.68	PHI (16): 0.78	PHI (25): 1.78
PHI (50): 2.73	PHI (75): 3.17	PHI (84): 3.33
PHI (95): 3.68		

SIEVE LOSS (g): 0.00	SILT/CLAY: 4.32%
SKEWNESS: -0.968	KURTOSIS: 1.281

GRAPHIC METHOD

MEAN (PHI): 1.97	SORTING: 1.28
MEAN (mm): 0.26	MEDIAN (mm): 0.15
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD	

MOMENT METHOD

MEAN (PHI): 2.23	SORTING: 1.35
MEAN (mm): 0.21	

DATA FILE NAME: EI-00-19#2.TAB

GRADATION ANALYSIS REPORT

ESTERO VC 2000

TESTED BY: ID ON: 9/00

SAMPLE NO.: EI-00-19#3

SAMPLE ELEV. (FT. NGVD): 6.0

SAMPLE DEPTH (FT.): 6.0

SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 94.61

SAMPLE WEIGHT AFTER WASH (GRAMS): 90.80

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	0.07	0.07	99.93
7	-1.50	2.800	0.25	0.26	99.74
10	-1.00	2.000	0.70	0.74	99.26
14	-0.50	1.400	1.62	1.71	98.29
18	0.00	1.000	3.06	3.23	96.77
25	0.50	0.710	4.79	5.06	94.94
35	1.00	0.500	6.65	7.03	92.97
45	1.50	0.355	8.27	8.74	91.26
60	2.00	0.250	9.21	9.73	90.27
80	2.50	0.180	17.77	18.78	81.22
120	3.00	0.125	64.31	67.97	32.03
170	3.50	0.090	88.58	93.63	6.37
200	3.75	0.075	90.49	95.65	4.35
230	4.00	0.063	92.67	97.95	2.05
PAN			94.61	100.00	0.00

PHI (5): 0.48

PHI (16): 2.35

PHI (25): 2.56

PHI (50): 2.82

PHI (75): 3.14

PHI (84): 3.31

PHI (95): 3.67

SIEVE LOSS (g): 0.00

SILT/CLAY: 4.35%

SKEWNESS: -1.534

KURTOSIS: 2.277

GRAPHIC METHOD

MEAN (PHI): 2.53

SORTING: 0.48

MEAN (mm): 0.17

MEDIAN (mm): 0.14

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.64

SORTING: 0.88

MEAN (mm): 0.16

DATA FILE NAME: EI-00-19#3.TAB

GRADATION ANALYSIS REPORT

ESTERO VC 2000

TESTED BY: ID ON: 8/00

SAMPLE NO.: EI-00-19#4

SAMPLE ELEV. (FT. NGVD): 8.0

SAMPLE DEPTH (FT.): 8.0

SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP-SM

DRY SAMPLE WEIGHT (GRAMS): 107.07

SAMPLE WEIGHT AFTER WASH (GRAMS): 80.95

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	0.86	0.80	99.20
5	-2.00	4.000	4.36	4.07	95.93
7	-1.50	2.800	5.95	5.56	94.44
10	-1.00	2.000	7.00	6.54	93.46
14	-0.50	1.400	8.26	7.71	92.29
18	0.00	1.000	10.26	9.58	90.42
25	0.50	0.710	11.29	10.54	89.46
35	1.00	0.500	13.98	13.06	86.94
45	1.50	0.355	15.12	14.12	85.88
60	2.00	0.250	16.38	15.30	84.70
80	2.50	0.180	18.39	17.18	82.82
120	3.00	0.125	34.32	32.05	67.95
170	3.50	0.090	72.39	67.61	32.39
200	3.75	0.075	79.80	74.53	25.47
230	4.00	0.063	93.77	87.58	12.42
PAN			107.06	99.99	0.01

PHI (5): -1.69

PHI (16): 2.19

PHI (25): 2.76

PHI (50): 3.25

PHI (75): 3.76

PHI (84): 3.93

PHI (95): 4.14

SIEVE LOSS (g): 0.01

SILT/CLAY: 25.47%

SKEWNESS: -2.322

KURTOSIS: 2.399

GRAPHIC METHOD

MEAN (PHI): 2.37

SORTING: 0.87

MEAN (mm): 0.19

MEDIAN (mm): 0.10

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.58

SORTING: 1.68

MEAN (mm): 0.17

DATA FILE NAME: EI-00-19#4.TAB

GRADATION ANALYSIS REPORT

ESTERO VC 2000

TESTED BY: ID

ON: 8/00

SAMPLE NO.: EI-00-19#5

SAMPLE ELEV. (FT. NGVD): 9.5

SAMPLE DEPTH (FT.): 9.5

SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP-SM

DRY SAMPLE WEIGHT (GRAMS): 99.04

SAMPLE WEIGHT AFTER WASH (GRAMS): 75.58

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	1.18	1.19	98.81
5	-2.00	4.000	7.14	7.21	92.79
7	-1.50	2.800	10.56	10.66	89.34
10	-1.00	2.000	13.21	13.34	86.66
14	-0.50	1.400	16.17	16.33	83.67
18	0.00	1.000	18.20	18.38	81.62
25	0.50	0.710	20.41	20.61	79.39
35	1.00	0.500	22.19	22.41	77.59
45	1.50	0.355	23.62	23.85	76.15
60	2.00	0.250	25.59	25.84	74.16
80	2.50	0.180	27.70	27.97	72.03
120	3.00	0.125	35.73	36.08	63.92
170	3.50	0.090	66.18	66.82	33.18
200	3.75	0.075	73.68	74.39	25.61
230	4.00	0.063	86.80	87.64	12.36
PAN			99.02	99.98	0.02

PHI (5): -2.37

PHI (16): -0.55

PHI (25): 1.79

PHI (50): 3.23

PHI (75): 3.76

PHI (84): 3.93

PHI (95): 4.14

SIEVE LOSS (g): 0.02

SILT/CLAY: 25.61%

SKEWNESS: -1.044

KURTOSIS: 1.352

GRAPHIC METHOD

MEAN (PHI): 1.67

SORTING: 2.24

MEAN (mm): 0.31

MEDIAN (mm): 0.11

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

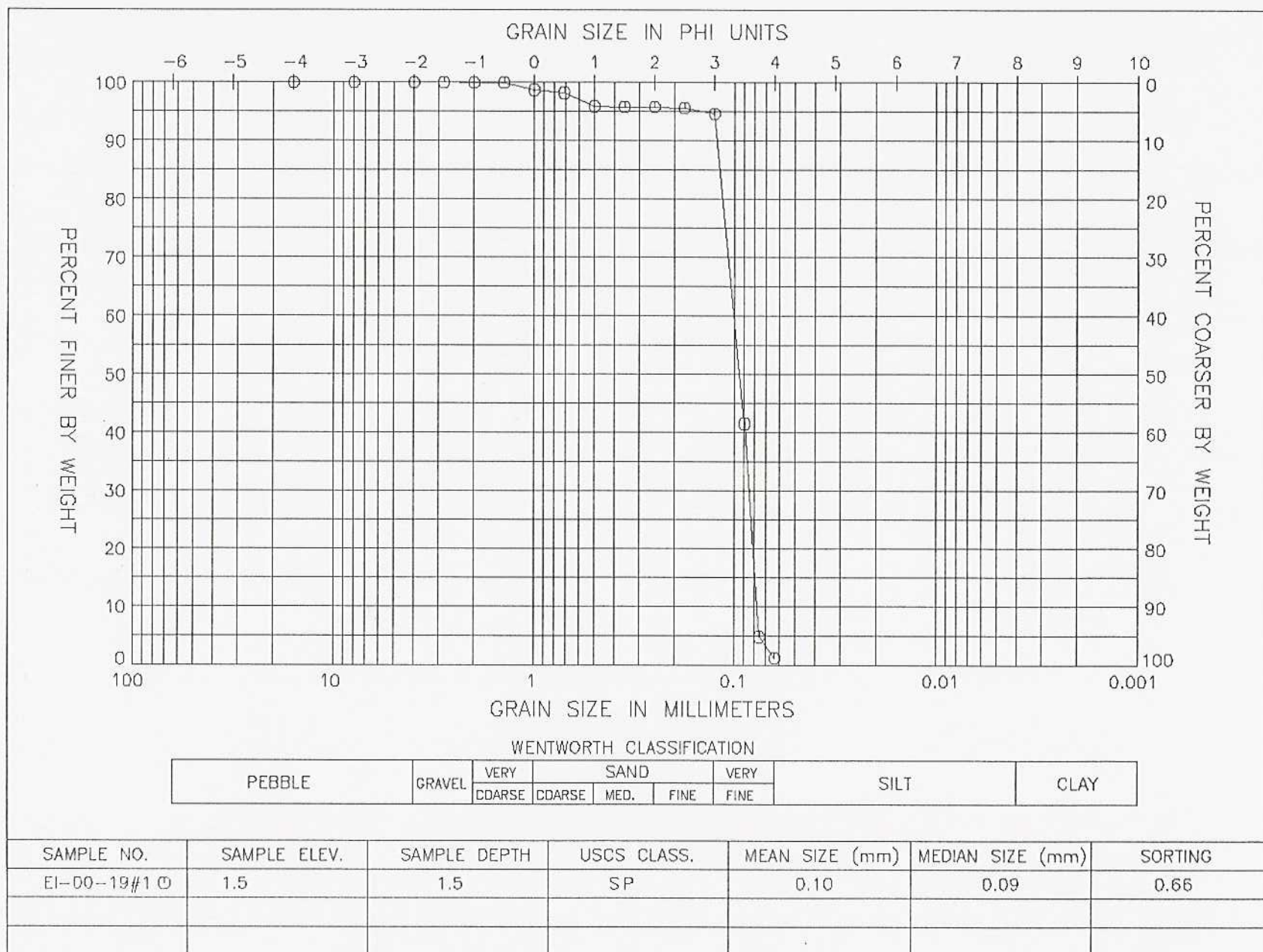
MEAN (PHI): 2.07

SORTING: 2.13

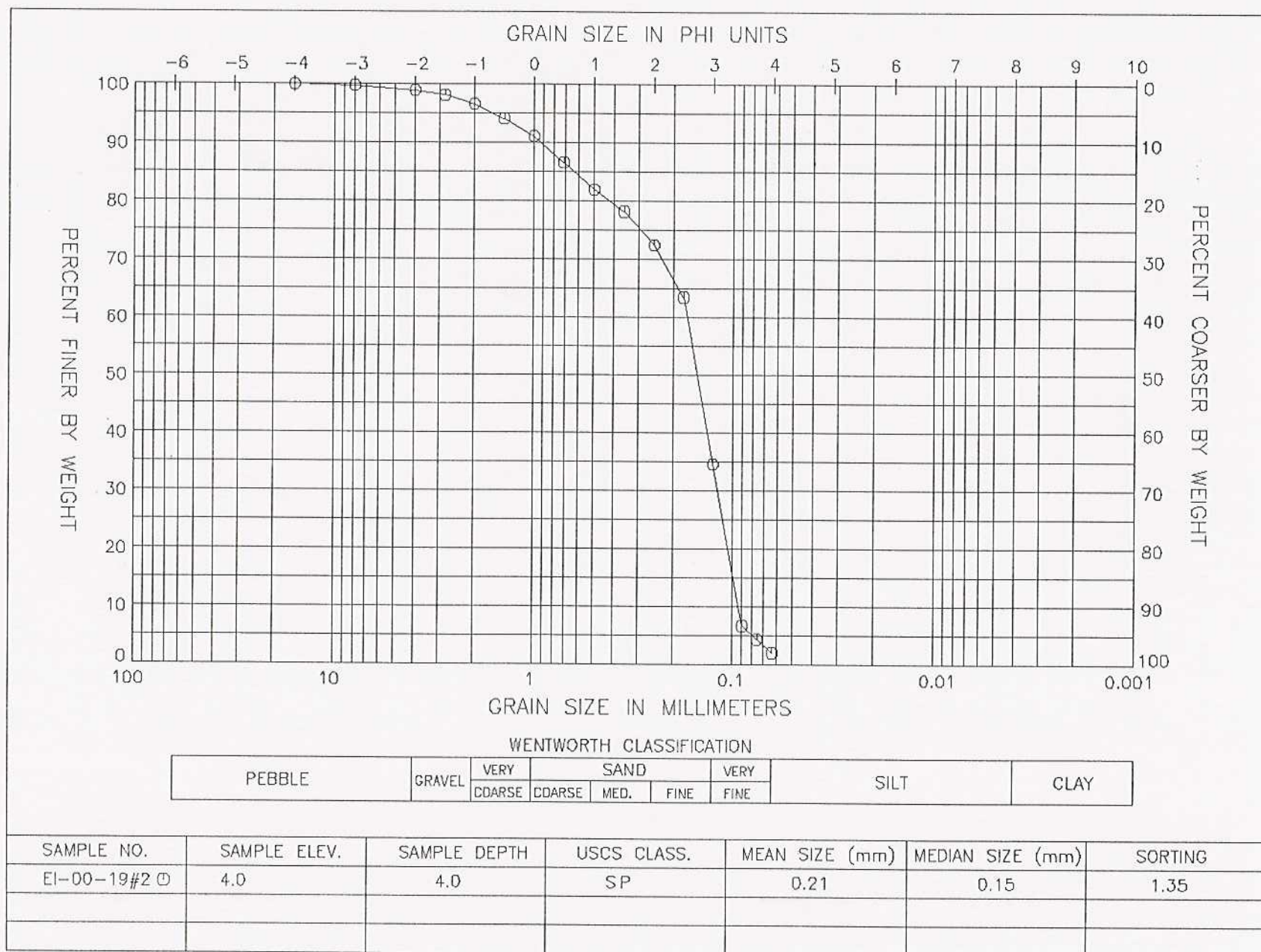
MEAN (mm): 0.24

DATA FILE NAME: EI-00-19#5.TAB

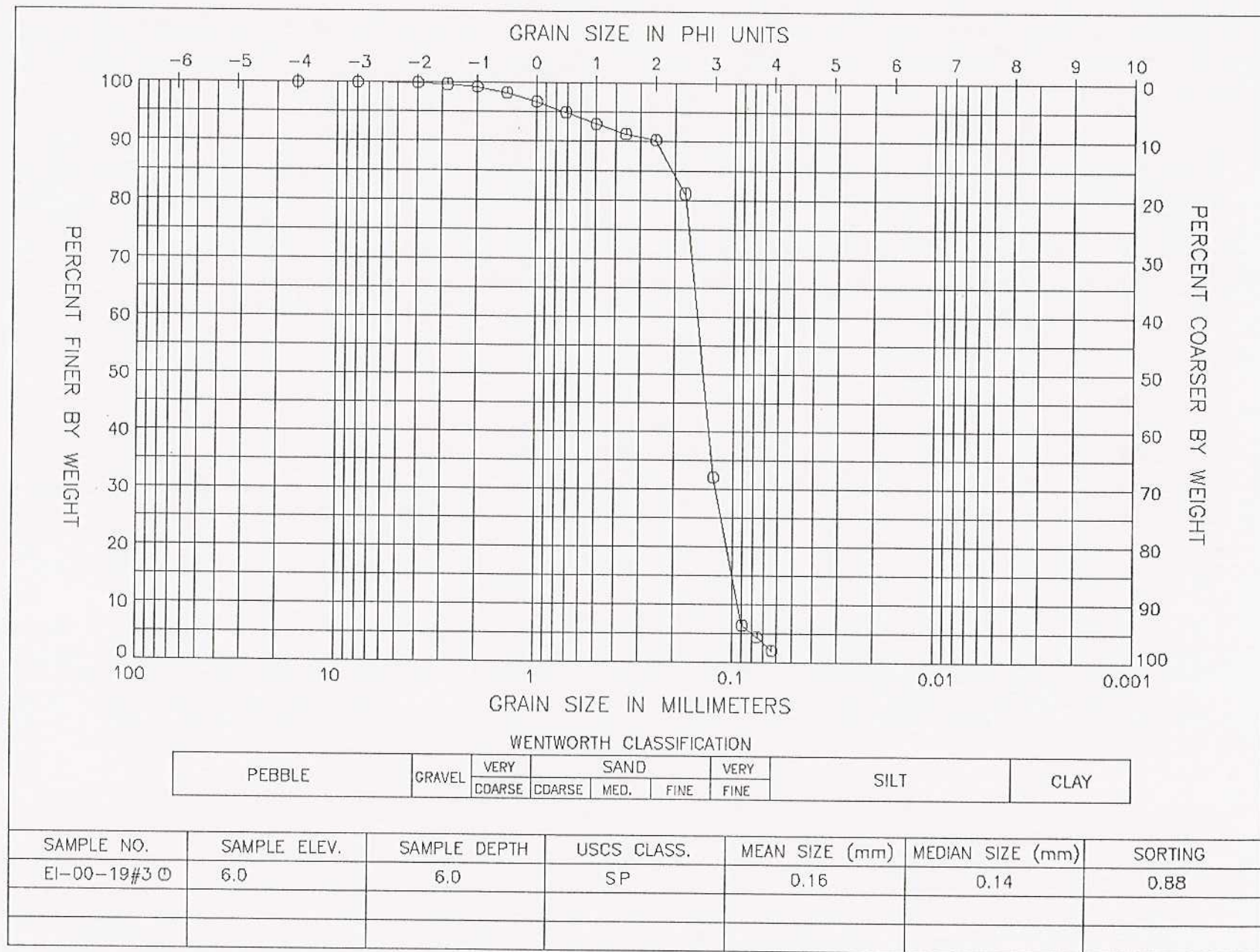
GRAIN SIZE DISTRIBUTION CURVE ESTERO VC 2000



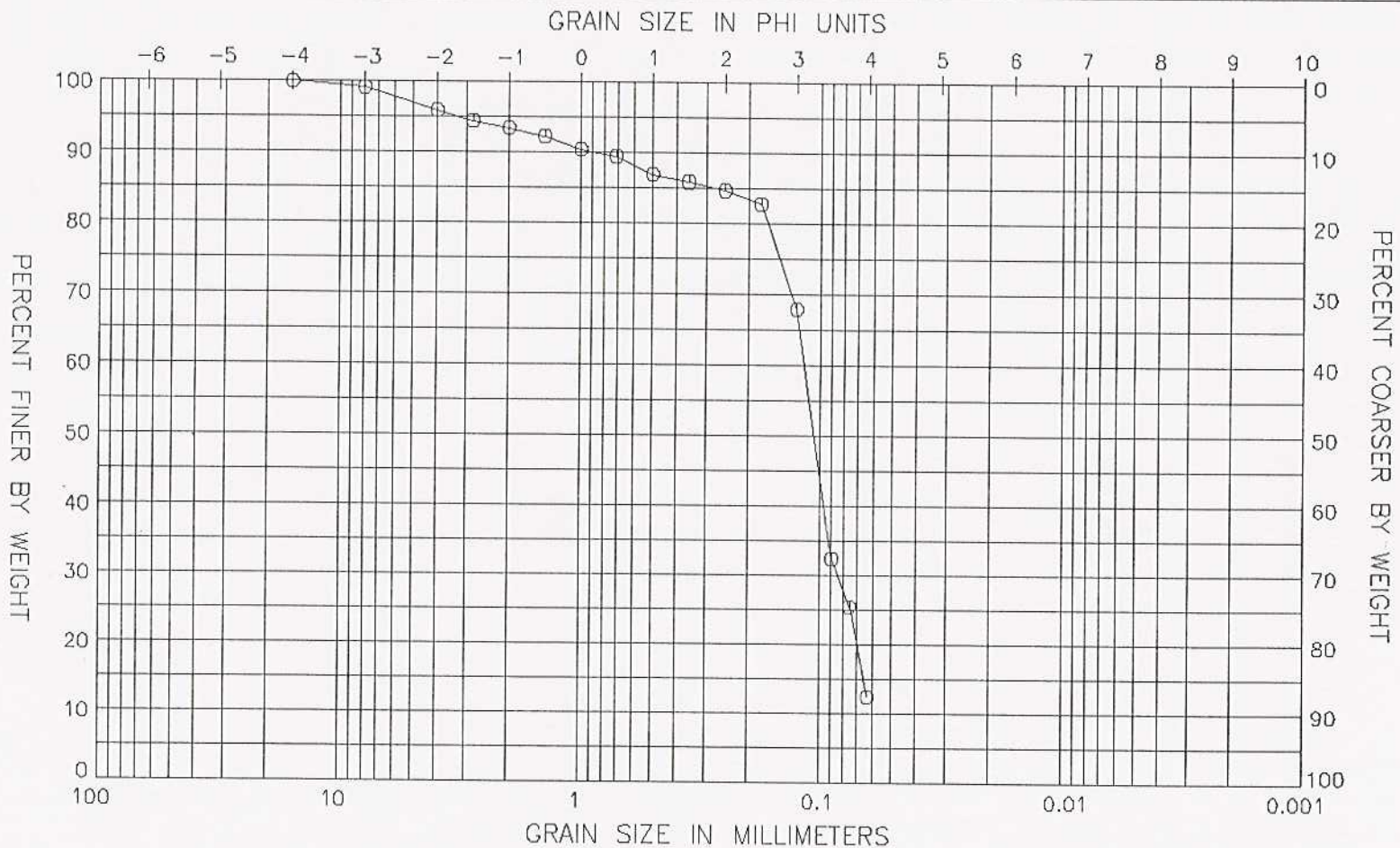
GRAIN SIZE DISTRIBUTION CURVE
ESTERO VC 2000



GRAIN SIZE DISTRIBUTION CURVE ESTERO VC 2000



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-00-19#4 O	8.0	8.0	SP-SM	0.17	0.10	1.68

GRAIN SIZE DISTRIBUTION CURVE
ESTERO VC 2000

