

**ADDENDUM 04 TO THE  
CONTRACT DOCUMENTS**

**FOR**

**CAMINADA HEADLAND BEACH AND DUNE  
RESTORATION – INCREMENT II (BA-143)**

**LAFOURCHE AND JEFFERSON PARISHES  
LOUISIANA**



**LOUISIANA COASTAL PROTECTION  
AND RESTORATION AUTHORITY**

**JULY 14, 2014**

**ADDENDUM 04 TO BID DOCUMENTS**  
**CAMINADA HEADLAND BEACH AND DUNE RESTORATION – INCREMENT II**  
**(BA-45)**  
**FILE NUMBER: CED150001**

**The clarifications and revisions in this addendum supersede the requirements in the Bid Documents dated March 2014. The Successful bidder will be issued a complete revised set of plans and specifications.**

**1. QUESTIONS SUBMITTED BY THE CONTRACTORS**

- 1.1 Question: Please reference Technical Specifications TS-6.4.7 and TS-6.5.4. Please identify the location(s) of the Subsidence Monitoring Control Stations (SMCS).

Answer: Refer to Attachment A of this Addendum.

- 1.2 Question: Please reference Technical Specifications ¶ TS-8.7 as amended, the discussions at the mandatory pre-bid meeting, and the related Q&A in Addendum 01. The configuration and location of the Increment I borrow area cuts or sections that remain undredged significantly impacts the production capabilities and operating efficiency of a dredge working on the Increment II project. To-date, the information that's been made available for the Increment I borrow area is inadequate for contractors to estimate dredge performance capabilities. Please define and provide to bidders a specific area within the Increment I borrow area that will remain undredged after completion of the Increment I project and that must be dredged under Increment II, so contractors can reasonably estimate dredge performance from the borrow area(s).;

Answer: Refer to Addendum 02, dated July 10, 2014, Items 1.4 and 1.6.

- 1.3 Question: Please reference Technical Specifications ¶ TS-13.7.2. This clause establishes beach and dune fill acceptance sections as being 750 feet in continuous length, and requires completion and approval of a full acceptance section before any portion is eligible for partial payment. The beach and dune fill quantity necessary to complete an acceptance section is huge, and by establishing such large acceptance sections, the contract unduly delays contractor's eligibility for partial payments for work performed. We request the acceptance sections be revised to a more reasonable length, on the order of 300 feet.

Answer: No change shall be made to TS-13.7.2.

- 1.4 Question: Please reference Appendix F. Please provide the grain size analysis of the vibratory core samples obtained from the borrow area(s).

Answer: Refer to Attachment B of this Addendum.

1.5 Question: Please reference the contract drawings. The fill area cross sections for Stations 390+00 to 500+00 seem to be missing. Please provide these fill area cross sections.

Answer: Refer to Attachment C of this Addendum. Bidder should renumber remaining Construction Plan sheets accordingly. A complete revised set of Constructions Plans shall be provided to the successful Bidder.

1.6 Question: Please reference Attachment C of Addendum 01. Please provide the X,Y coordinates of the 2010, 2011, and 2013 historical bird nesting data.

Answer: The shorebird data depicted on the maps provided in Addendum 01, dated July 7, 2014 are approximate and were provided for informational purposes only.

1.7 Question: Please consider postponing the bid due date by one week.

Answer: Refer to Addendum 03, dated July 14, 2014.

1.8 Question: Can CPRA offer a delayed Bid Opening date to the Contractor in an effort to allow the Contractor sufficient time to review the data given out in Amendment 2 dated 0710/2014?

Answer: Refer to Addendum 03, dated July 14, 2014.

1.9 Question: Can CPRA provide any new Geotechnical information concerning the material from blocks 13 and 14 of the South Pelto Borrow Areas? Did the contractor completing Increment I dredging encounter unexpected material grain sizes, more shell or shell fragments than expected? Answer: The geotechnical data collected for the borrow area is included as Appendix F of the Contract Documents. To date the material excavated from the borrow area for Increment I has met the Contract Specifications.

- After further review of Appendix F issued with the Contract Documents we have only been able to locate the sieve curves for the following borings from the Borrow Area to be used for the Increment II dredging operations.  
**CEC-11-VC-1 & CEC-11-VC-3**, can CPRA provide the remaining sieve curves from the borings that were taken in the area issued for Increment II dredging?
- If so, can CPRA provide a time extension for the bid opening to allow the Contractor adequate time to review this new data?

Answer: Refer to Attachment B of this Addendum.

1.10 Question: Can CPRA provide the most recent XYZ hydrographic data for the Increment II Borrow Area?

Answer: The bidders are referred to the design survey presented on the Construction Plans.

a. If so, can CPRA offer an extended bid opening date to allow the Contractor sufficient time to analyze this data?

Answer: Refer to Addendum 03, dated July 14, 2014.

## **2. REVISIONS TO THE PLANS**

2.1 Sheet 33: Fill Area Cross Sections, Station 390+00 to 440+00

2.2 Sheet 34: Fill Area Cross Sections, Station 450+00 to 550+00

**Refer to Attachment C for revised Construction Plan Sheets.** Bidder should renumber remaining Construction Plan sheets accordingly. A complete revised set of Constructions Plans shall be provided to the successful Bidder.

## ATTACHMENT A

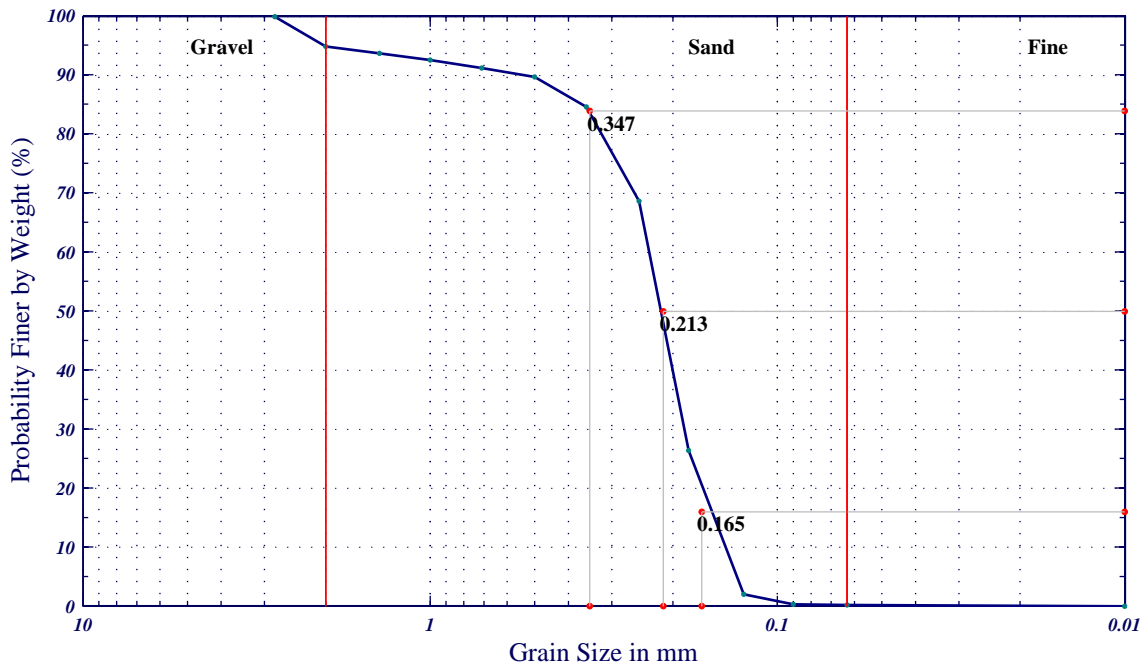
### Subsidence Monitoring Control Station Locations

<b>SUBSIDENCE MONITORING CONTROL STATIONS LOCATIONS</b>		
NAD83, LA STATE PLANE SOUTH, FEET		
<b>SMCS</b>	<b>NORTHING</b>	<b>EASTING</b>
A-1	218,955.09	3,642,430.27
A-2	218,961.97	3,642,443.44
A-3	218,967.76	3,642,457.77
B-1	223,309.57	3,649,063.23
B-2	223,320.63	3,649,073.32
B-3	223,332.17	3,649,082.86
B-4	223,344.15	3,649,092.77
C-1	227,484.94	3,654,501.15
C-2	227,493.68	3,654,513.96
C-2	227,501.89	3,654,525.80

## **ATTACHMENT B**

Borrow Area Grain Size Distribution – Cumulative Probability Curves

**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.139	2.847
D10:	0.155	2.690
D16:	0.165	2.599
D25:	0.177	2.498
D30:	0.186	2.427
D50:	0.213	2.231
D60:	0.229	2.127
D75:	0.275	1.862
D84:	0.347	1.527
D95:	2.022	-1.016
Mean Grain Size:	0.230	2.119
Standard Deviation:	1.882	-0.912

Percent of Gravel (16mm–2mm): 5.08  
 Percent of Sand (<2mm–0.063mm): 94.59  
 Percent of Fines (<0.063mm): 0.33

**Sample ID: CEC-11-VC-1-0**

Sample Depth: 0.0–0.4ft

Easting: 3,509,676\*

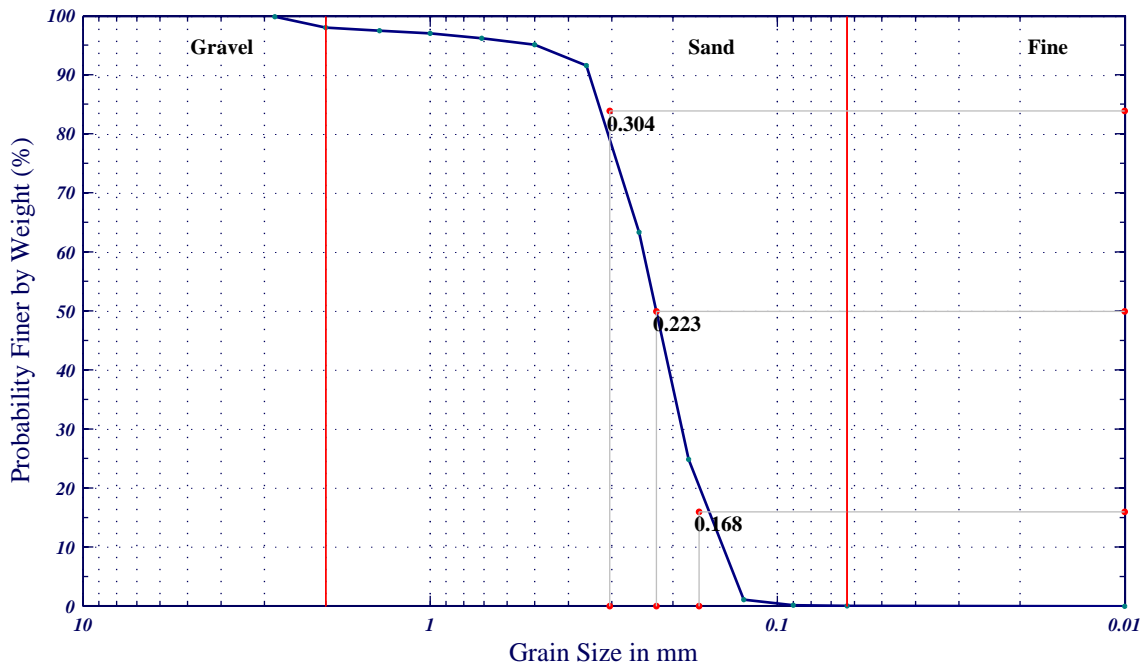
Northing: 151,993\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.144	2.796
D10:	0.159	2.653
D16:	0.168	2.573
D25:	0.180	2.474
D30:	0.190	2.396
D50:	0.223	2.165
D60:	0.242	2.047
D75:	0.274	1.868
D84:	0.304	1.718
D95:	0.483	1.050
Mean Grain Size:	0.225	2.152
Standard Deviation:	1.419	-0.505

Percent of Gravel (16mm–2mm): 1.85  
 Percent of Sand (<2mm–0.063mm): 97.96  
 Percent of Fines (<0.063mm): 0.18

**Sample ID: CEC-11-VC-1-2**

Sample Depth: 1.8–2.2ft

Easting: 3,509,676\*

Northing: 151,993\*

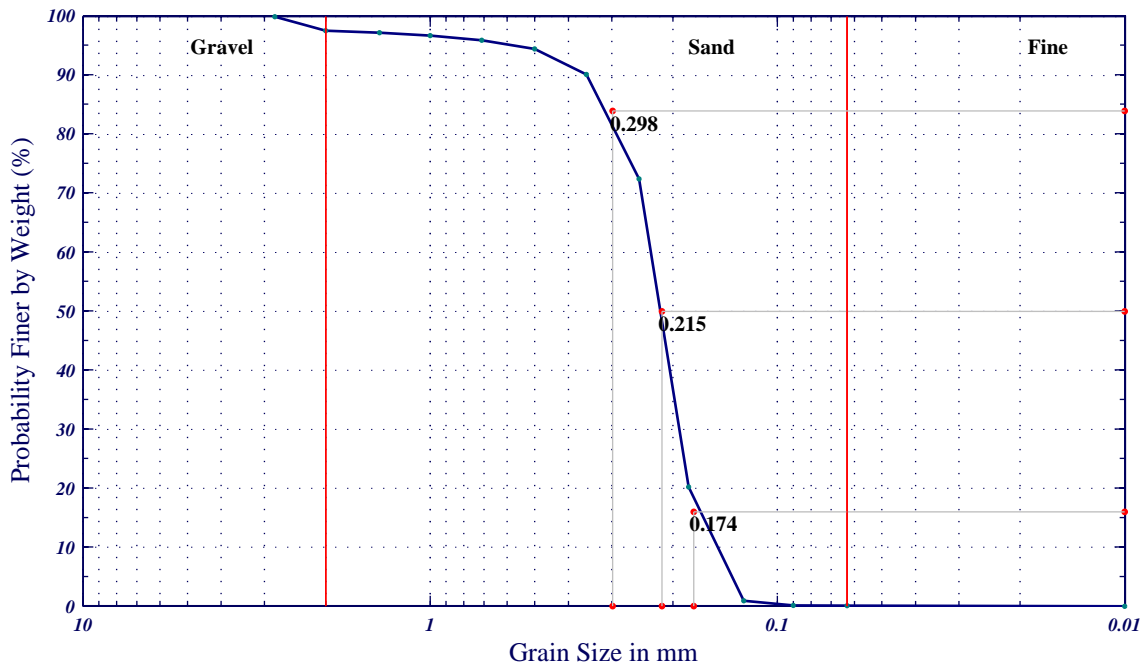
\*Coordinates are feet, LA-1702

OSI No.: 11ES008





## CEC Ship Shoal 2011 Cores Grain Size Distribution–Cumulative Probability Curve



### Sieve Analysis Results: (mm) (phi)

D5:	0.149	2.747
D10:	0.164	2.608
D16:	0.174	2.523
D25:	0.188	2.411
D30:	0.195	2.358
D50:	0.215	2.218
D60:	0.227	2.139
D75:	0.257	1.960
D84:	0.298	1.747
D95:	0.543	0.881
Mean Grain Size:	0.223	2.162
Standard Deviation:	1.419	-0.505

Percent of Gravel (16mm–2mm): 2.38  
 Percent of Sand (<2mm–0.063mm): 97.49  
 Percent of Fines (<0.063mm): 0.14

**Sample ID: CEC-11-VC-1-4**

Sample Depth: 3.8–4.2ft

Easting: 3,509,676\*

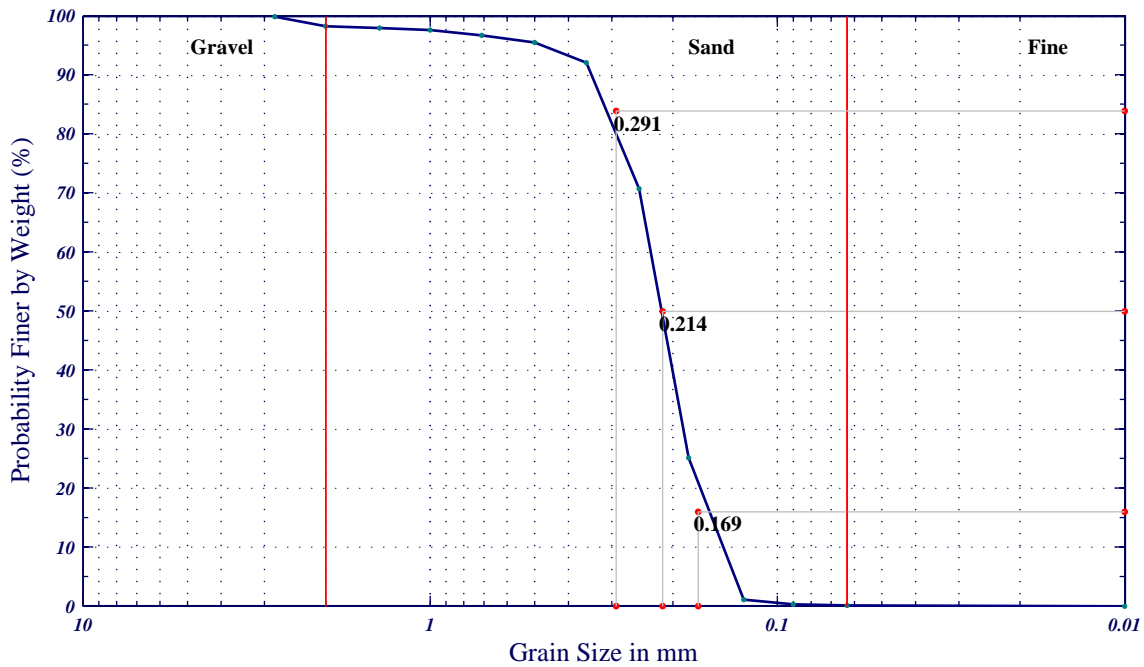
Northing: 151,993\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.144	2.796
D10:	0.160	2.644
D16:	0.169	2.565
D25:	0.180	2.474
D30:	0.188	2.411
D50:	0.214	2.224
D60:	0.228	2.133
D75:	0.260	1.943
D84:	0.291	1.781
D95:	0.458	1.127
Mean Grain Size:	0.219	2.190
Standard Deviation:	1.389	-0.474

Percent of Gravel (16mm–2mm): 1.63  
 Percent of Sand (<2mm–0.063mm): 98.03  
 Percent of Fines (<0.063mm): 0.34

**Sample ID: CEC-11-VC-1-6**

Sample Depth: 5.8–6.2ft

Easting: 3,509,676\*

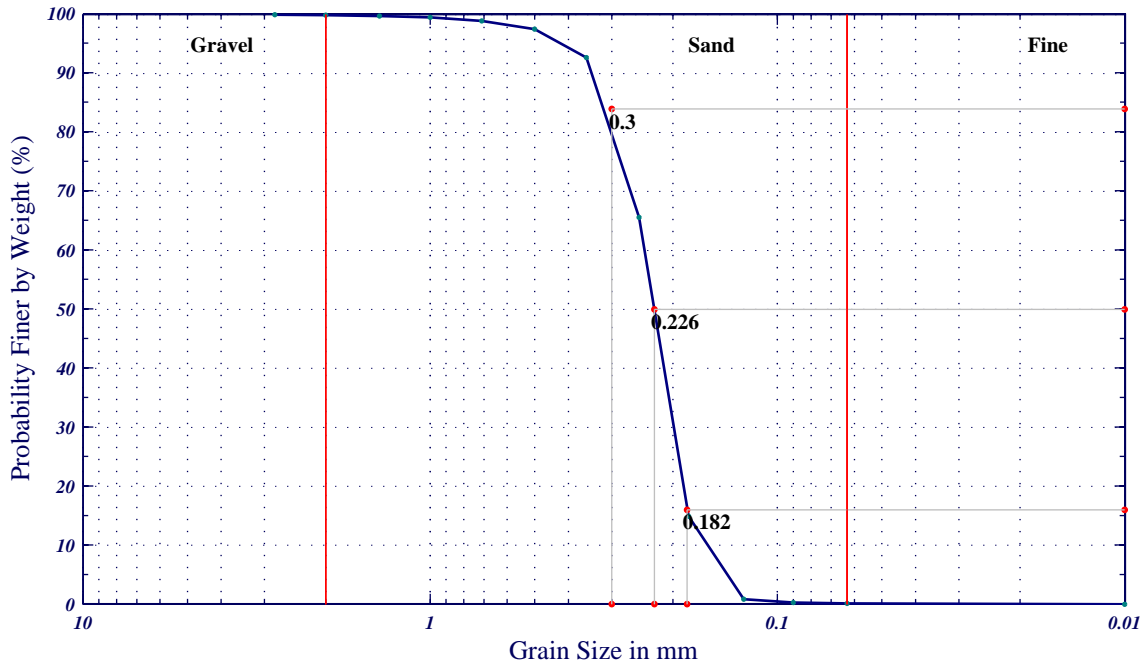
Northing: 151,993\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.155	2.690
D10:	0.171	2.548
D16:	0.182	2.458
D25:	0.198	2.336
D30:	0.205	2.286
D50:	0.226	2.146
D60:	0.239	2.065
D75:	0.270	1.889
D84:	0.300	1.737
D95:	0.394	1.344
Mean Grain Size:	0.231	2.114
Standard Deviation:	1.324	-0.405

Percent of Gravel (16mm–2mm): 0.09  
 Percent of Sand (<2mm–0.063mm): 99.64  
 Percent of Fines (<0.063mm): 0.27

**Sample ID: CEC-11-VC-1-8**

Sample Depth: 7.8–8.2ft

Easting: 3,509,676\*

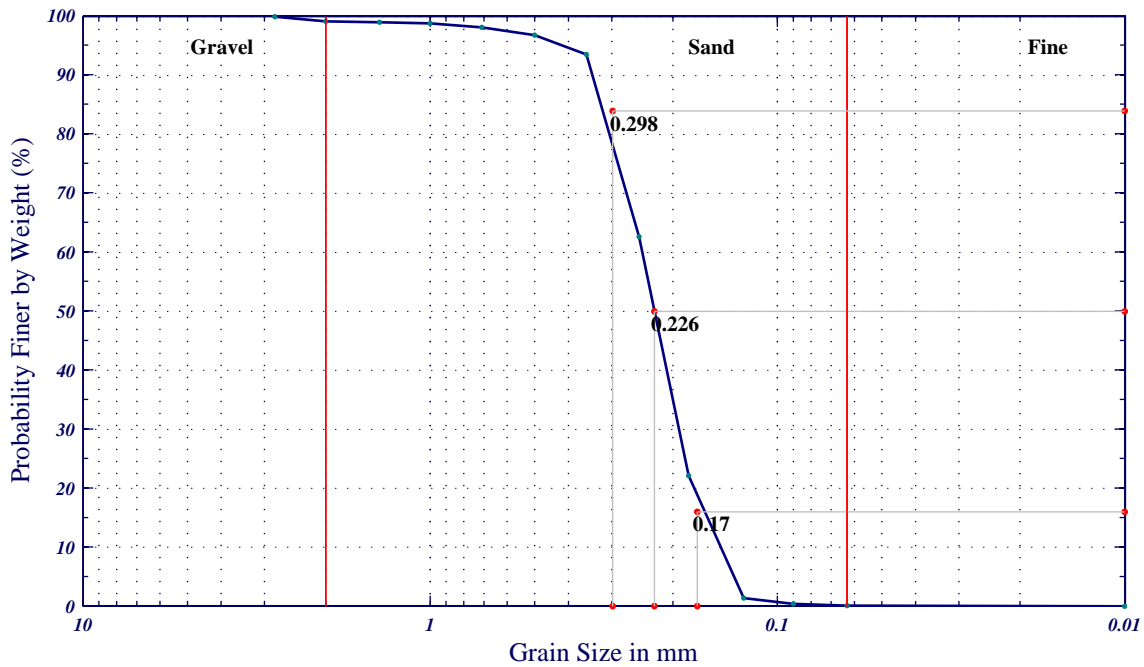
Northing: 151,993\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.145	2.786
D10:	0.161	2.635
D16:	0.170	2.556
D25:	0.186	2.427
D30:	0.195	2.358
D50:	0.226	2.146
D60:	0.244	2.035
D75:	0.273	1.873
D84:	0.298	1.747
D95:	0.390	1.358
Mean Grain Size:	0.225	2.150
Standard Deviation:	1.357	-0.440

Percent of Gravel (16mm–2mm): 0.80  
 Percent of Sand (<2mm–0.063mm): 98.82  
 Percent of Fines (<0.063mm): 0.38

**Sample ID: CEC-11-VC-1-10**

Sample Depth: 9.8–10.2ft

Easting: 3,509,676\*

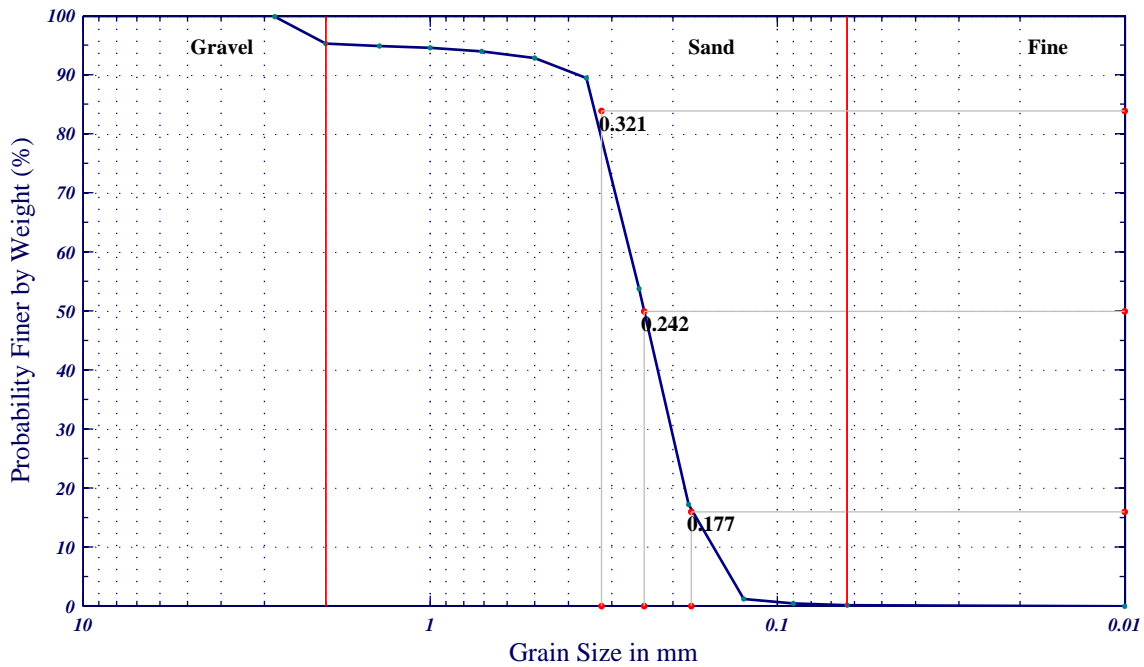
Northing: 151,993\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.150	2.737
D10:	0.166	2.591
D16:	0.177	2.498
D25:	0.197	2.344
D30:	0.207	2.272
D50:	0.242	2.047
D60:	0.262	1.932
D75:	0.288	1.796
D84:	0.321	1.639
D95:	1.403	-0.489
Mean Grain Size:	0.240	2.061
Standard Deviation:	1.684	-0.752

Percent of Gravel (16mm–2mm): 4.57  
 Percent of Sand (<2mm–0.063mm): 94.97  
 Percent of Fines (<0.063mm): 0.46

**Sample ID: CEC-11-VC-1-12**

Sample Depth: 11.8–12.2ft

Easting: 3,509,676\*

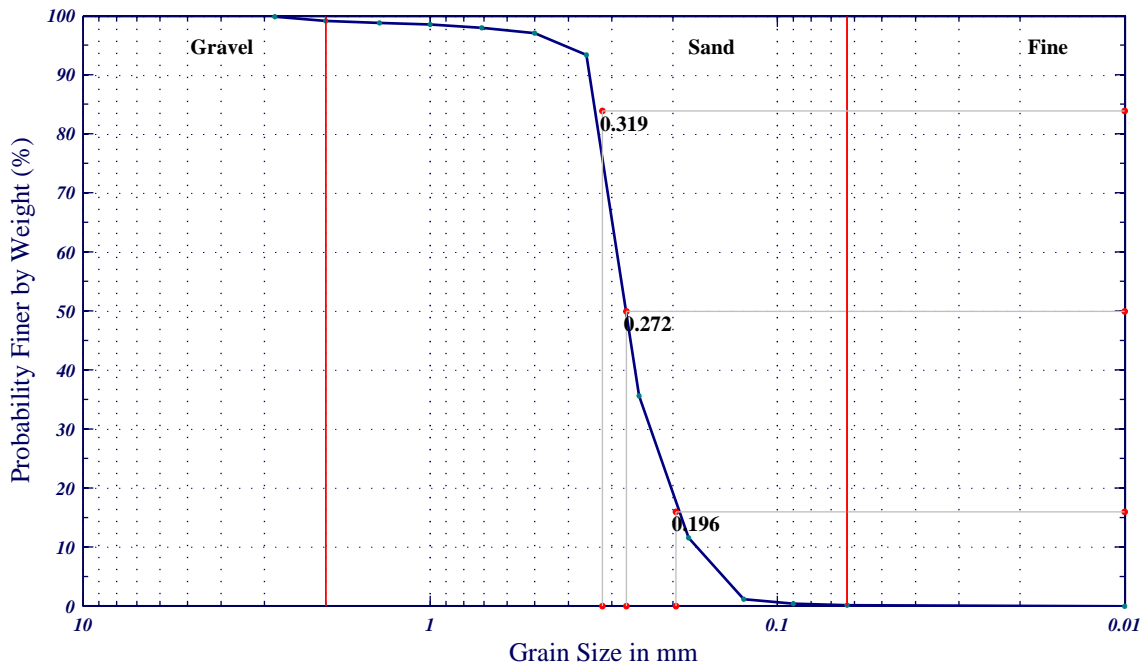
Northing: 151,993\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.157	2.671
D10:	0.175	2.515
D16:	0.196	2.351
D25:	0.224	2.158
D30:	0.236	2.083
D50:	0.272	1.878
D60:	0.281	1.831
D75:	0.298	1.747
D84:	0.319	1.648
D95:	0.382	1.388
Mean Grain Size:	0.257	1.959
Standard Deviation:	1.310	-0.389

Percent of Gravel (16mm–2mm): 0.73  
 Percent of Sand (<2mm–0.063mm): 98.82  
 Percent of Fines (<0.063mm): 0.45

**Sample ID: CEC-11-VC-1-14**

Sample Depth: 13.8–14.2ft

Easting: 3,509,676\*

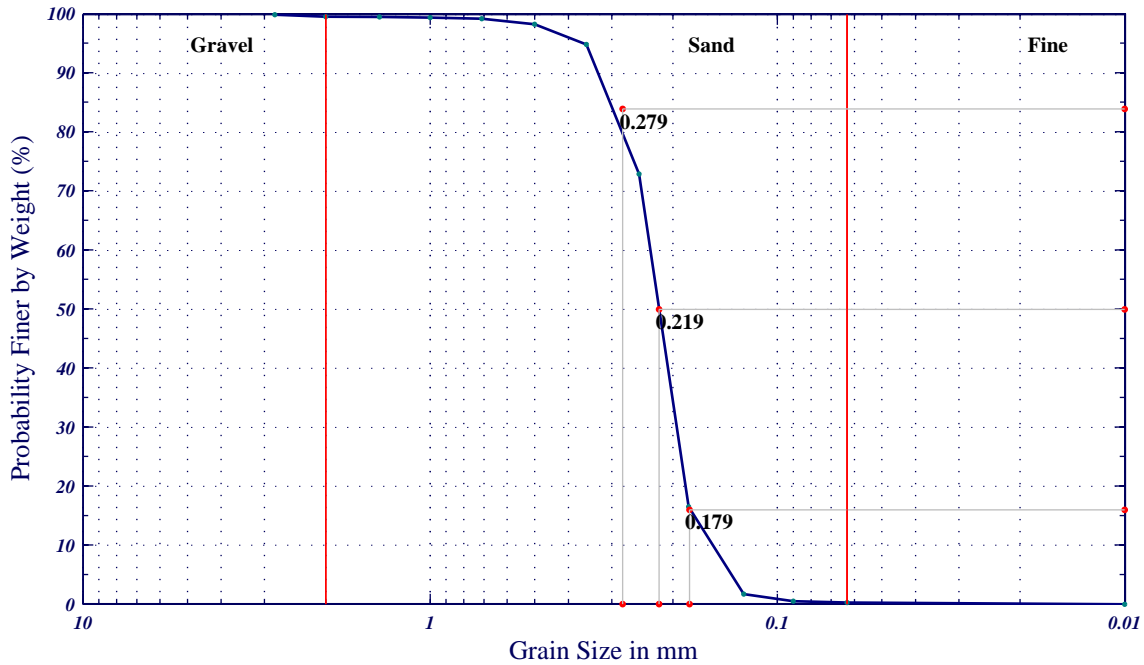
Northing: 151,993\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



<b>Sieve Analysis Results: (mm) (phi)</b>		
D5:	0.148	2.756
D10:	0.167	2.582
D16:	0.179	2.482
D25:	0.195	2.358
D30:	0.201	2.315
D50:	0.219	2.191
D60:	0.229	2.127
D75:	0.254	1.977
D84:	0.279	1.842
D95:	0.356	1.490
Mean Grain Size:	0.222	2.172
Standard Deviation:	1.293	-0.371

Percent of Gravel (16mm–2mm): 0.34  
 Percent of Sand (<2mm–0.063mm): 99.14  
 Percent of Fines (<0.063mm): 0.51

**Sample ID: CEC-11-VC-1-16**

Sample Depth: 15.8–16.2ft

Easting: 3,509,676\*

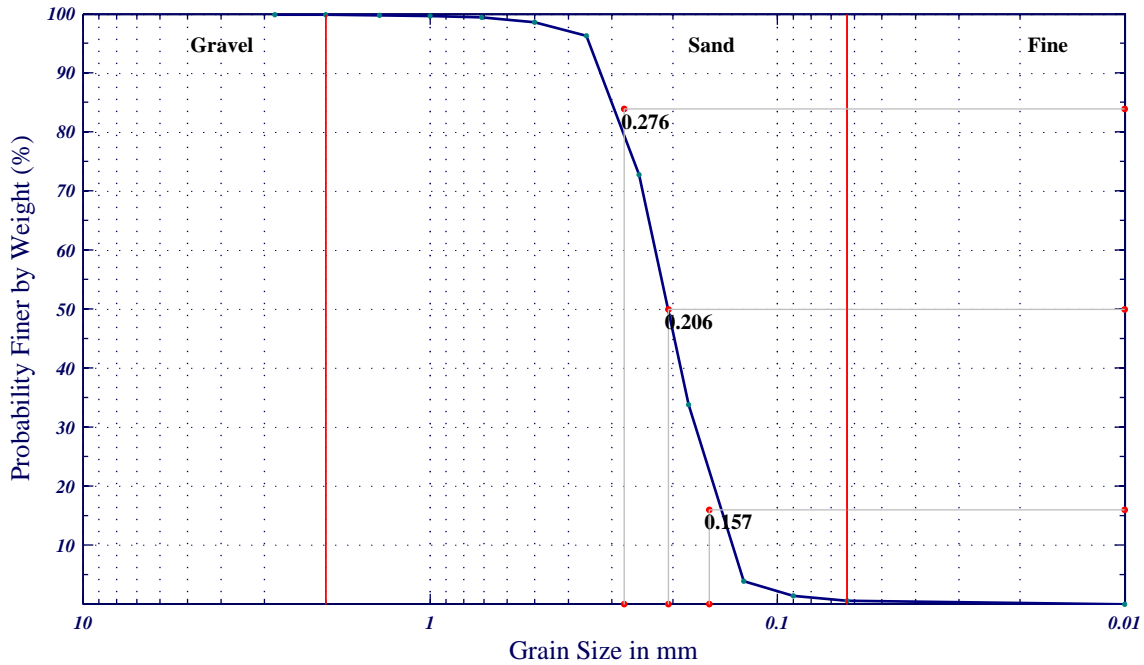
Northing: 151,993\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.129	2.955
D10:	0.145	2.786
D16:	0.157	2.671
D25:	0.168	2.573
D30:	0.174	2.523
D50:	0.206	2.279
D60:	0.222	2.171
D75:	0.255	1.971
D84:	0.276	1.857
D95:	0.341	1.552
Mean Grain Size:	0.207	2.269
Standard Deviation:	1.354	-0.437

Percent of Gravel (16mm–2mm): 0.04  
 Percent of Sand (<2mm–0.063mm): 98.54  
 Percent of Fines (<0.063mm): 1.42

**Sample ID: CEC-11-VC-1-18**

Sample Depth: 17.8–18.2ft

Easting: 3,509,676\*

Northing: 151,993\*

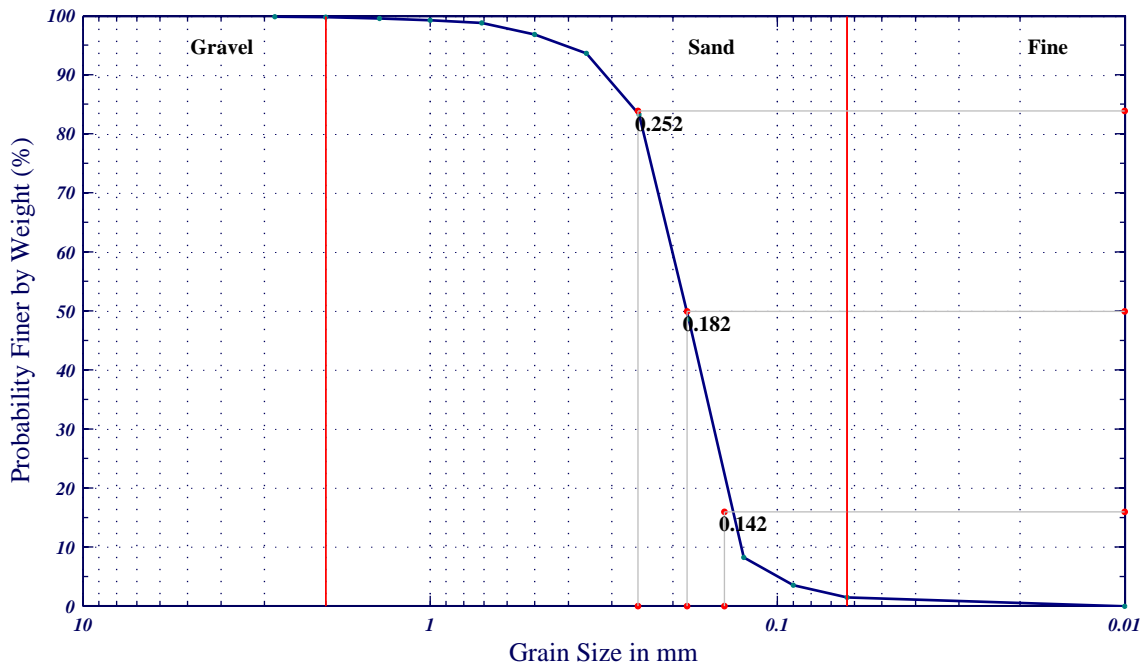
\*Coordinates are feet, LA-1702

OSI No.: 11ES008





**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.104	3.265
D10:	0.130	2.943
D16:	0.142	2.816
D25:	0.155	2.690
D30:	0.160	2.644
D50:	0.182	2.458
D60:	0.196	2.351
D75:	0.224	2.158
D84:	0.252	1.989
D95:	0.393	1.347
Mean Grain Size:	0.187	2.421
Standard Deviation:	1.440	-0.527

Percent of Gravel (16mm–2mm): 0.10  
 Percent of Sand (<2mm–0.063mm): 96.35  
 Percent of Fines (<0.063mm): 3.55

**Sample ID: CEC-11-VC-1-19**

Sample Depth: 19.5–19.9ft

Easting: 3,509,676\*

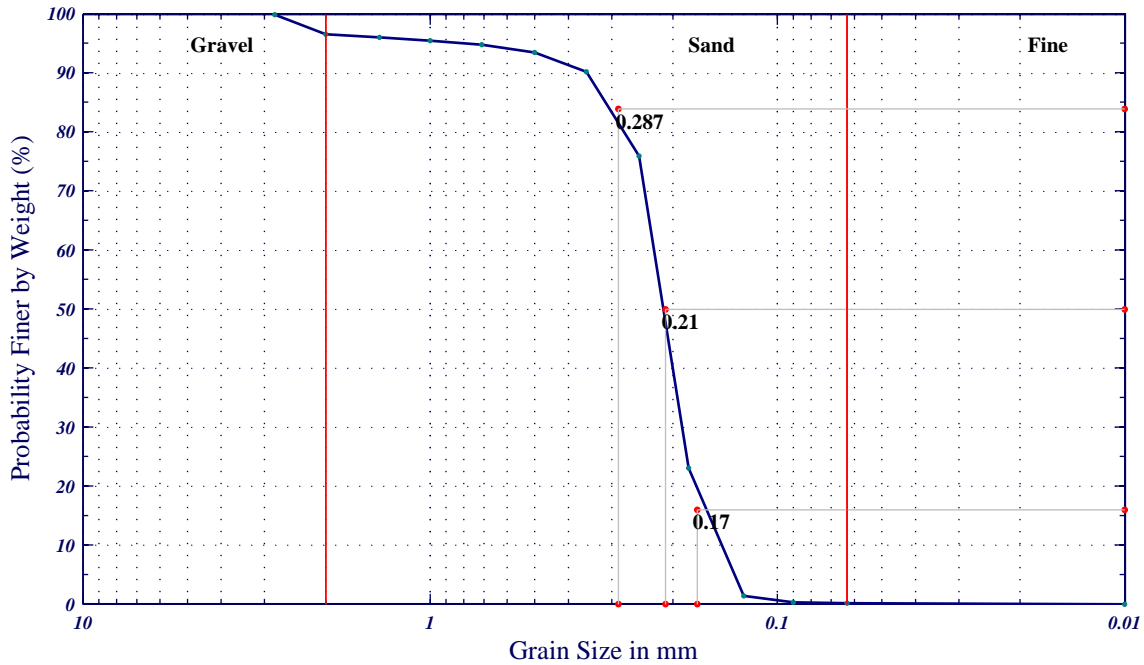
Northing: 151,993\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.144	2.796
D10:	0.160	2.644
D16:	0.170	2.556
D25:	0.183	2.450
D30:	0.191	2.388
D50:	0.210	2.252
D60:	0.221	2.178
D75:	0.247	2.017
D84:	0.287	1.801
D95:	0.742	0.431
Mean Grain Size:	0.217	2.203
Standard Deviation:	1.498	-0.583

Percent of Gravel (16mm–2mm): 3.34  
 Percent of Sand (<2mm–0.063mm): 96.33  
 Percent of Fines (<0.063mm): 0.33

**Sample ID: CEC-11-VC-2-0**

Sample Depth: 0.4–0.8ft

Easting: 3,511,118\*

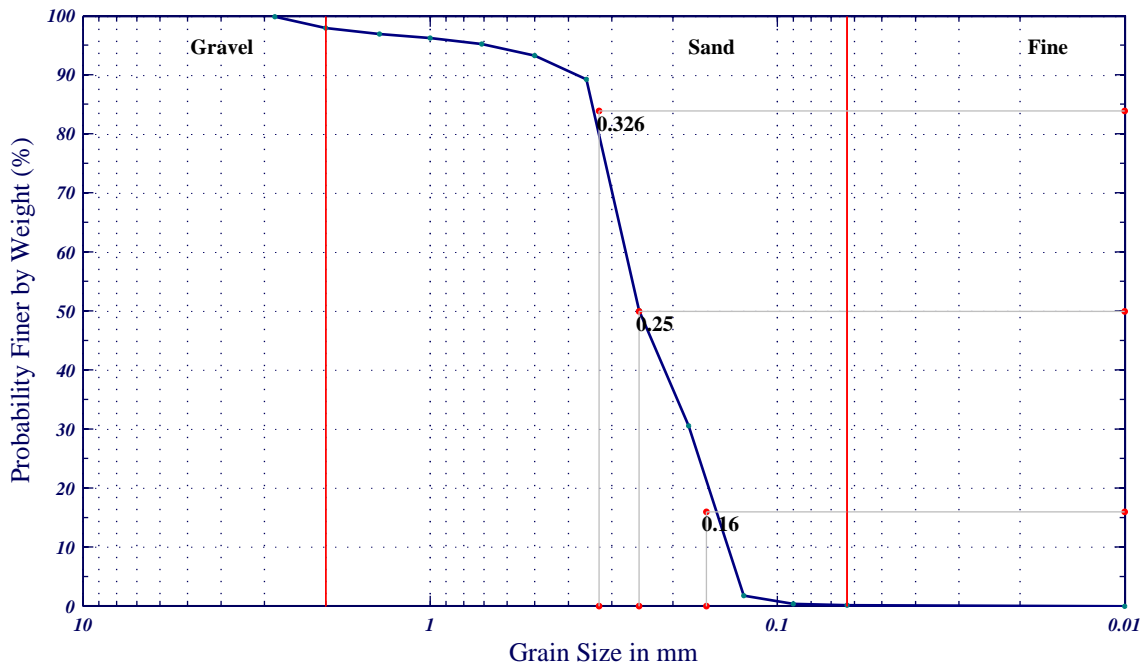
Northing: 152,777\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.138	2.857
D10:	0.152	2.718
D16:	0.160	2.644
D25:	0.170	2.556
D30:	0.179	2.482
D50:	0.250	2.000
D60:	0.272	1.878
D75:	0.296	1.756
D84:	0.326	1.617
D95:	0.659	0.602
Mean Grain Size:	0.235	2.087
Standard Deviation:	1.550	-0.633

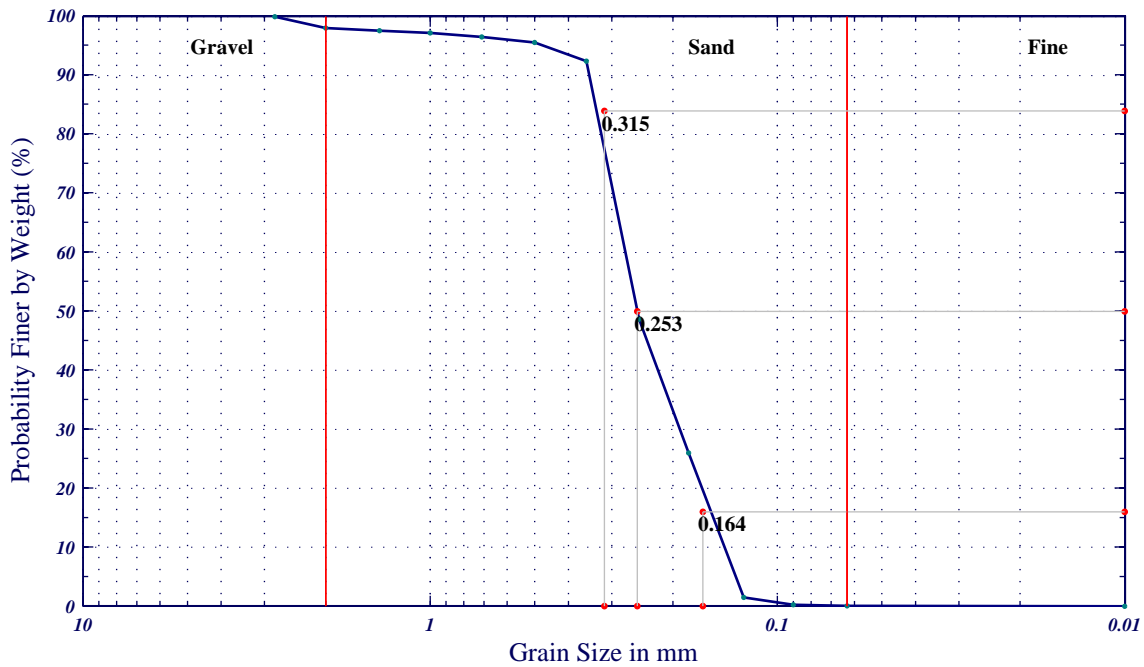
Percent of Gravel (16mm–2mm): 1.95  
 Percent of Sand (<2mm–0.063mm): 97.67  
 Percent of Fines (<0.063mm): 0.38

**Sample ID: CEC-11-VC-2-2**  
 Sample Depth: 1.8–2.2ft  
 Easting: 3,511,118\*  
 Northing: 152,777\*  
 \*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.141	2.826
D10:	0.156	2.680
D16:	0.164	2.608
D25:	0.178	2.490
D30:	0.191	2.388
D50:	0.253	1.983
D60:	0.271	1.884
D75:	0.291	1.781
D84:	0.315	1.667
D95:	0.452	1.146
Mean Grain Size:	0.236	2.086
Standard Deviation:	1.430	-0.516

Percent of Gravel (16mm–2mm): 1.94  
 Percent of Sand (<2mm–0.063mm): 97.82  
 Percent of Fines (<0.063mm): 0.24

**Sample ID: CEC-11-VC-2-4**

Sample Depth: 3.8–4.2ft

Easting: 3,511,118\*

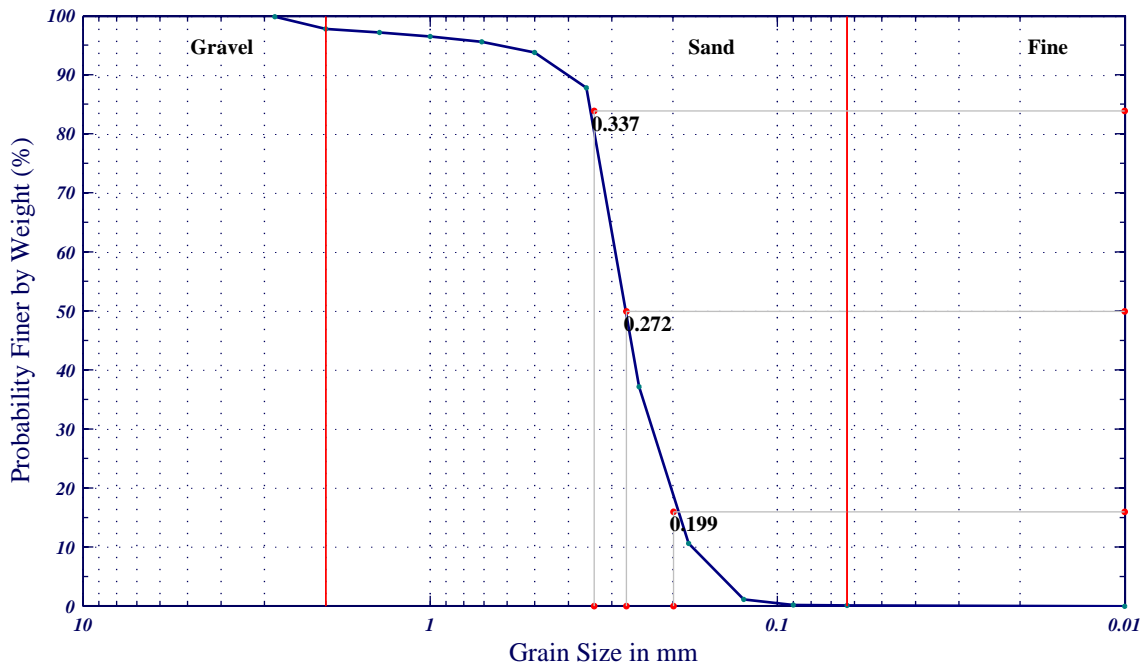
Northing: 152,777\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.158	2.662
D10:	0.178	2.490
D16:	0.199	2.329
D25:	0.223	2.165
D30:	0.234	2.095
D50:	0.272	1.878
D60:	0.283	1.821
D75:	0.309	1.694
D84:	0.337	1.569
D95:	0.596	0.747
Mean Grain Size:	0.263	1.926
Standard Deviation:	1.423	-0.509

Percent of Gravel (16mm–2mm): 2.09  
 Percent of Sand (<2mm–0.063mm): 97.72  
 Percent of Fines (<0.063mm): 0.19

**Sample ID: CEC-11-VC-2-6**

Sample Depth: 5.8–6.2ft

Easting: 3,511,118\*

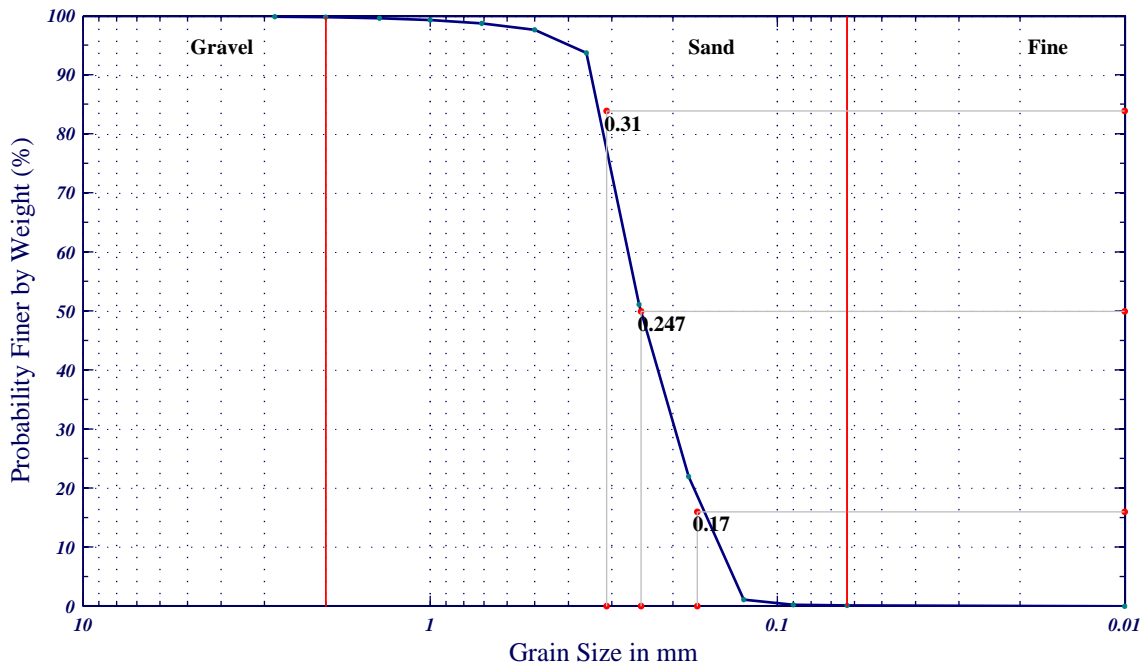
Northing: 152,777\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



<b>Sieve Analysis Results: (mm) (phi)</b>		
D5:	0.146	2.776
D10:	0.161	2.635
D16:	0.170	2.556
D25:	0.188	2.411
D30:	0.200	2.322
D50:	0.247	2.017
D60:	0.266	1.911
D75:	0.287	1.801
D84:	0.310	1.690
D95:	0.372	1.427
Mean Grain Size:	0.235	2.088
Standard Deviation:	1.358	-0.442

Percent of Gravel (16mm–2mm): 0.11  
 Percent of Sand (<2mm–0.063mm): 99.65  
 Percent of Fines (<0.063mm): 0.24

**Sample ID: CEC-11-VC-2-8**

Sample Depth: 7.8–8.2ft

Easting: 3,511,118\*

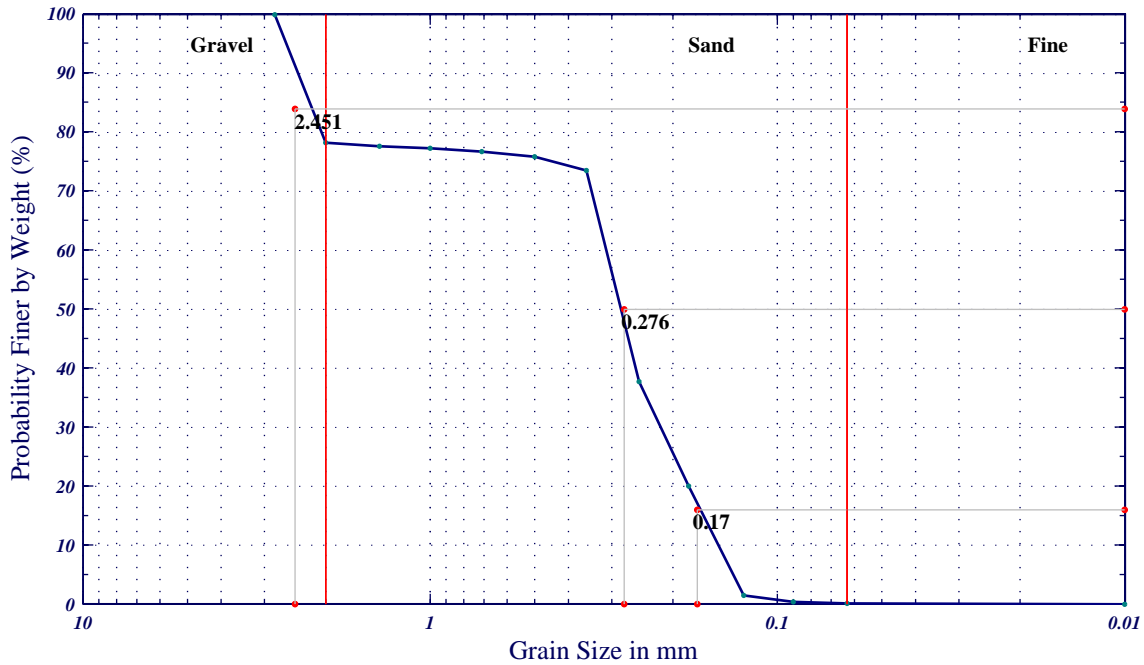
Northing: 152,777\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.145	2.786
D10:	0.160	2.644
D16:	0.170	2.556
D25:	0.199	2.329
D30:	0.220	2.184
D50:	0.276	1.857
D60:	0.292	1.776
D75:	0.418	1.258
D84:	2.451	-1.293
D95:	2.782	-1.476
Mean Grain Size:	0.486	1.040
Standard Deviation:	3.188	-1.673

Percent of Gravel (16mm–2mm): 21.74  
 Percent of Sand (<2mm–0.063mm): 77.85  
 Percent of Fines (<0.063mm): 0.41

**Sample ID: CEC-11-VC-2-10**

Sample Depth: 9.7–10.1ft

Easting: 3,511,118\*

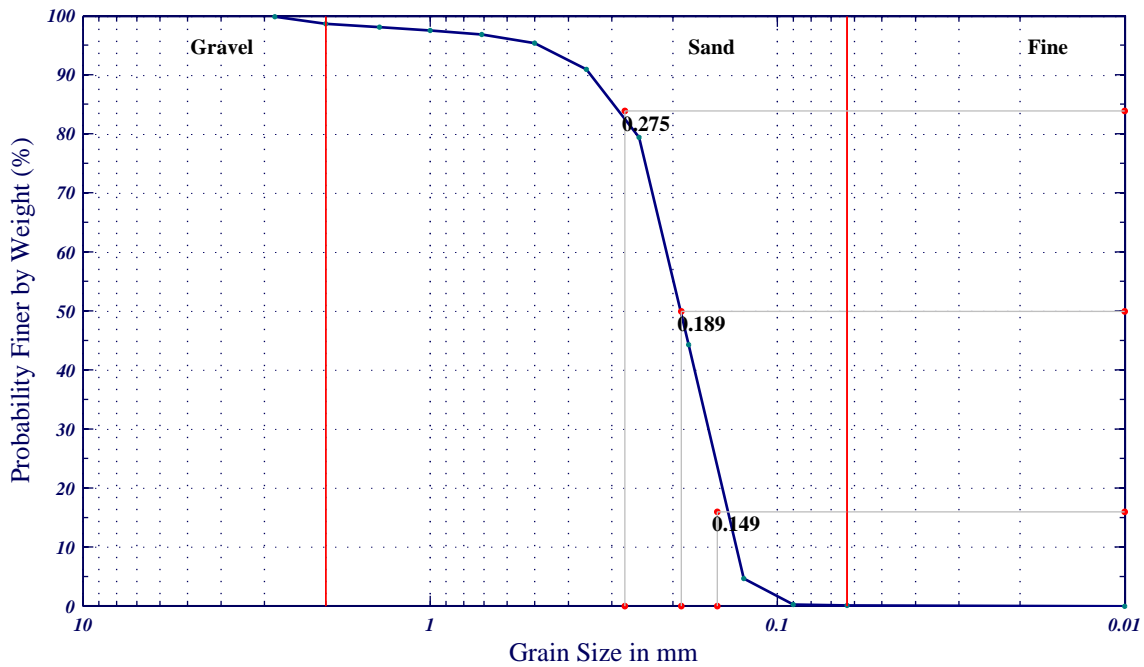
Northing: 152,777\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.126	2.989
D10:	0.138	2.857
D16:	0.149	2.747
D25:	0.159	2.653
D30:	0.164	2.608
D50:	0.189	2.404
D60:	0.203	2.300
D75:	0.235	2.089
D84:	0.275	1.862
D95:	0.472	1.083
Mean Grain Size:	0.198	2.338
Standard Deviation:	1.453	-0.539

Percent of Gravel (16mm–2mm): 1.24  
 Percent of Sand (<2mm–0.063mm): 98.48  
 Percent of Fines (<0.063mm): 0.28

**Sample ID: CEC-11-VC-2A-0**

Sample Depth: 0.0–0.4ft

Easting: 3,511,119\*

Northing: 152,784\*

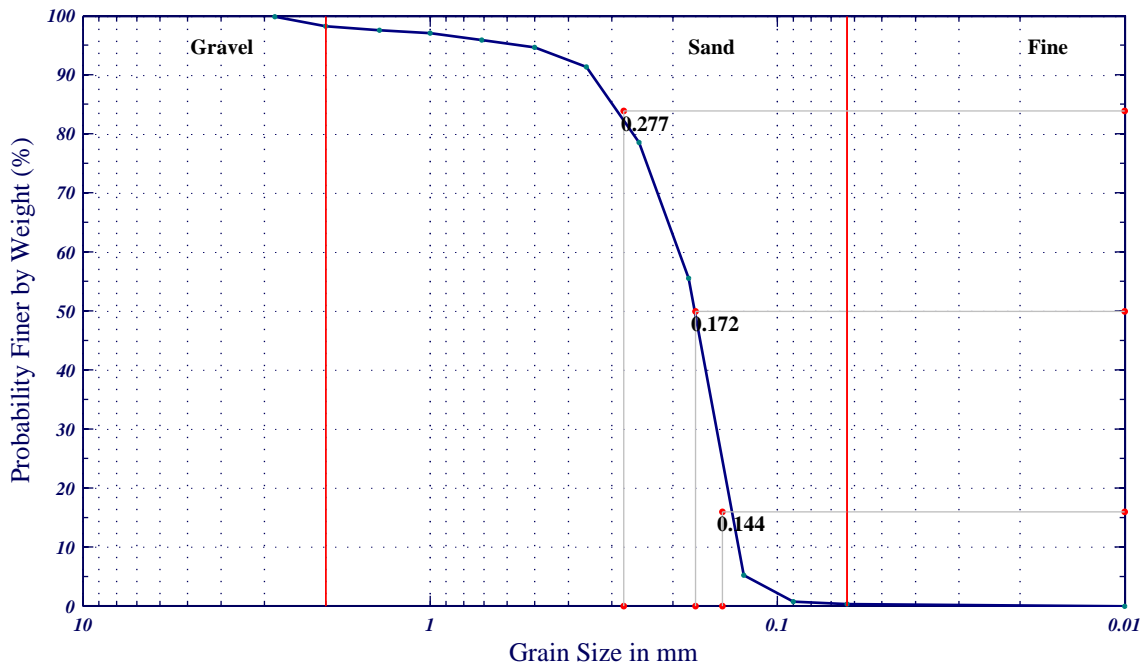
\*Coordinates are feet, LA-1702

OSI No.: 11ES008





**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.124	3.012
D10:	0.135	2.889
D16:	0.144	2.796
D25:	0.153	2.708
D30:	0.157	2.671
D50:	0.172	2.540
D60:	0.188	2.411
D75:	0.234	2.095
D84:	0.277	1.852
D95:	0.522	0.938
Mean Grain Size:	0.190	2.396
Standard Deviation:	1.496	-0.582

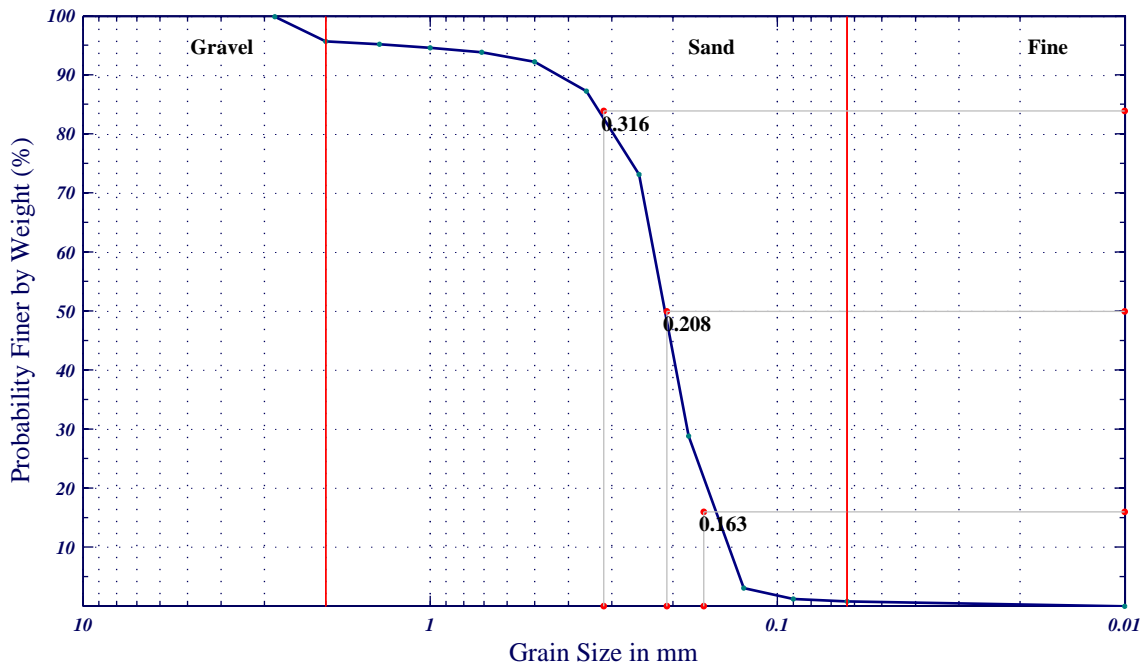
Percent of Gravel (16mm–2mm): 1.65  
 Percent of Sand (<2mm–0.063mm): 97.58  
 Percent of Fines (<0.063mm): 0.77

**Sample ID: CEC-11-VC-2A-2**  
 Sample Depth: 1.8–2.2ft  
 Easting: 3,511,119\*  
 Northing: 152,784\*  
 \*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.134	2.900
D10:	0.151	2.727
D16:	0.163	2.617
D25:	0.174	2.523
D30:	0.182	2.458
D50:	0.208	2.265
D60:	0.221	2.178
D75:	0.256	1.966
D84:	0.316	1.662
D95:	1.160	-0.214
Mean Grain Size:	0.220	2.181
Standard Deviation:	1.691	-0.758

Percent of Gravel (16mm–2mm): 4.18  
 Percent of Sand (<2mm–0.063mm): 94.59  
 Percent of Fines (<0.063mm): 1.22

**Sample ID: CEC-11-VC-2A-4**

Sample Depth: 3.8–4.2ft

Easting: 3,511,119\*

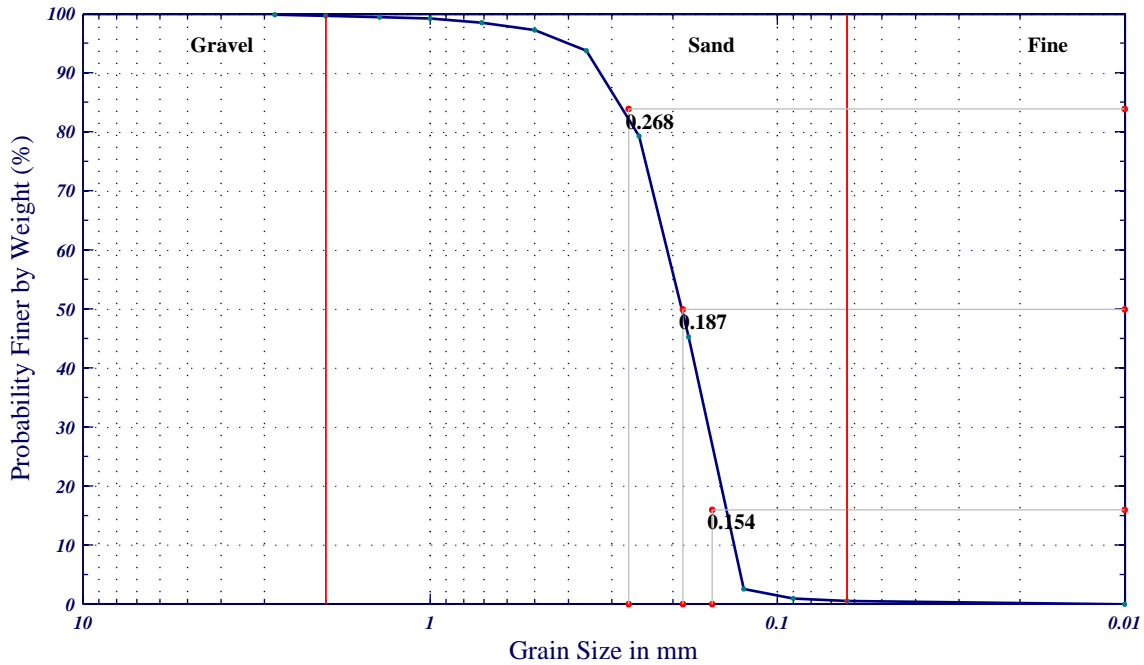
Northing: 152,784\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.133	2.911
D10:	0.145	2.786
D16:	0.154	2.699
D25:	0.163	2.617
D30:	0.166	2.591
D50:	0.187	2.419
D60:	0.203	2.300
D75:	0.236	2.083
D84:	0.268	1.900
D95:	0.379	1.400
Mean Grain Size:	0.198	2.339
Standard Deviation:	1.368	-0.452

Percent of Gravel (16mm–2mm): 0.22  
 Percent of Sand (<2mm–0.063mm): 98.83  
 Percent of Fines (<0.063mm): 0.96

**Sample ID: CEC-11-VC-2A-6**

Sample Depth: 5.8–6.2ft

Easting: 3,511,119\*

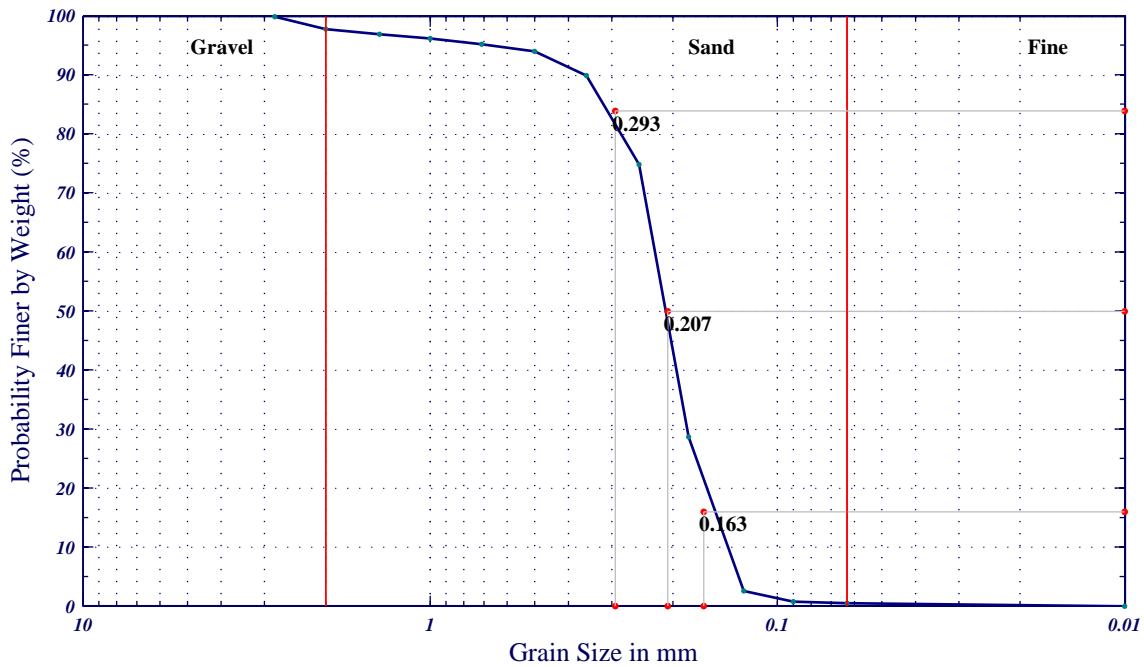
Northing: 152,784\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.136	2.878
D10:	0.152	2.718
D16:	0.163	2.617
D25:	0.174	2.523
D30:	0.182	2.458
D50:	0.207	2.272
D60:	0.220	2.184
D75:	0.250	2.000
D84:	0.293	1.771
D95:	0.644	0.635
Mean Grain Size:	0.215	2.220
Standard Deviation:	1.500	-0.585

Percent of Gravel (16mm–2mm): 2.14  
 Percent of Sand (<2mm–0.063mm): 97.09  
 Percent of Fines (<0.063mm): 0.77

**Sample ID: CEC-11-VC-2A-8**

Sample Depth: 7.8–8.2ft

Easting: 3,511,119\*

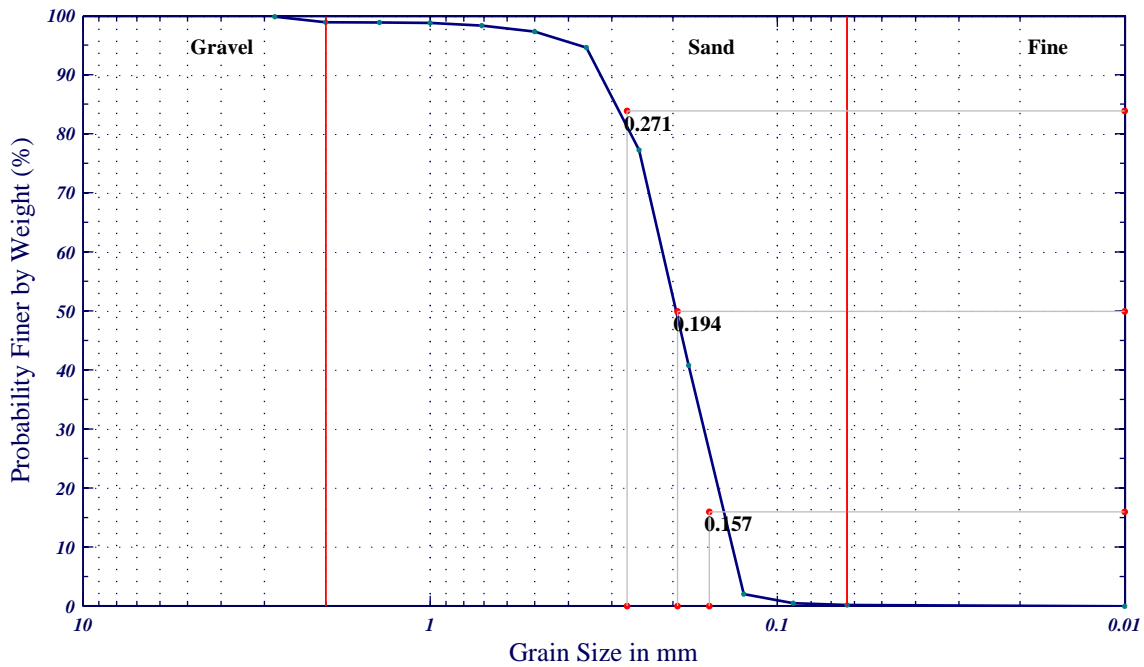
Northing: 152,784\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.135	2.889
D10:	0.147	2.766
D16:	0.157	2.671
D25:	0.165	2.599
D30:	0.168	2.573
D50:	0.194	2.366
D60:	0.210	2.252
D75:	0.243	2.041
D84:	0.271	1.884
D95:	0.359	1.478
Mean Grain Size:	0.202	2.307
Standard Deviation:	1.349	-0.432

Percent of Gravel (16mm–2mm): 0.97  
 Percent of Sand (<2mm–0.063mm): 98.52  
 Percent of Fines (<0.063mm): 0.51

**Sample ID: CEC-11-VC-2A-10**

Sample Depth: 9.8–10.2ft

Easting: 3,511,119\*

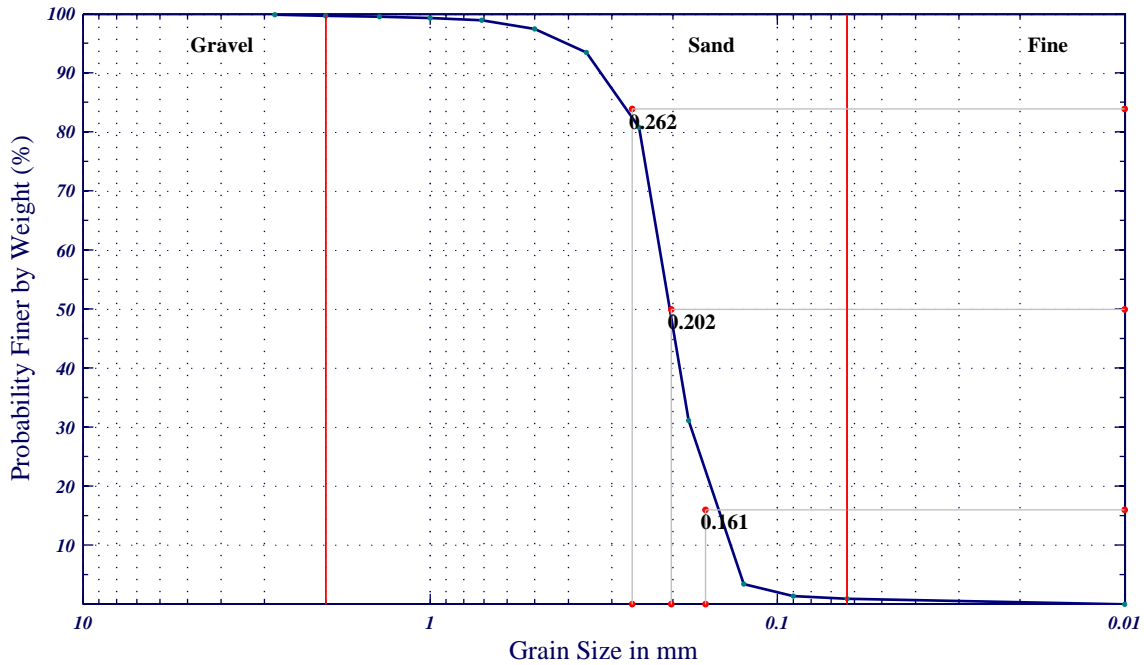
Northing: 152,784\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.132	2.921
D10:	0.148	2.756
D16:	0.161	2.635
D25:	0.172	2.540
D30:	0.178	2.490
D50:	0.202	2.308
D60:	0.212	2.238
D75:	0.236	2.083
D84:	0.262	1.932
D95:	0.386	1.373
Mean Grain Size:	0.204	2.292
Standard Deviation:	1.351	-0.434

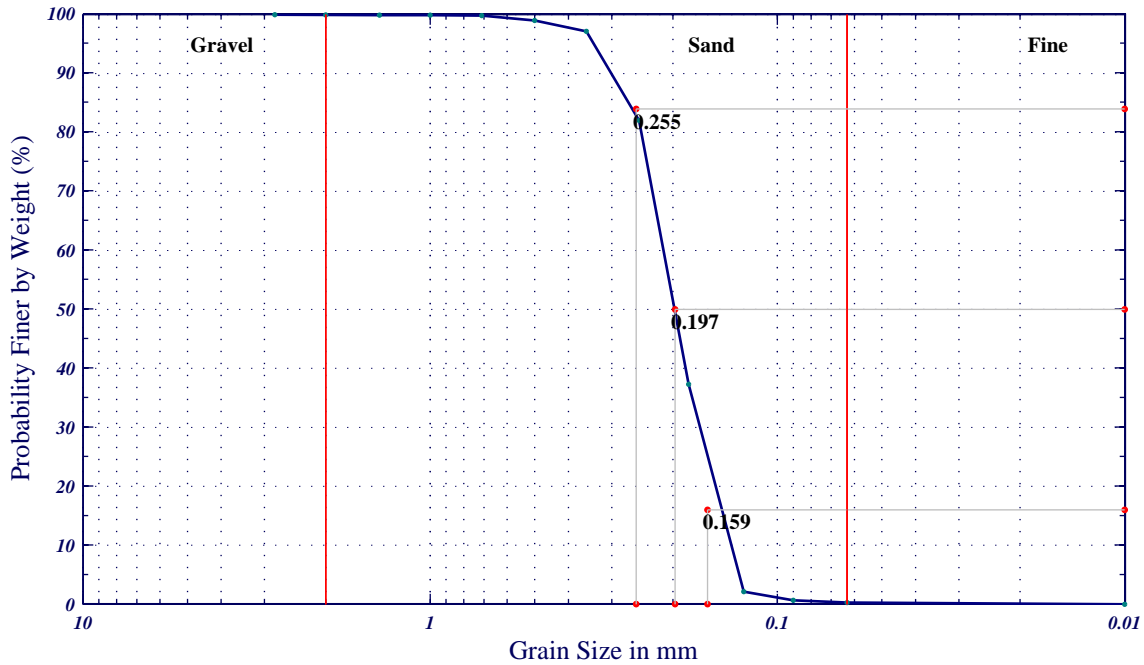
Percent of Gravel (16mm–2mm): 0.21  
 Percent of Sand (<2mm–0.063mm): 98.43  
 Percent of Fines (<0.063mm): 1.36

**Sample ID: CEC-11-VC-2A-12**  
 Sample Depth: 11.8–12.2ft  
 Easting: 3,511,119\*  
 Northing: 152,784\*  
 \*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.135	2.889
D10:	0.149	2.747
D16:	0.159	2.653
D25:	0.168	2.573
D30:	0.172	2.540
D50:	0.197	2.344
D60:	0.208	2.265
D75:	0.233	2.102
D84:	0.255	1.971
D95:	0.324	1.626
Mean Grain Size:	0.200	2.323
Standard Deviation:	1.302	-0.381

Percent of Gravel (16mm–2mm): 0.06  
 Percent of Sand (<2mm–0.063mm): 99.28  
 Percent of Fines (<0.063mm): 0.66

**Sample ID: CEC-11-VC-2A-14**

Sample Depth: 13.8–14.2ft

Easting: 3,511,119\*

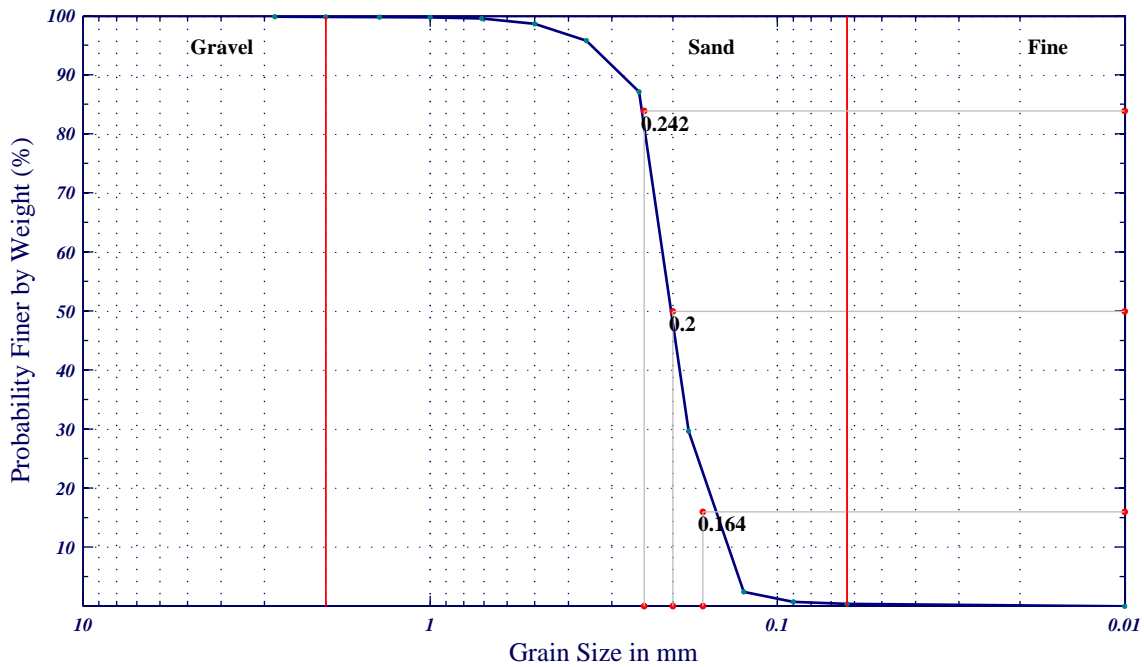
Northing: 152,784\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



<b>Sieve Analysis Results:</b>	<b>(mm)</b>	<b>(phi)</b>
D5:	0.136	2.878
D10:	0.152	2.718
D16:	0.164	2.608
D25:	0.174	2.523
D30:	0.180	2.474
D50:	0.200	2.322
D60:	0.208	2.265
D75:	0.224	2.158
D84:	0.242	2.047
D95:	0.336	1.573
Mean Grain Size:	0.199	2.326
Standard Deviation:	1.281	-0.358

Percent of Gravel (16mm–2mm): 0.04  
 Percent of Sand (<2mm–0.063mm): 99.24  
 Percent of Fines (<0.063mm): 0.72

**Sample ID: CEC-11-VC-2A-16**

Sample Depth: 15.8–16.2ft

Easting: 3,511,119\*

Northing: 152,784\*

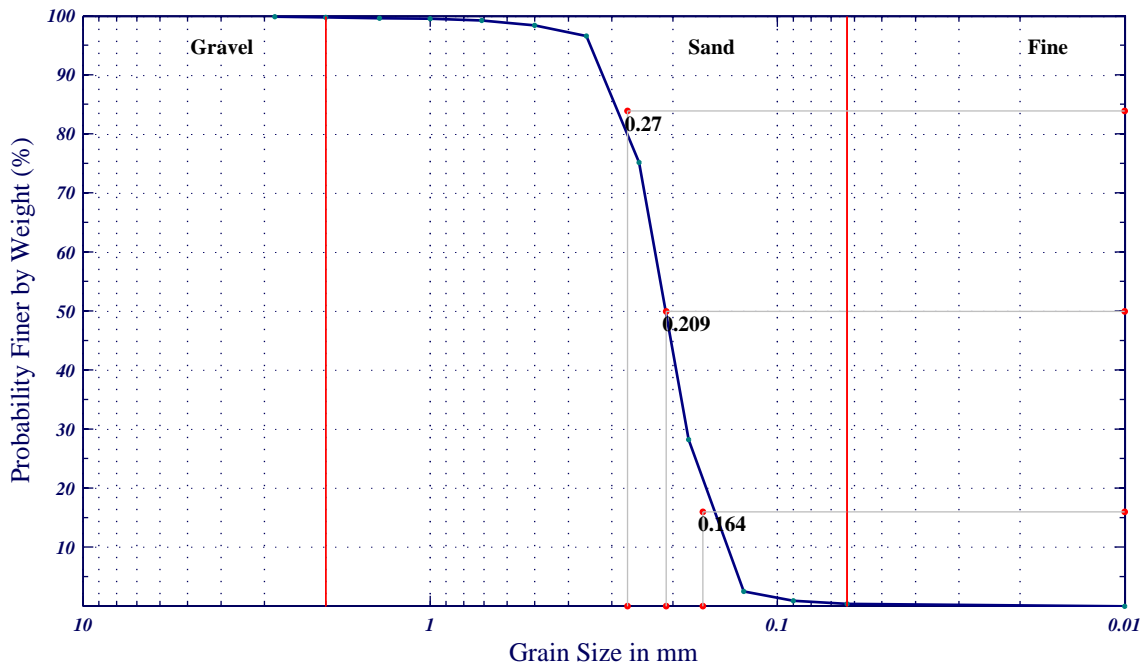
\*Coordinates are feet, LA-1702

OSI No.: 11ES008





**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



<b>Sieve Analysis Results:</b>	<b>(mm)</b>	<b>(phi)</b>
D5:	0.137	2.868
D10:	0.153	2.708
D16:	0.164	2.608
D25:	0.175	2.515
D30:	0.183	2.450
D50:	0.209	2.258
D60:	0.222	2.171
D75:	0.249	2.006
D84:	0.270	1.889
D95:	0.336	1.573
Mean Grain Size:	0.210	2.252
Standard Deviation:	1.315	-0.396

Percent of Gravel (16mm–2mm): 0.14  
 Percent of Sand (<2mm–0.063mm): 98.95  
 Percent of Fines (<0.063mm): 0.91

**Sample ID: CEC-11-VC-2A-18**

Sample Depth: 17.8–18.2ft

Easting: 3,511,119\*

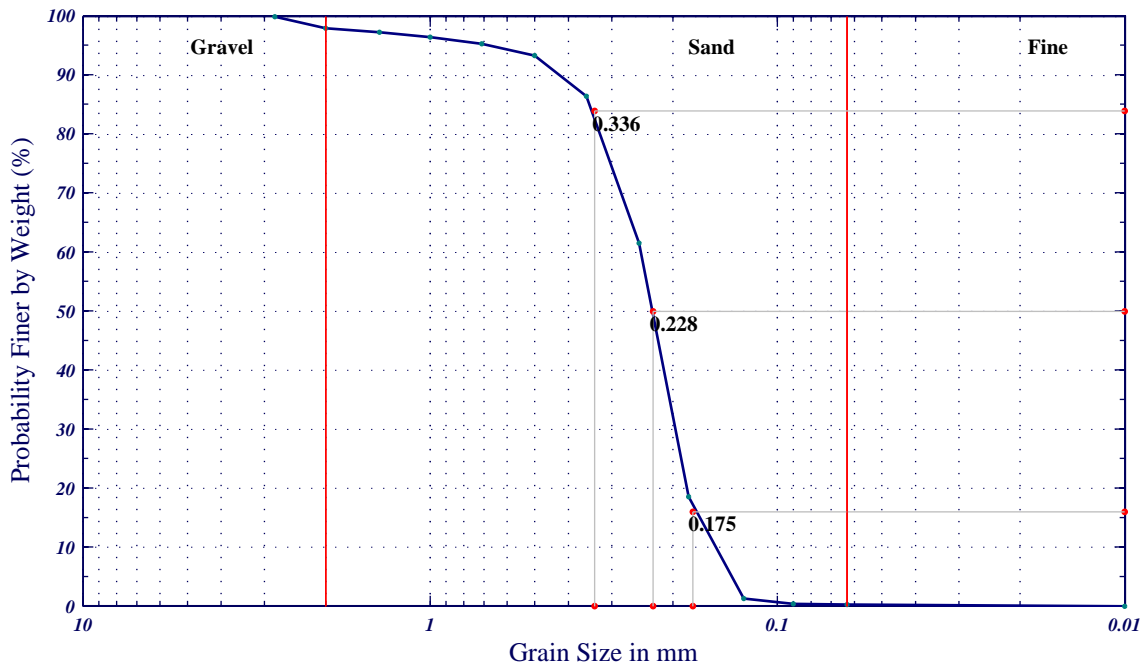
Northing: 152,784\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.148	2.756
D10:	0.165	2.599
D16:	0.175	2.515
D25:	0.193	2.373
D30:	0.201	2.315
D50:	0.228	2.133
D60:	0.246	2.023
D75:	0.289	1.791
D84:	0.336	1.573
D95:	0.652	0.617
Mean Grain Size:	0.238	2.074
Standard Deviation:	1.507	-0.592

Percent of Gravel (16mm–2mm): 1.99  
 Percent of Sand (<2mm–0.063mm): 97.60  
 Percent of Fines (<0.063mm): 0.41

**Sample ID: CEC-11-VC-3-0**

Sample Depth: 0.0–0.4ft

Easting: 3,509,763\*

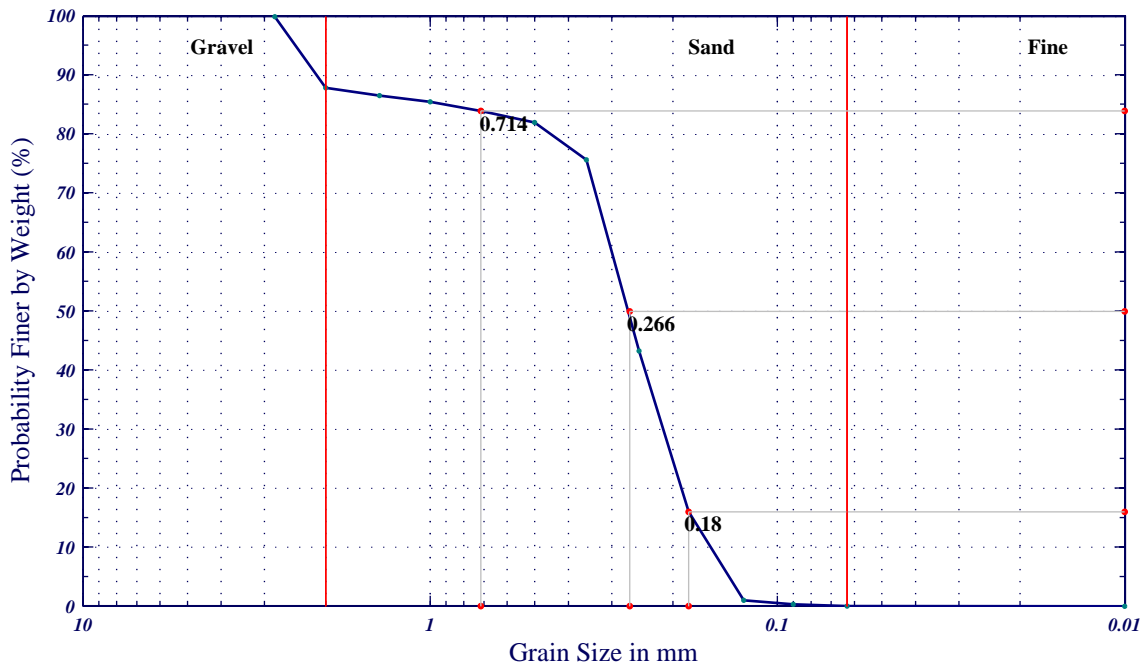
Northing: 151,097\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.152	2.718
D10:	0.167	2.582
D16:	0.180	2.474
D25:	0.205	2.286
D30:	0.217	2.204
D50:	0.266	1.911
D60:	0.288	1.796
D75:	0.350	1.515
D84:	0.714	0.486
D95:	2.679	-1.422
Mean Grain Size:	0.325	1.623
Standard Deviation:	2.277	-1.187

Percent of Gravel (16mm–2mm): 12.09  
 Percent of Sand (<2mm–0.063mm): 87.61  
 Percent of Fines (<0.063mm): 0.30

**Sample ID: CEC-11-VC-3-2**

Sample Depth: 1.8–2.2ft

Easting: 3,509,763\*

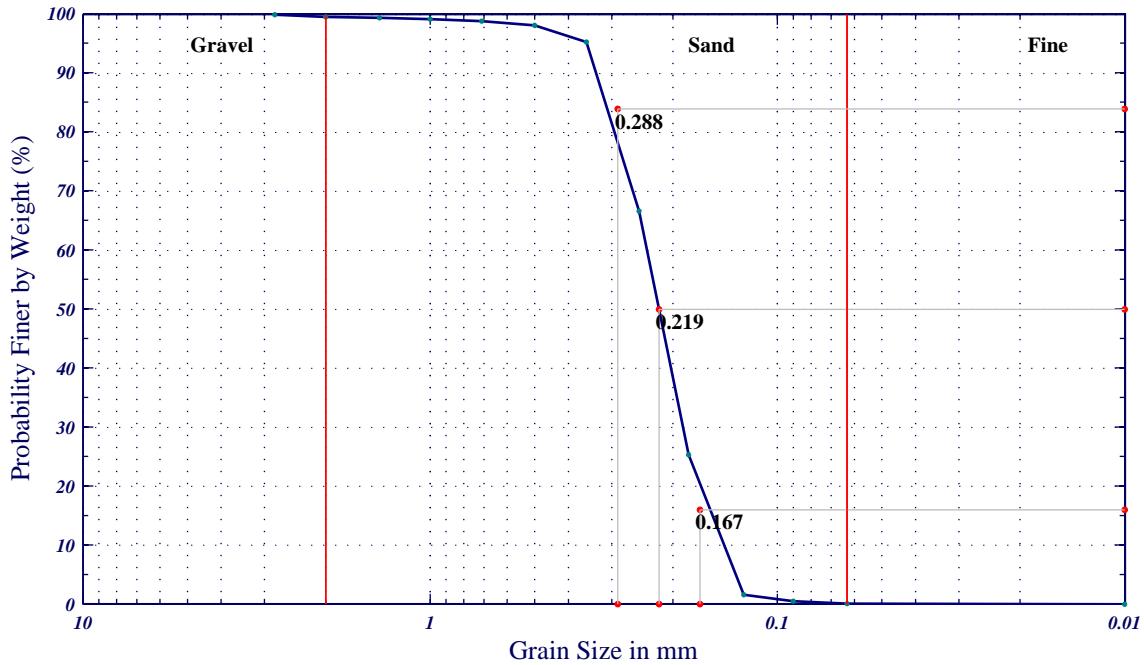
Northing: 151,097\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.142	2.816
D10:	0.158	2.662
D16:	0.167	2.582
D25:	0.179	2.482
D30:	0.189	2.404
D50:	0.219	2.191
D60:	0.236	2.083
D75:	0.266	1.911
D84:	0.288	1.796
D95:	0.352	1.506
Mean Grain Size:	0.219	2.190
Standard Deviation:	1.333	-0.415

Percent of Gravel (16mm–2mm): 0.39  
 Percent of Sand (<2mm–0.063mm): 99.11  
 Percent of Fines (<0.063mm): 0.50

**Sample ID: CEC-11-VC-3-4**

Sample Depth: 3.8–4.2ft

Easting: 3,509,763\*

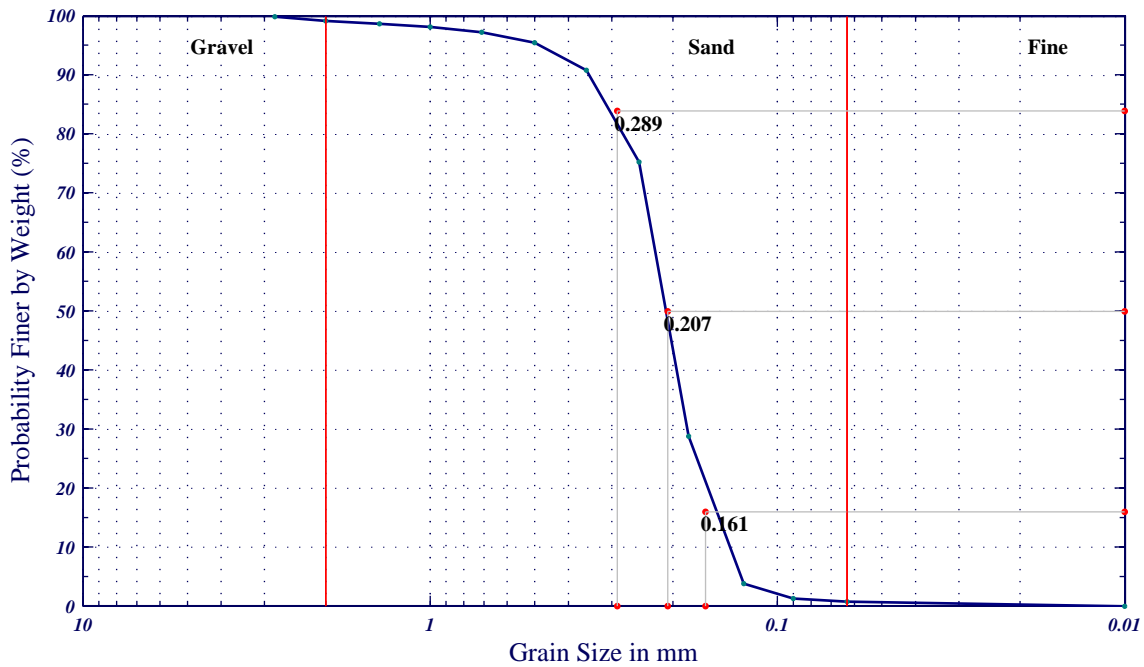
Northing: 151,097\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.130	2.943
D10:	0.148	2.756
D16:	0.161	2.635
D25:	0.174	2.523
D30:	0.182	2.458
D50:	0.207	2.272
D60:	0.219	2.191
D75:	0.249	2.006
D84:	0.289	1.791
D95:	0.472	1.083
Mean Grain Size:	0.213	2.233
Standard Deviation:	1.435	-0.521

Percent of Gravel (16mm–2mm): 0.75  
 Percent of Sand (<2mm–0.063mm): 97.96  
 Percent of Fines (<0.063mm): 1.29

**Sample ID: CEC-11-VC-3-6**

Sample Depth: 5.8–6.2ft

Easting: 3,509,763\*

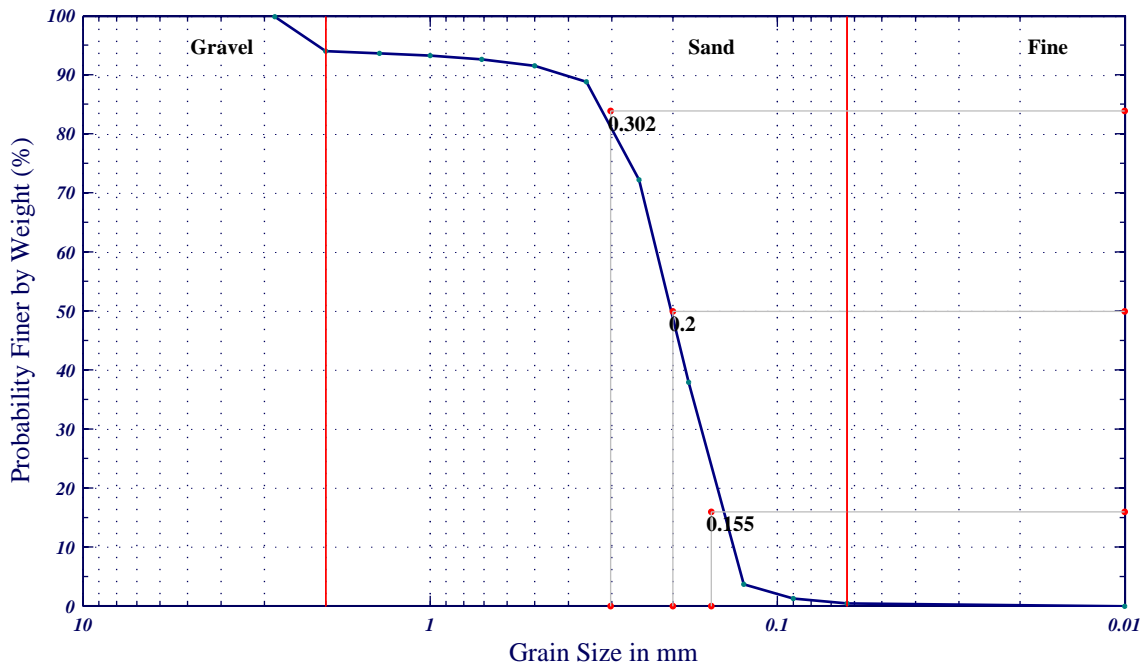
Northing: 151,097\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.130	2.943
D10:	0.144	2.796
D16:	0.155	2.690
D25:	0.165	2.599
D30:	0.169	2.565
D50:	0.200	2.322
D60:	0.218	2.198
D75:	0.258	1.955
D84:	0.302	1.727
D95:	2.256	-1.174
Mean Grain Size:	0.211	2.246
Standard Deviation:	1.901	-0.927

Percent of Gravel (16mm–2mm): 5.87  
 Percent of Sand (<2mm–0.063mm): 92.82  
 Percent of Fines (<0.063mm): 1.31

**Sample ID: CEC-11-VC-3-8**

Sample Depth: 7.8–8.2ft

Easting: 3,509,763\*

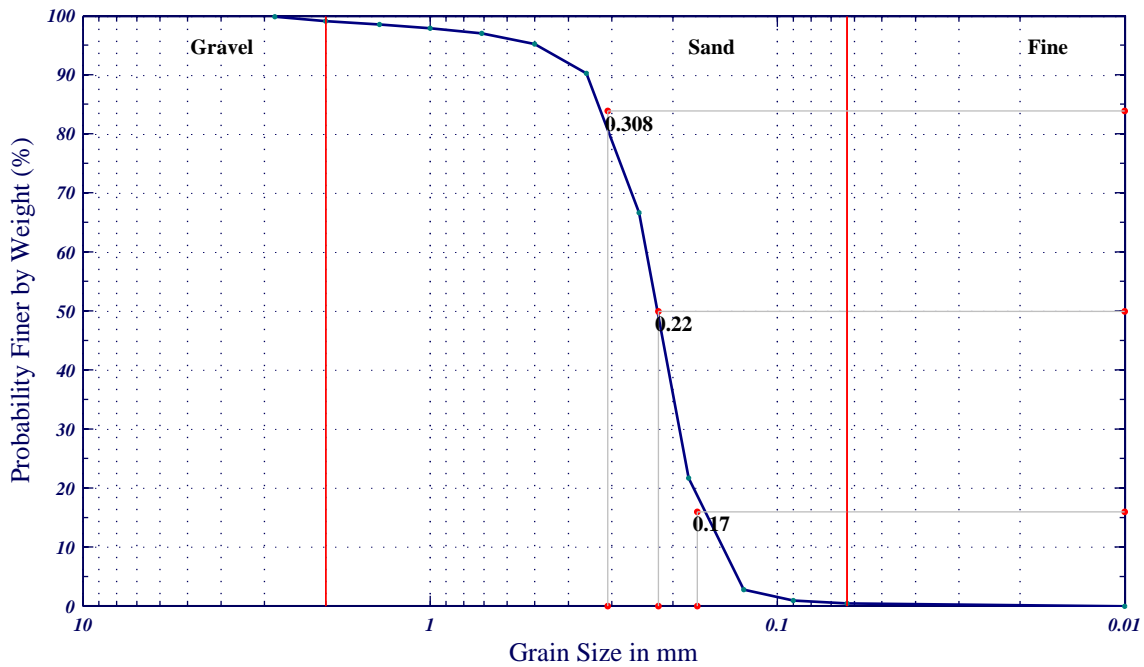
Northing: 151,097\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.137	2.868
D10:	0.157	2.671
D16:	0.170	2.556
D25:	0.186	2.427
D30:	0.195	2.358
D50:	0.220	2.184
D60:	0.236	2.083
D75:	0.271	1.884
D84:	0.308	1.699
D95:	0.483	1.050
Mean Grain Size:	0.226	2.147
Standard Deviation:	1.431	-0.517

Percent of Gravel (16mm–2mm): 0.78  
 Percent of Sand (<2mm–0.063mm): 98.27  
 Percent of Fines (<0.063mm): 0.95

**Sample ID: CEC-11-VC-3-10**

Sample Depth: 9.8–10.2ft

Easting: 3,509,763\*

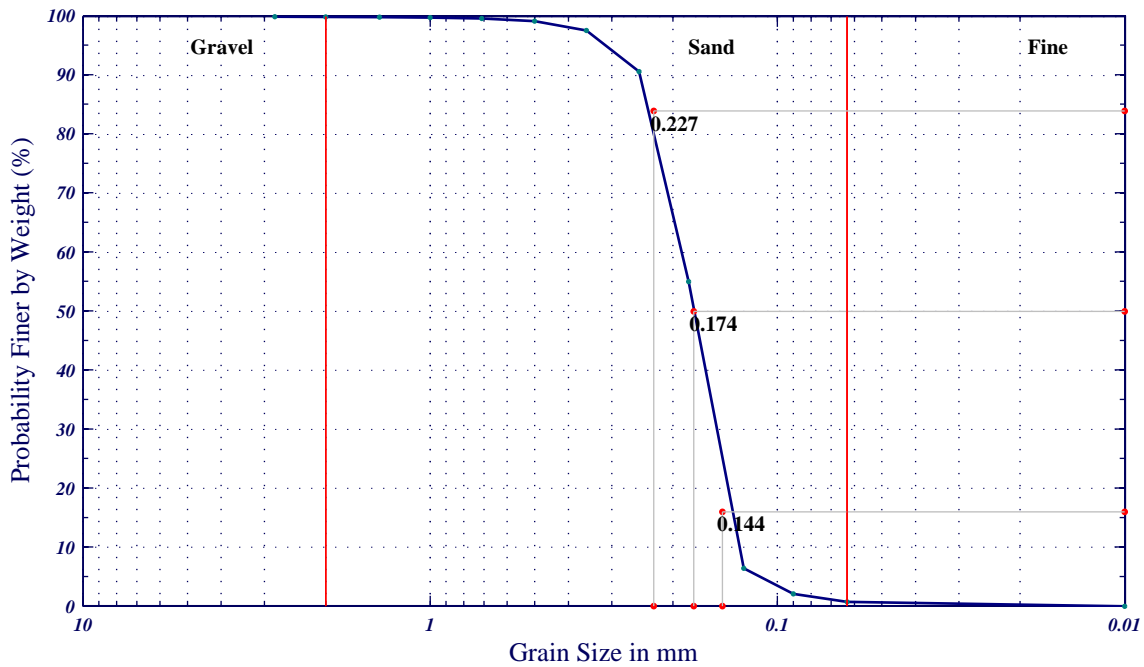
Northing: 151,097\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.119	3.071
D10:	0.133	2.911
D16:	0.144	2.796
D25:	0.154	2.699
D30:	0.158	2.662
D50:	0.174	2.523
D60:	0.187	2.419
D75:	0.206	2.279
D84:	0.227	2.139
D95:	0.293	1.771
Mean Grain Size:	0.179	2.486
Standard Deviation:	1.302	-0.381

Percent of Gravel (16mm–2mm): 0.05  
 Percent of Sand (<2mm–0.063mm): 97.88  
 Percent of Fines (<0.063mm): 2.07

**Sample ID: CEC-11-VC-3-12**

Sample Depth: 11.8–12.2ft

Easting: 3,509,763\*

Northing: 151,097\*

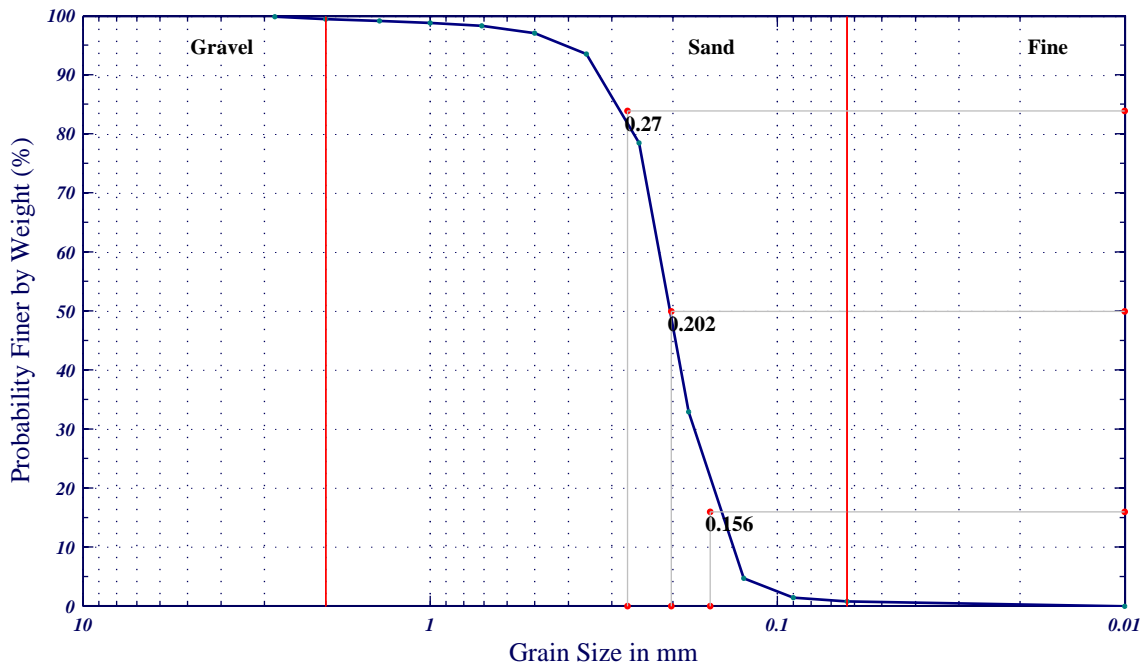
\*Coordinates are feet, LA-1702

OSI No.: 11ES008





**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.126	2.989
D10:	0.143	2.806
D16:	0.156	2.680
D25:	0.169	2.565
D30:	0.175	2.515
D50:	0.202	2.308
D60:	0.214	2.224
D75:	0.241	2.053
D84:	0.270	1.889
D95:	0.386	1.373
Mean Grain Size:	0.204	2.292
Standard Deviation:	1.382	-0.467

Percent of Gravel (16mm–2mm): 0.42  
 Percent of Sand (<2mm–0.063mm): 98.11  
 Percent of Fines (<0.063mm): 1.47

**Sample ID: CEC-11-VC-3-14**

Sample Depth: 13.8–14.2ft

Easting: 3,509,763\*

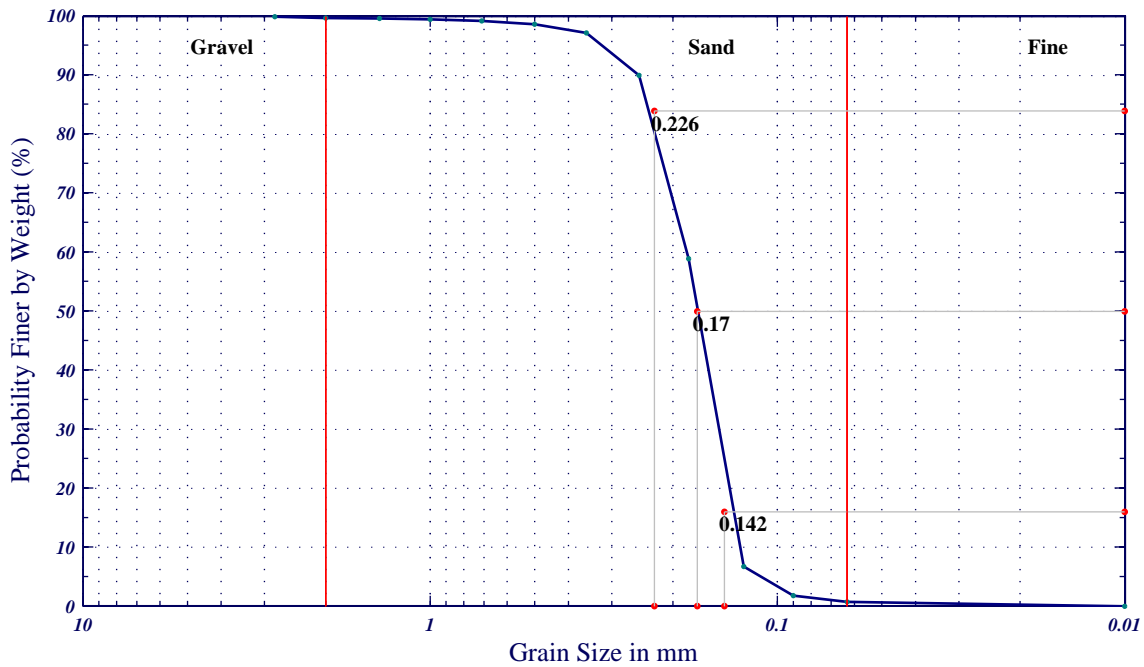
Northing: 151,097\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.118	3.083
D10:	0.132	2.921
D16:	0.142	2.816
D25:	0.152	2.718
D30:	0.156	2.680
D50:	0.170	2.556
D60:	0.182	2.458
D75:	0.204	2.293
D84:	0.226	2.146
D95:	0.301	1.732
Mean Grain Size:	0.176	2.506
Standard Deviation:	1.313	-0.393

Percent of Gravel (16mm–2mm): 0.24  
 Percent of Sand (<2mm–0.063mm): 97.95  
 Percent of Fines (<0.063mm): 1.81

**Sample ID: CEC-11-VC-3-16**

Sample Depth: 15.8–16.2ft

Easting: 3,509,763\*

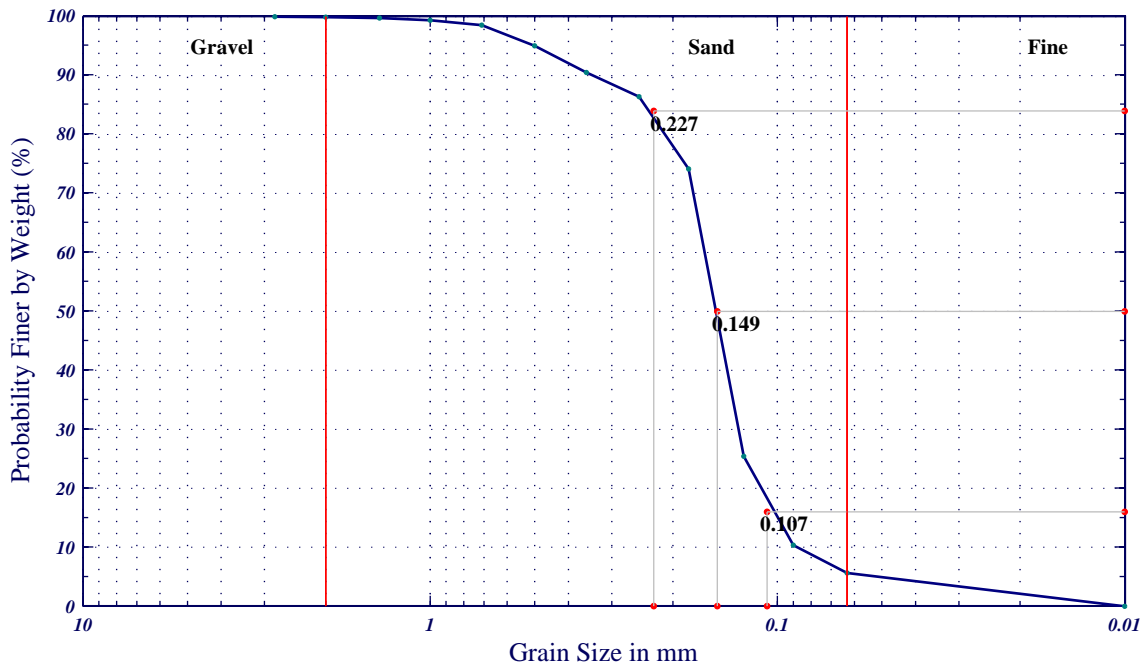
Northing: 151,097\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



## CEC Ship Shoal 2011 Cores Grain Size Distribution–Cumulative Probability Curve



Sieve Analysis Results:	(mm)	(phi)
D5:	0.058	4.108
D10:	0.089	3.490
D16:	0.107	3.224
D25:	0.124	3.012
D30:	0.132	2.921
D50:	0.149	2.747
D60:	0.158	2.662
D75:	0.182	2.458
D84:	0.227	2.139
D95:	0.499	1.003
Mean Grain Size:	0.154	2.703
Standard Deviation:	1.728	-0.789

Percent of Gravel (16mm–2mm): 0.10  
 Percent of Sand (<2mm–0.063mm): 89.54  
 Percent of Fines (<0.063mm): 10.36

**Sample ID: CEC-11-VC-3-17**

Sample Depth: 17.5–17.9ft

Easting: 3,509,763\*

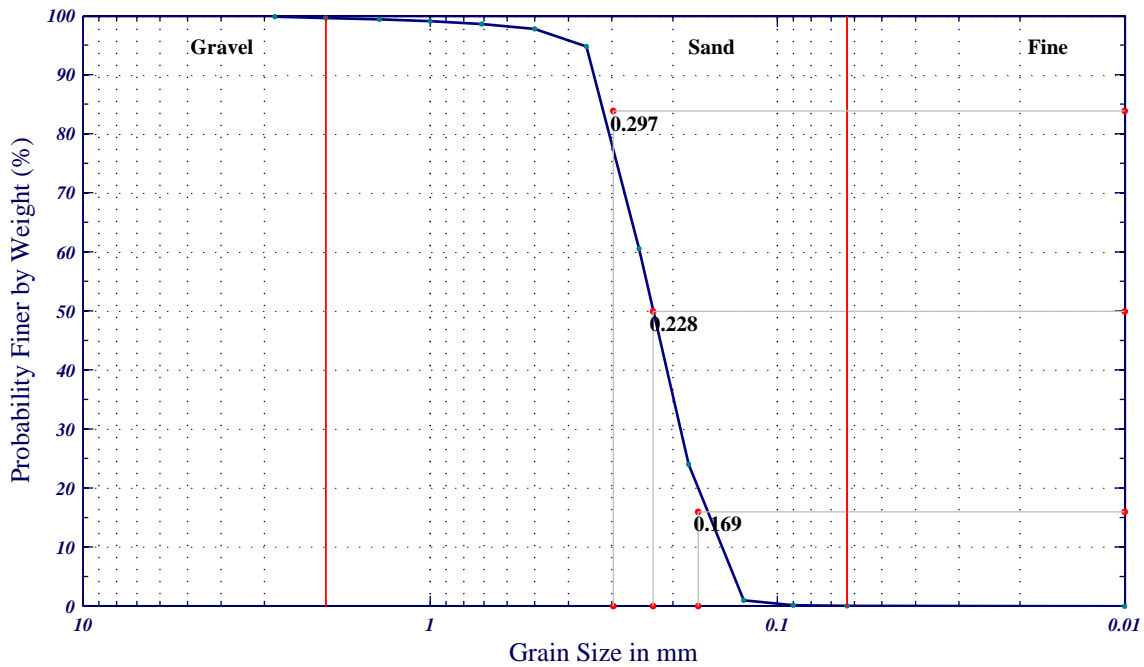
Northing: 151,097\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.145	2.786
D10:	0.160	2.644
D16:	0.169	2.565
D25:	0.182	2.458
D30:	0.192	2.381
D50:	0.228	2.133
D60:	0.249	2.006
D75:	0.275	1.862
D84:	0.297	1.751
D95:	0.356	1.490
Mean Grain Size:	0.225	2.150
Standard Deviation:	1.337	-0.419

Percent of Gravel (16mm–2mm): 0.24  
 Percent of Sand (<2mm–0.063mm): 99.59  
 Percent of Fines (<0.063mm): 0.17

**Sample ID: CEC-11-VC-4-0**

Sample Depth: 0.0–0.4ft

Easting: 3,510,615\*

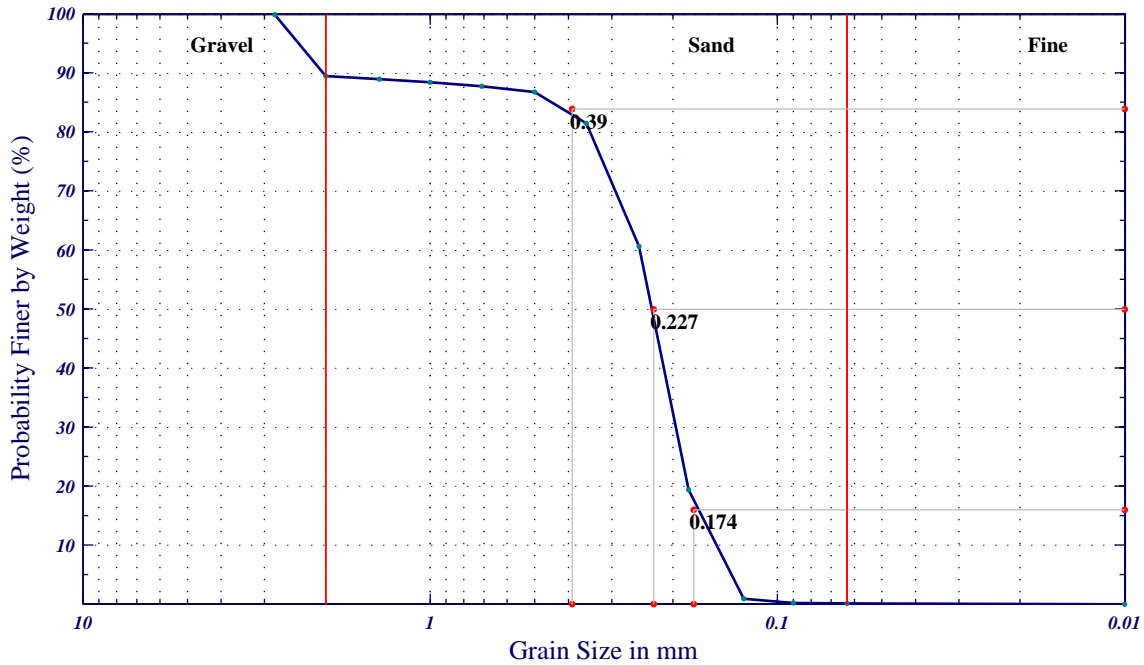
Northing: 151,610\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.150	2.737
D10:	0.165	2.599
D16:	0.174	2.523
D25:	0.191	2.388
D30:	0.199	2.329
D50:	0.227	2.139
D60:	0.248	2.012
D75:	0.304	1.718
D84:	0.390	1.358
D95:	2.665	-1.414
Mean Grain Size:	0.249	2.007
Standard Deviation:	1.976	-0.983

Percent of Gravel (16mm–2mm): 10.41  
 Percent of Sand (<2mm–0.063mm): 89.37  
 Percent of Fines (<0.063mm): 0.23

**Sample ID: CEC-11-VC-4-2**

Sample Depth: 1.8–2.2ft

Easting: 3,510,615\*

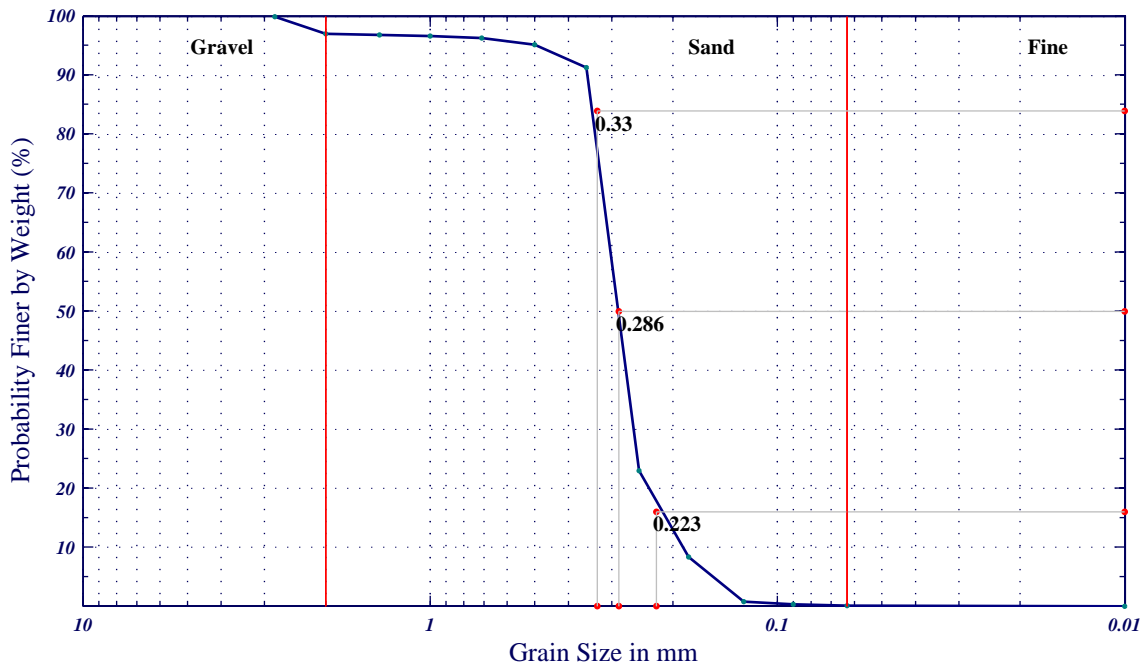
Northing: 151,610\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



<b>Sieve Analysis Results:</b>	<b>(mm)</b>	<b>(phi)</b>
D5:	0.165	2.599
D10:	0.190	2.396
D16:	0.223	2.165
D25:	0.255	1.971
D30:	0.265	1.916
D50:	0.286	1.806
D60:	0.292	1.776
D75:	0.309	1.694
D84:	0.330	1.599
D95:	0.484	1.047
Mean Grain Size:	0.276	1.857
Standard Deviation:	1.320	-0.400

Percent of Gravel (16mm–2mm): 2.90  
 Percent of Sand (<2mm–0.063mm): 96.78  
 Percent of Fines (<0.063mm): 0.32

**Sample ID: CEC-11-VC-4-4**

Sample Depth: 3.8–4.2ft

Easting: 3,510,615\*

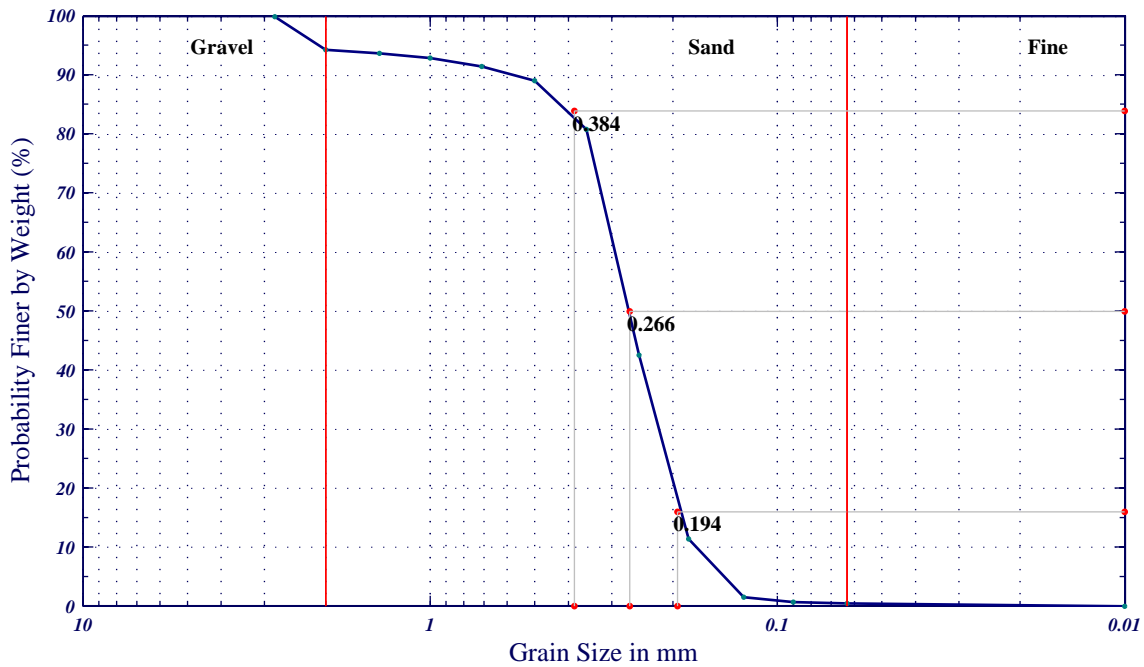
Northing: 151,610\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.156	2.680
D10:	0.176	2.506
D16:	0.194	2.366
D25:	0.215	2.218
D30:	0.224	2.158
D50:	0.266	1.911
D60:	0.284	1.816
D75:	0.327	1.613
D84:	0.384	1.381
D95:	2.187	-1.129
Mean Grain Size:	0.271	1.886
Standard Deviation:	1.842	-0.881

Percent of Gravel (16mm–2mm): 5.64  
 Percent of Sand (<2mm–0.063mm): 93.66  
 Percent of Fines (<0.063mm): 0.70

**Sample ID: CEC-11-VC-4-6**

Sample Depth: 5.8–6.2ft

Easting: 3,510,615\*

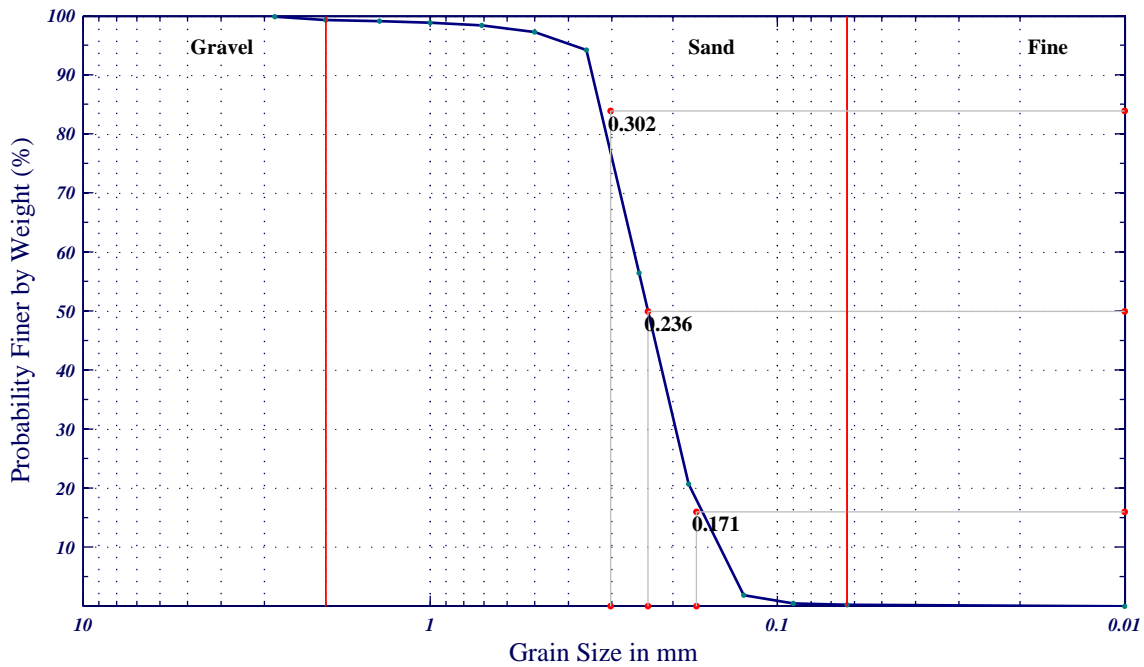
Northing: 151,610\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.143	2.806
D10:	0.160	2.644
D16:	0.171	2.548
D25:	0.190	2.396
D30:	0.200	2.322
D50:	0.236	2.083
D60:	0.257	1.960
D75:	0.279	1.842
D84:	0.302	1.727
D95:	0.366	1.450
Mean Grain Size:	0.230	2.119
Standard Deviation:	1.348	-0.431

Percent of Gravel (16mm–2mm): 0.58  
 Percent of Sand (<2mm–0.063mm): 98.96  
 Percent of Fines (<0.063mm): 0.46

**Sample ID: CEC-11-VC-4-8**

Sample Depth: 7.8–8.2ft

Easting: 3,510,615\*

Northing: 151,610\*

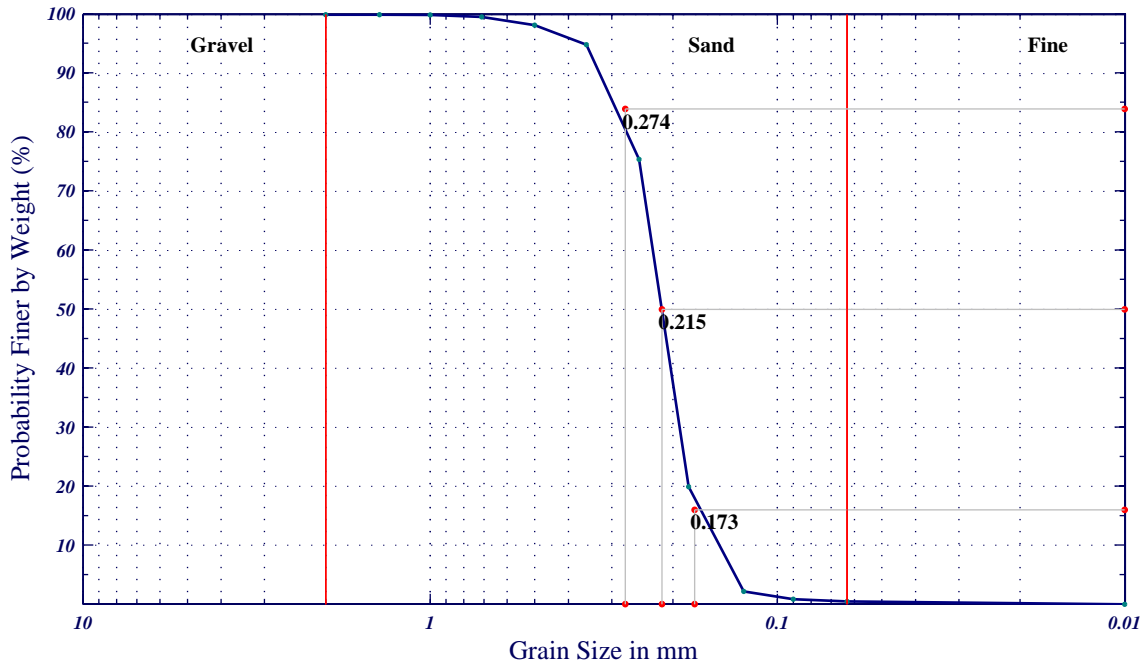
\*Coordinates are feet, LA-1702

OSI No.: 11ES008





**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.142	2.816
D10:	0.161	2.635
D16:	0.173	2.531
D25:	0.189	2.404
D30:	0.196	2.351
D50:	0.215	2.218
D60:	0.224	2.158
D75:	0.249	2.006
D84:	0.274	1.868
D95:	0.356	1.490
Mean Grain Size:	0.217	2.205
Standard Deviation:	1.308	-0.387

Percent of Gravel (16mm–2mm): 0.00  
 Percent of Sand (<2mm–0.063mm): 99.16  
 Percent of Fines (<0.063mm): 0.84

**Sample ID: CEC-11-VC-4-10**

Sample Depth: 9.8–10.2ft

Easting: 3,510,615\*

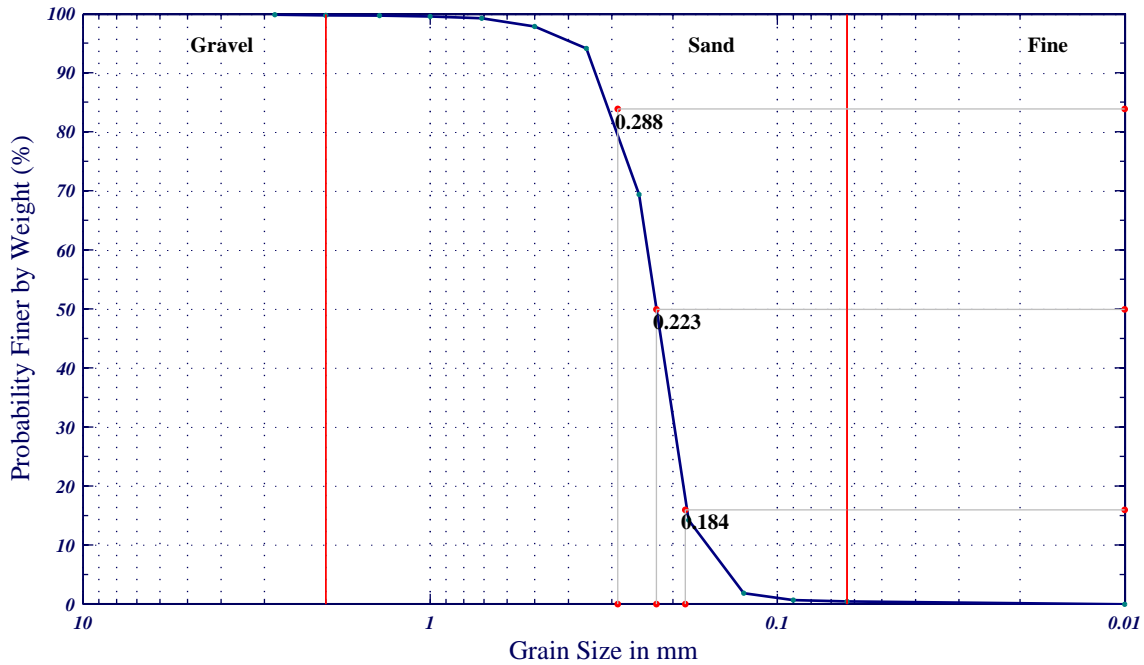
Northing: 151,610\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.150	2.737
D10:	0.170	2.556
D16:	0.184	2.442
D25:	0.199	2.329
D30:	0.205	2.286
D50:	0.223	2.165
D60:	0.234	2.095
D75:	0.261	1.938
D84:	0.288	1.796
D95:	0.367	1.446
Mean Grain Size:	0.228	2.134
Standard Deviation:	1.298	-0.377

Percent of Gravel (16mm–2mm): 0.11  
 Percent of Sand (<2mm–0.063mm): 99.17  
 Percent of Fines (<0.063mm): 0.71

**Sample ID: CEC-11-VC-4-12**

Sample Depth: 11.8–12.2ft

Easting: 3,510,615\*

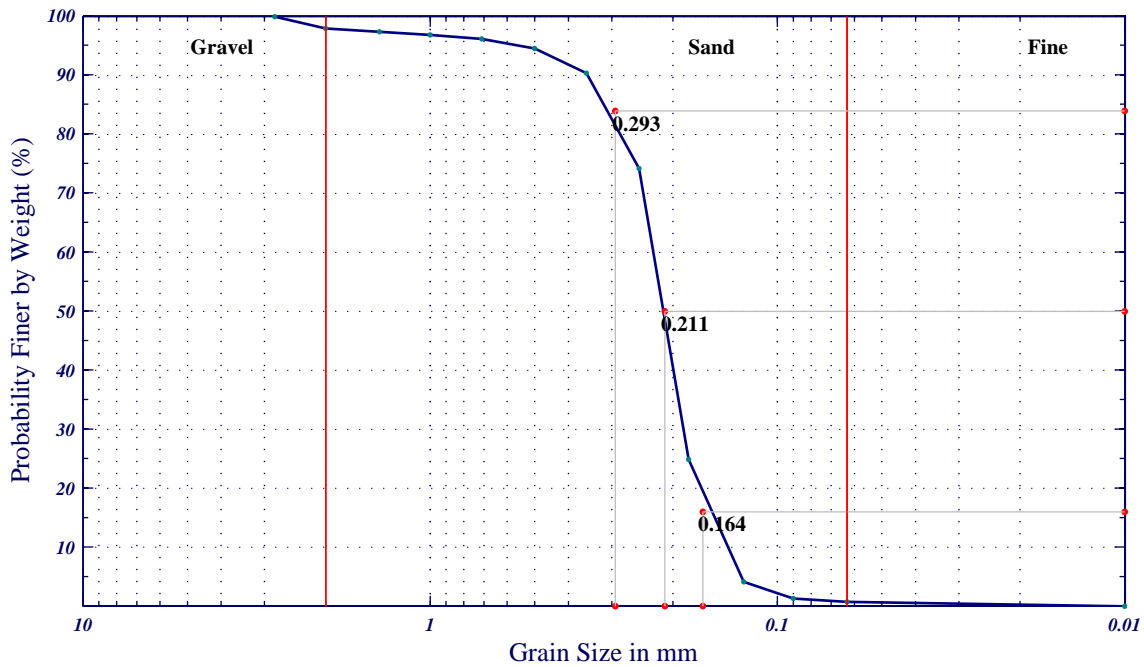
Northing: 151,610\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.129	2.955
D10:	0.149	2.747
D16:	0.164	2.608
D25:	0.180	2.474
D30:	0.189	2.404
D50:	0.211	2.245
D60:	0.223	2.165
D75:	0.252	1.989
D84:	0.293	1.771
D95:	0.530	0.916
Mean Grain Size:	0.216	2.208
Standard Deviation:	1.463	-0.549

Percent of Gravel (16mm–2mm): 2.02  
 Percent of Sand (<2mm–0.063mm): 96.68  
 Percent of Fines (<0.063mm): 1.30

**Sample ID: CEC-11-VC-4-14**

Sample Depth: 13.8–14.2ft

Easting: 3,510,615\*

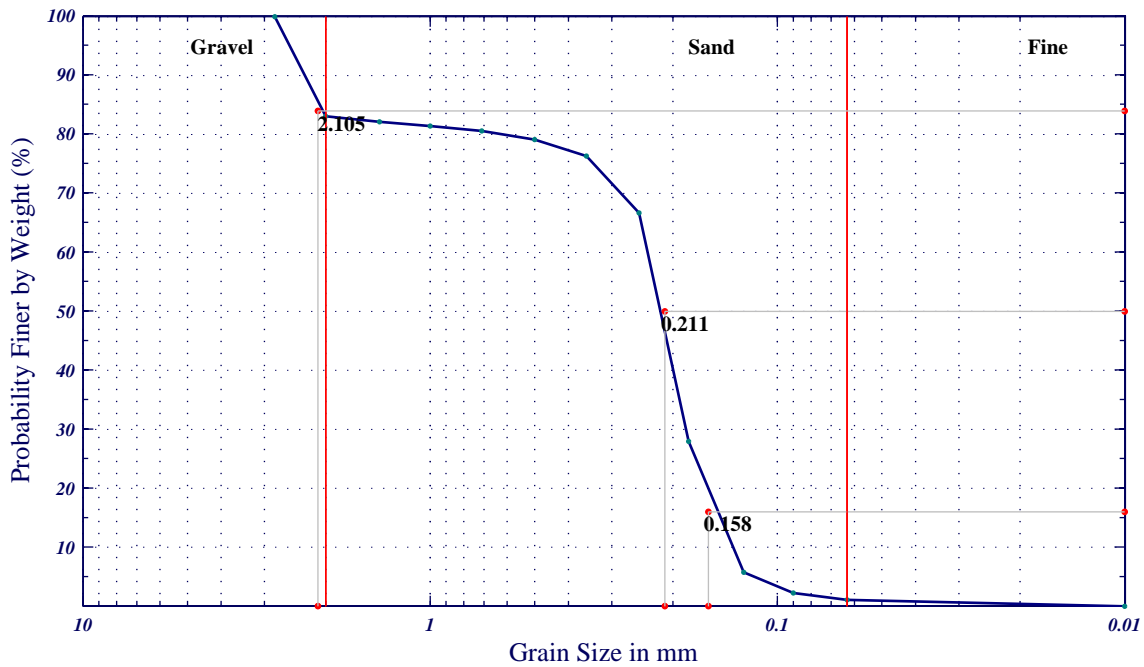
Northing: 151,610\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.121	3.047
D10:	0.142	2.816
D16:	0.158	2.662
D25:	0.174	2.523
D30:	0.184	2.442
D50:	0.211	2.245
D60:	0.230	2.120
D75:	0.330	1.599
D84:	2.105	-1.074
D95:	2.755	-1.462
Mean Grain Size:	0.412	1.278
Standard Deviation:	3.216	-1.685

Percent of Gravel (16mm–2mm): 16.92  
 Percent of Sand (<2mm–0.063mm): 80.85  
 Percent of Fines (<0.063mm): 2.23

**Sample ID: CEC-11-VC-4-16**

Sample Depth: 15.8–16.2ft

Easting: 3,510,615\*

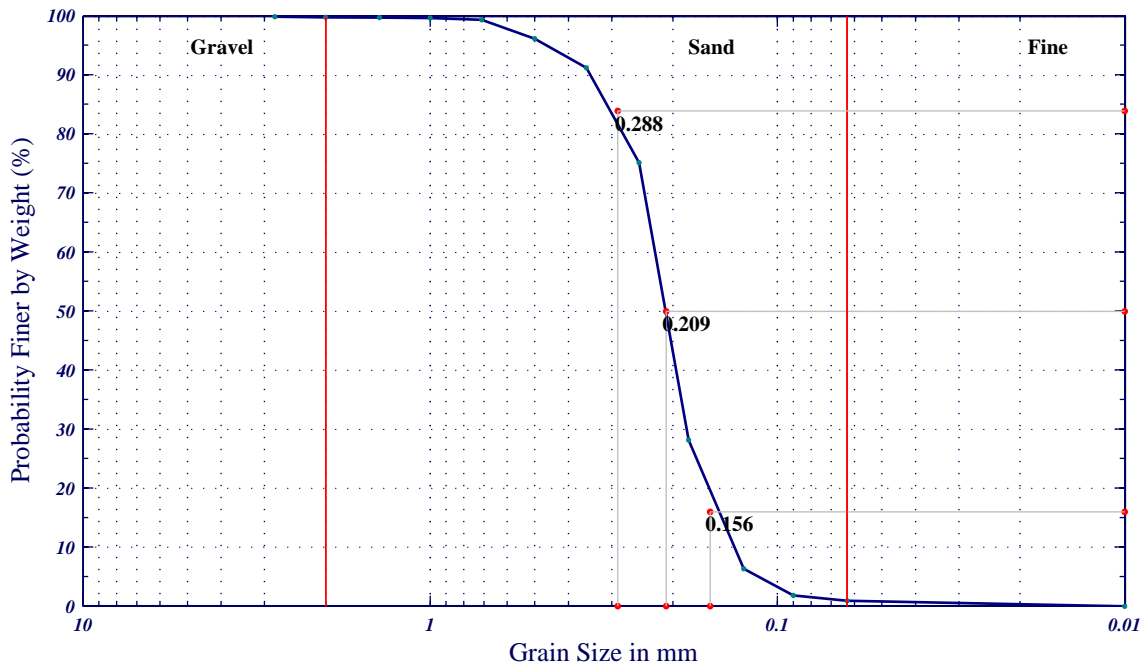
Northing: 151,610\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.119	3.071
D10:	0.139	2.847
D16:	0.156	2.680
D25:	0.174	2.523
D30:	0.183	2.450
D50:	0.209	2.258
D60:	0.220	2.184
D75:	0.249	2.006
D84:	0.288	1.796
D95:	0.451	1.149
Mean Grain Size:	0.211	2.245
Standard Deviation:	1.455	-0.541

Percent of Gravel (16mm–2mm): 0.13  
 Percent of Sand (<2mm–0.063mm): 98.02  
 Percent of Fines (<0.063mm): 1.84

**Sample ID: CEC-11-VC-4-18**

Sample Depth: 17.8–18.2ft

Easting: 3,510,615\*

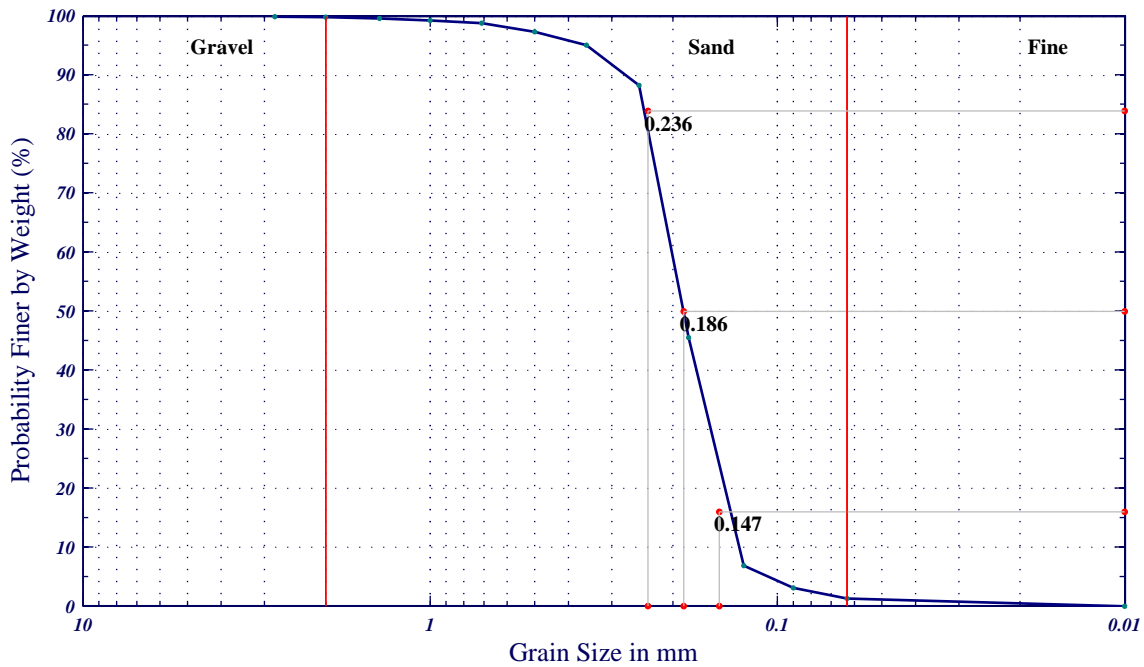
Northing: 151,610\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.112	3.158
D10:	0.134	2.900
D16:	0.147	2.766
D25:	0.159	2.653
D30:	0.164	2.608
D50:	0.186	2.427
D60:	0.196	2.351
D75:	0.215	2.218
D84:	0.236	2.083
D95:	0.351	1.510
Mean Grain Size:	0.186	2.425
Standard Deviation:	1.362	-0.445

Percent of Gravel (16mm–2mm): 0.11  
 Percent of Sand (<2mm–0.063mm): 96.76  
 Percent of Fines (<0.063mm): 3.12

**Sample ID: CEC-11-VC-4-19**

Sample Depth: 19.6–20.0ft

Easting: 3,510,615\*

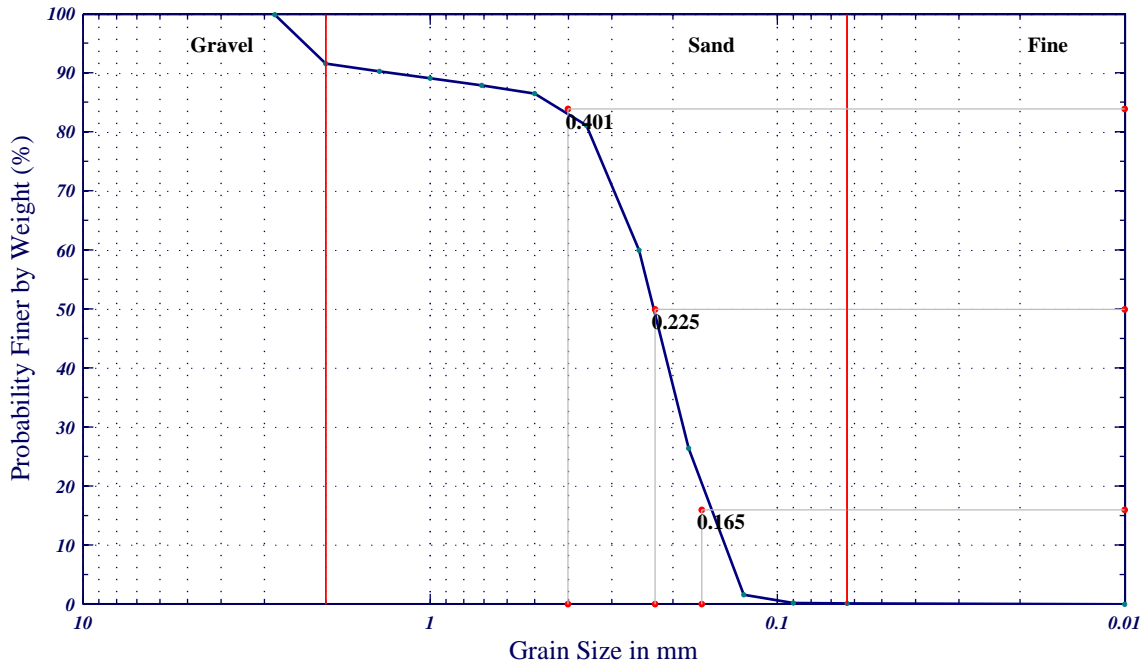
Northing: 151,610\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.141	2.826
D10:	0.156	2.680
D16:	0.165	2.599
D25:	0.177	2.498
D30:	0.187	2.419
D50:	0.225	2.152
D60:	0.250	2.000
D75:	0.307	1.704
D84:	0.401	1.318
D95:	2.509	-1.327
Mean Grain Size:	0.246	2.023
Standard Deviation:	2.017	-1.013

Percent of Gravel (16mm–2mm): 8.33  
 Percent of Sand (<2mm–0.063mm): 91.45  
 Percent of Fines (<0.063mm): 0.23

**Sample ID: CEC-11-VC-5-0**

Sample Depth: 0.0–0.4ft

Easting: 3,512,445\*

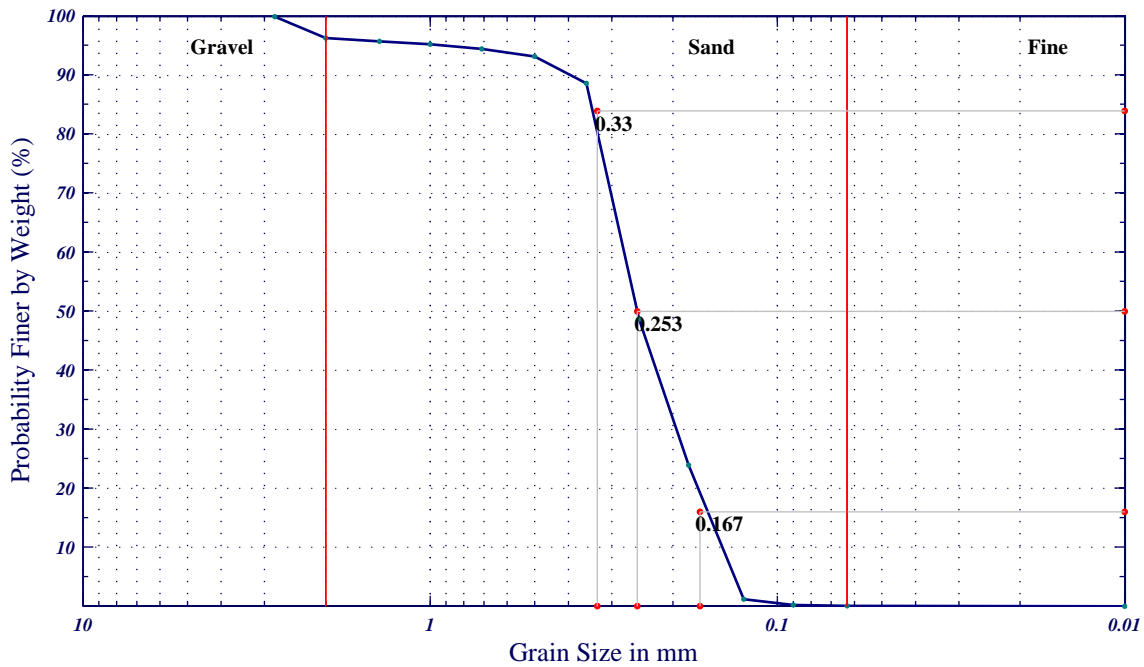
Northing: 152,462\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.144	2.796
D10:	0.158	2.662
D16:	0.167	2.582
D25:	0.183	2.450
D30:	0.197	2.344
D50:	0.253	1.983
D60:	0.272	1.878
D75:	0.298	1.747
D84:	0.330	1.599
D95:	0.855	0.226
Mean Grain Size:	0.241	2.055
Standard Deviation:	1.595	-0.674

Percent of Gravel (16mm–2mm): 3.64  
 Percent of Sand (<2mm–0.063mm): 96.15  
 Percent of Fines (<0.063mm): 0.21

**Sample ID: CEC-11-VC-5-2**

Sample Depth: 1.8–2.2ft

Easting: 3,512,445\*

Northing: 152,462\*

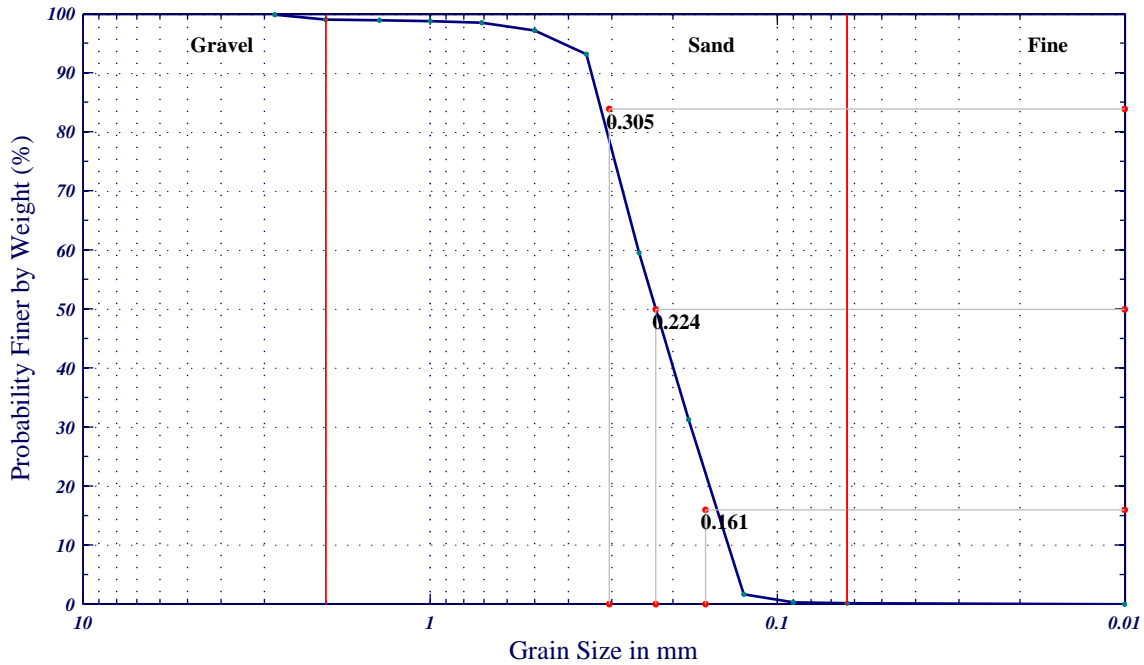
\*Coordinates are feet, LA-1702

OSI No.: 11ES008





**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.139	2.847
D10:	0.152	2.718
D16:	0.161	2.635
D25:	0.170	2.556
D30:	0.177	2.498
D50:	0.224	2.158
D60:	0.251	1.994
D75:	0.280	1.837
D84:	0.305	1.713
D95:	0.388	1.366
Mean Grain Size:	0.222	2.169
Standard Deviation:	1.392	-0.477

Percent of Gravel (16mm–2mm): 0.85  
 Percent of Sand (<2mm–0.063mm): 98.84  
 Percent of Fines (<0.063mm): 0.30

**Sample ID: CEC-11-VC-5-4**

Sample Depth: 3.8–4.2ft

Easting: 3,512,445\*

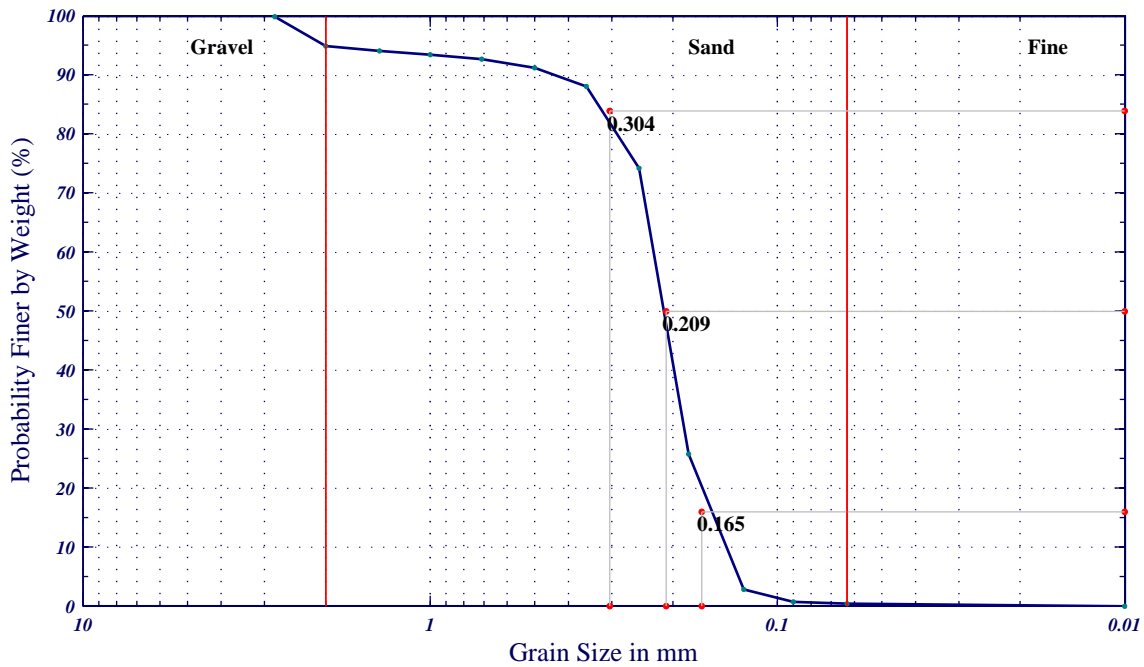
Northing: 152,462\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.135	2.889
D10:	0.153	2.708
D16:	0.165	2.599
D25:	0.179	2.482
D30:	0.187	2.419
D50:	0.209	2.258
D60:	0.221	2.178
D75:	0.252	1.989
D84:	0.304	1.718
D95:	1.998	-0.999
Mean Grain Size:	0.219	2.192
Standard Deviation:	1.826	-0.868

Percent of Gravel (16mm–2mm): 4.99  
 Percent of Sand (<2mm–0.063mm): 94.29  
 Percent of Fines (<0.063mm): 0.72

**Sample ID: CEC-11-VC-5-6**

Sample Depth: 5.8–6.2ft

Easting: 3,512,445\*

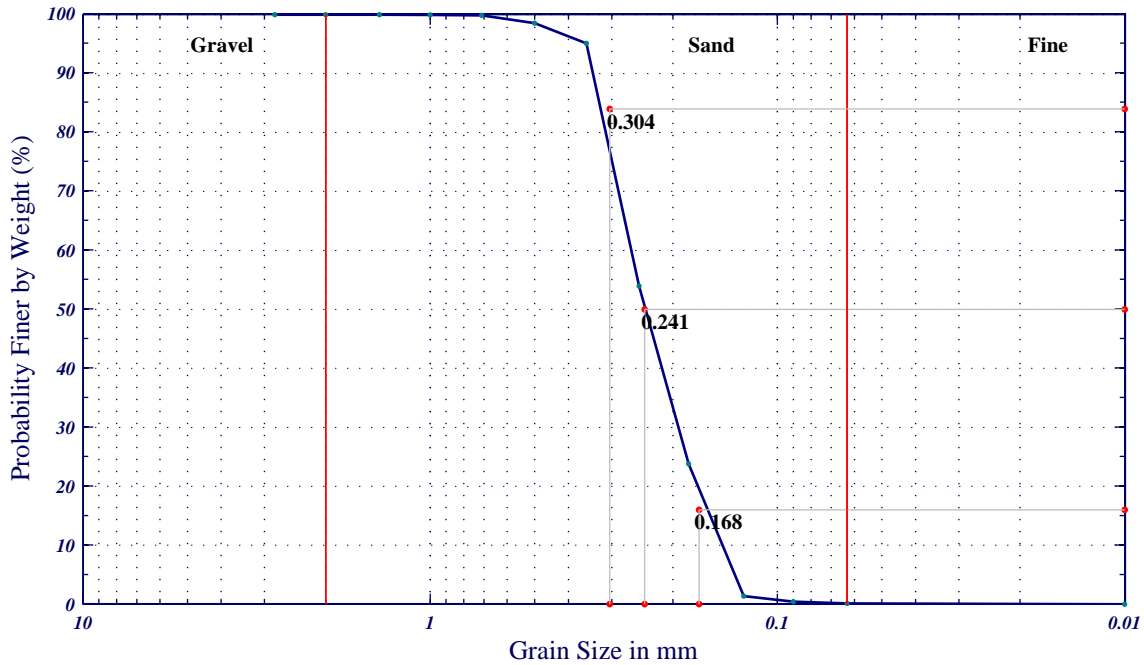
Northing: 152,462\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.144	2.796
D10:	0.159	2.653
D16:	0.168	2.573
D25:	0.183	2.450
D30:	0.195	2.358
D50:	0.241	2.053
D60:	0.262	1.932
D75:	0.283	1.821
D84:	0.304	1.718
D95:	0.354	1.498
Mean Grain Size:	0.231	2.115
Standard Deviation:	1.347	-0.430

Percent of Gravel (16mm–2mm): 0.01  
 Percent of Sand (<2mm–0.063mm): 99.55  
 Percent of Fines (<0.063mm): 0.44

**Sample ID: CEC-11-VC-5-8**

Sample Depth: 7.8–8.2ft

Easting: 3,512,445\*

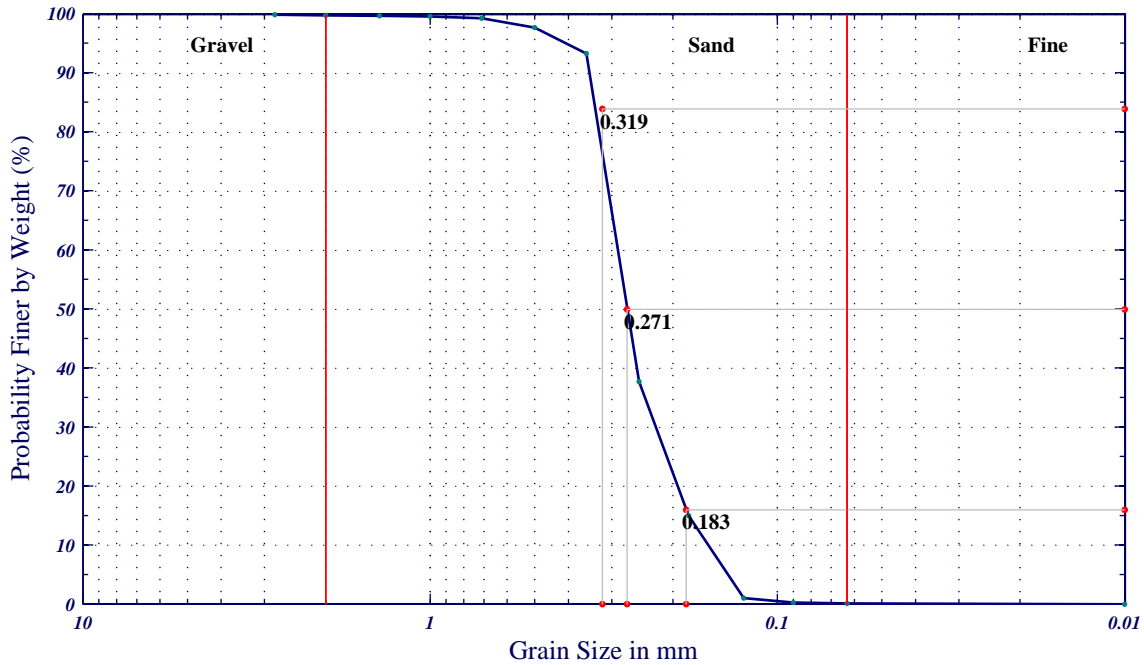
Northing: 152,462\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.153	2.708
D10:	0.168	2.573
D16:	0.183	2.450
D25:	0.214	2.224
D30:	0.229	2.127
D50:	0.271	1.884
D60:	0.281	1.831
D75:	0.299	1.742
D84:	0.319	1.648
D95:	0.380	1.396
Mean Grain Size:	0.251	1.994
Standard Deviation:	1.337	-0.419

Percent of Gravel (16mm–2mm): 0.14  
 Percent of Sand (<2mm–0.063mm): 99.56  
 Percent of Fines (<0.063mm): 0.30

**Sample ID: CEC-11-VC-5-10**

Sample Depth: 9.8–10.2ft

Easting: 3,512,445\*

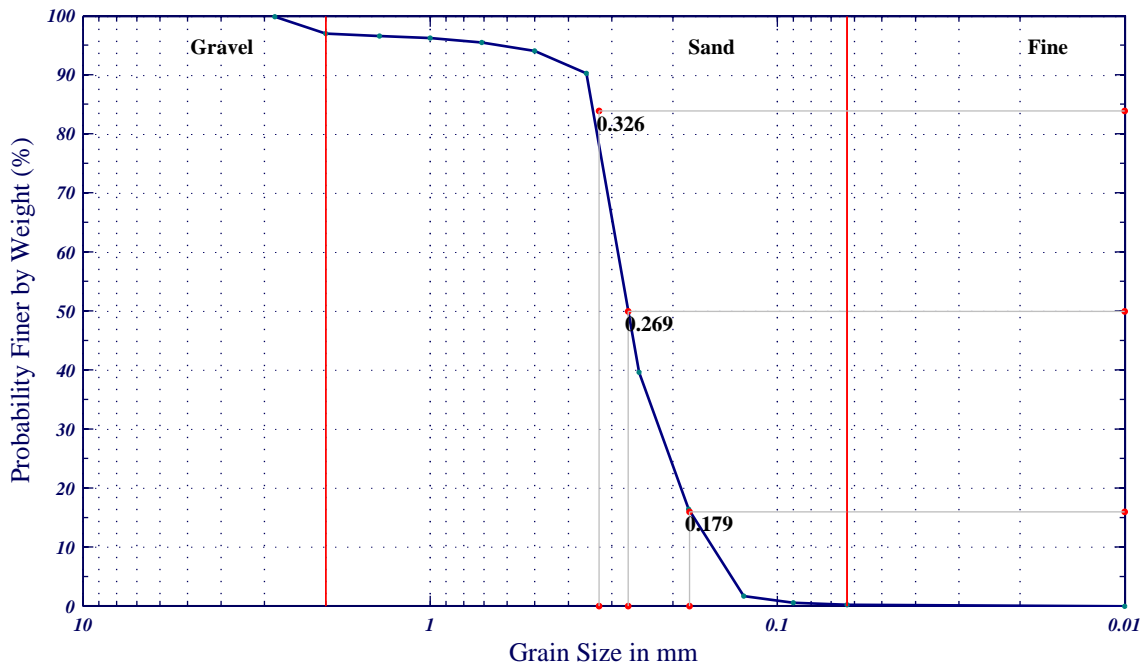
Northing: 152,462\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



<b>Sieve Analysis Results:</b>	<b>(mm)</b>	<b>(phi)</b>
D5:	0.147	2.766
D10:	0.164	2.608
D16:	0.179	2.482
D25:	0.208	2.265
D30:	0.223	2.165
D50:	0.269	1.894
D60:	0.280	1.837
D75:	0.301	1.732
D84:	0.326	1.617
D95:	0.592	0.756
Mean Grain Size:	0.250	1.998
Standard Deviation:	1.465	-0.551

Percent of Gravel (16mm–2mm): 2.87  
 Percent of Sand (<2mm–0.063mm): 96.55  
 Percent of Fines (<0.063mm): 0.59

**Sample ID: CEC-11-VC-5-12**

Sample Depth: 11.8–12.2ft

Easting: 3,512,445\*

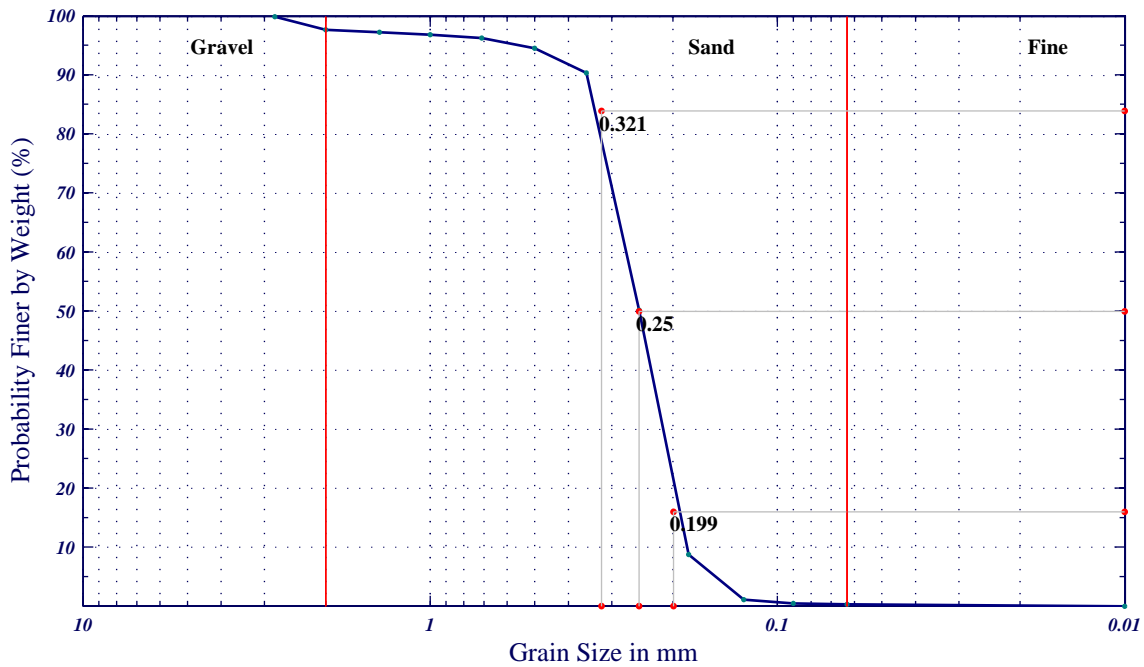
Northing: 152,462\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.165	2.599
D10:	0.184	2.442
D16:	0.199	2.329
D25:	0.215	2.218
D30:	0.221	2.178
D50:	0.250	2.000
D60:	0.266	1.911
D75:	0.291	1.781
D84:	0.321	1.639
D95:	0.524	0.932
Mean Grain Size:	0.252	1.990
Standard Deviation:	1.366	-0.450

Percent of Gravel (16mm–2mm): 2.26  
 Percent of Sand (<2mm–0.063mm): 97.26  
 Percent of Fines (<0.063mm): 0.49

**Sample ID: CEC-11-VC-5-14**

Sample Depth: 13.8–14.2ft

Easting: 3,512,445\*

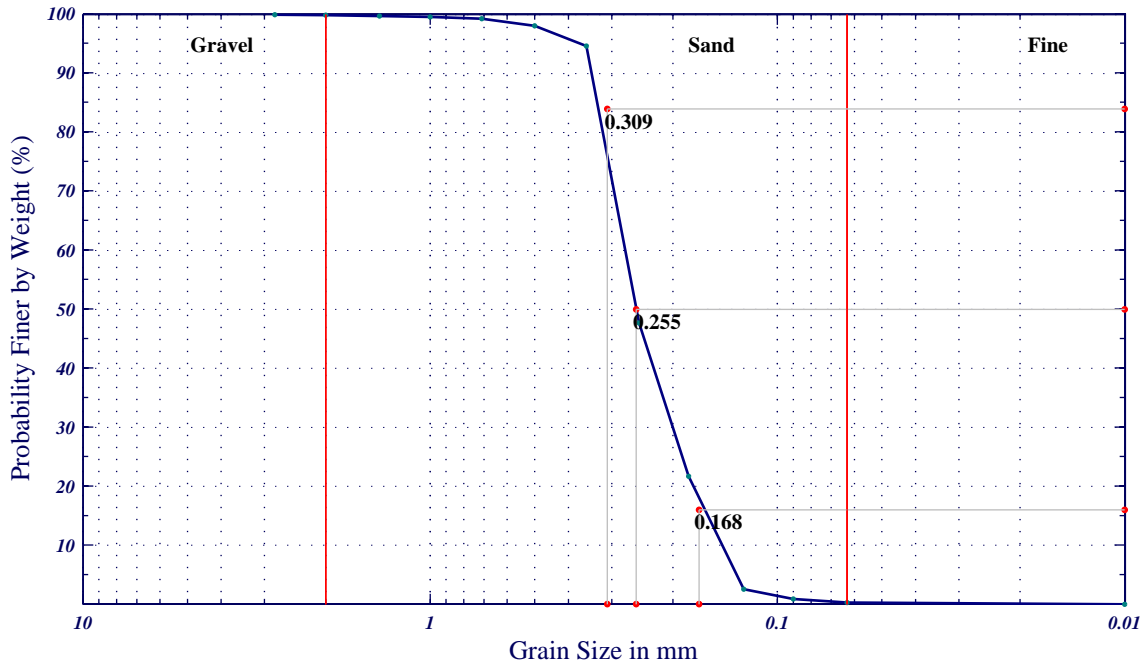
Northing: 152,462\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.139	2.847
D10:	0.156	2.680
D16:	0.168	2.573
D25:	0.189	2.404
D30:	0.203	2.300
D50:	0.255	1.971
D60:	0.271	1.884
D75:	0.289	1.791
D84:	0.309	1.694
D95:	0.358	1.482
Mean Grain Size:	0.237	2.080
Standard Deviation:	1.363	-0.447

Percent of Gravel (16mm–2mm): 0.11  
 Percent of Sand (<2mm–0.063mm): 99.02  
 Percent of Fines (<0.063mm): 0.87

**Sample ID: CEC-11-VC-5-16**

Sample Depth: 15.8–16.2ft

Easting: 3,512,445\*

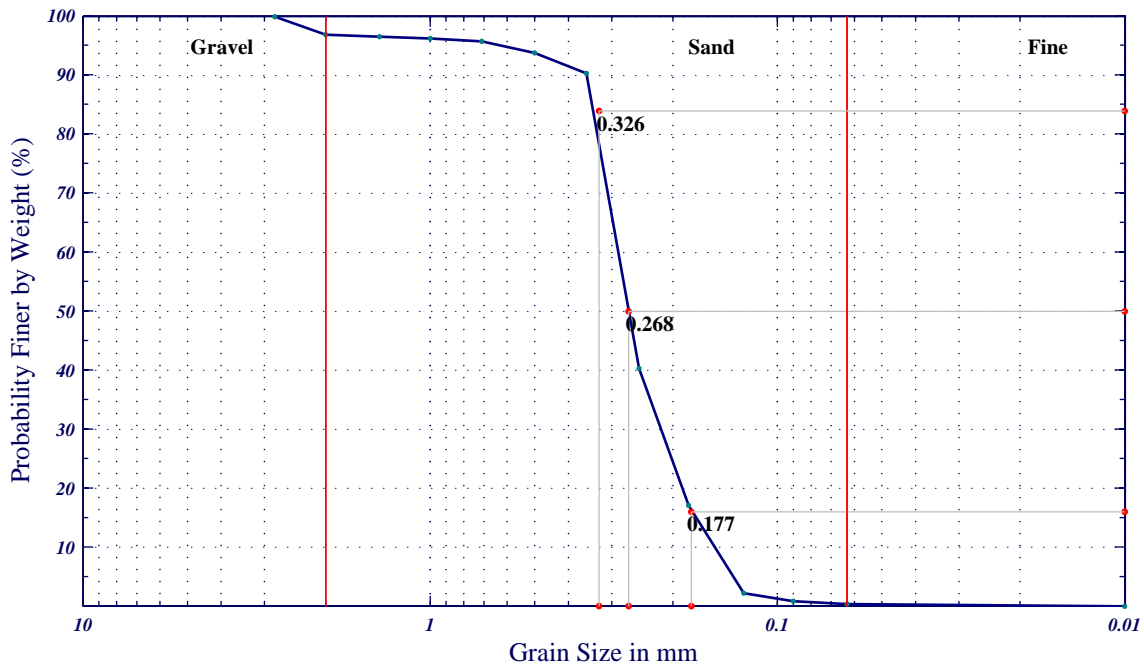
Northing: 152,462\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.144	2.796
D10:	0.162	2.626
D16:	0.177	2.498
D25:	0.206	2.279
D30:	0.221	2.178
D50:	0.268	1.900
D60:	0.279	1.842
D75:	0.300	1.737
D84:	0.326	1.617
D95:	0.588	0.766
Mean Grain Size:	0.249	2.005
Standard Deviation:	1.473	-0.559

Percent of Gravel (16mm–2mm): 3.09  
 Percent of Sand (<2mm–0.063mm): 96.08  
 Percent of Fines (<0.063mm): 0.83

**Sample ID: CEC-11-VC-5-18**

Sample Depth: 17.8–18.2ft

Easting: 3,512,445\*

Northing: 152,462\*

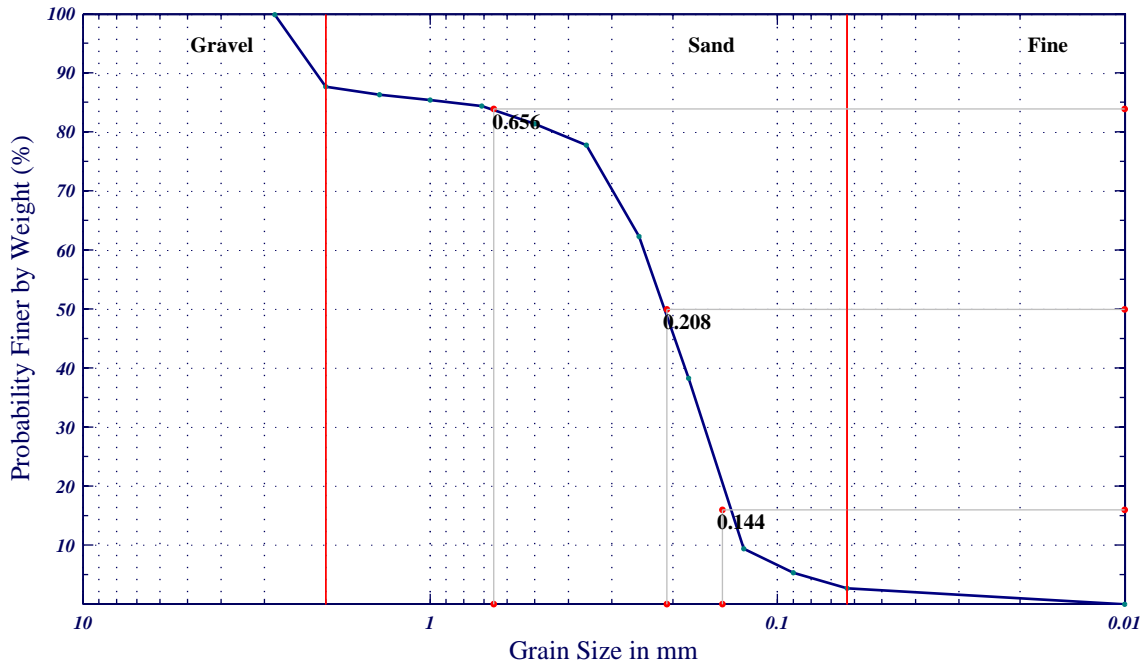
\*Coordinates are feet, LA-1702

OSI No.: 11ES008





**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.087	3.523
D10:	0.127	2.977
D16:	0.144	2.796
D25:	0.159	2.653
D30:	0.165	2.599
D50:	0.208	2.265
D60:	0.241	2.053
D75:	0.322	1.635
D84:	0.656	0.608
D95:	2.680	-1.422
Mean Grain Size:	0.270	1.890
Standard Deviation:	2.587	-1.371

Percent of Gravel (16mm–2mm): 12.25  
 Percent of Sand (<2mm–0.063mm): 82.41  
 Percent of Fines (<0.063mm): 5.34

**Sample ID: CEC-11-VC-5-19**

Sample Depth: 19.6–20.0ft

Easting: 3,512,445\*

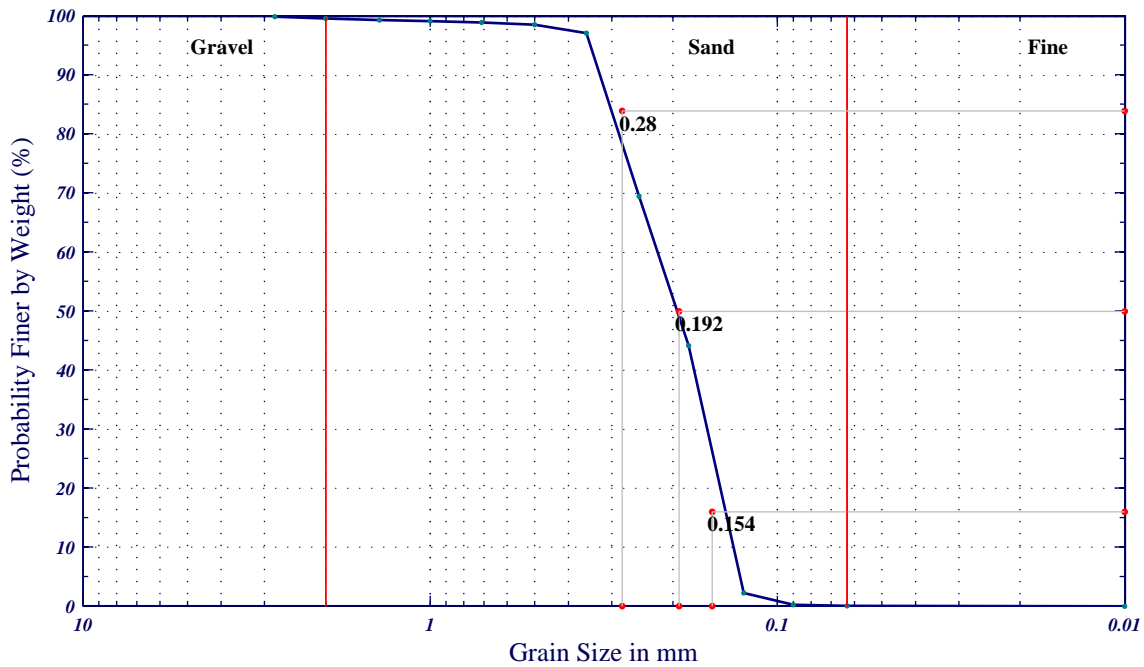
Northing: 152,462\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.133	2.911
D10:	0.145	2.786
D16:	0.154	2.699
D25:	0.161	2.635
D30:	0.164	2.608
D50:	0.192	2.381
D60:	0.220	2.184
D75:	0.263	1.927
D84:	0.280	1.837
D95:	0.335	1.578
Mean Grain Size:	0.202	2.305
Standard Deviation:	1.354	-0.438

Percent of Gravel (16mm–2mm): 0.31  
 Percent of Sand (<2mm–0.063mm): 99.46  
 Percent of Fines (<0.063mm): 0.23

**Sample ID: CEC-11-VC-6-0**

Sample Depth: 0.0–0.4ft

Easting: 3,510,560\*

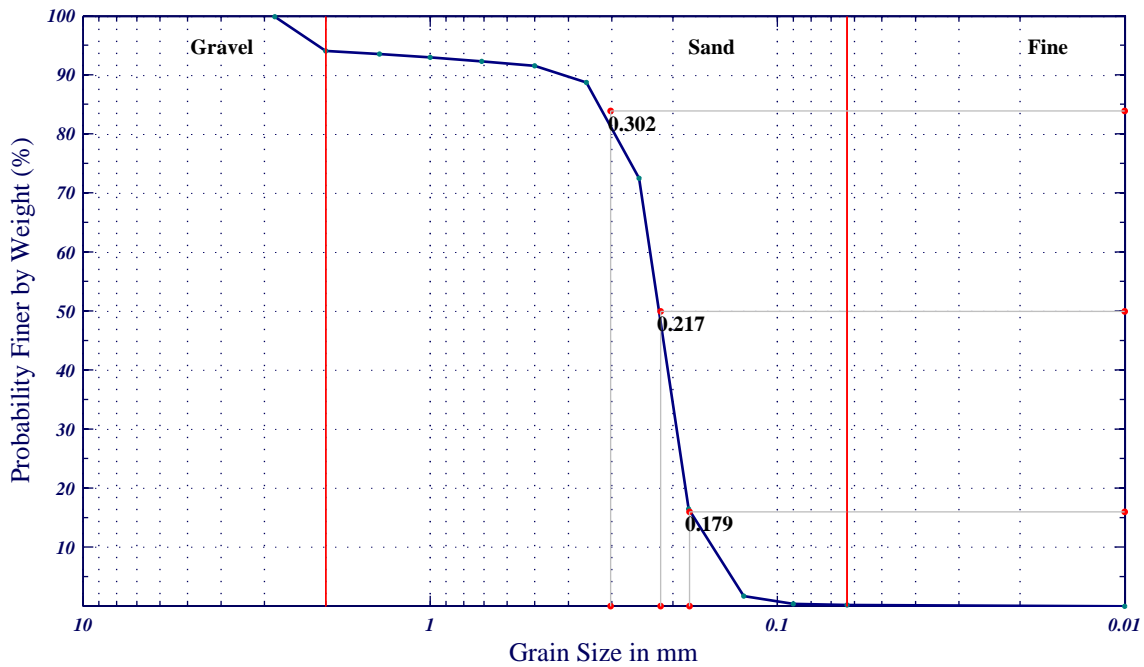
Northing: 149,815\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



### CEC Ship Shoal 2011 Cores Grain Size Distribution–Cumulative Probability Curve



#### Sieve Analysis Results: (mm) (phi)

D5:	0.147	2.766
D10:	0.167	2.582
D16:	0.179	2.482
D25:	0.194	2.366
D30:	0.200	2.322
D50:	0.217	2.204
D60:	0.227	2.139
D75:	0.256	1.966
D84:	0.302	1.727
D95:	2.235	-1.160
Mean Grain Size:	0.227	2.138
Standard Deviation:	1.794	-0.843

Percent of Gravel (16mm–2mm): 5.83  
 Percent of Sand (<2mm–0.063mm): 93.76  
 Percent of Fines (<0.063mm): 0.41

**Sample ID: CEC-11-VC-6-2**

Sample Depth: 1.8–2.2ft

Easting: 3,510,560\*

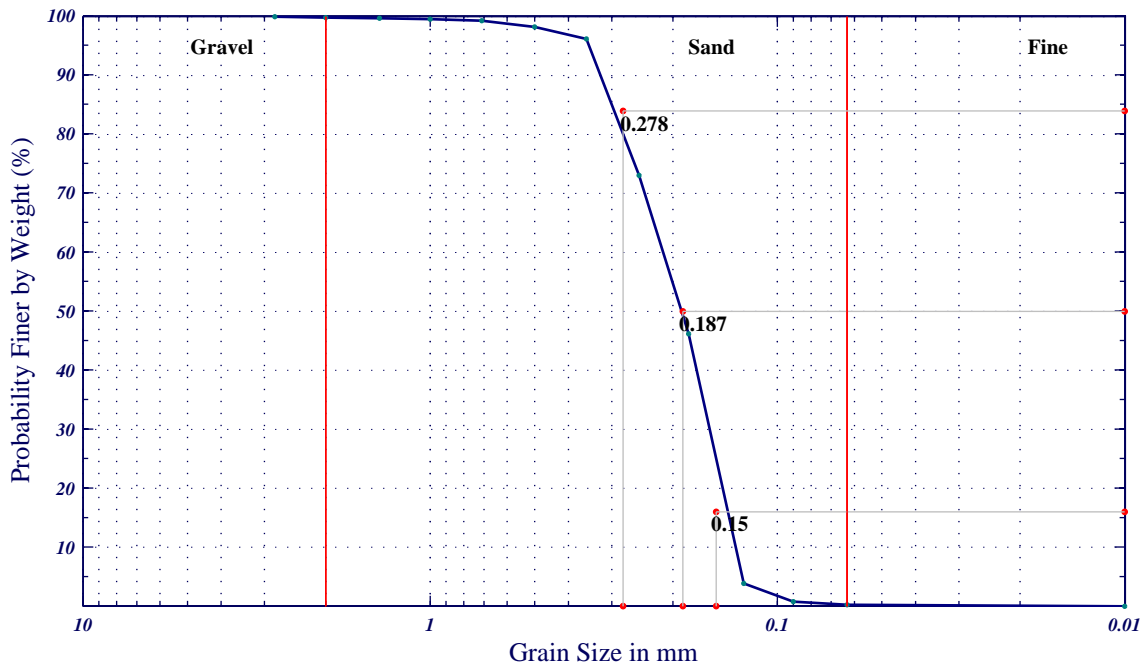
Northing: 149,815\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.128	2.966
D10:	0.140	2.837
D16:	0.150	2.737
D25:	0.159	2.653
D30:	0.163	2.617
D50:	0.187	2.419
D60:	0.211	2.245
D75:	0.256	1.966
D84:	0.278	1.847
D95:	0.342	1.548
Mean Grain Size:	0.198	2.334
Standard Deviation:	1.374	-0.459

Percent of Gravel (16mm–2mm): 0.16  
 Percent of Sand (<2mm–0.063mm): 99.06  
 Percent of Fines (<0.063mm): 0.78

**Sample ID: CEC-11-VC-6-4**

Sample Depth: 3.8–4.2ft

Easting: 3,510,560\*

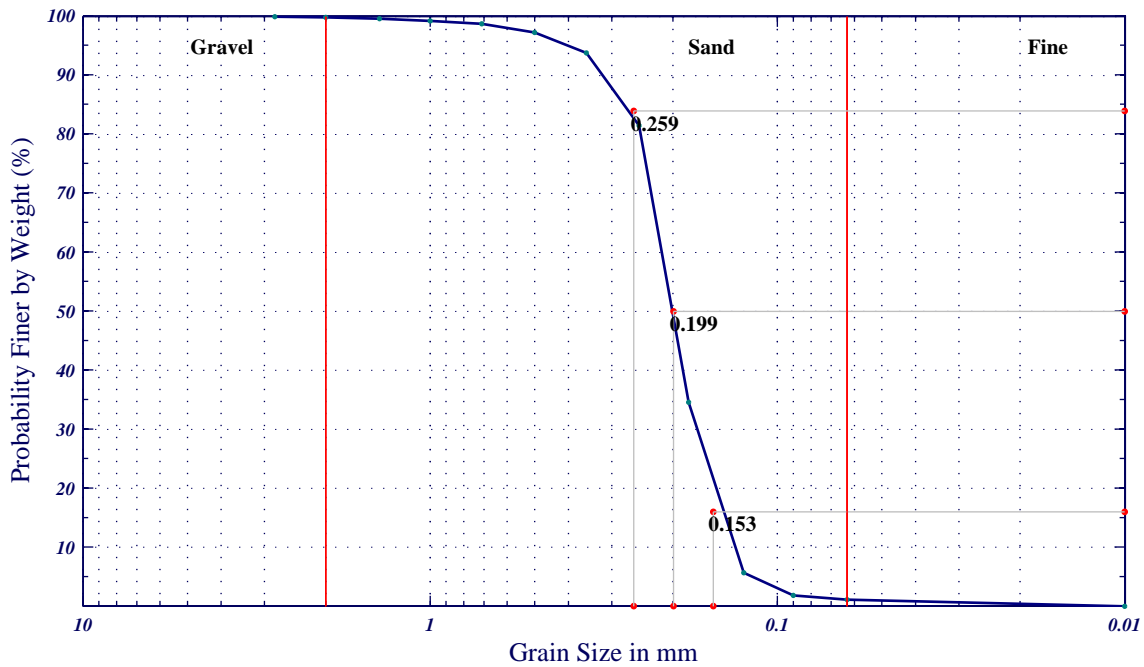
Northing: 149,815\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.122	3.035
D10:	0.139	2.847
D16:	0.153	2.708
D25:	0.167	2.582
D30:	0.173	2.531
D50:	0.199	2.329
D60:	0.210	2.252
D75:	0.233	2.102
D84:	0.259	1.949
D95:	0.383	1.385
Mean Grain Size:	0.199	2.329
Standard Deviation:	1.380	-0.465

Percent of Gravel (16mm–2mm): 0.13  
 Percent of Sand (<2mm–0.063mm): 98.05  
 Percent of Fines (<0.063mm): 1.82

**Sample ID: CEC-11-VC-6-6**

Sample Depth: 5.8–6.2ft

Easting: 3,510,560\*

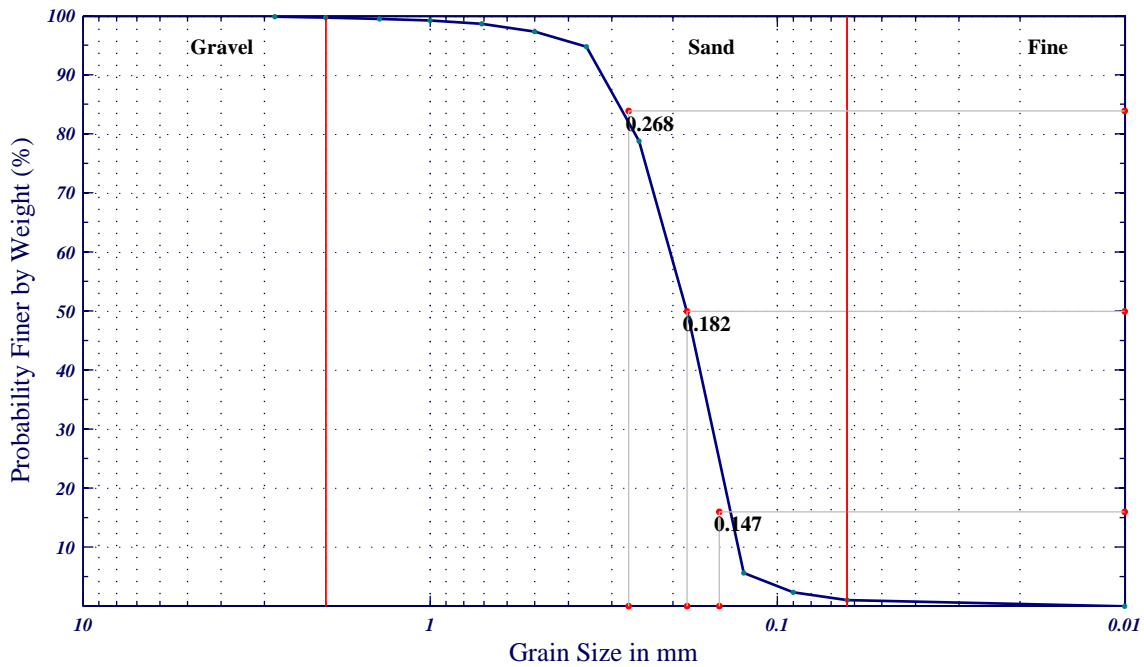
Northing: 149,815\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



<b>Sieve Analysis Results:</b>	<b>(mm)</b>	<b>(phi)</b>
D5:	0.122	3.035
D10:	0.136	2.878
D16:	0.147	2.766
D25:	0.158	2.662
D30:	0.161	2.635
D50:	0.182	2.458
D60:	0.200	2.322
D75:	0.237	2.077
D84:	0.268	1.900
D95:	0.357	1.486
Mean Grain Size:	0.193	2.375
Standard Deviation:	1.390	-0.475

Percent of Gravel (16mm–2mm): 0.16  
 Percent of Sand (<2mm–0.063mm): 97.48  
 Percent of Fines (<0.063mm): 2.36

**Sample ID: CEC-11-VC-6-8**

Sample Depth: 7.8–8.2ft

Easting: 3,510,560\*

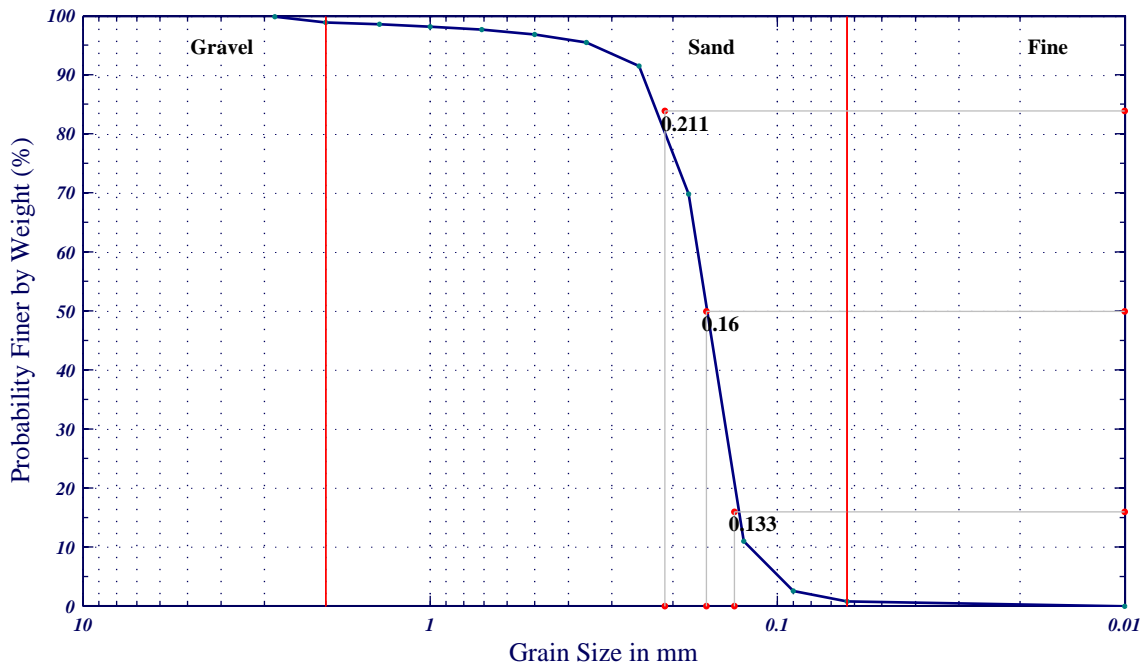
Northing: 149,815\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.105	3.252
D10:	0.123	3.023
D16:	0.133	2.911
D25:	0.144	2.796
D30:	0.148	2.756
D50:	0.160	2.644
D60:	0.168	2.573
D75:	0.188	2.411
D84:	0.211	2.245
D95:	0.328	1.608
Mean Grain Size:	0.165	2.600
Standard Deviation:	1.357	-0.440

Percent of Gravel (16mm–2mm): 0.98  
 Percent of Sand (<2mm–0.063mm): 96.45  
 Percent of Fines (<0.063mm): 2.57

**Sample ID: CEC-11-VC-6-10**

Sample Depth: 9.8–10.2ft

Easting: 3,510,560\*

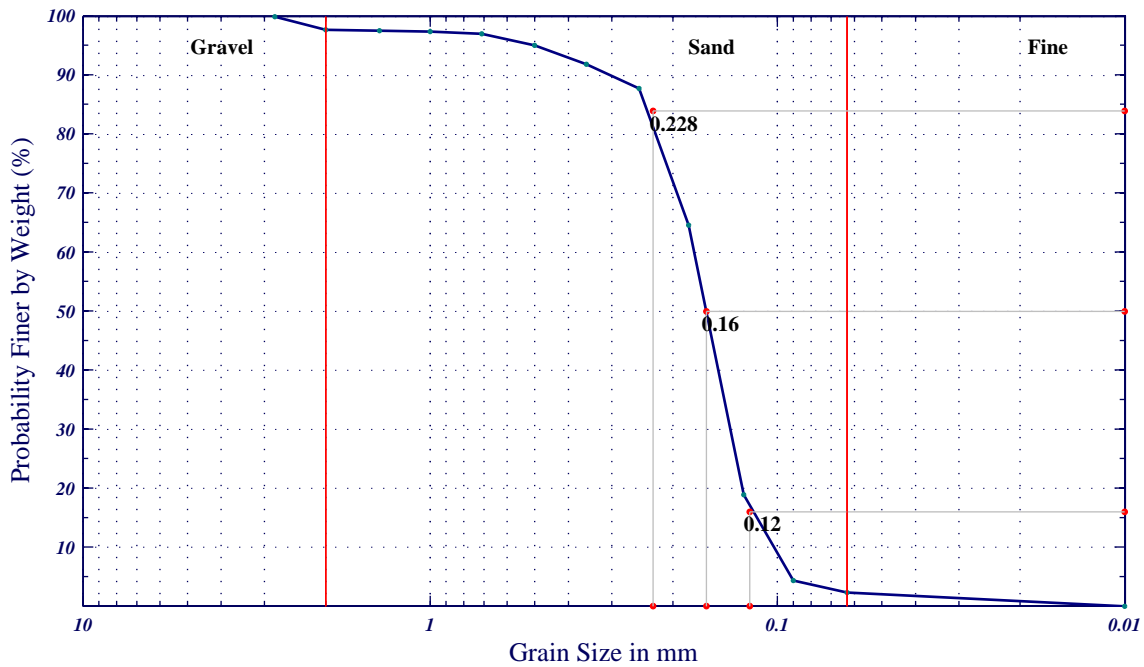
Northing: 149,815\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.093	3.427
D10:	0.110	3.184
D16:	0.120	3.059
D25:	0.134	2.900
D30:	0.140	2.837
D50:	0.160	2.644
D60:	0.172	2.540
D75:	0.198	2.336
D84:	0.228	2.133
D95:	0.492	1.023
Mean Grain Size:	0.164	2.612
Standard Deviation:	1.550	-0.632

Percent of Gravel (16mm–2mm): 2.25  
 Percent of Sand (<2mm–0.063mm): 93.38  
 Percent of Fines (<0.063mm): 4.37

**Sample ID: CEC-11-VC-6-12**

Sample Depth: 11.8–12.2ft

Easting: 3,510,560\*

Northing: 149,815\*

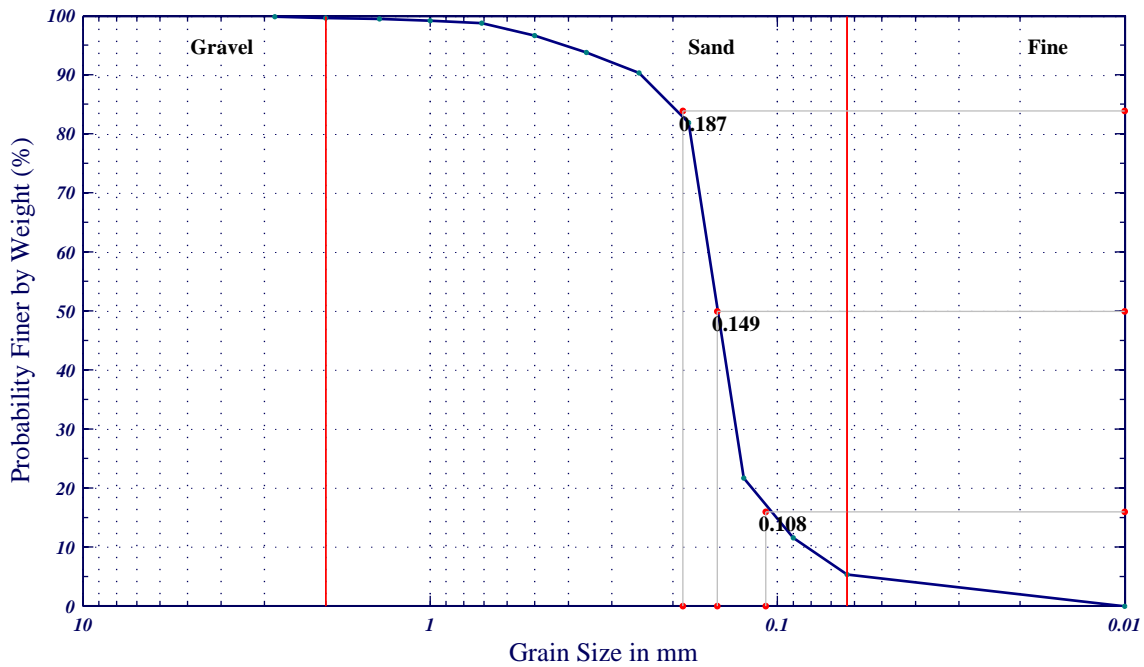
\*Coordinates are feet, LA-1702

OSI No.: 11ES008





**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.061	4.035
D10:	0.084	3.573
D16:	0.108	3.211
D25:	0.130	2.943
D30:	0.136	2.878
D50:	0.149	2.747
D60:	0.154	2.699
D75:	0.168	2.573
D84:	0.187	2.419
D95:	0.401	1.318
Mean Grain Size:	0.144	2.792
Standard Deviation:	1.570	-0.651

Percent of Gravel (16mm–2mm): 0.25  
 Percent of Sand (<2mm–0.063mm): 88.15  
 Percent of Fines (<0.063mm): 11.60

**Sample ID: CEC-11-VC-6-14**

Sample Depth: 13.8–14.2ft

Easting: 3,510,560\*

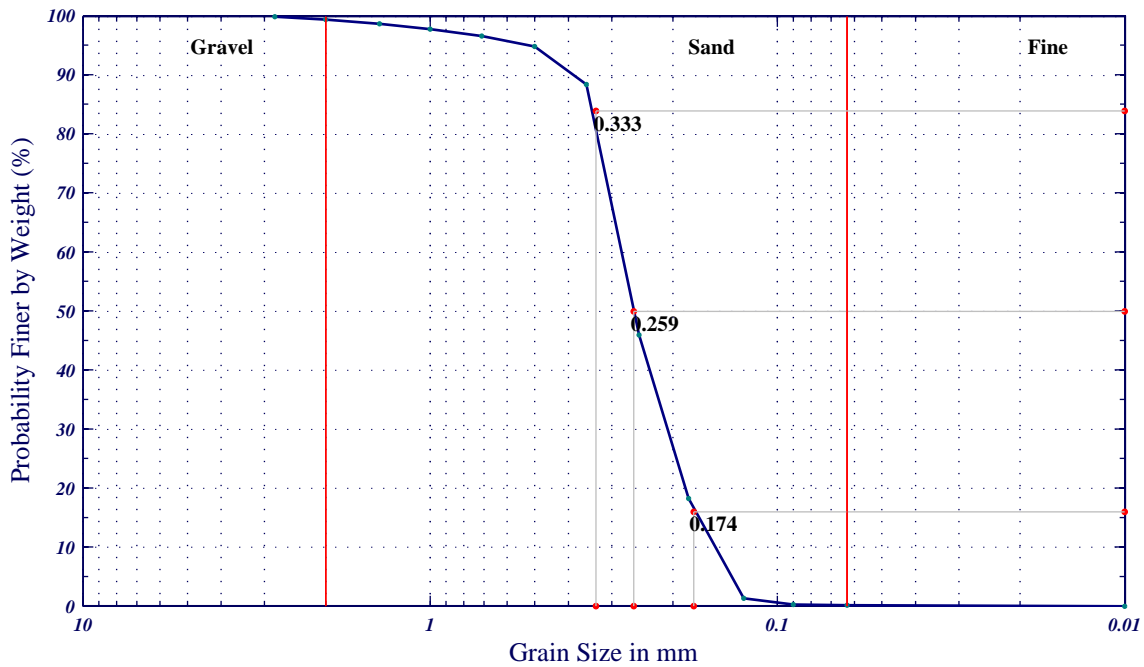
Northing: 149,815\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.147	2.766
D10:	0.163	2.617
D16:	0.174	2.523
D25:	0.198	2.336
D30:	0.211	2.245
D50:	0.259	1.949
D60:	0.275	1.862
D75:	0.302	1.727
D84:	0.333	1.586
D95:	0.503	0.991
Mean Grain Size:	0.247	2.019
Standard Deviation:	1.444	-0.530

Percent of Gravel (16mm–2mm): 0.50  
 Percent of Sand (<2mm–0.063mm): 99.22  
 Percent of Fines (<0.063mm): 0.28

**Sample ID: CEC-11-VC-7-0**

Sample Depth: 0.0–0.4ft

Easting: 3,511,144\*

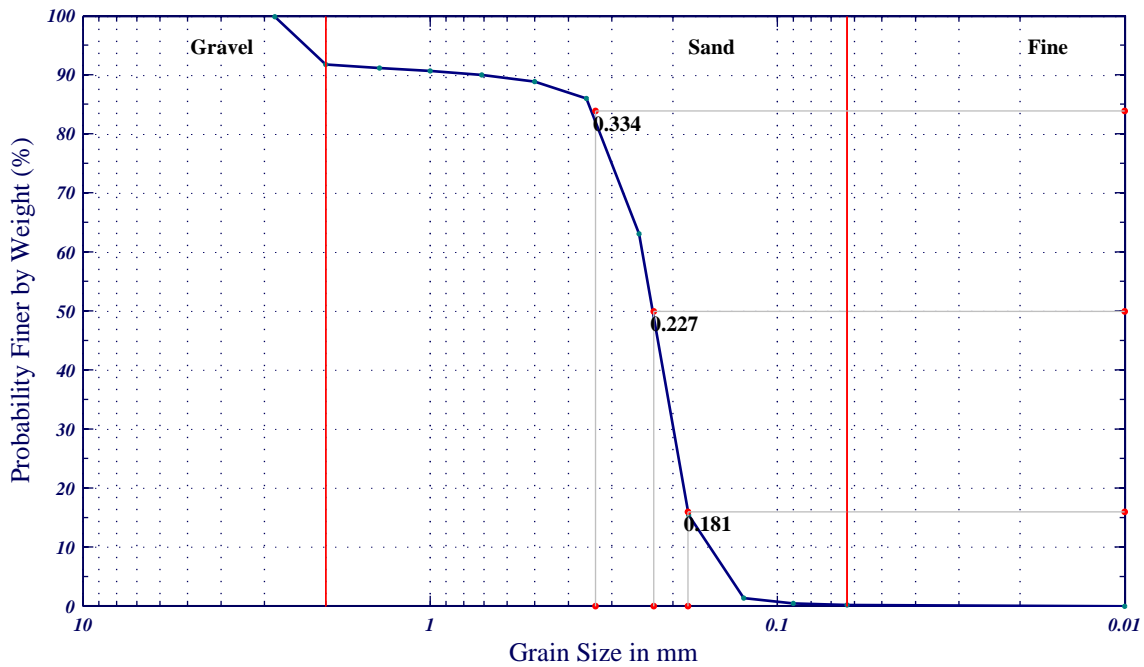
Northing: 150,778\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.151	2.727
D10:	0.169	2.565
D16:	0.181	2.466
D25:	0.198	2.336
D30:	0.205	2.286
D50:	0.227	2.139
D60:	0.243	2.041
D75:	0.280	1.837
D84:	0.334	1.582
D95:	2.542	-1.346
Mean Grain Size:	0.239	2.062
Standard Deviation:	1.866	-0.900

Percent of Gravel (16mm–2mm): 8.12  
 Percent of Sand (<2mm–0.063mm): 91.42  
 Percent of Fines (<0.063mm): 0.46

**Sample ID: CEC-11-VC-7-2**

Sample Depth: 1.8–2.2ft

Easting: 3,511,144\*

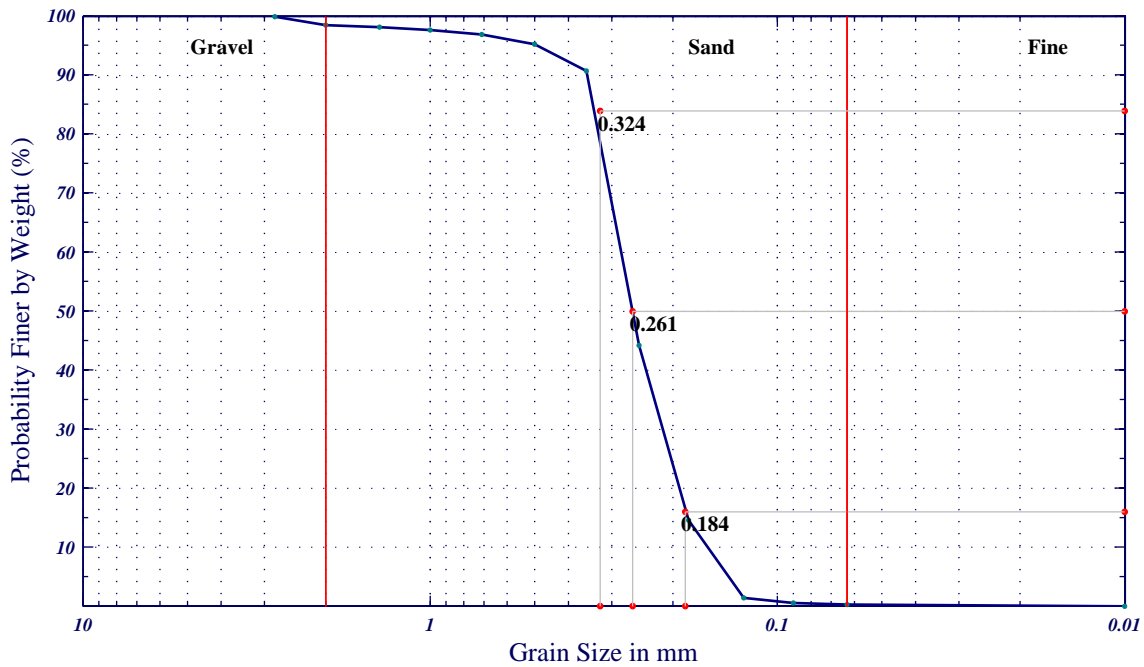
Northing: 150,778\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.152	2.718
D10:	0.169	2.565
D16:	0.184	2.442
D25:	0.208	2.265
D30:	0.219	2.191
D50:	0.261	1.938
D60:	0.274	1.868
D75:	0.297	1.751
D84:	0.324	1.626
D95:	0.484	1.047
Mean Grain Size:	0.250	2.002
Standard Deviation:	1.397	-0.483

Percent of Gravel (16mm–2mm): 1.44  
 Percent of Sand (<2mm–0.063mm): 98.01  
 Percent of Fines (<0.063mm): 0.55

**Sample ID: CEC-11-VC-7-4**

Sample Depth: 3.8–4.2ft

Easting: 3,511,144\*

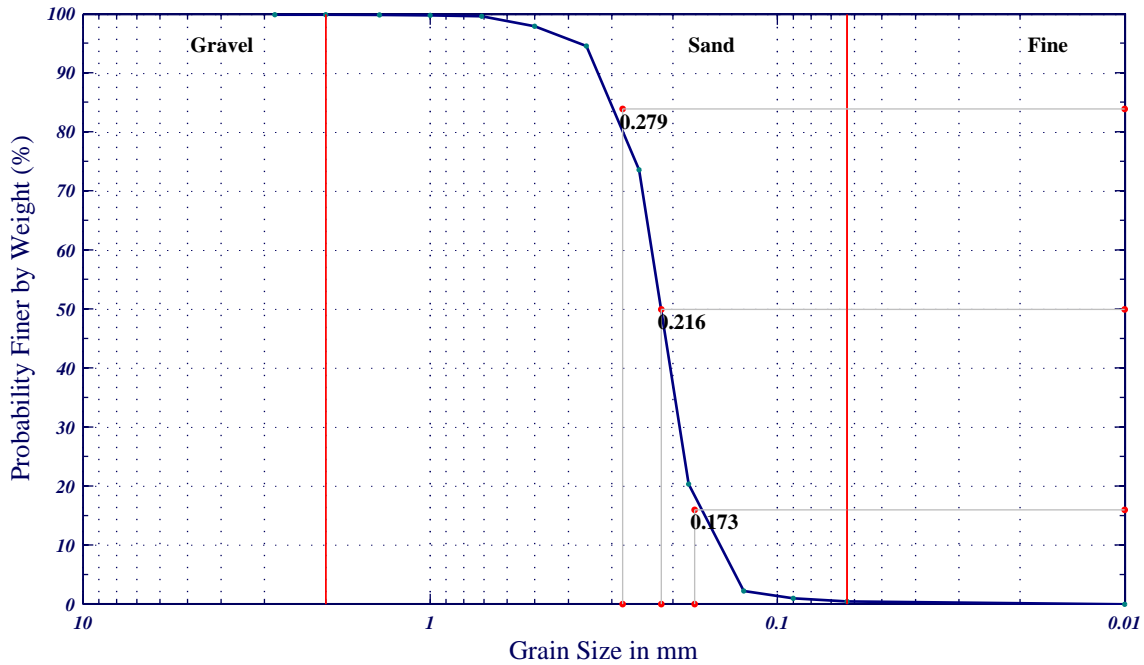
Northing: 150,778\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.142	2.816
D10:	0.161	2.635
D16:	0.173	2.531
D25:	0.188	2.411
D30:	0.195	2.358
D50:	0.216	2.211
D60:	0.226	2.146
D75:	0.253	1.983
D84:	0.279	1.842
D95:	0.360	1.474
Mean Grain Size:	0.218	2.195
Standard Deviation:	1.316	-0.396

Percent of Gravel (16mm–2mm): 0.02  
 Percent of Sand (<2mm–0.063mm): 99.00  
 Percent of Fines (<0.063mm): 0.98

**Sample ID: CEC-11-VC-7-6**

Sample Depth: 5.8–6.2ft

Easting: 3,511,144\*

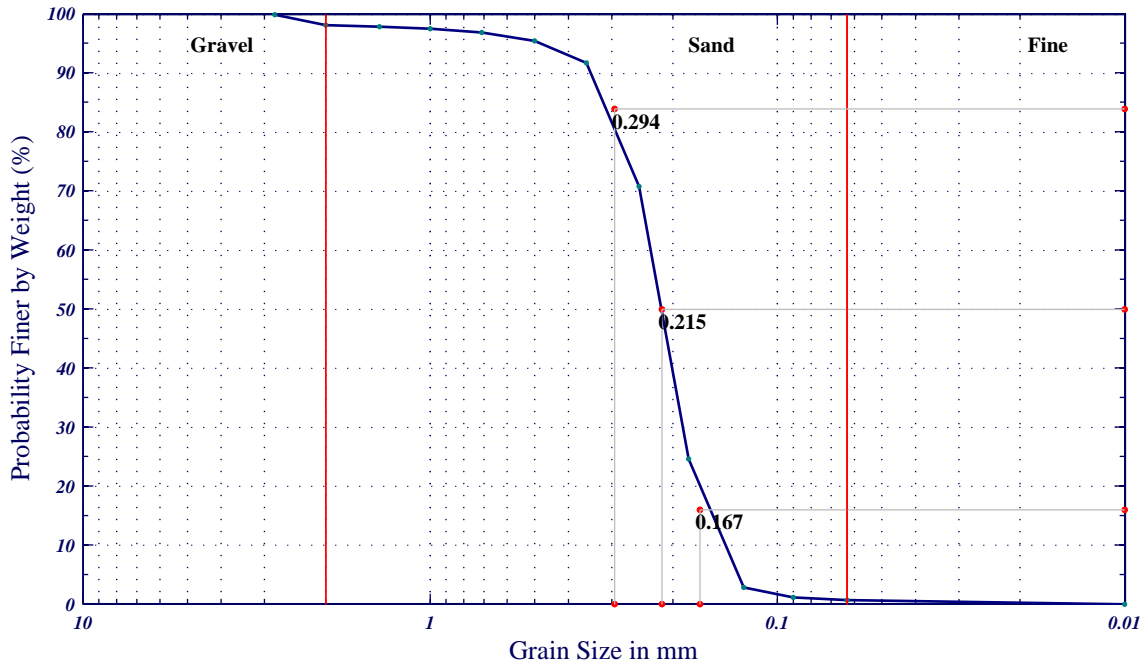
Northing: 150,778\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.136	2.878
D10:	0.154	2.699
D16:	0.167	2.582
D25:	0.181	2.466
D30:	0.189	2.404
D50:	0.215	2.218
D60:	0.228	2.133
D75:	0.260	1.943
D84:	0.294	1.766
D95:	0.466	1.102
Mean Grain Size:	0.219	2.189
Standard Deviation:	1.414	-0.500

Percent of Gravel (16mm–2mm): 1.78  
 Percent of Sand (<2mm–0.063mm): 97.09  
 Percent of Fines (<0.063mm): 1.13

**Sample ID: CEC-11-VC-7-8**

Sample Depth: 7.8–8.2ft

Easting: 3,511,144\*

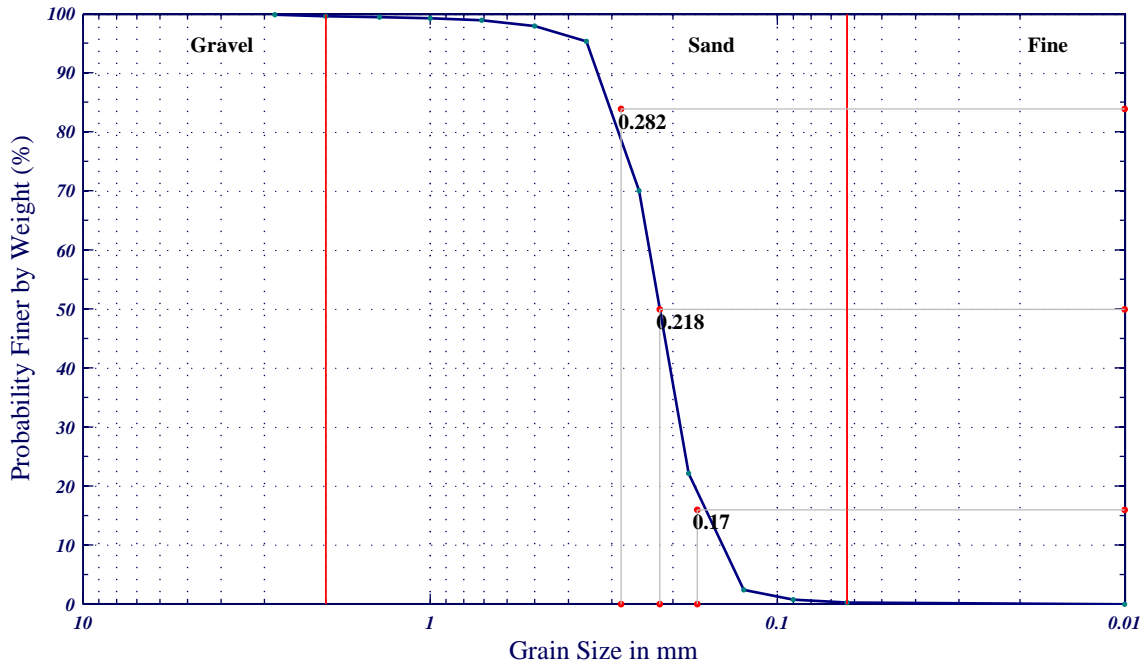
Northing: 150,778\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.139	2.847
D10:	0.157	2.671
D16:	0.170	2.556
D25:	0.185	2.434
D30:	0.194	2.366
D50:	0.218	2.198
D60:	0.231	2.114
D75:	0.260	1.943
D84:	0.282	1.826
D95:	0.350	1.515
Mean Grain Size:	0.219	2.193
Standard Deviation:	1.324	-0.405

Percent of Gravel (16mm–2mm): 0.29  
 Percent of Sand (<2mm–0.063mm): 98.95  
 Percent of Fines (<0.063mm): 0.76

**Sample ID: CEC-11-VC-7-10**

Sample Depth: 9.8–10.2ft

Easting: 3,511,144\*

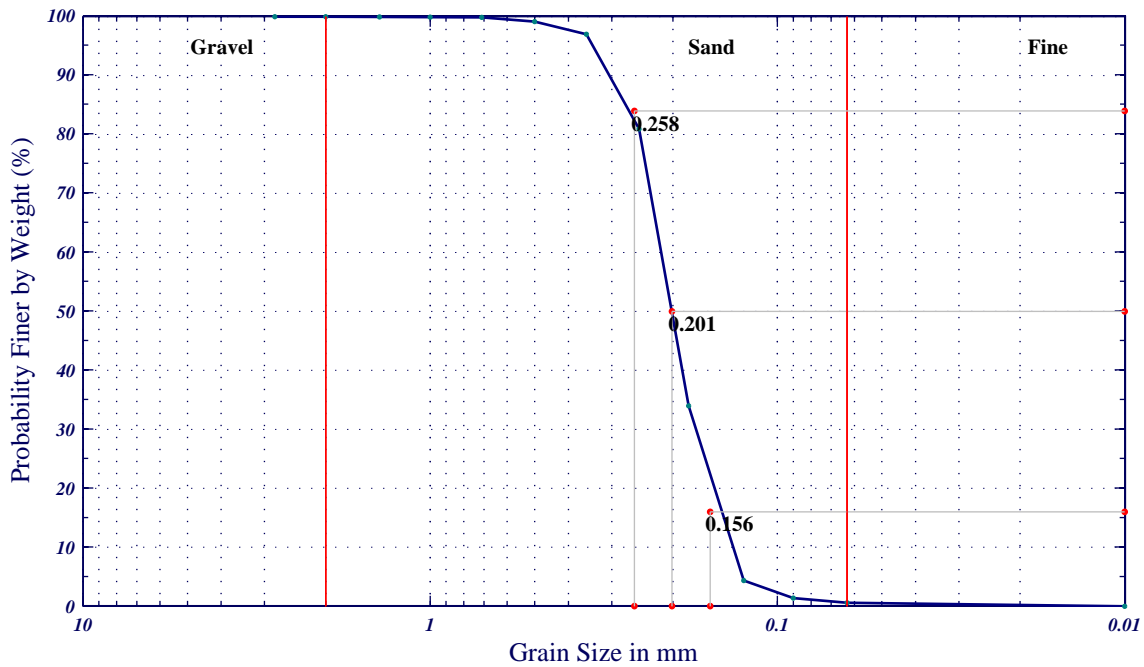
Northing: 150,778\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.128	2.966
D10:	0.144	2.796
D16:	0.156	2.680
D25:	0.168	2.573
D30:	0.174	2.523
D50:	0.201	2.315
D60:	0.212	2.238
D75:	0.236	2.083
D84:	0.258	1.955
D95:	0.328	1.608
Mean Grain Size:	0.201	2.317
Standard Deviation:	1.327	-0.408

Percent of Gravel (16mm–2mm): 0.03  
 Percent of Sand (<2mm–0.063mm): 98.61  
 Percent of Fines (<0.063mm): 1.37

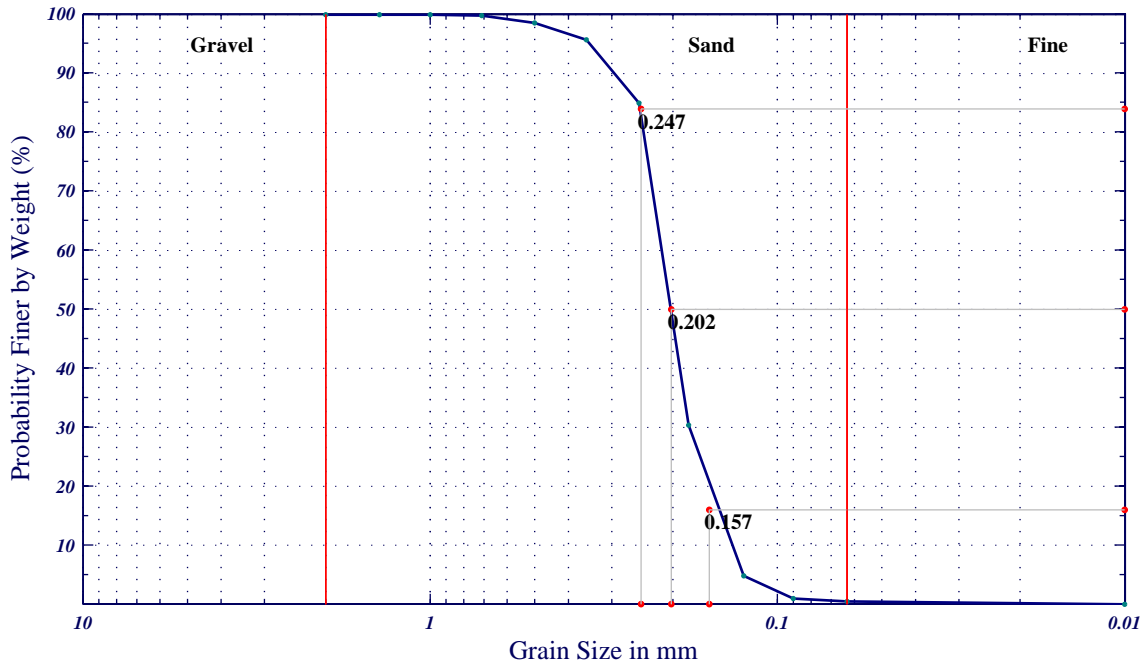
**Sample ID: CEC-11-VC-7-12**  
 Sample Depth: 11.8–12.2ft  
 Easting: 3,511,144\*  
 Northing: 150,778\*  
 \*Coordinates are feet, LA-1702

OSI No.: 11ES008





**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.126	2.989
D10:	0.143	2.806
D16:	0.157	2.671
D25:	0.172	2.540
D30:	0.179	2.482
D50:	0.202	2.308
D60:	0.210	2.252
D75:	0.228	2.133
D84:	0.247	2.017
D95:	0.342	1.548
Mean Grain Size:	0.199	2.332
Standard Deviation:	1.323	-0.404

Percent of Gravel (16mm–2mm): 0.00  
 Percent of Sand (<2mm–0.063mm): 99.04  
 Percent of Fines (<0.063mm): 0.96

**Sample ID: CEC-11-VC-7-14**

Sample Depth: 13.8–14.2ft

Easting: 3,511,144\*

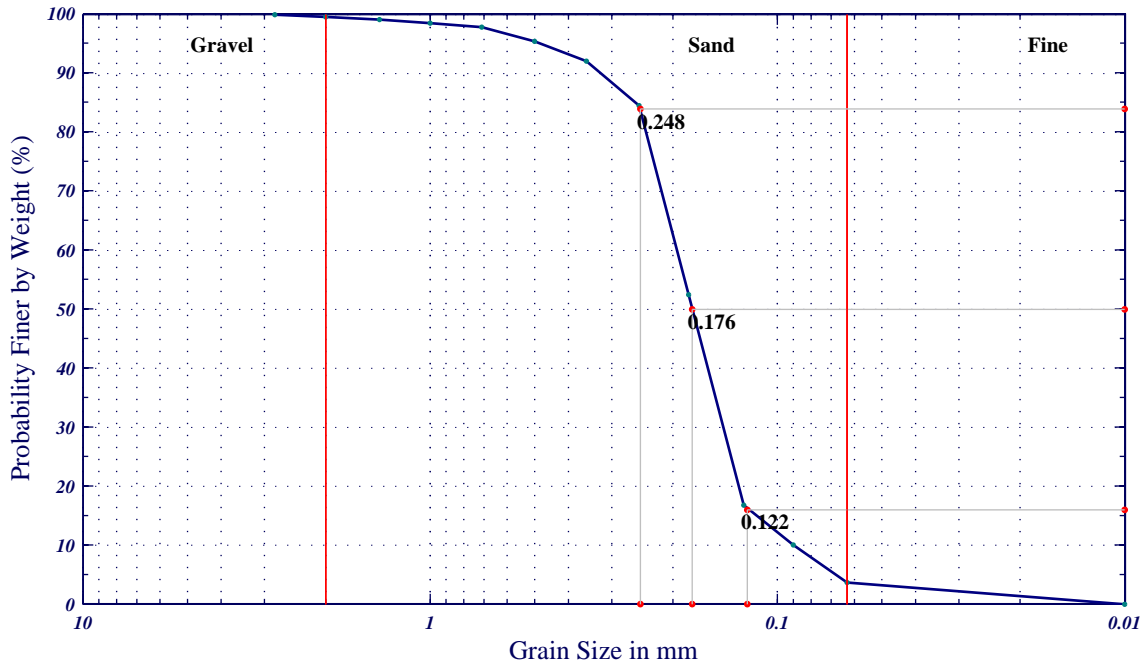
Northing: 150,778\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.071	3.816
D10:	0.090	3.474
D16:	0.122	3.035
D25:	0.143	2.806
D30:	0.151	2.727
D50:	0.176	2.506
D60:	0.192	2.381
D75:	0.218	2.198
D84:	0.248	2.012
D95:	0.474	1.077
Mean Grain Size:	0.175	2.518
Standard Deviation:	1.638	-0.712

Percent of Gravel (16mm–2mm): 0.40  
 Percent of Sand (<2mm–0.063mm): 89.57  
 Percent of Fines (<0.063mm): 10.03

**Sample ID: CEC-11-VC-7-16**

Sample Depth: 15.8–16.2ft

Easting: 3,511,144\*

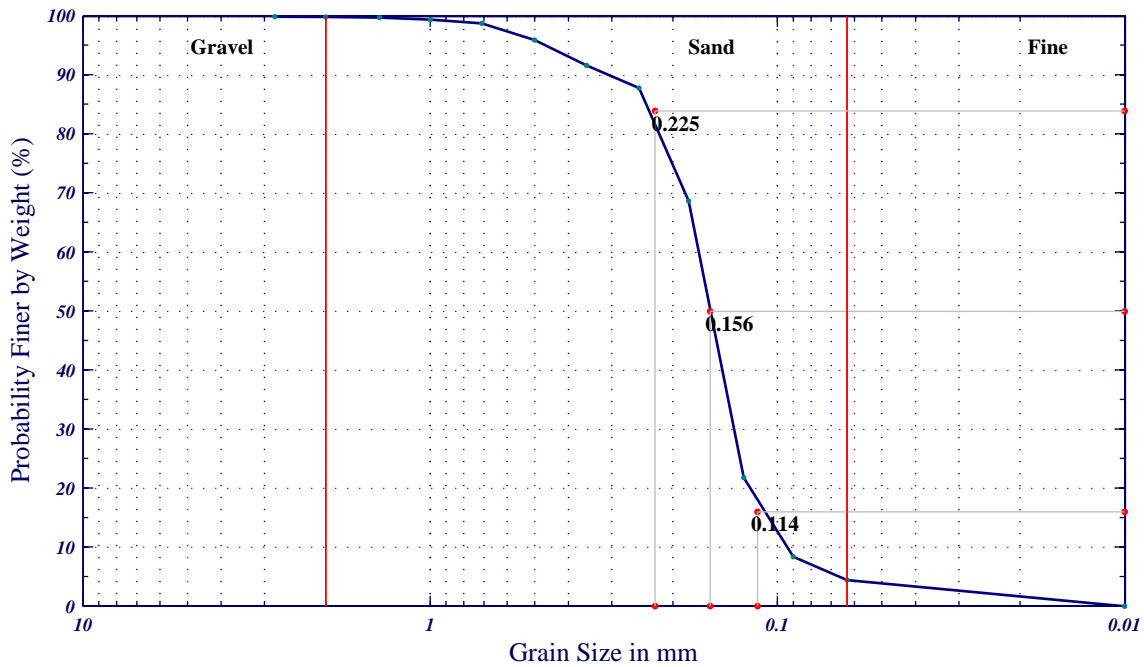
Northing: 150,778\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.068	3.878
D10:	0.096	3.381
D16:	0.114	3.133
D25:	0.130	2.943
D30:	0.137	2.868
D50:	0.156	2.680
D60:	0.166	2.591
D75:	0.192	2.381
D84:	0.225	2.152
D95:	0.456	1.133
Mean Grain Size:	0.159	2.655
Standard Deviation:	1.628	-0.703

Percent of Gravel (16mm–2mm): 0.07  
 Percent of Sand (<2mm–0.063mm): 91.54  
 Percent of Fines (<0.063mm): 8.39

**Sample ID: CEC-11-VC-7-18**

Sample Depth: 17.8–18.2ft

Easting: 3,511,144\*

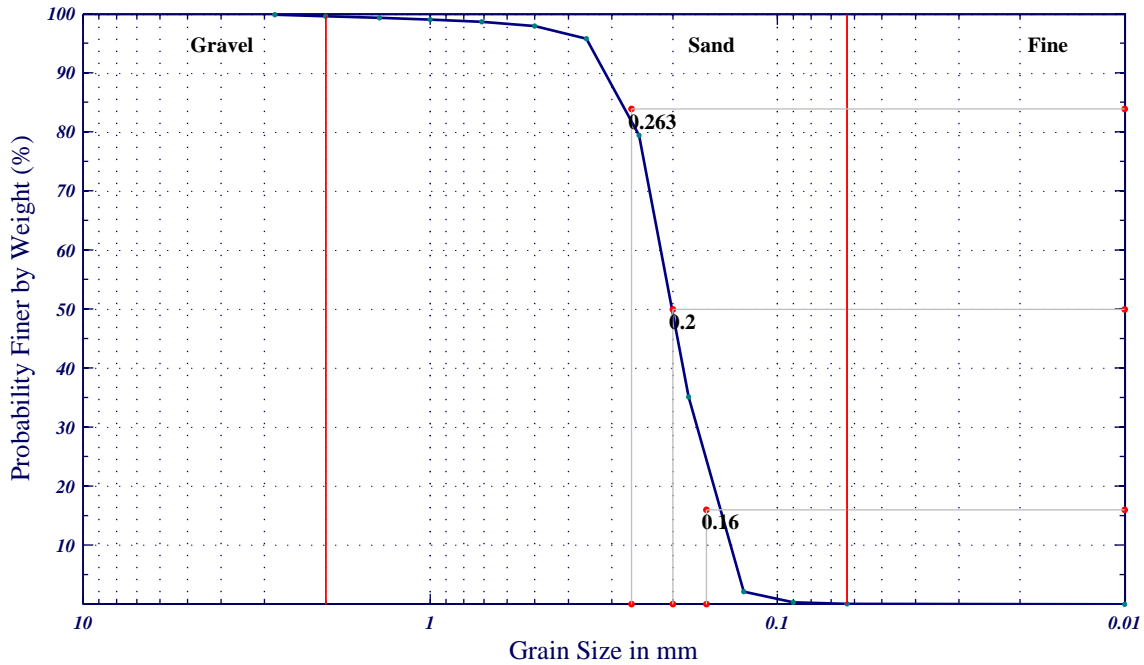
Northing: 150,778\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.136	2.878
D10:	0.149	2.747
D16:	0.160	2.644
D25:	0.169	2.565
D30:	0.173	2.531
D50:	0.200	2.322
D60:	0.212	2.238
D75:	0.238	2.071
D84:	0.263	1.927
D95:	0.342	1.548
Mean Grain Size:	0.203	2.298
Standard Deviation:	1.320	-0.401

Percent of Gravel (16mm–2mm): 0.30  
 Percent of Sand (<2mm–0.063mm): 99.39  
 Percent of Fines (<0.063mm): 0.31

**Sample ID: CEC-11-VC-8-0**

Sample Depth: 0.0–0.4ft

Easting: 3,512,292\*

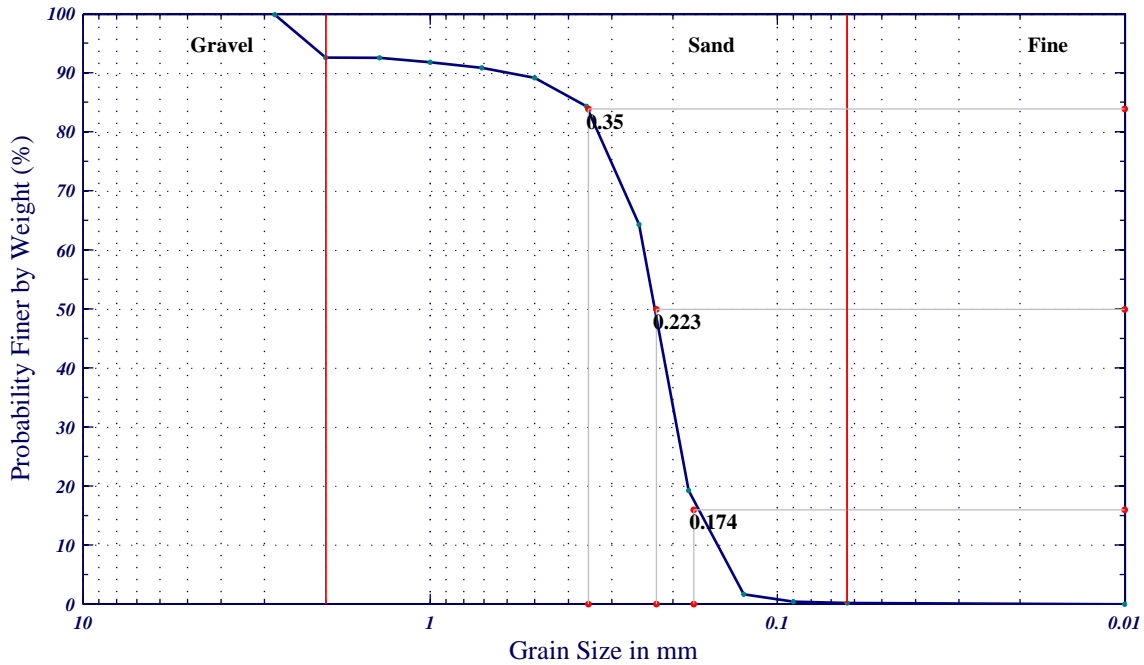
Northing: 150,805\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.145	2.786
D10:	0.163	2.617
D16:	0.174	2.523
D25:	0.191	2.388
D30:	0.199	2.329
D50:	0.223	2.165
D60:	0.240	2.059
D75:	0.285	1.811
D84:	0.350	1.515
D95:	2.543	-1.347
Mean Grain Size:	0.239	2.067
Standard Deviation:	1.920	-0.941

Percent of Gravel (16mm–2mm): 7.31  
 Percent of Sand (<2mm–0.063mm): 92.26  
 Percent of Fines (<0.063mm): 0.43

**Sample ID: CEC-11-VC-8-2**

Sample Depth: 1.8–2.2ft

Easting: 3,512,292\*

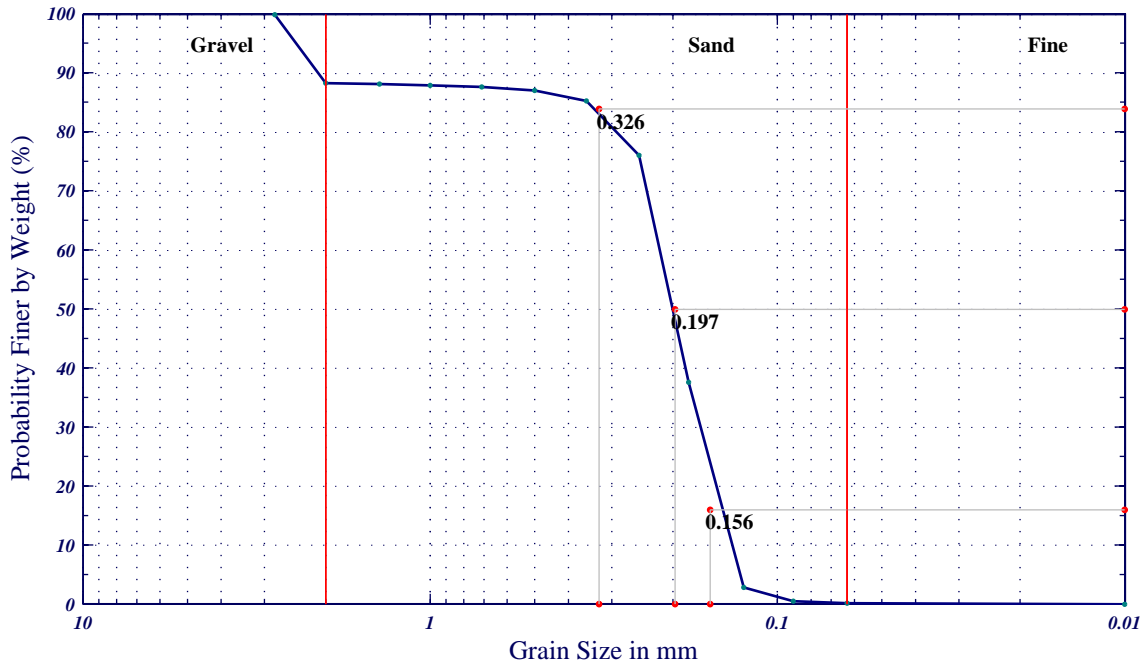
Northing: 150,805\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.132	2.921
D10:	0.146	2.776
D16:	0.156	2.680
D25:	0.166	2.591
D30:	0.170	2.556
D50:	0.197	2.344
D60:	0.210	2.252
D75:	0.246	2.023
D84:	0.326	1.617
D95:	2.725	-1.446
Mean Grain Size:	0.216	2.214
Standard Deviation:	1.991	-0.994

Percent of Gravel (16mm–2mm): 11.64  
 Percent of Sand (<2mm–0.063mm): 87.84  
 Percent of Fines (<0.063mm): 0.52

**Sample ID: CEC-11-VC-8-4**

Sample Depth: 3.8–4.2ft

Easting: 3,512,292\*

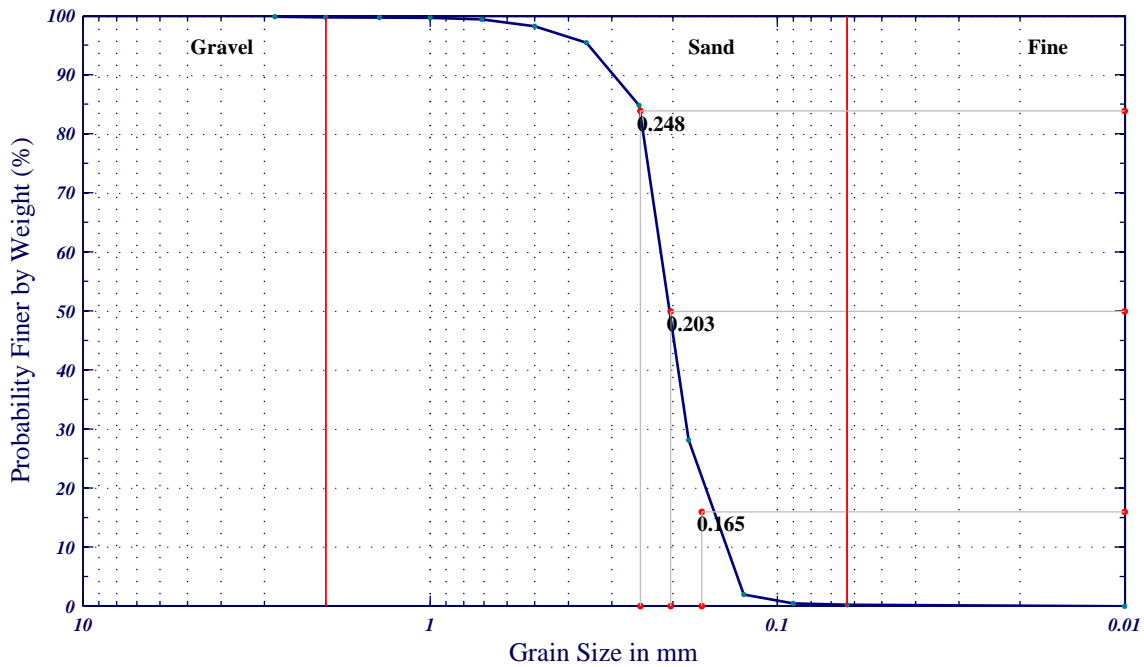
Northing: 150,805\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.139	2.847
D10:	0.154	2.699
D16:	0.165	2.599
D25:	0.176	2.506
D30:	0.183	2.450
D50:	0.203	2.300
D60:	0.210	2.252
D75:	0.229	2.127
D84:	0.248	2.012
D95:	0.344	1.540
Mean Grain Size:	0.203	2.304
Standard Deviation:	1.288	-0.365

Percent of Gravel (16mm–2mm): 0.14  
 Percent of Sand (<2mm–0.063mm): 99.39  
 Percent of Fines (<0.063mm): 0.46

**Sample ID: CEC-11-VC-8-6**

Sample Depth: 5.8–6.2ft

Easting: 3,512,292\*

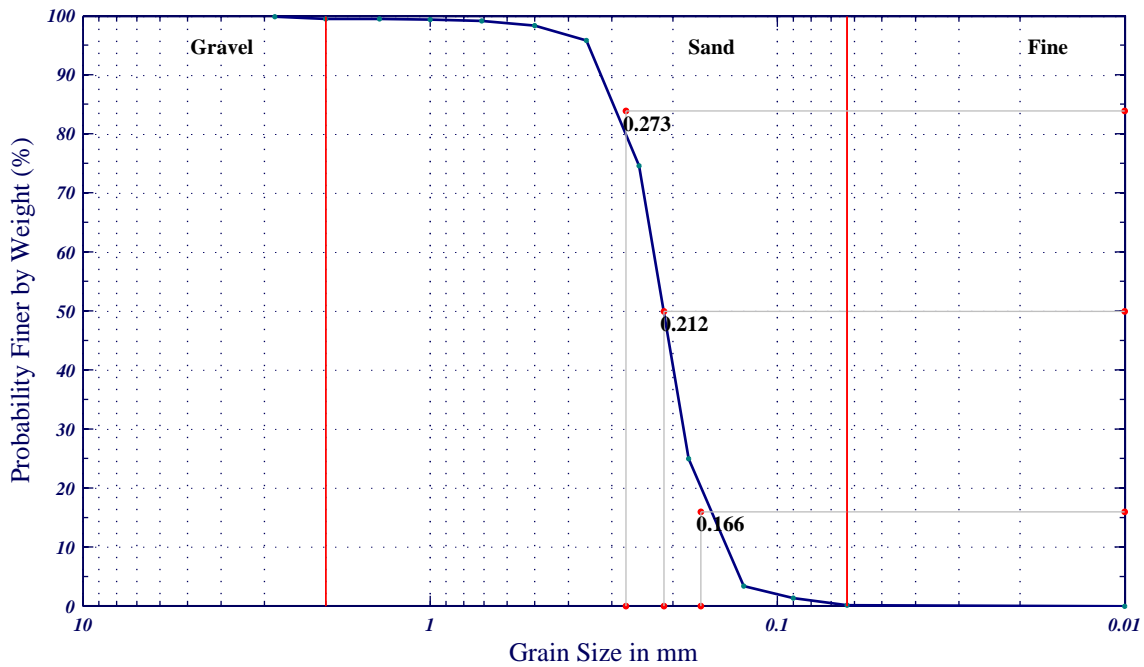
Northing: 150,805\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.133	2.911
D10:	0.152	2.718
D16:	0.166	2.591
D25:	0.180	2.474
D30:	0.189	2.404
D50:	0.212	2.238
D60:	0.224	2.158
D75:	0.251	1.994
D84:	0.273	1.873
D95:	0.344	1.540
Mean Grain Size:	0.213	2.234
Standard Deviation:	1.327	-0.408

Percent of Gravel (16mm–2mm): 0.40  
 Percent of Sand (<2mm–0.063mm): 98.22  
 Percent of Fines (<0.063mm): 1.38

**Sample ID: CEC-11-VC-8-8**

Sample Depth: 7.8–8.2ft

Easting: 3,512,292\*

Northing: 150,805\*

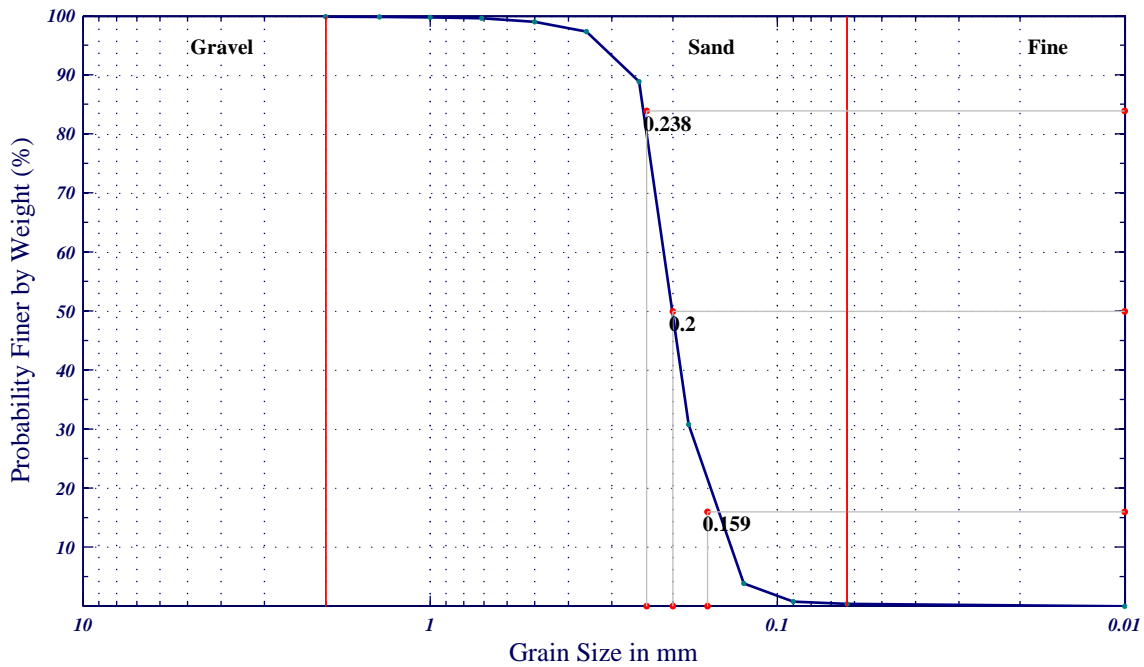
\*Coordinates are feet, LA-1702

OSI No.: 11ES008





**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



<b>Sieve Analysis Results: (mm) (phi)</b>		
D5:	0.130	2.943
D10:	0.146	2.776
D16:	0.159	2.653
D25:	0.172	2.540
D30:	0.179	2.482
D50:	0.200	2.322
D60:	0.206	2.279
D75:	0.222	2.171
D84:	0.238	2.071
D95:	0.303	1.723
Mean Grain Size:	0.196	2.349
Standard Deviation:	1.274	-0.349

Percent of Gravel (16mm–2mm): 0.00  
 Percent of Sand (<2mm–0.063mm): 99.23  
 Percent of Fines (<0.063mm): 0.77

**Sample ID: CEC-11-VC-8-10**

Sample Depth: 9.8–10.2ft

Easting: 3,512,292\*

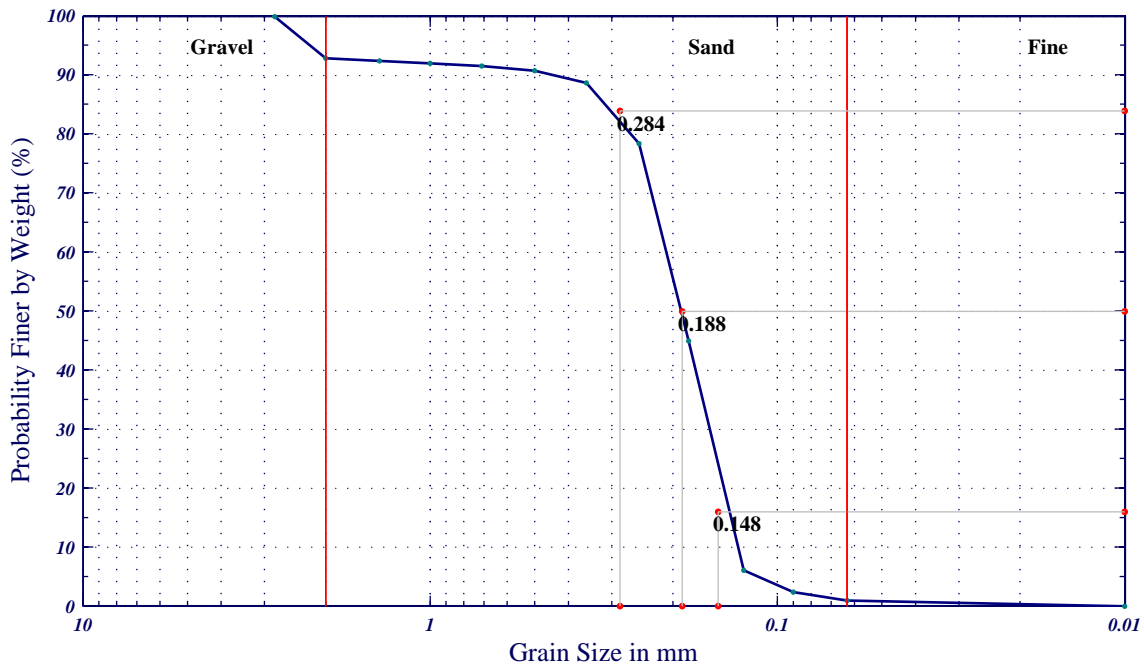
Northing: 150,805\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.119	3.071
D10:	0.136	2.878
D16:	0.148	2.756
D25:	0.159	2.653
D30:	0.163	2.617
D50:	0.188	2.411
D60:	0.203	2.300
D75:	0.238	2.071
D84:	0.284	1.816
D95:	2.451	-1.293
Mean Grain Size:	0.199	2.328
Standard Deviation:	1.949	-0.962

Percent of Gravel (16mm–2mm): 7.07  
 Percent of Sand (<2mm–0.063mm): 90.54  
 Percent of Fines (<0.063mm): 2.39

**Sample ID: CEC-11-VC-8-12**

Sample Depth: 11.8–12.2ft

Easting: 3,512,292\*

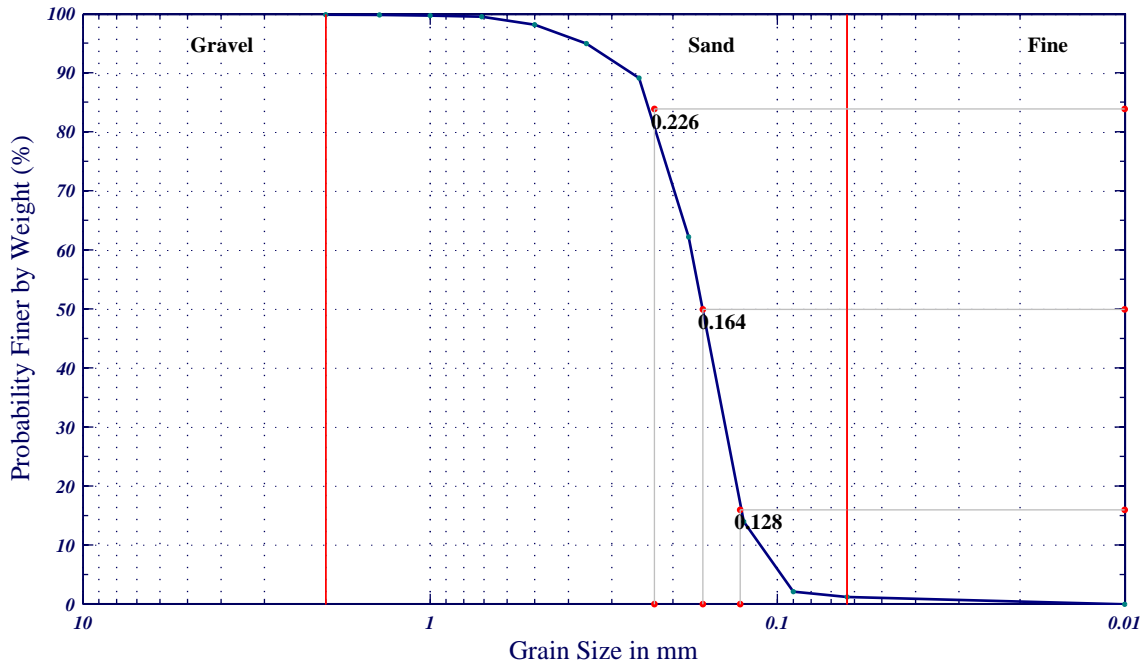
Northing: 150,805\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.106	3.238
D10:	0.119	3.071
D16:	0.128	2.966
D25:	0.141	2.826
D30:	0.146	2.776
D50:	0.164	2.608
D60:	0.176	2.506
D75:	0.201	2.315
D84:	0.226	2.146
D95:	0.353	1.502
Mean Grain Size:	0.168	2.573
Standard Deviation:	1.409	-0.494

Percent of Gravel (16mm–2mm): 0.00  
 Percent of Sand (<2mm–0.063mm): 97.86  
 Percent of Fines (<0.063mm): 2.14

**Sample ID: CEC-11-VC-8-14**

Sample Depth: 13.8–14.2ft

Easting: 3,512,292\*

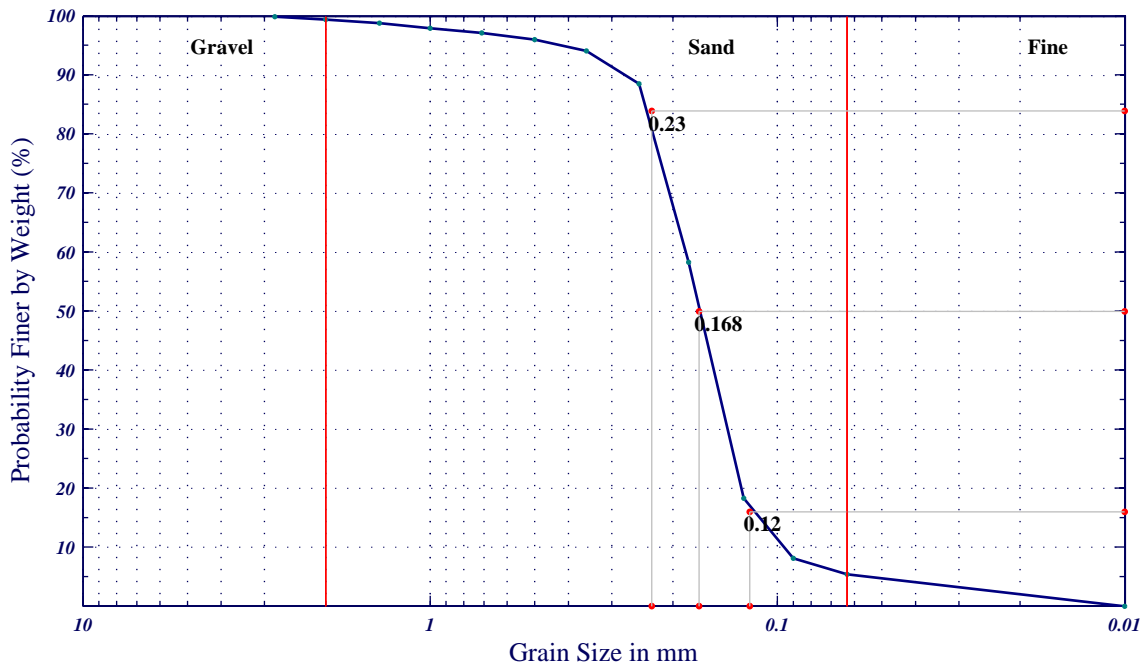
Northing: 150,805\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.059	4.083
D10:	0.100	3.322
D16:	0.120	3.059
D25:	0.137	2.868
D30:	0.145	2.786
D50:	0.168	2.573
D60:	0.183	2.450
D75:	0.205	2.286
D84:	0.230	2.120
D95:	0.398	1.329
Mean Grain Size:	0.167	2.584
Standard Deviation:	1.617	-0.694

Percent of Gravel (16mm–2mm): 0.51  
 Percent of Sand (<2mm–0.063mm): 91.36  
 Percent of Fines (<0.063mm): 8.13

**Sample ID: CEC-11-VC-8-16**

Sample Depth: 15.8–16.2ft

Easting: 3,512,292\*

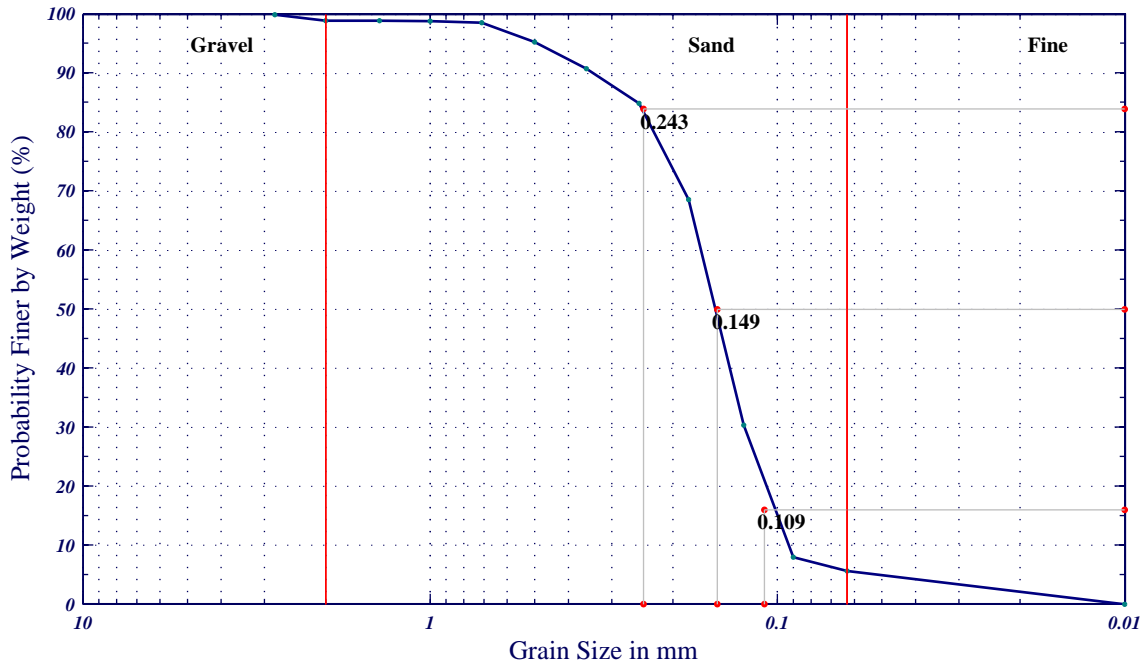
Northing: 150,805\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.056	4.158
D10:	0.096	3.381
D16:	0.109	3.198
D25:	0.119	3.071
D30:	0.124	3.012
D50:	0.149	2.747
D60:	0.163	2.617
D75:	0.198	2.336
D84:	0.243	2.041
D95:	0.486	1.041
Mean Grain Size:	0.158	2.662
Standard Deviation:	1.752	-0.809

Percent of Gravel (16mm–2mm): 1.04  
 Percent of Sand (<2mm–0.063mm): 90.98  
 Percent of Fines (<0.063mm): 7.99

**Sample ID: CEC-11-VC-8-18**

Sample Depth: 17.8–18.2ft

Easting: 3,512,292\*

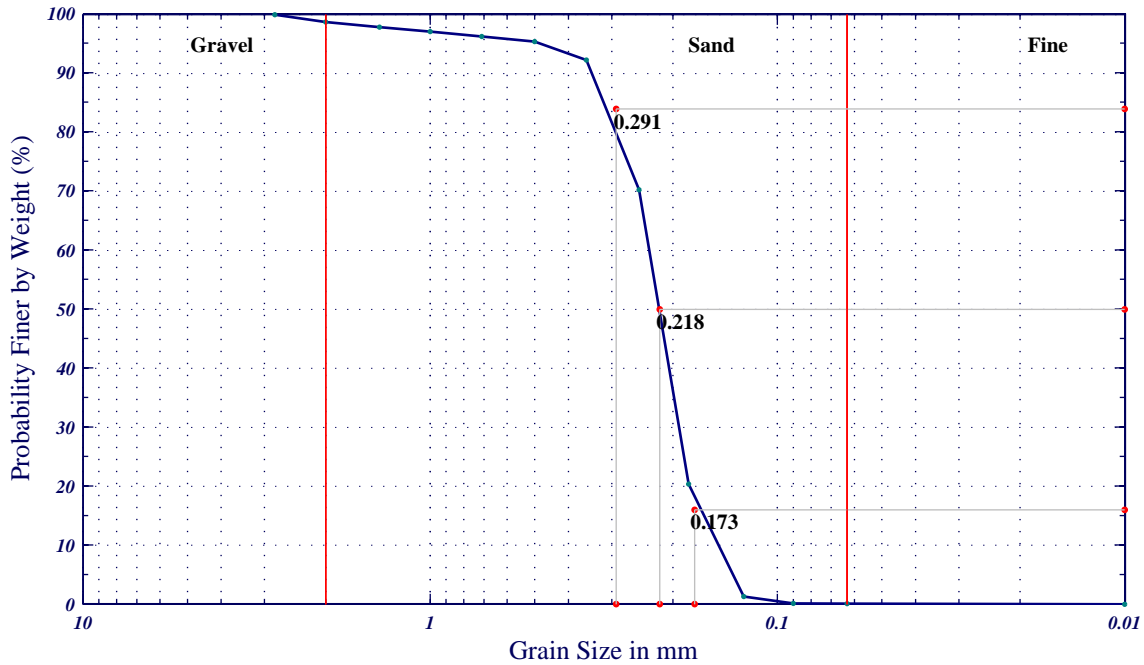
Northing: 150,805\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.146	2.776
D10:	0.162	2.626
D16:	0.173	2.531
D25:	0.188	2.411
D30:	0.196	2.351
D50:	0.218	2.198
D60:	0.231	2.114
D75:	0.261	1.938
D84:	0.291	1.781
D95:	0.466	1.102
Mean Grain Size:	0.222	2.170
Standard Deviation:	1.382	-0.467

Percent of Gravel (16mm–2mm): 1.27  
 Percent of Sand (<2mm–0.063mm): 98.59  
 Percent of Fines (<0.063mm): 0.14

**Sample ID: CEC-11-VC-9-0**

Sample Depth: 0.0–0.4ft

Easting: 3,512,893\*

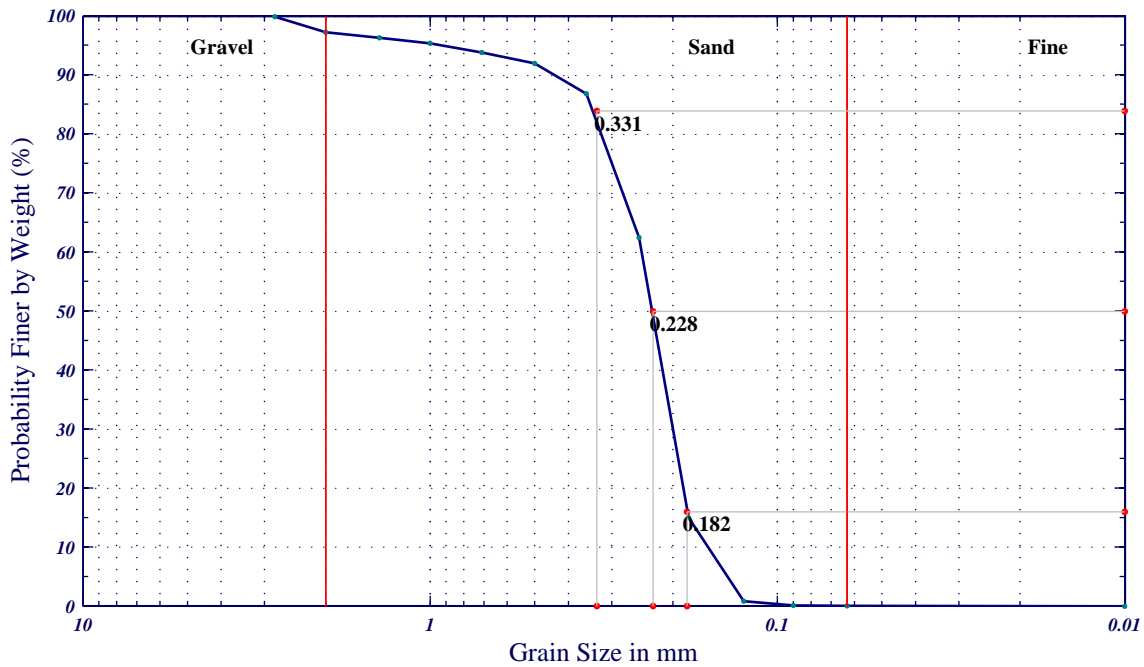
Northing: 151,686\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.154	2.699
D10:	0.170	2.556
D16:	0.182	2.458
D25:	0.199	2.329
D30:	0.205	2.286
D50:	0.228	2.133
D60:	0.245	2.029
D75:	0.284	1.816
D84:	0.331	1.595
D95:	0.888	0.171
Mean Grain Size:	0.239	2.062
Standard Deviation:	1.555	-0.637

Percent of Gravel (16mm–2mm): 2.67  
 Percent of Sand (<2mm–0.063mm): 97.19  
 Percent of Fines (<0.063mm): 0.14

**Sample ID: CEC-11-VC-9-2**

Sample Depth: 1.8–2.2ft

Easting: 3,512,893\*

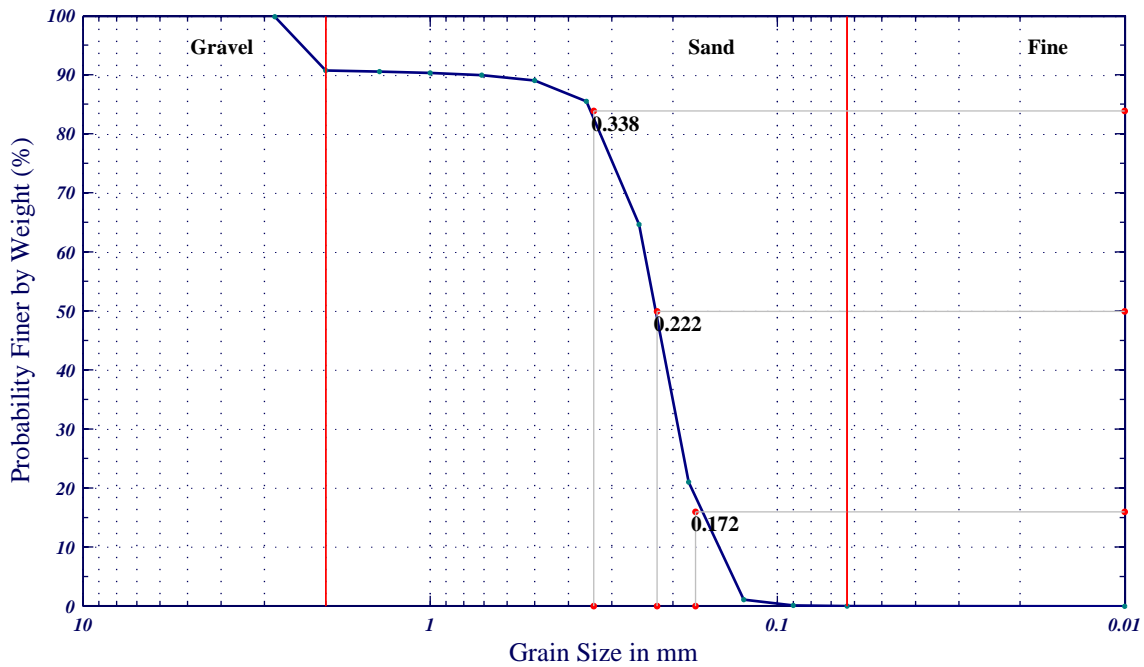
Northing: 151,686\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.147	2.766
D10:	0.162	2.626
D16:	0.172	2.540
D25:	0.188	2.411
D30:	0.196	2.351
D50:	0.222	2.171
D60:	0.239	2.065
D75:	0.280	1.837
D84:	0.338	1.565
D95:	2.650	-1.406
Mean Grain Size:	0.235	2.092
Standard Deviation:	1.917	-0.939

Percent of Gravel (16mm–2mm): 9.16  
 Percent of Sand (<2mm–0.063mm): 90.70  
 Percent of Fines (<0.063mm): 0.14

**Sample ID: CEC-11-VC-9-4**

Sample Depth: 3.8–4.2ft

Easting: 3,512,893\*

Northing: 151,686\*

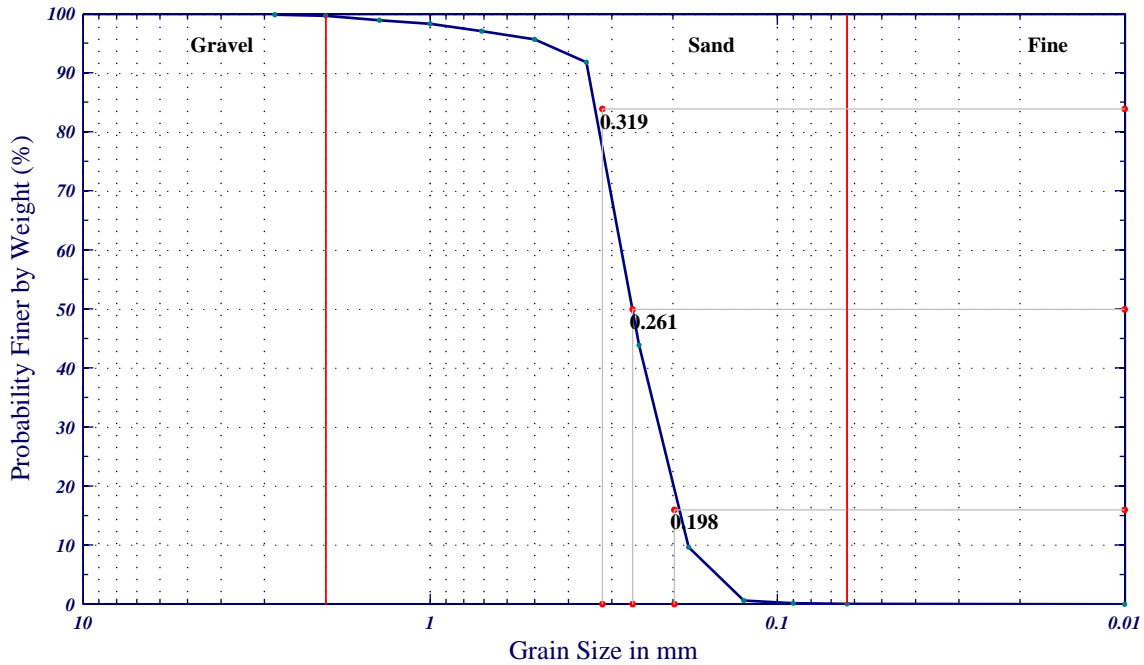
\*Coordinates are feet, LA-1702

OSI No.: 11ES008





**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.165	2.599
D10:	0.181	2.466
D16:	0.198	2.336
D25:	0.217	2.204
D30:	0.226	2.146
D50:	0.261	1.938
D60:	0.273	1.873
D75:	0.294	1.766
D84:	0.319	1.648
D95:	0.452	1.146
Mean Grain Size:	0.255	1.974
Standard Deviation:	1.333	-0.414

Percent of Gravel (16mm–2mm): 0.21  
 Percent of Sand (<2mm–0.063mm): 99.64  
 Percent of Fines (<0.063mm): 0.15

**Sample ID: CEC-11-VC-9-6**

Sample Depth: 5.8–6.2ft

Easting: 3,512,893\*

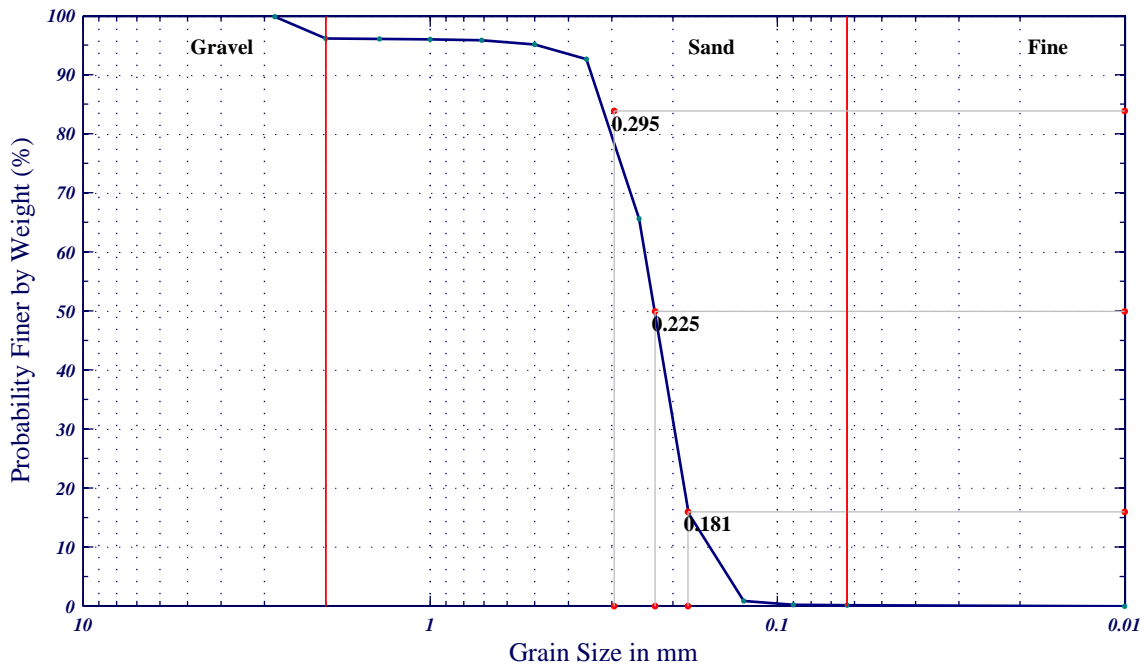
Northing: 151,686\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.154	2.699
D10:	0.170	2.556
D16:	0.181	2.466
D25:	0.197	2.344
D30:	0.204	2.293
D50:	0.225	2.152
D60:	0.239	2.065
D75:	0.267	1.905
D84:	0.295	1.761
D95:	0.471	1.086
Mean Grain Size:	0.229	2.126
Standard Deviation:	1.361	-0.445

Percent of Gravel (16mm–2mm): 3.73  
 Percent of Sand (<2mm–0.063mm): 96.02  
 Percent of Fines (<0.063mm): 0.25

**Sample ID: CEC-11-VC-9-8**

Sample Depth: 7.8–8.2ft

Easting: 3,512,893\*

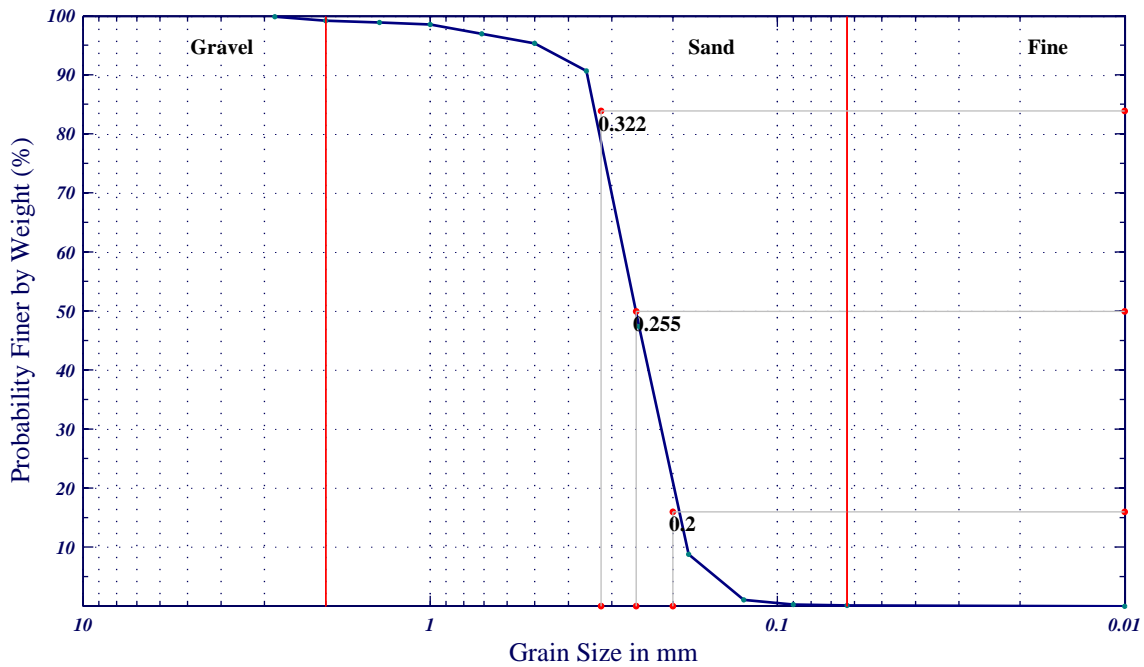
Northing: 151,686\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.165	2.599
D10:	0.184	2.442
D16:	0.200	2.322
D25:	0.217	2.204
D30:	0.224	2.158
D50:	0.255	1.971
D60:	0.269	1.894
D75:	0.294	1.766
D84:	0.322	1.635
D95:	0.476	1.071
Mean Grain Size:	0.254	1.976
Standard Deviation:	1.344	-0.427

Percent of Gravel (16mm–2mm): 0.69  
 Percent of Sand (<2mm–0.063mm): 99.01  
 Percent of Fines (<0.063mm): 0.30

**Sample ID: CEC-11-VC-9-10**

Sample Depth: 9.8–10.2ft

Easting: 3,512,893\*

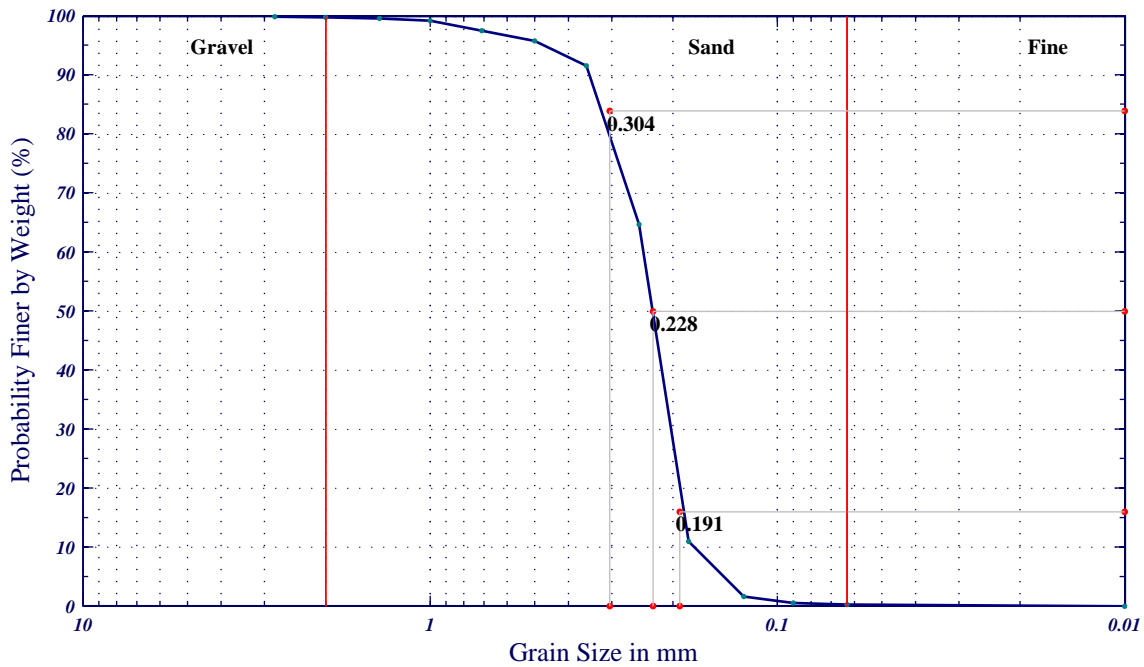
Northing: 151,686\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.156	2.680
D10:	0.177	2.498
D16:	0.191	2.388
D25:	0.205	2.286
D30:	0.211	2.245
D50:	0.228	2.133
D60:	0.241	2.053
D75:	0.271	1.884
D84:	0.304	1.718
D95:	0.453	1.142
Mean Grain Size:	0.237	2.080
Standard Deviation:	1.342	-0.424

Percent of Gravel (16mm–2mm): 0.13  
 Percent of Sand (<2mm–0.063mm): 99.33  
 Percent of Fines (<0.063mm): 0.54

**Sample ID: CEC-11-VC-9-12**

Sample Depth: 11.8–12.2ft

Easting: 3,512,893\*

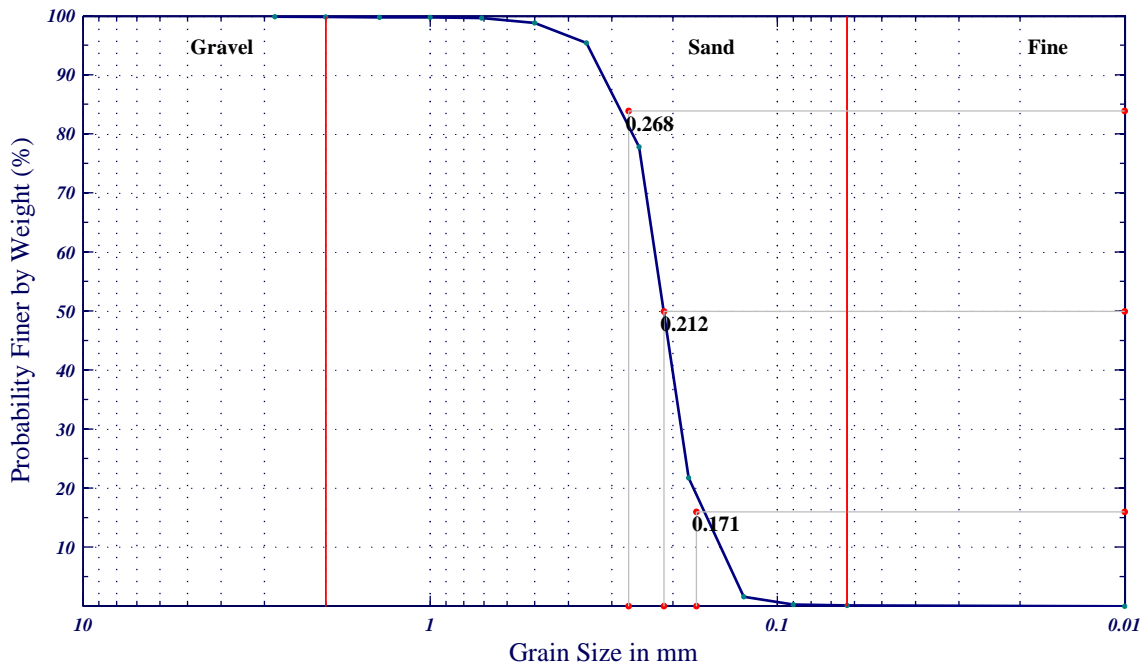
Northing: 151,686\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.144	2.796
D10:	0.161	2.635
D16:	0.171	2.548
D25:	0.185	2.434
D30:	0.193	2.373
D50:	0.212	2.238
D60:	0.221	2.178
D75:	0.244	2.035
D84:	0.268	1.900
D95:	0.348	1.523
Mean Grain Size:	0.213	2.228
Standard Deviation:	1.296	-0.374

Percent of Gravel (16mm–2mm): 0.07  
 Percent of Sand (<2mm–0.063mm): 99.64  
 Percent of Fines (<0.063mm): 0.29

**Sample ID: CEC-11-VC-9-14**

Sample Depth: 13.8–14.2ft

Easting: 3,512,893\*

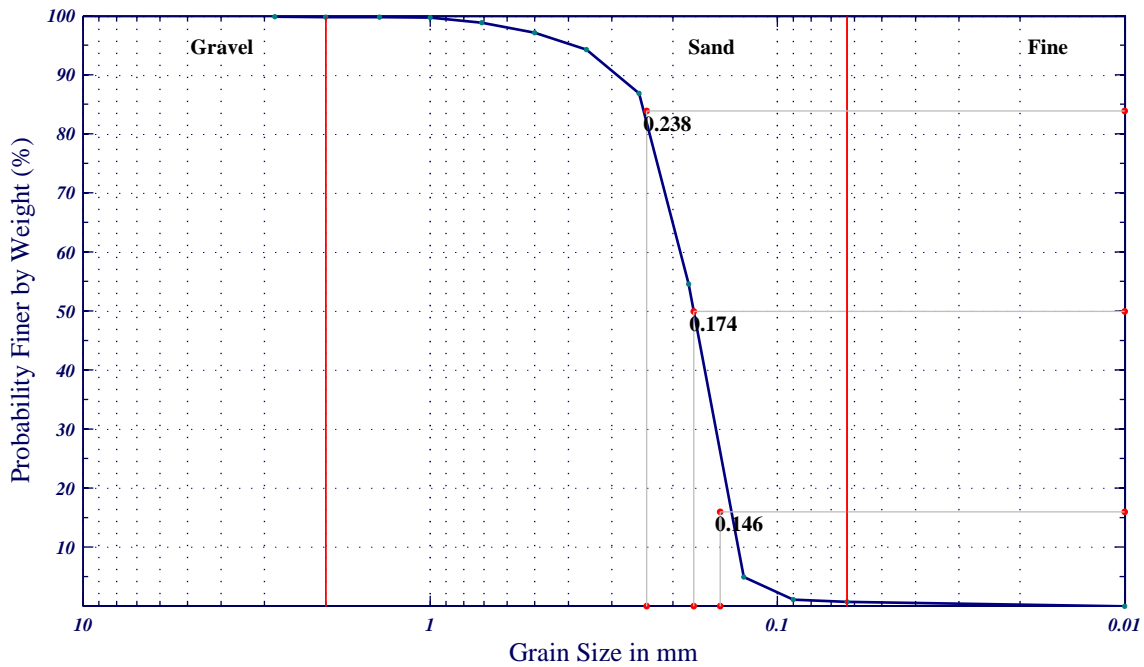
Northing: 151,686\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.125	3.000
D10:	0.136	2.878
D16:	0.146	2.776
D25:	0.156	2.680
D30:	0.159	2.653
D50:	0.174	2.523
D60:	0.187	2.419
D75:	0.211	2.245
D84:	0.238	2.071
D95:	0.373	1.423
Mean Grain Size:	0.182	2.457
Standard Deviation:	1.356	-0.439

Percent of Gravel (16mm–2mm): 0.09  
 Percent of Sand (<2mm–0.063mm): 98.80  
 Percent of Fines (<0.063mm): 1.11

**Sample ID: CEC-11-VC-9-16**

Sample Depth: 15.8–16.2ft

Easting: 3,512,893\*

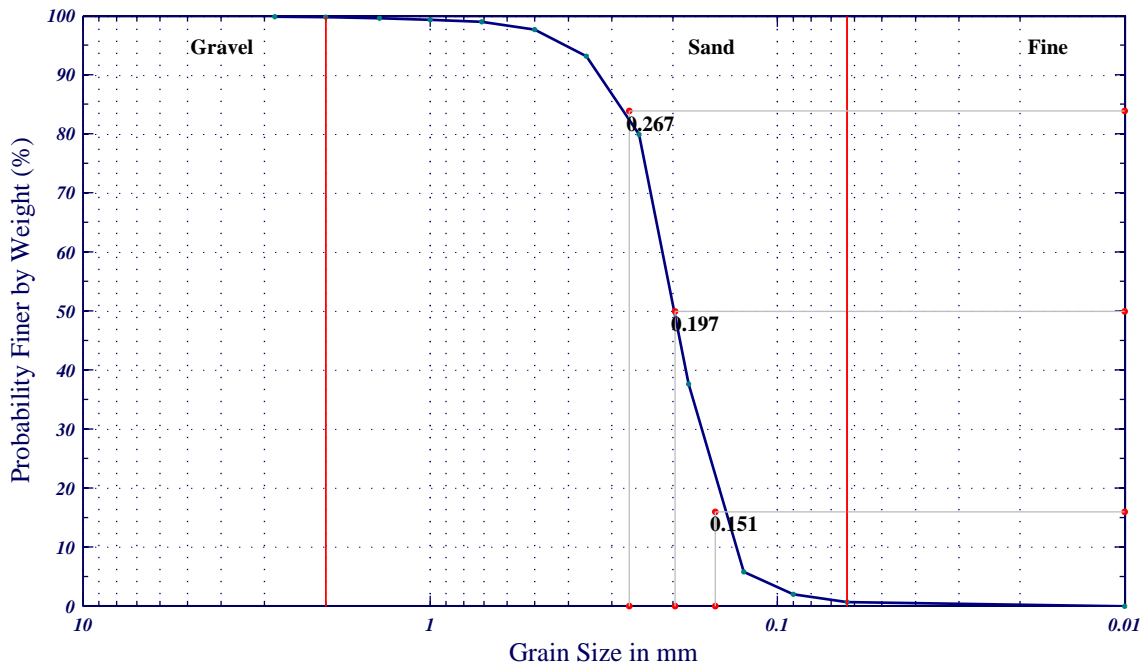
Northing: 151,686\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.121	3.047
D10:	0.138	2.857
D16:	0.151	2.727
D25:	0.164	2.608
D30:	0.169	2.565
D50:	0.197	2.344
D60:	0.209	2.258
D75:	0.236	2.083
D84:	0.267	1.905
D95:	0.387	1.370
Mean Grain Size:	0.200	2.325
Standard Deviation:	1.400	-0.485

Percent of Gravel (16mm–2mm): 0.08  
 Percent of Sand (<2mm–0.063mm): 97.91  
 Percent of Fines (<0.063mm): 2.02

**Sample ID: CEC-11-VC-9-18**

Sample Depth: 17.8–18.2ft

Easting: 3,512,893\*

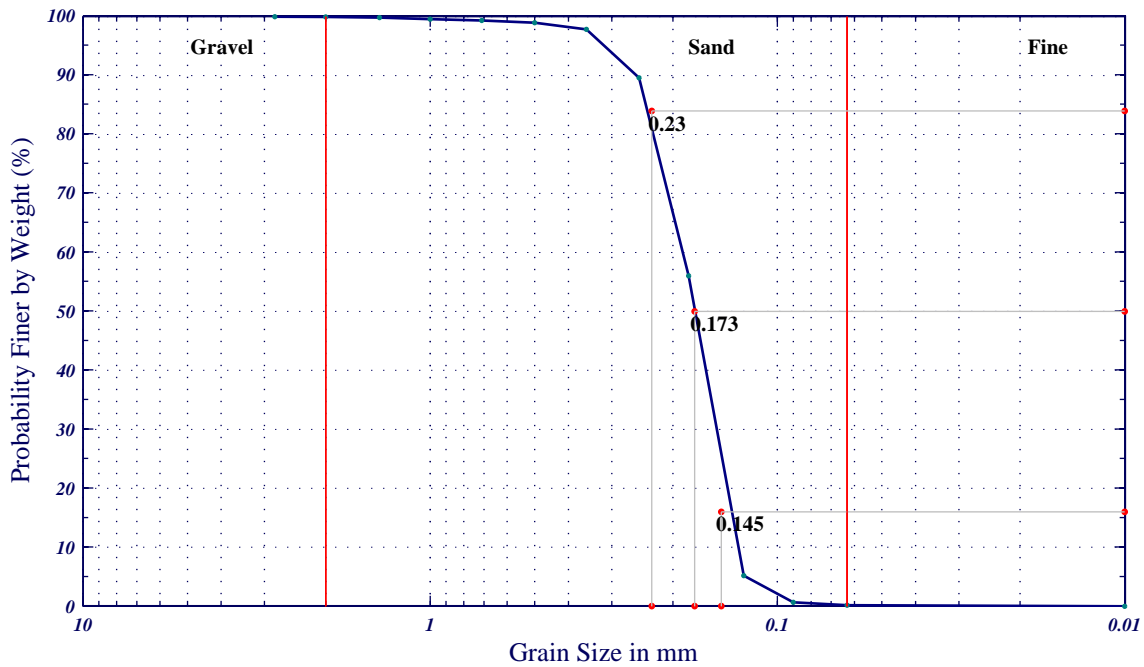
Northing: 151,686\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.125	3.000
D10:	0.135	2.889
D16:	0.145	2.786
D25:	0.154	2.699
D30:	0.158	2.662
D50:	0.173	2.531
D60:	0.185	2.434
D75:	0.207	2.272
D84:	0.230	2.120
D95:	0.293	1.771
Mean Grain Size:	0.179	2.479
Standard Deviation:	1.293	-0.371

Percent of Gravel (16mm–2mm): 0.05  
 Percent of Sand (<2mm–0.063mm): 99.27  
 Percent of Fines (<0.063mm): 0.68

**Sample ID: CEC-11-VC-10-0**

Sample Depth: 0.0–0.4ft

Easting: 3,511,071\*

Northing: 148,978\*

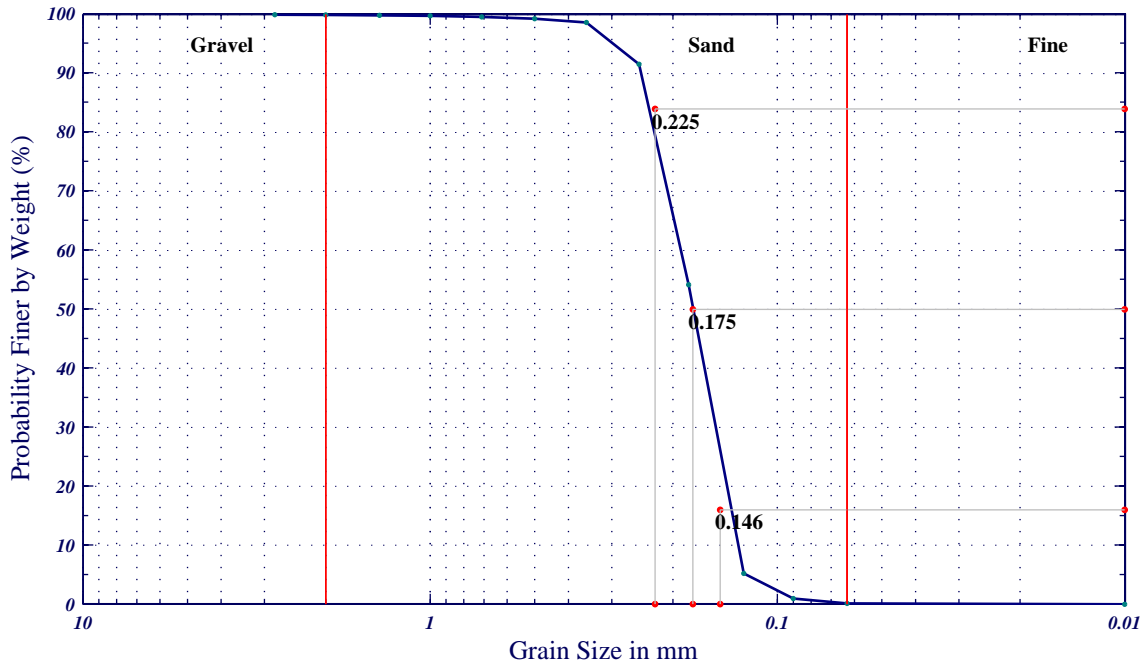
\*Coordinates are feet, LA-1702

OSI No.: 11ES008





**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.124	3.012
D10:	0.136	2.878
D16:	0.146	2.776
D25:	0.156	2.680
D30:	0.159	2.653
D50:	0.175	2.515
D60:	0.187	2.419
D75:	0.206	2.279
D84:	0.225	2.152
D95:	0.272	1.878
Mean Grain Size:	0.179	2.481
Standard Deviation:	1.270	-0.345

Percent of Gravel (16mm–2mm): 0.06  
 Percent of Sand (<2mm–0.063mm): 98.99  
 Percent of Fines (<0.063mm): 0.95

**Sample ID: CEC-11-VC-10-2**

Sample Depth: 1.8–2.2ft

Easting: 3,511,071\*

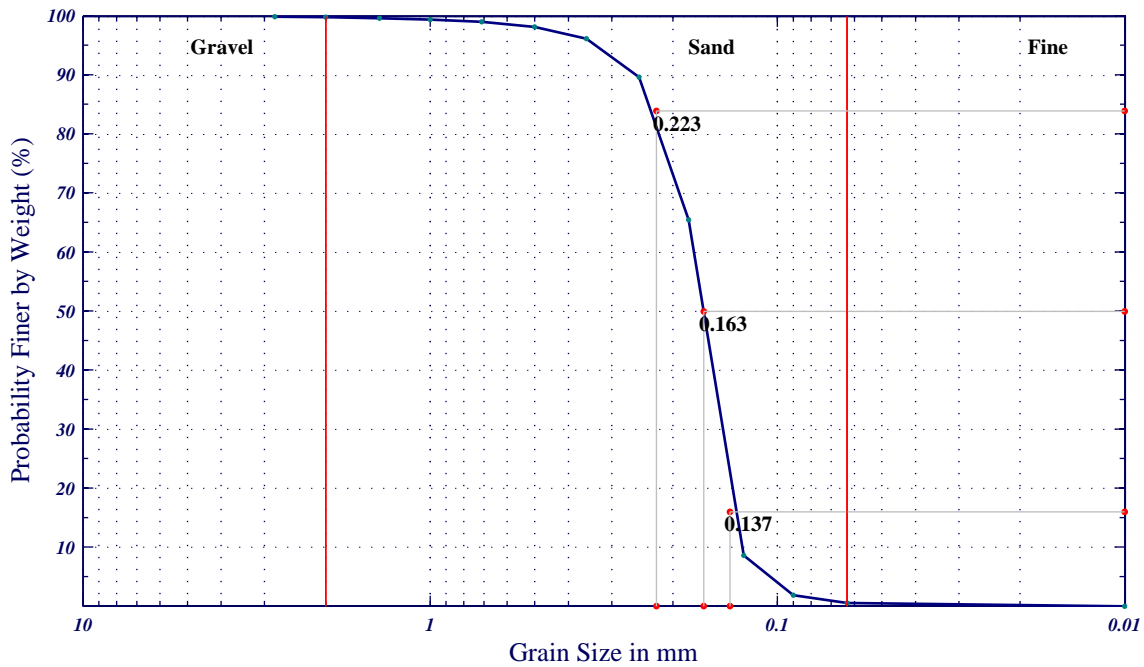
Northing: 148,978\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.113	3.146
D10:	0.128	2.966
D16:	0.137	2.868
D25:	0.147	2.766
D30:	0.151	2.727
D50:	0.163	2.617
D60:	0.172	2.540
D75:	0.196	2.351
D84:	0.223	2.165
D95:	0.322	1.635
Mean Grain Size:	0.171	2.550
Standard Deviation:	1.345	-0.428

Percent of Gravel (16mm–2mm): 0.10  
 Percent of Sand (<2mm–0.063mm): 98.02  
 Percent of Fines (<0.063mm): 1.88

**Sample ID: CEC-11-VC-10-4**

Sample Depth: 3.8–4.2ft

Easting: 3,511,071\*

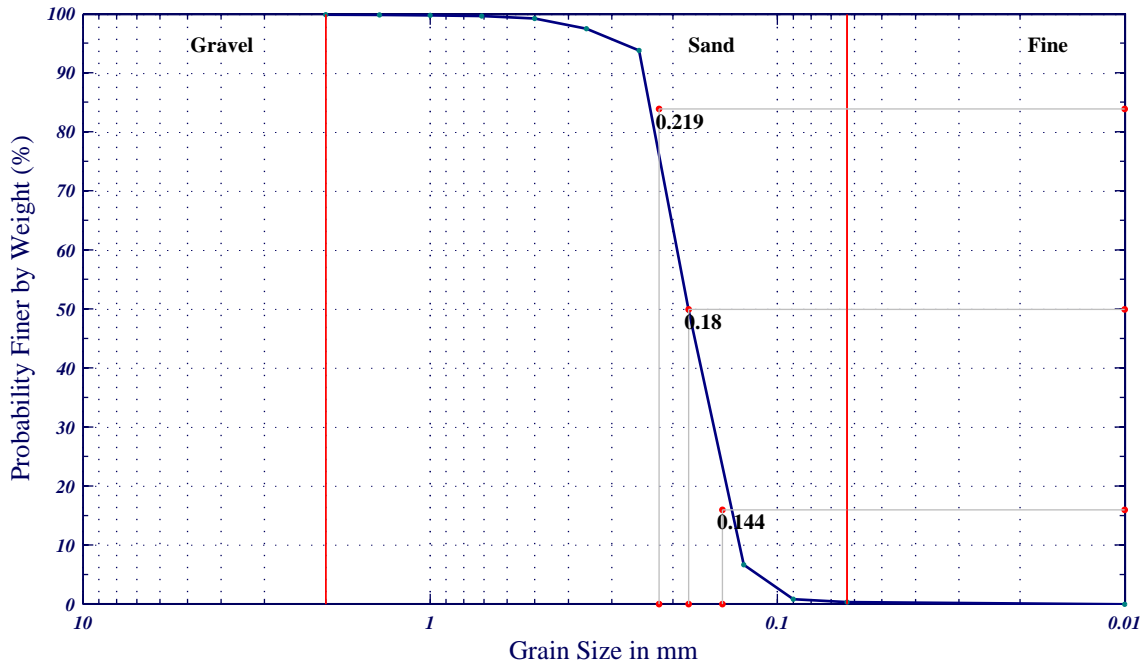
Northing: 148,978\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.121	3.047
D10:	0.133	2.911
D16:	0.144	2.796
D25:	0.155	2.690
D30:	0.160	2.644
D50:	0.180	2.474
D60:	0.191	2.388
D75:	0.204	2.293
D84:	0.219	2.191
D95:	0.264	1.921
Mean Grain Size:	0.178	2.487
Standard Deviation:	1.265	-0.339

Percent of Gravel (16mm–2mm): 0.00  
 Percent of Sand (<2mm–0.063mm): 99.16  
 Percent of Fines (<0.063mm): 0.84

**Sample ID: CEC-11-VC-10-6**

Sample Depth: 5.8–6.2ft

Easting: 3,511,071\*

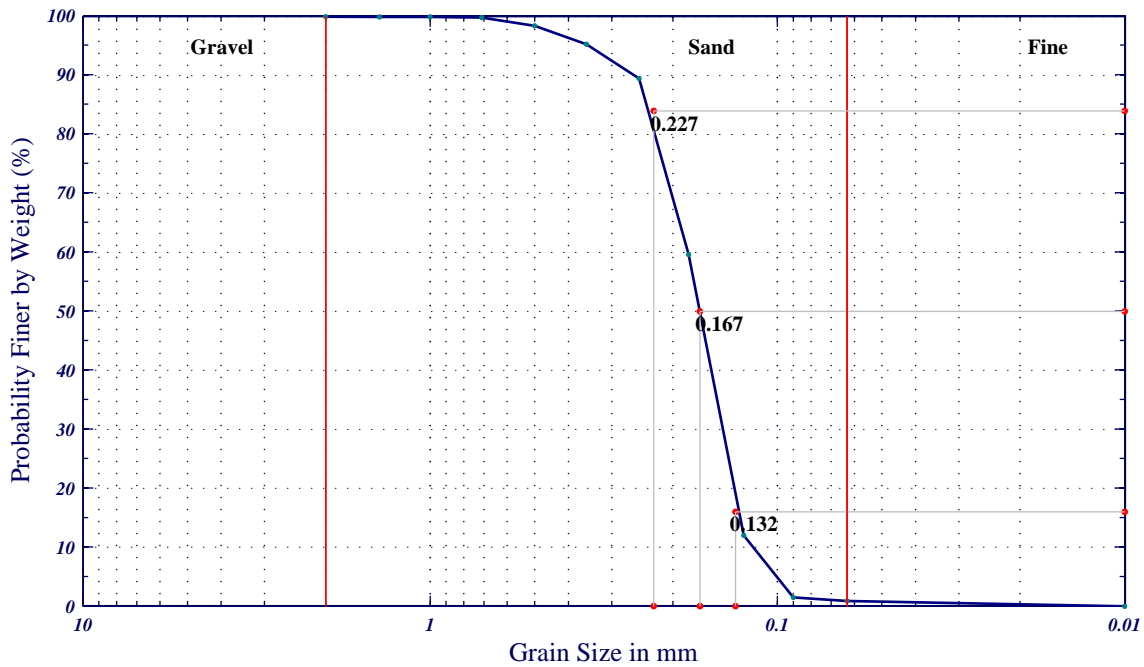
Northing: 148,978\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.111	3.171
D10:	0.122	3.035
D16:	0.132	2.921
D25:	0.144	2.796
D30:	0.149	2.747
D50:	0.167	2.582
D60:	0.181	2.466
D75:	0.203	2.300
D84:	0.227	2.139
D95:	0.347	1.527
Mean Grain Size:	0.171	2.548
Standard Deviation:	1.385	-0.470

Percent of Gravel (16mm–2mm): 0.00  
 Percent of Sand (<2mm–0.063mm): 98.50  
 Percent of Fines (<0.063mm): 1.50

**Sample ID: CEC-11-VC-10-8**

Sample Depth: 7.8–8.2ft

Easting: 3,511,071\*

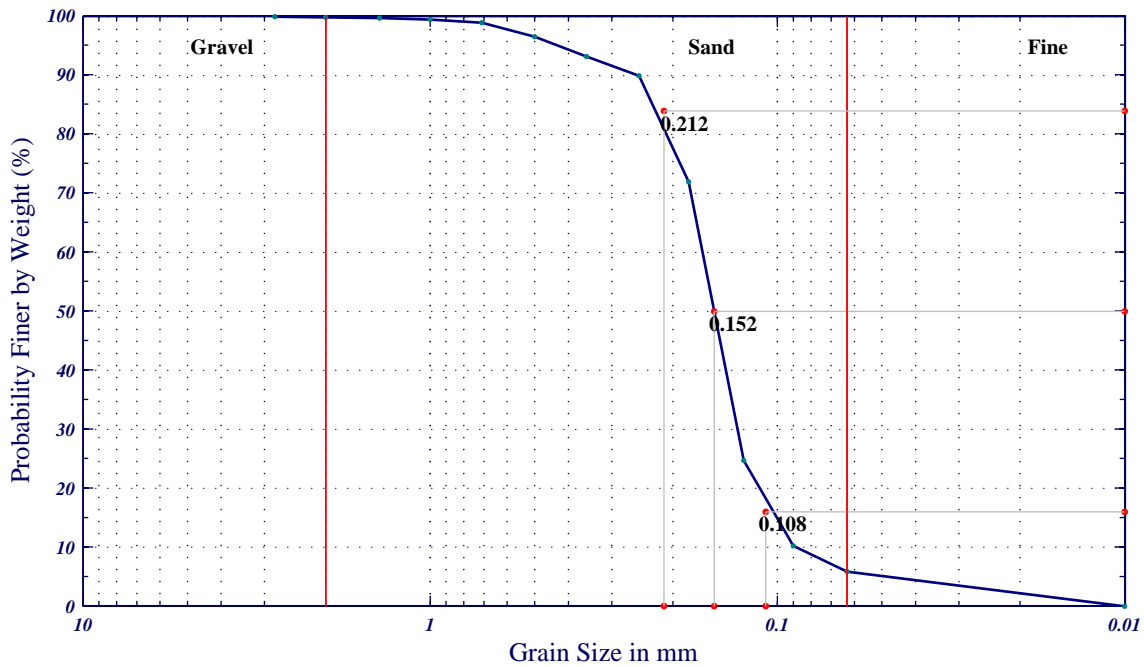
Northing: 148,978\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.057	4.133
D10:	0.089	3.490
D16:	0.108	3.211
D25:	0.125	3.000
D30:	0.133	2.911
D50:	0.152	2.718
D60:	0.162	2.626
D75:	0.186	2.427
D84:	0.212	2.238
D95:	0.421	1.248
Mean Grain Size:	0.152	2.722
Standard Deviation:	1.652	-0.724

Percent of Gravel (16mm–2mm): 0.14  
 Percent of Sand (<2mm–0.063mm): 89.65  
 Percent of Fines (<0.063mm): 10.22

**Sample ID: CEC-11-VC-10-10**

Sample Depth: 9.8–10.2ft

Easting: 3,511,071\*

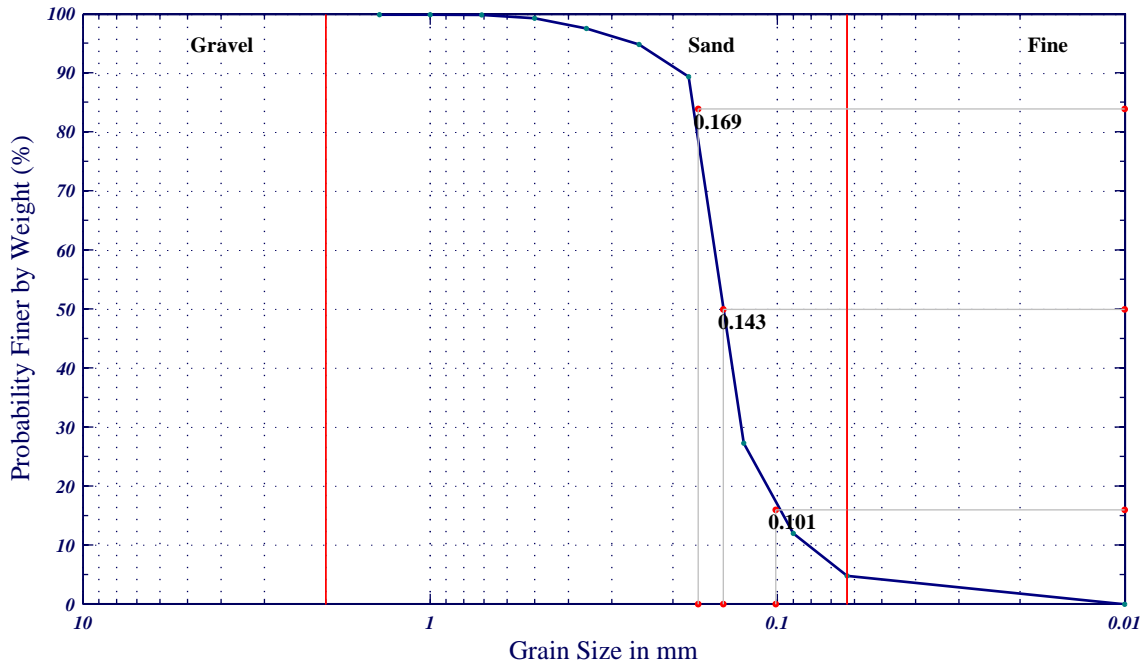
Northing: 148,978\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.064	3.966
D10:	0.084	3.573
D16:	0.101	3.308
D25:	0.121	3.047
D30:	0.129	2.955
D50:	0.143	2.806
D60:	0.147	2.766
D75:	0.157	2.671
D84:	0.169	2.565
D95:	0.252	1.989
Mean Grain Size:	0.135	2.893
Standard Deviation:	1.429	-0.515

Percent of Gravel (16mm–2mm): 0.00  
 Percent of Sand (<2mm–0.063mm): 88.00  
 Percent of Fines (<0.063mm): 12.00

**Sample ID: CEC-11-VC-10-12**

Sample Depth: 11.8–12.2ft

Easting: 3,511,071\*

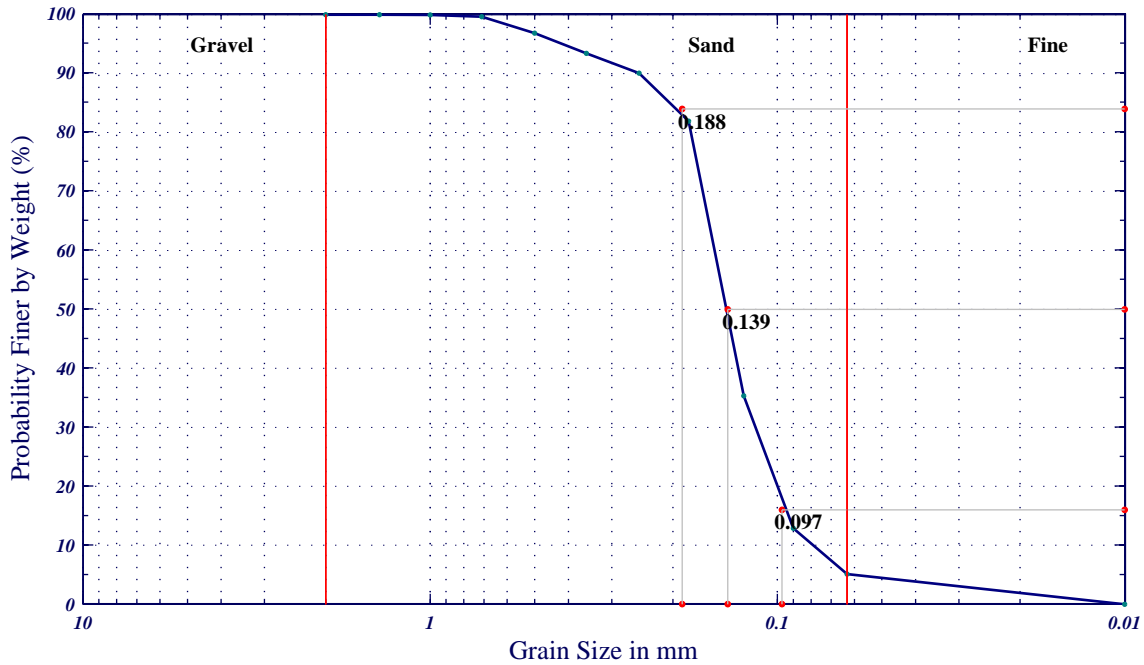
Northing: 148,978\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.062	4.012
D10:	0.083	3.591
D16:	0.097	3.366
D25:	0.111	3.171
D30:	0.118	3.083
D50:	0.139	2.847
D60:	0.147	2.766
D75:	0.165	2.599
D84:	0.188	2.411
D95:	0.415	1.269
Mean Grain Size:	0.136	2.875
Standard Deviation:	1.620	-0.696

Percent of Gravel (16mm–2mm): 0.00  
 Percent of Sand (<2mm–0.063mm): 87.12  
 Percent of Fines (<0.063mm): 12.88

**Sample ID: CEC-11-VC-10-14**

Sample Depth: 13.8–14.2ft

Easting: 3,511,071\*

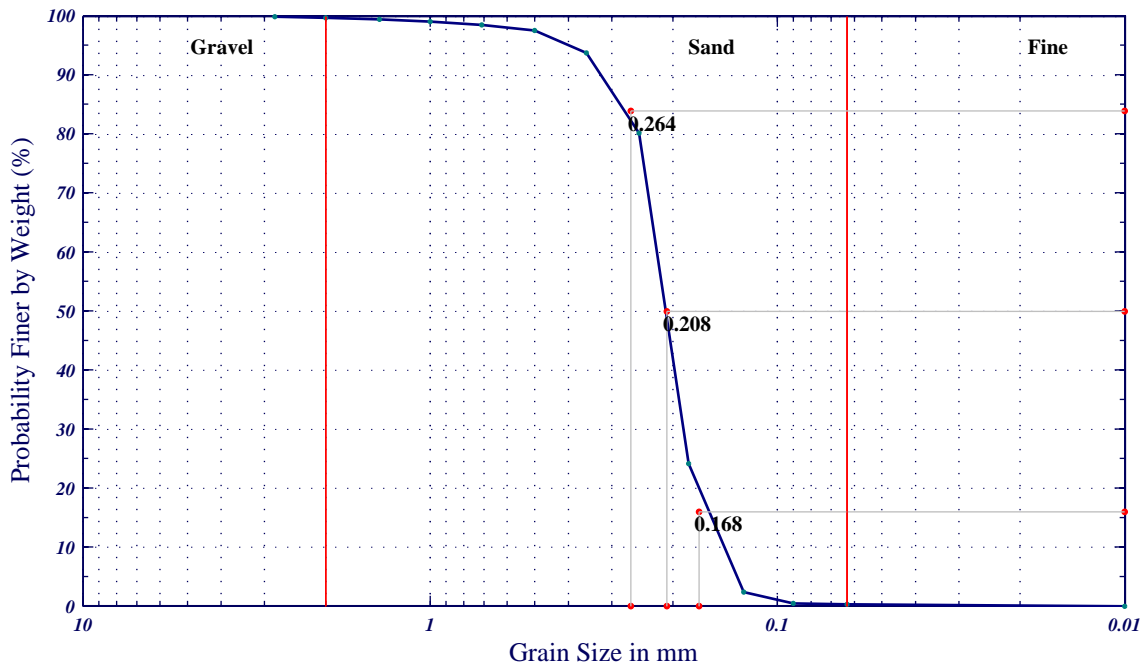
Northing: 148,978\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.138	2.857
D10:	0.156	2.680
D16:	0.168	2.573
D25:	0.181	2.466
D30:	0.189	2.404
D50:	0.208	2.265
D60:	0.217	2.204
D75:	0.238	2.071
D84:	0.264	1.921
D95:	0.377	1.407
Mean Grain Size:	0.210	2.253
Standard Deviation:	1.324	-0.405

Percent of Gravel (16mm–2mm): 0.21  
 Percent of Sand (<2mm–0.063mm): 99.32  
 Percent of Fines (<0.063mm): 0.48

**Sample ID: CEC-11-VC-11-0**

Sample Depth: 0.0–0.4ft

Easting: 3,512,749\*

Northing: 150,054\*

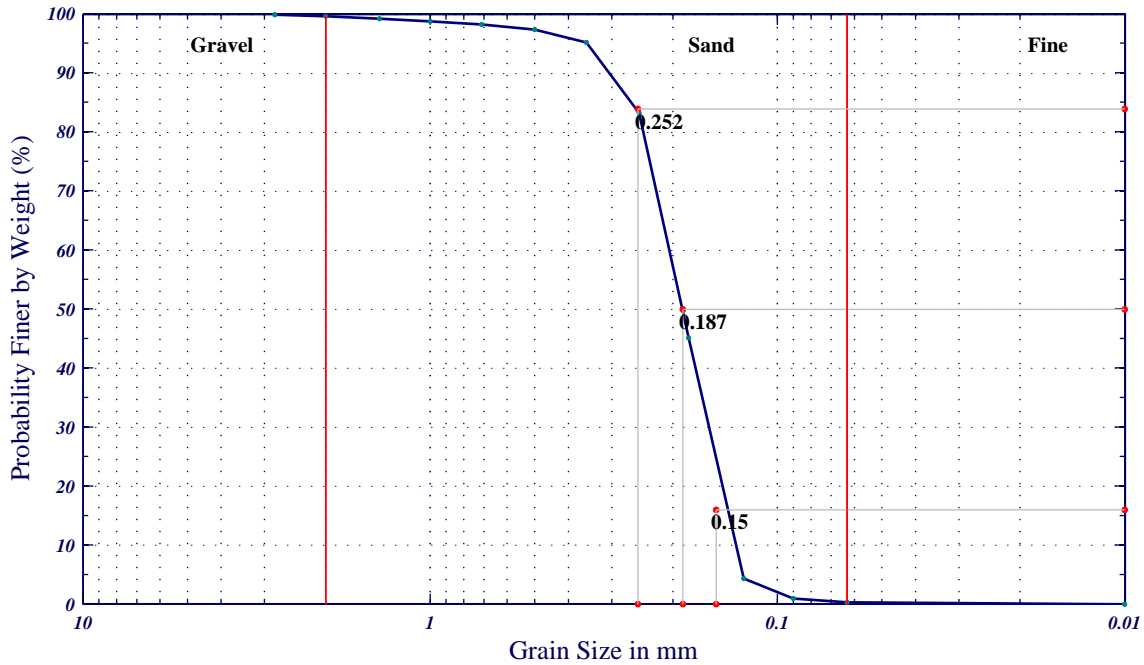
\*Coordinates are feet, LA-1702

OSI No.: 11ES008





**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.127	2.977
D10:	0.140	2.837
D16:	0.150	2.737
D25:	0.160	2.644
D30:	0.164	2.608
D50:	0.187	2.419
D60:	0.200	2.322
D75:	0.226	2.146
D84:	0.252	1.989
D95:	0.350	1.515
Mean Grain Size:	0.192	2.381
Standard Deviation:	1.348	-0.431

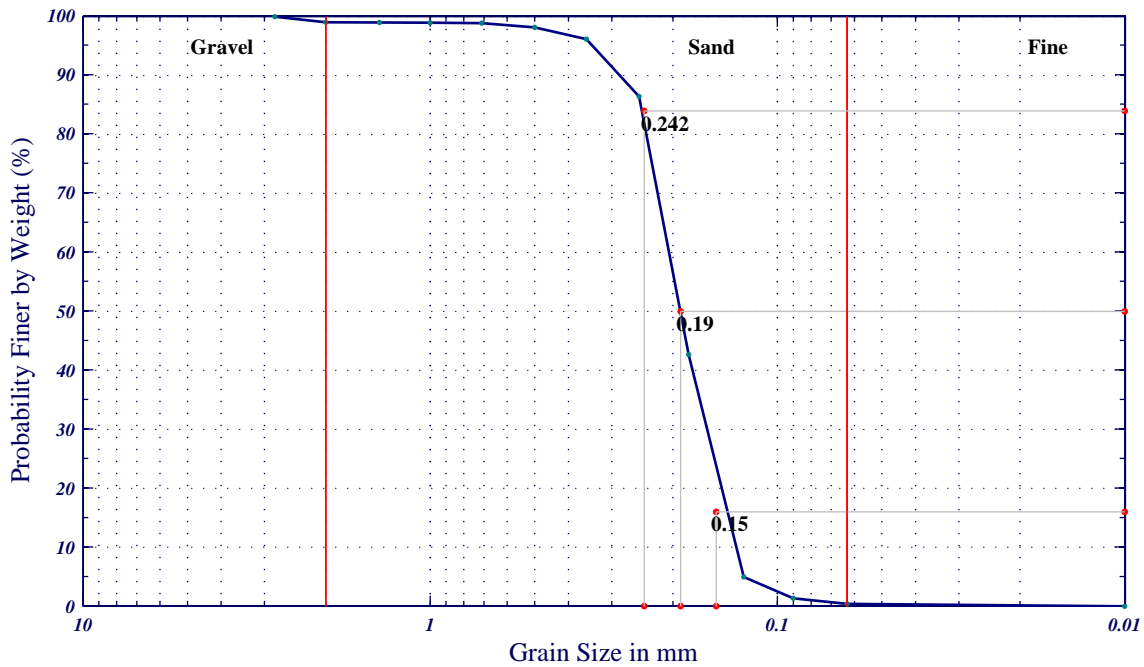
Percent of Gravel (16mm–2mm): 0.27  
 Percent of Sand (<2mm–0.063mm): 98.77  
 Percent of Fines (<0.063mm): 0.96

**Sample ID: CEC-11-VC-11-2**  
 Sample Depth: 1.8–2.2ft  
 Easting: 3,512,749\*  
 Northing: 150,054\*  
 \*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.125	3.000
D10:	0.139	2.847
D16:	0.150	2.737
D25:	0.161	2.635
D30:	0.166	2.591
D50:	0.190	2.396
D60:	0.200	2.322
D75:	0.221	2.178
D84:	0.242	2.047
D95:	0.331	1.595
Mean Grain Size:	0.190	2.393
Standard Deviation:	1.326	-0.407

Percent of Gravel (16mm–2mm): 0.98  
 Percent of Sand (<2mm–0.063mm): 97.68  
 Percent of Fines (<0.063mm): 1.35

**Sample ID: CEC-11-VC-11-4**

Sample Depth: 3.8–4.2ft

Easting: 3,512,749\*

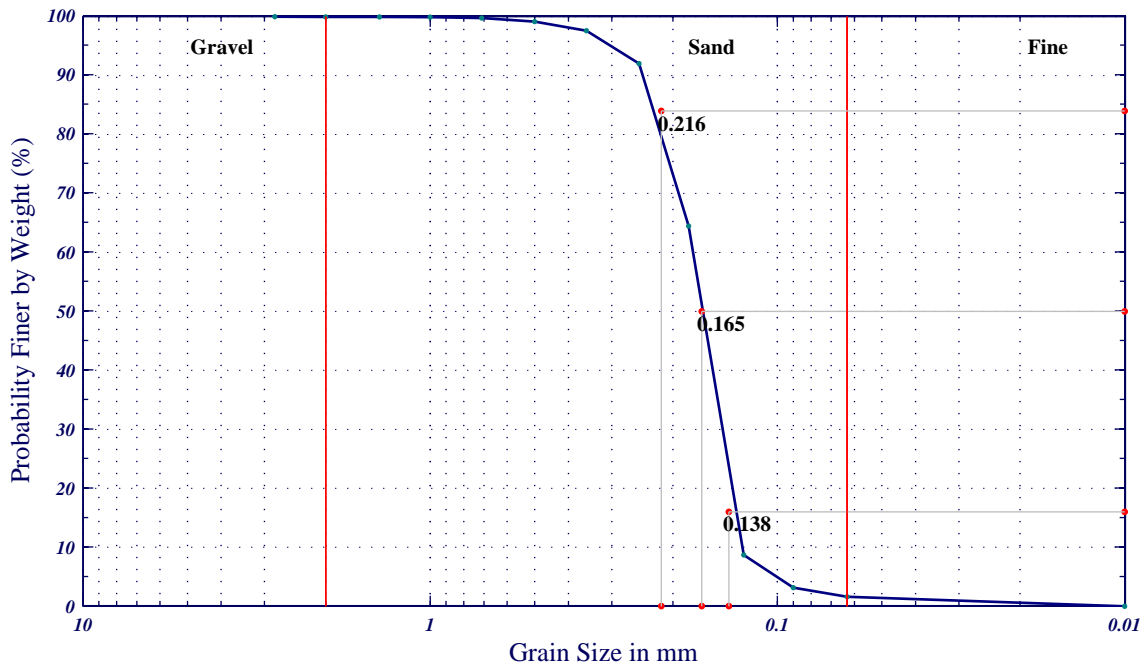
Northing: 150,054\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



<b>Sieve Analysis Results: (mm) (phi)</b>		
D5:	0.106	3.238
D10:	0.128	2.966
D16:	0.138	2.857
D25:	0.149	2.747
D30:	0.153	2.708
D50:	0.165	2.599
D60:	0.174	2.523
D75:	0.195	2.358
D84:	0.216	2.211
D95:	0.285	1.811
Mean Grain Size:	0.170	2.556
Standard Deviation:	1.319	-0.399

Percent of Gravel (16mm–2mm): 0.04  
 Percent of Sand (<2mm–0.063mm): 96.80  
 Percent of Fines (<0.063mm): 3.16

**Sample ID: CEC-11-VC-11-6**

Sample Depth: 5.8–6.2ft

Easting: 3,512,749\*

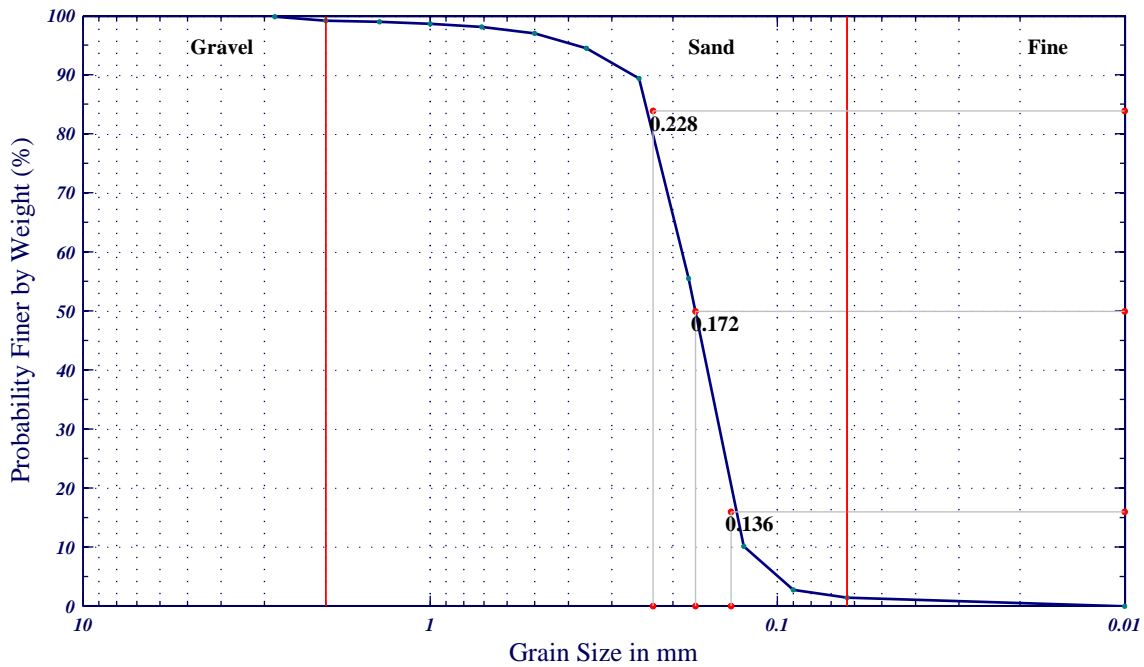
Northing: 150,054\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



## CEC Ship Shoal 2011 Cores Grain Size Distribution–Cumulative Probability Curve



### Sieve Analysis Results: (mm) (phi)

D5:	0.106	3.238
D10:	0.125	3.000
D16:	0.136	2.878
D25:	0.149	2.747
D30:	0.154	2.699
D50:	0.172	2.540
D60:	0.186	2.427
D75:	0.206	2.279
D84:	0.228	2.133
D95:	0.367	1.446
Mean Grain Size:	0.175	2.517
Standard Deviation:	1.400	-0.485

Percent of Gravel (16mm–2mm): 0.69  
 Percent of Sand (<2mm–0.063mm): 96.53  
 Percent of Fines (<0.063mm): 2.78

**Sample ID: CEC-11-VC-11-8**

Sample Depth: 7.8–8.2ft

Easting: 3,512,749\*

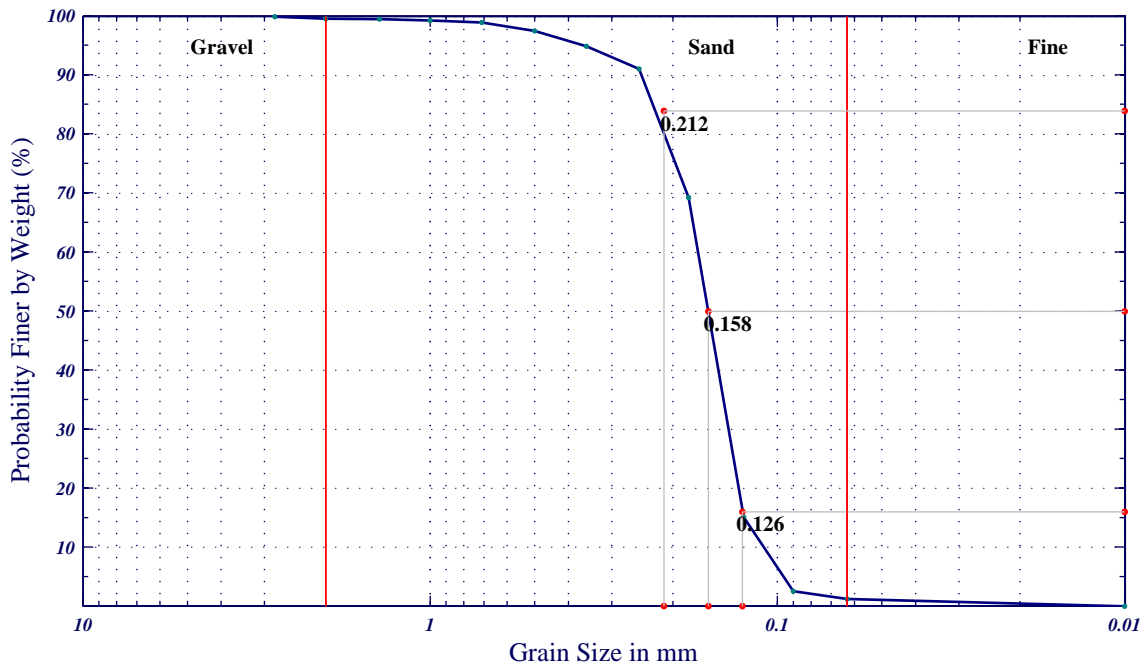
Northing: 150,054\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.103	3.279
D10:	0.117	3.095
D16:	0.126	2.989
D25:	0.138	2.857
D30:	0.143	2.806
D50:	0.158	2.662
D60:	0.167	2.582
D75:	0.189	2.404
D84:	0.212	2.238
D95:	0.357	1.486
Mean Grain Size:	0.162	2.629
Standard Deviation:	1.401	-0.487

Percent of Gravel (16mm–2mm): 0.36  
 Percent of Sand (<2mm–0.063mm): 97.10  
 Percent of Fines (<0.063mm): 2.54

**Sample ID: CEC-11-VC-11-10**

Sample Depth: 9.8–10.2ft

Easting: 3,512,749\*

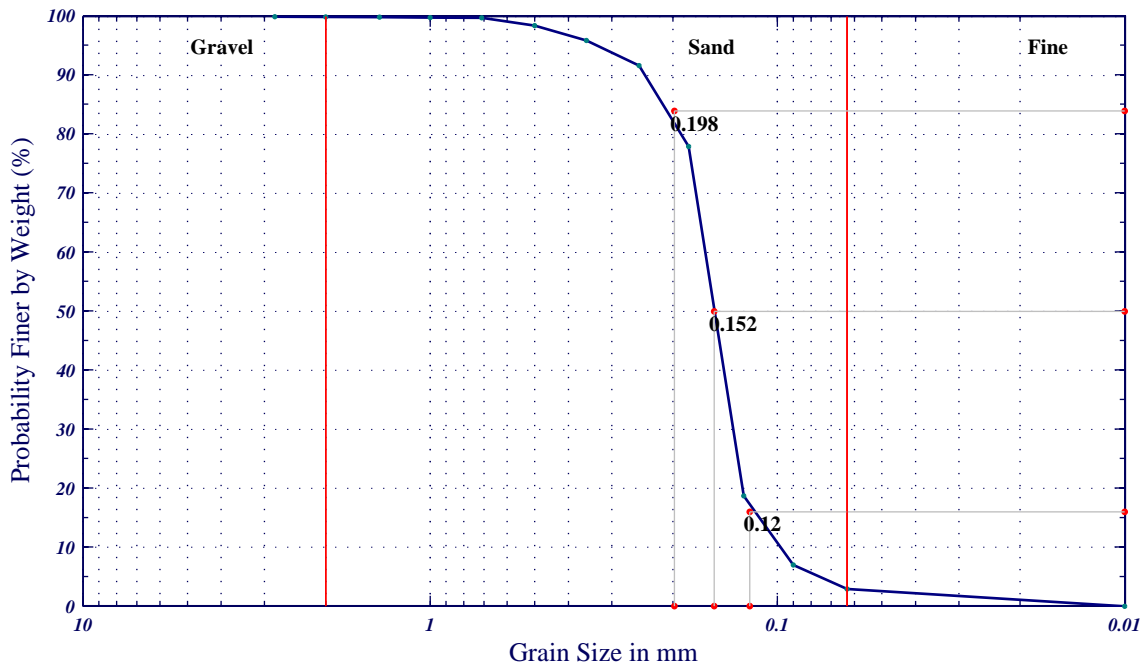
Northing: 150,054\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.080	3.644
D10:	0.102	3.293
D16:	0.120	3.059
D25:	0.134	2.900
D30:	0.139	2.847
D50:	0.152	2.718
D60:	0.158	2.662
D75:	0.175	2.515
D84:	0.198	2.336
D95:	0.323	1.630
Mean Grain Size:	0.153	2.704
Standard Deviation:	1.430	-0.516

Percent of Gravel (16mm–2mm): 0.04  
 Percent of Sand (<2mm–0.063mm): 92.96  
 Percent of Fines (<0.063mm): 6.99

**Sample ID: CEC-11-VC-11-12**

Sample Depth: 11.8–12.2ft

Easting: 3,512,749\*

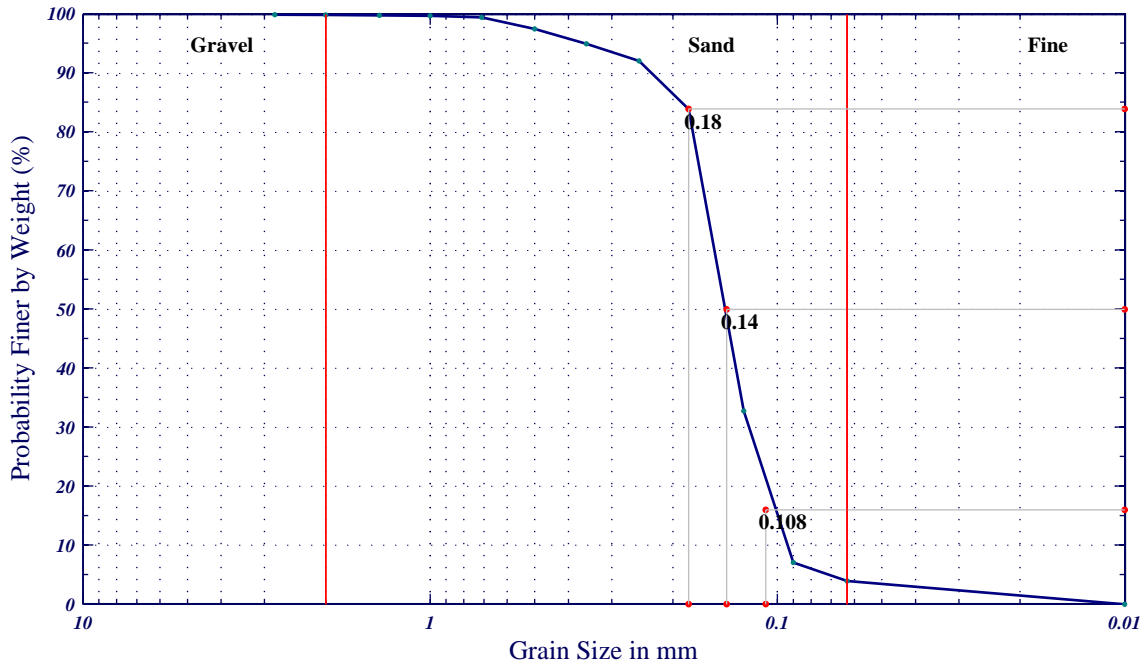
Northing: 150,054\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.074	3.756
D10:	0.098	3.351
D16:	0.108	3.211
D25:	0.117	3.095
D30:	0.122	3.035
D50:	0.140	2.837
D60:	0.146	2.776
D75:	0.163	2.617
D84:	0.180	2.474
D95:	0.353	1.502
Mean Grain Size:	0.140	2.840
Standard Deviation:	1.474	-0.560

Percent of Gravel (16mm–2mm): 0.04  
 Percent of Sand (<2mm–0.063mm): 92.90  
 Percent of Fines (<0.063mm): 7.06

**Sample ID: CEC-11-VC-11-13**

Sample Depth: 12.8–13.2ft

Easting: 3,512,749\*

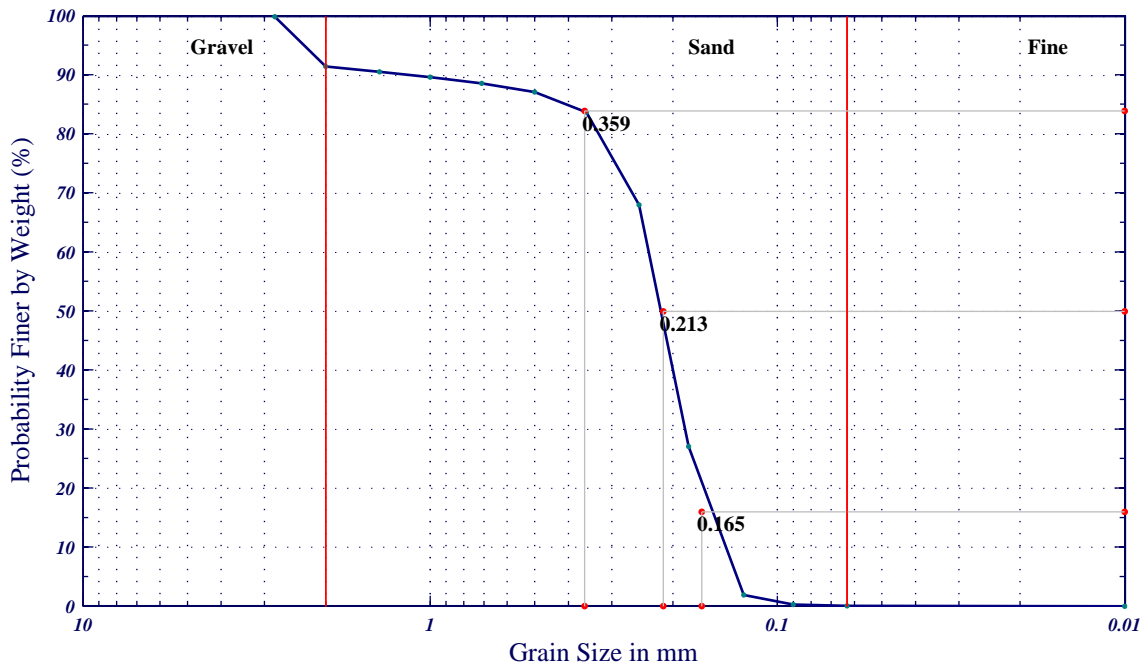
Northing: 150,054\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.139	2.847
D10:	0.154	2.699
D16:	0.165	2.599
D25:	0.176	2.506
D30:	0.185	2.434
D50:	0.213	2.231
D60:	0.230	2.120
D75:	0.277	1.852
D84:	0.359	1.478
D95:	2.543	-1.347
Mean Grain Size:	0.233	2.103
Standard Deviation:	1.971	-0.979

Percent of Gravel (16mm–2mm): 8.46  
 Percent of Sand (<2mm–0.063mm): 91.24  
 Percent of Fines (<0.063mm): 0.29

**Sample ID: CEC-11-VC-12-0**

Sample Depth: 0.0–0.4ft

Easting: 3,513,405\*

Northing: 150,837\*

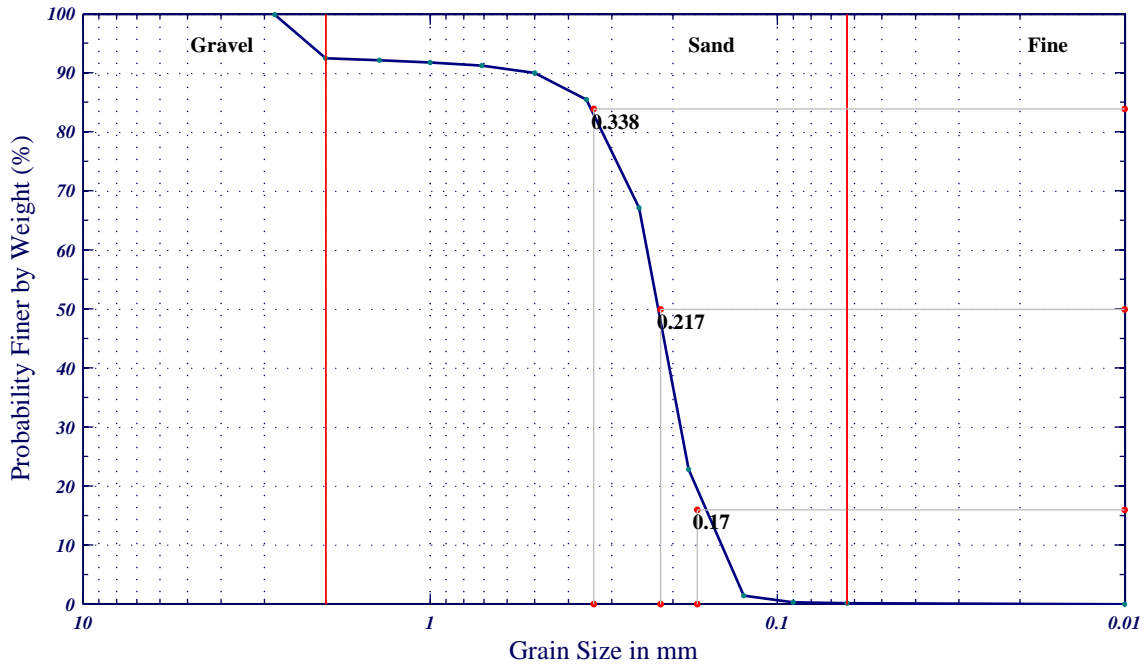
\*Coordinates are feet, LA-1702

OSI No.: 11ES008





**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.144	2.796
D10:	0.160	2.644
D16:	0.170	2.556
D25:	0.184	2.442
D30:	0.192	2.381
D50:	0.217	2.204
D60:	0.233	2.102
D75:	0.276	1.857
D84:	0.338	1.565
D95:	2.506	-1.325
Mean Grain Size:	0.232	2.109
Standard Deviation:	1.912	-0.935

Percent of Gravel (16mm–2mm): 7.42  
 Percent of Sand (<2mm–0.063mm): 92.26  
 Percent of Fines (<0.063mm): 0.33

**Sample ID: CEC-11-VC-12-2**

Sample Depth: 1.8–2.2ft

Easting: 3,513,405\*

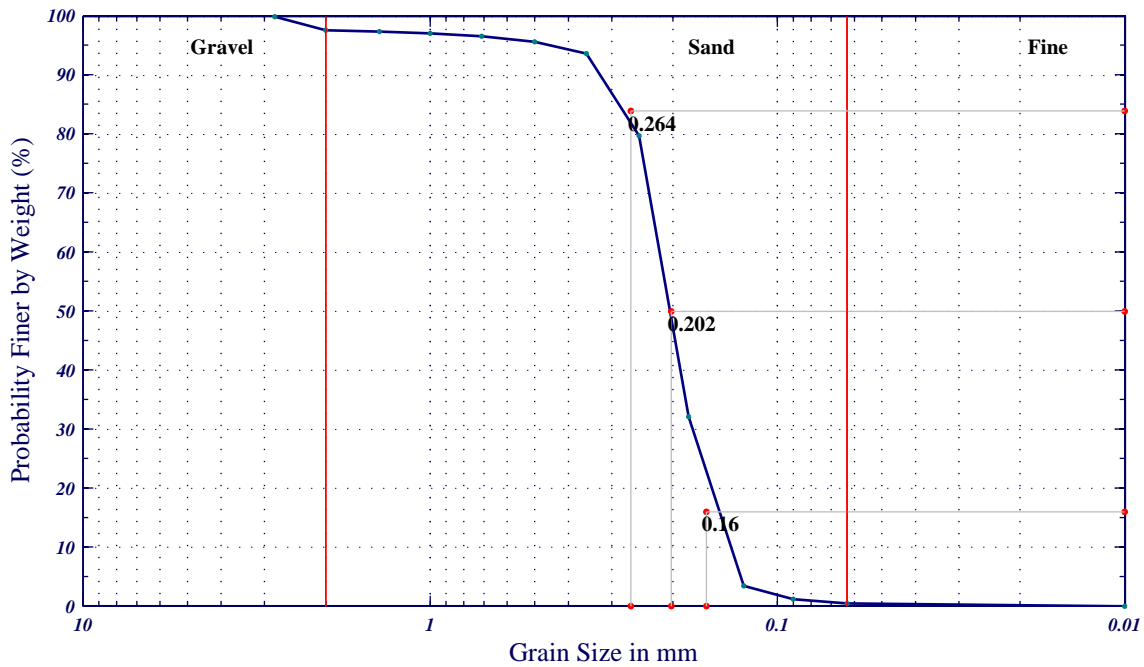
Northing: 150,837\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.131	2.932
D10:	0.147	2.766
D16:	0.160	2.644
D25:	0.171	2.548
D30:	0.177	2.498
D50:	0.202	2.308
D60:	0.213	2.231
D75:	0.238	2.071
D84:	0.264	1.921
D95:	0.425	1.234
Mean Grain Size:	0.204	2.291
Standard Deviation:	1.379	-0.464

Percent of Gravel (16mm–2mm): 2.33  
 Percent of Sand (<2mm–0.063mm): 96.48  
 Percent of Fines (<0.063mm): 1.18

**Sample ID: CEC-11-VC-12-4**

Sample Depth: 3.8–4.2ft

Easting: 3,513,405\*

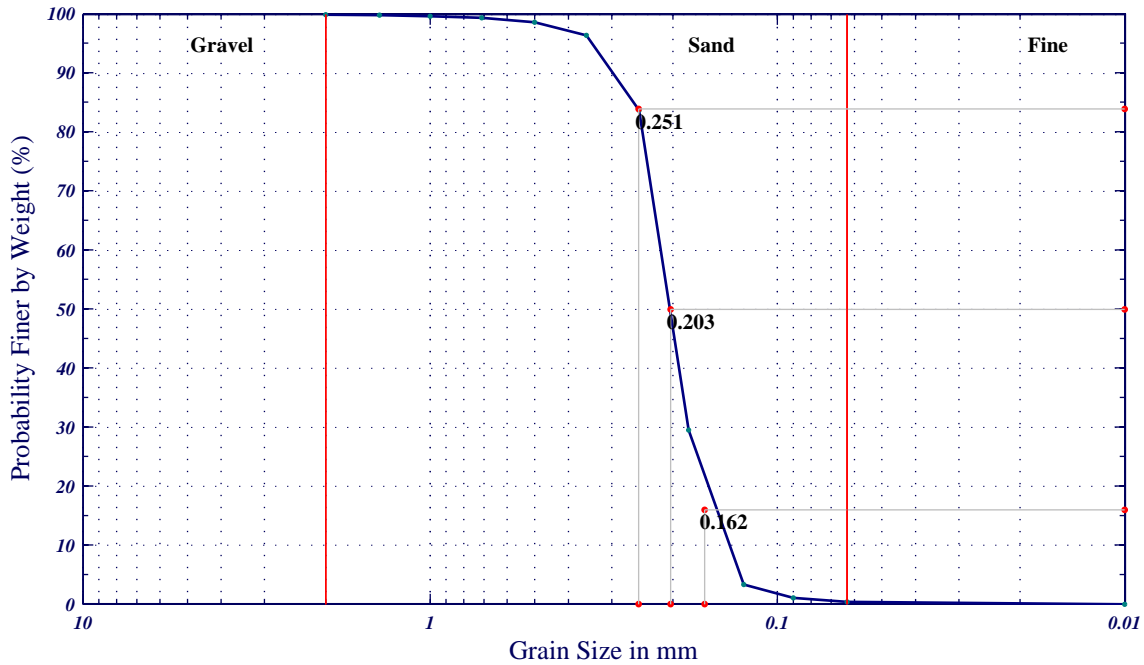
Northing: 150,837\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



<b>Sieve Analysis Results:</b>		
	<b>(mm)</b>	<b>(phi)</b>
D5:	0.132	2.921
D10:	0.149	2.747
D16:	0.162	2.626
D25:	0.174	2.523
D30:	0.181	2.466
D50:	0.203	2.300
D60:	0.211	2.245
D75:	0.231	2.114
D84:	0.251	1.994
D95:	0.331	1.595
Mean Grain Size:	0.202	2.307
Standard Deviation:	1.300	-0.379

Percent of Gravel (16mm–2mm): 0.00  
 Percent of Sand (<2mm–0.063mm): 98.93  
 Percent of Fines (<0.063mm): 1.07

**Sample ID: CEC-11-VC-12-6**

Sample Depth: 5.8–6.2ft

Easting: 3,513,405\*

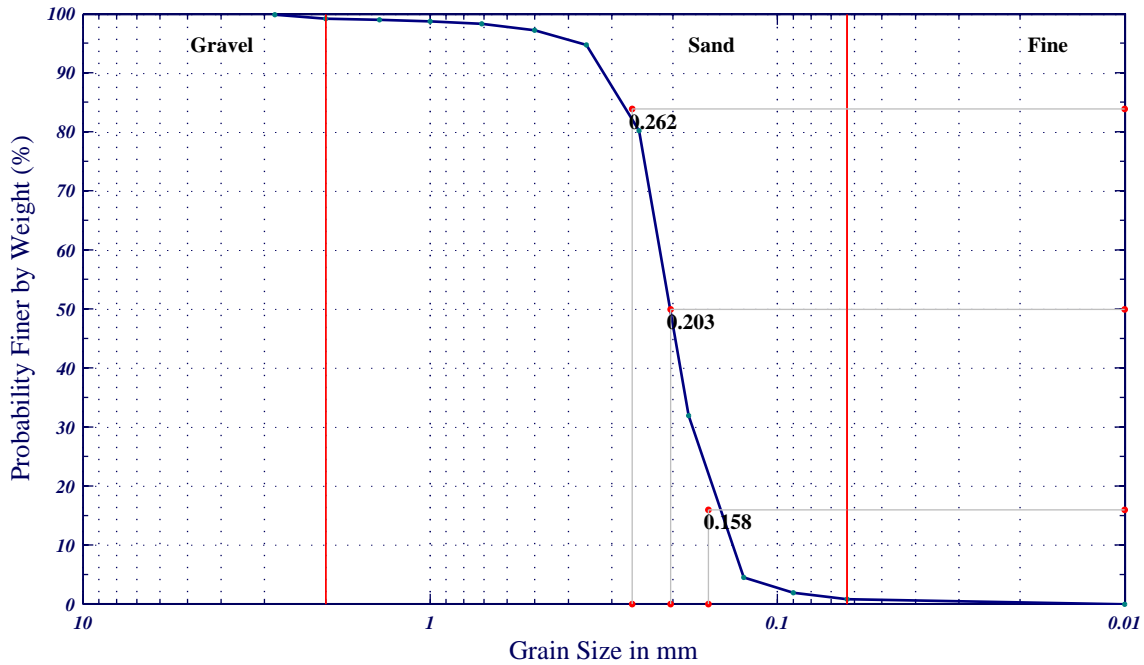
Northing: 150,837\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.127	2.977
D10:	0.144	2.796
D16:	0.158	2.662
D25:	0.170	2.556
D30:	0.177	2.498
D50:	0.203	2.300
D60:	0.213	2.231
D75:	0.237	2.077
D84:	0.262	1.932
D95:	0.358	1.482
Mean Grain Size:	0.203	2.298
Standard Deviation:	1.349	-0.432

Percent of Gravel (16mm–2mm): 0.68  
 Percent of Sand (<2mm–0.063mm): 97.39  
 Percent of Fines (<0.063mm): 1.92

**Sample ID: CEC-11-VC-12-8**

Sample Depth: 7.8–8.2ft

Easting: 3,513,405\*

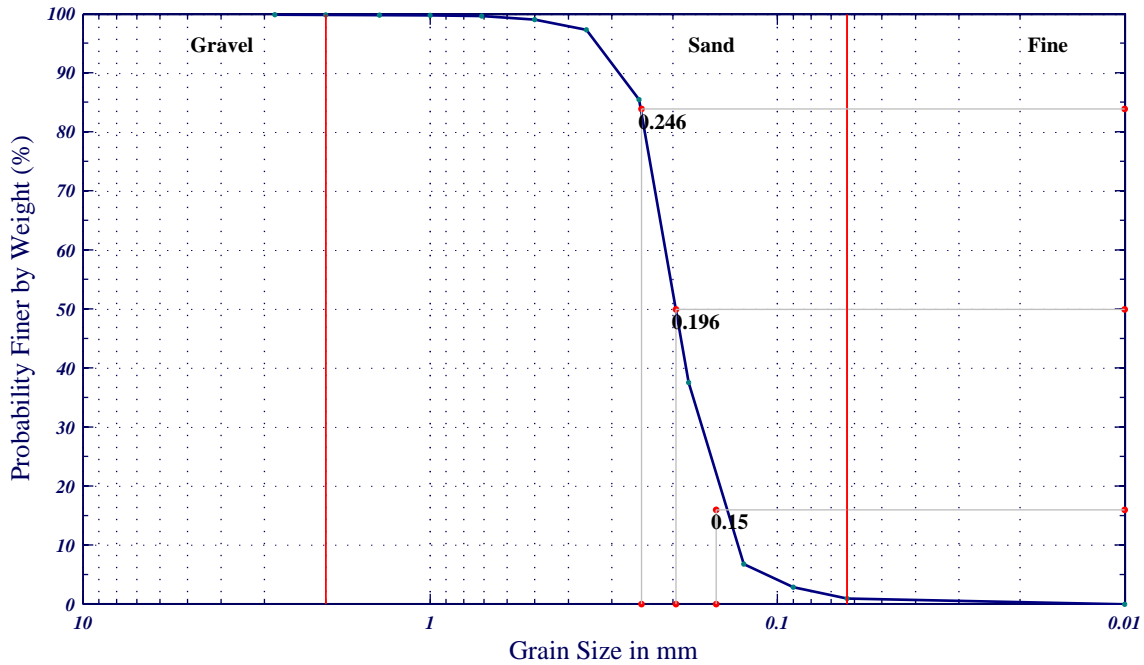
Northing: 150,837\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.113	3.146
D10:	0.135	2.889
D16:	0.150	2.737
D25:	0.164	2.608
D30:	0.170	2.556
D50:	0.196	2.351
D60:	0.205	2.286
D75:	0.225	2.152
D84:	0.246	2.023
D95:	0.314	1.671
Mean Grain Size:	0.193	2.370
Standard Deviation:	1.342	-0.424

Percent of Gravel (16mm–2mm): 0.06  
 Percent of Sand (<2mm–0.063mm): 97.08  
 Percent of Fines (<0.063mm): 2.87

**Sample ID: CEC-11-VC-12-10**

Sample Depth: 9.8–10.2ft

Easting: 3,513,405\*

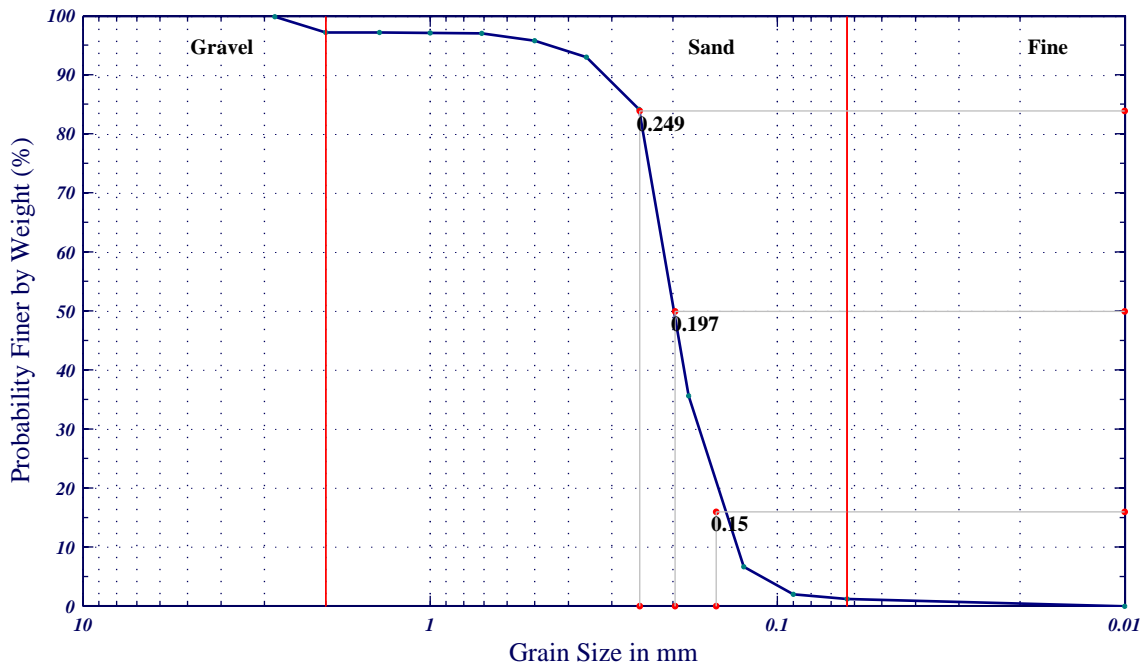
Northing: 150,837\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



<b>Sieve Analysis Results:</b>		
	<b>(mm)</b>	<b>(phi)</b>
D5:	0.118	3.083
D10:	0.136	2.878
D16:	0.150	2.737
D25:	0.165	2.599
D30:	0.172	2.540
D50:	0.197	2.344
D60:	0.206	2.279
D75:	0.227	2.139
D84:	0.249	2.006
D95:	0.433	1.208
Mean Grain Size:	0.194	2.362
Standard Deviation:	1.410	-0.495

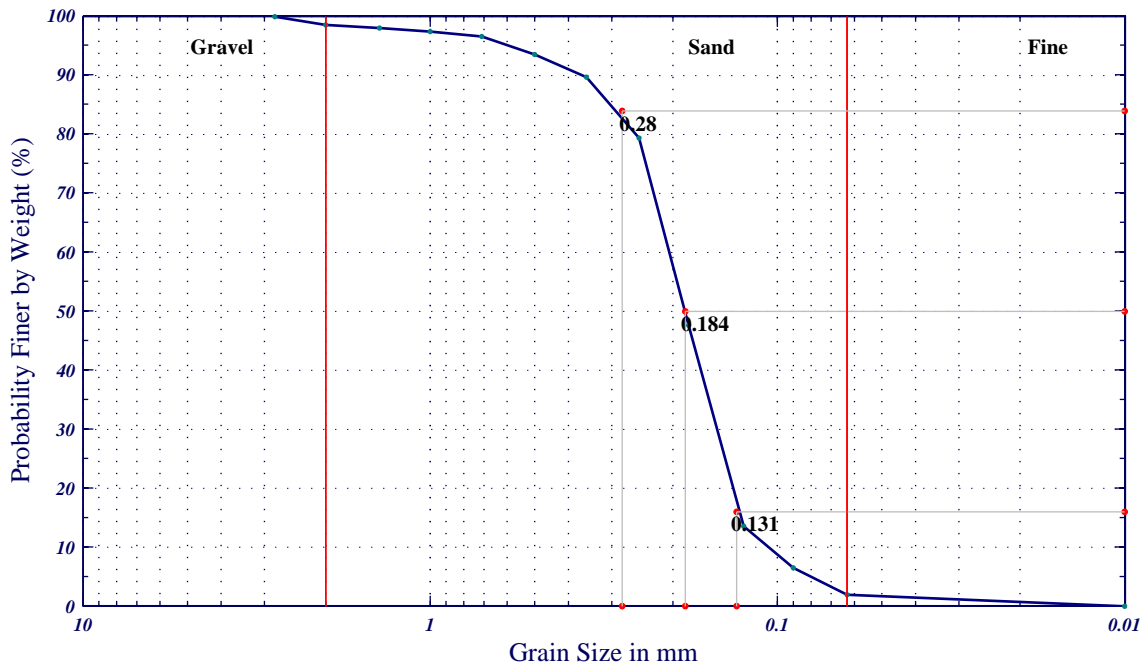
Percent of Gravel (16mm–2mm): 2.71  
 Percent of Sand (<2mm–0.063mm): 95.27  
 Percent of Fines (<0.063mm): 2.03

**Sample ID: CEC-11-VC-12-12**  
 Sample Depth: 11.8–12.2ft  
 Easting: 3,513,405\*  
 Northing: 150,837\*  
 \*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.083	3.591
D10:	0.110	3.184
D16:	0.131	2.932
D25:	0.149	2.747
D30:	0.155	2.690
D50:	0.184	2.442
D60:	0.200	2.322
D75:	0.234	2.095
D84:	0.280	1.837
D95:	0.566	0.821
Mean Grain Size:	0.189	2.404
Standard Deviation:	1.665	-0.736

Percent of Gravel (16mm–2mm): 1.42  
 Percent of Sand (<2mm–0.063mm): 92.06  
 Percent of Fines (<0.063mm): 6.52

**Sample ID: CEC-11-VC-12-14**

Sample Depth: 13.8–14.2ft

Easting: 3,513,405\*

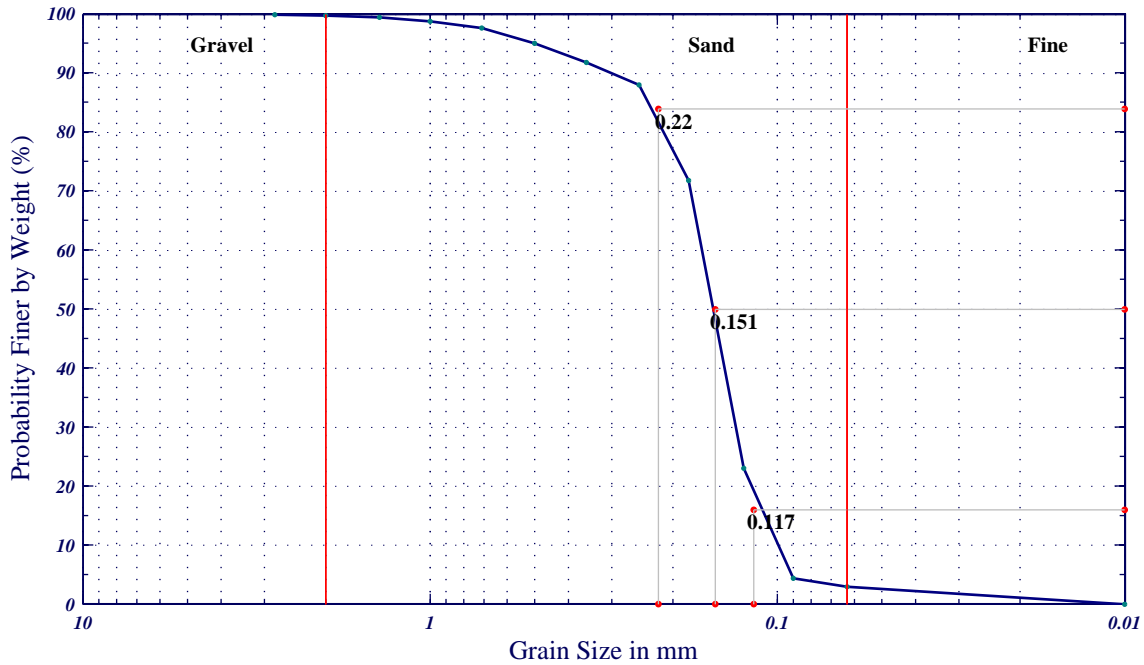
Northing: 150,837\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.093	3.427
D10:	0.108	3.211
D16:	0.117	3.095
D25:	0.128	2.966
D30:	0.134	2.900
D50:	0.151	2.727
D60:	0.162	2.626
D75:	0.187	2.419
D84:	0.220	2.184
D95:	0.492	1.023
Mean Grain Size:	0.157	2.669
Standard Deviation:	1.546	-0.628

Percent of Gravel (16mm–2mm): 0.16  
 Percent of Sand (<2mm–0.063mm): 95.45  
 Percent of Fines (<0.063mm): 4.39

**Sample ID: CEC-11-VC-12-16**

Sample Depth: 15.8–16.2ft

Easting: 3,513,405\*

Northing: 150,837\*

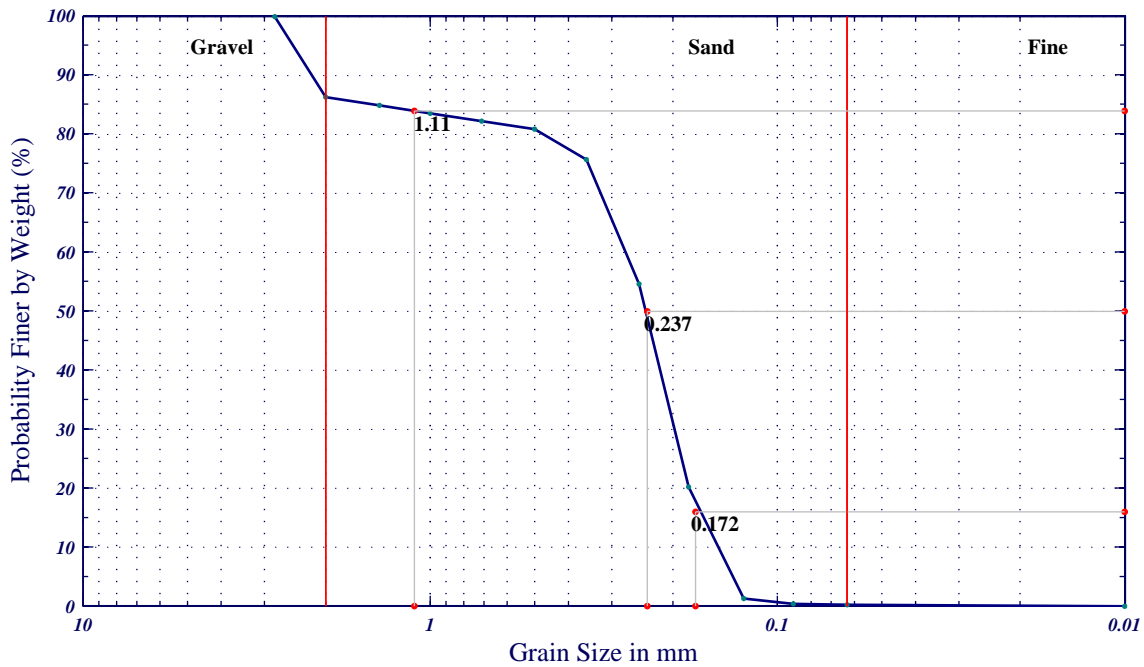
\*Coordinates are feet, LA-1702

OSI No.: 11ES008





**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.147	2.766
D10:	0.163	2.617
D16:	0.172	2.540
D25:	0.191	2.388
D30:	0.200	2.322
D50:	0.237	2.077
D60:	0.266	1.911
D75:	0.348	1.523
D84:	1.110	-0.151
D95:	2.707	-1.437
Mean Grain Size:	0.356	1.489
Standard Deviation:	2.590	-1.373

Percent of Gravel (16mm–2mm): 13.66  
 Percent of Sand (<2mm–0.063mm): 85.94  
 Percent of Fines (<0.063mm): 0.40

**Sample ID: CEC-11-VC-13-0**

Sample Depth: 0.0–0.4ft

Easting: 3,514,548\*

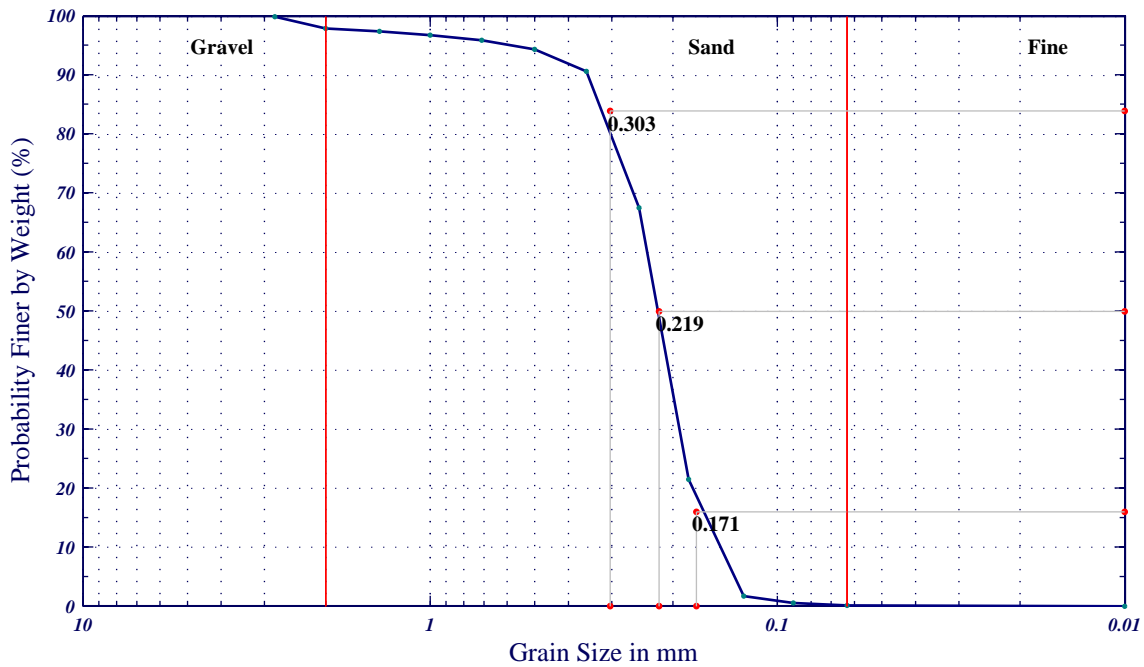
Northing: 150,989\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.143	2.806
D10:	0.161	2.635
D16:	0.171	2.548
D25:	0.187	2.419
D30:	0.195	2.358
D50:	0.219	2.191
D60:	0.234	2.095
D75:	0.268	1.900
D84:	0.303	1.723
D95:	0.551	0.860
Mean Grain Size:	0.225	2.154
Standard Deviation:	1.445	-0.531

Percent of Gravel (16mm–2mm): 2.03  
 Percent of Sand (<2mm–0.063mm): 97.44  
 Percent of Fines (<0.063mm): 0.53

**Sample ID: CEC-11-VC-13-2**

Sample Depth: 1.8–2.2ft

Easting: 3,514,548\*

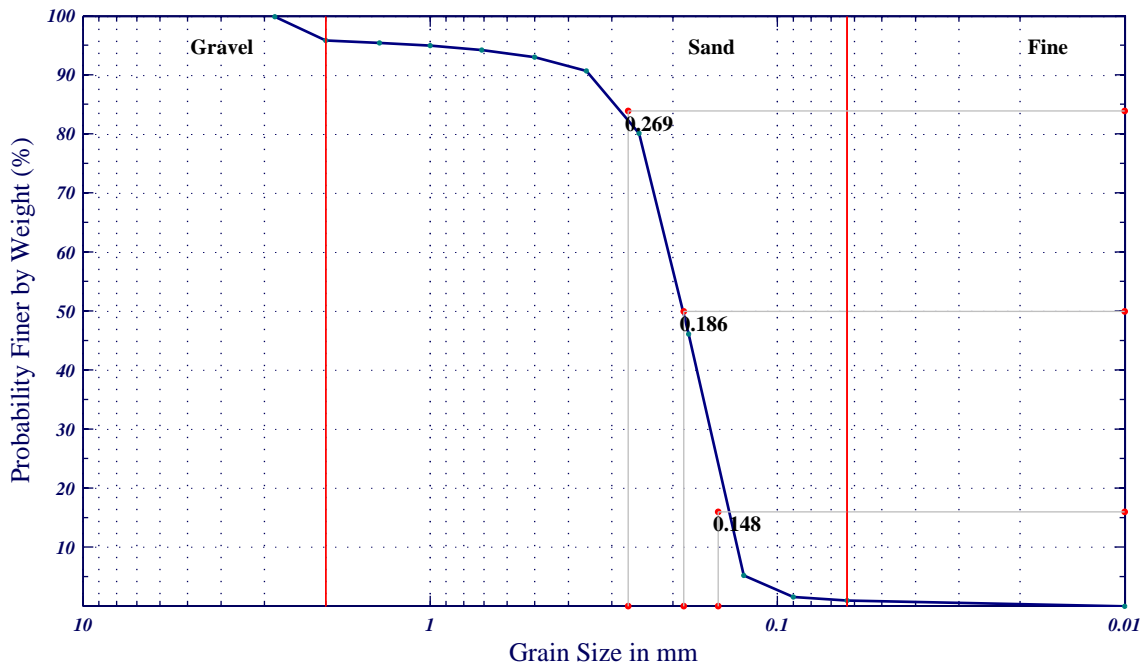
Northing: 150,989\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.124	3.012
D10:	0.137	2.868
D16:	0.148	2.756
D25:	0.159	2.653
D30:	0.163	2.617
D50:	0.186	2.427
D60:	0.200	2.322
D75:	0.232	2.108
D84:	0.269	1.894
D95:	0.960	0.059
Mean Grain Size:	0.195	2.359
Standard Deviation:	1.633	-0.708

Percent of Gravel (16mm–2mm): 4.07  
 Percent of Sand (<2mm–0.063mm): 94.37  
 Percent of Fines (<0.063mm): 1.56

**Sample ID: CEC-11-VC-13-4**

Sample Depth: 3.8–4.2ft

Easting: 3,514,548\*

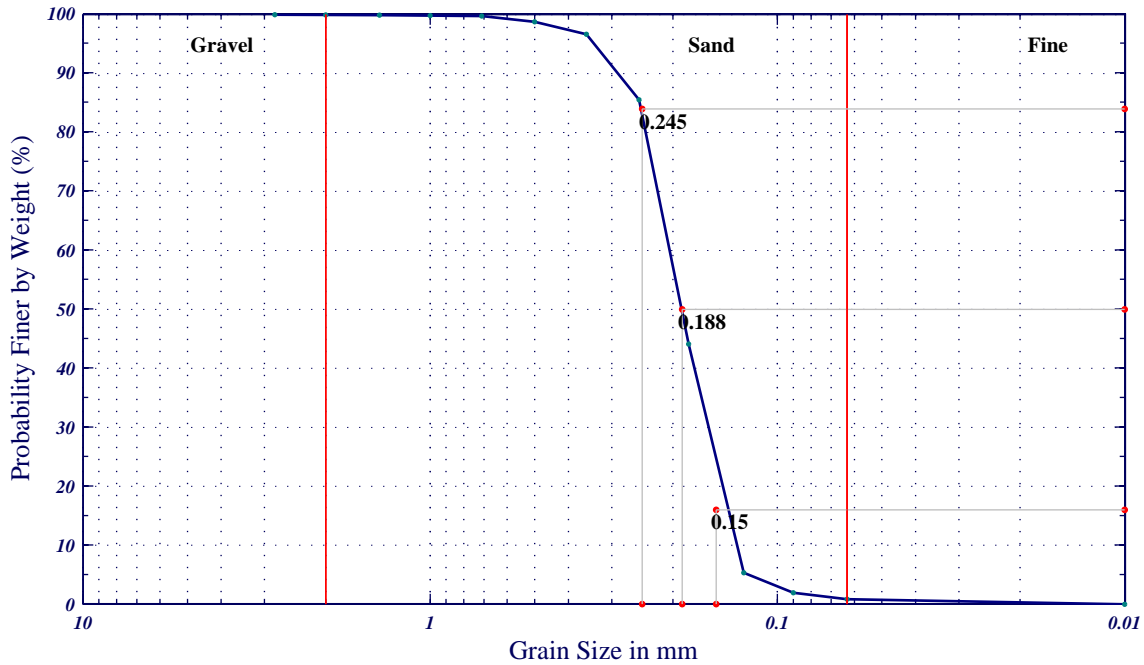
Northing: 150,989\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.124	3.012
D10:	0.138	2.857
D16:	0.150	2.737
D25:	0.161	2.635
D30:	0.165	2.599
D50:	0.188	2.411
D60:	0.200	2.322
D75:	0.222	2.171
D84:	0.245	2.029
D95:	0.325	1.621
Mean Grain Size:	0.190	2.392
Standard Deviation:	1.327	-0.409

Percent of Gravel (16mm–2mm): 0.07  
 Percent of Sand (<2mm–0.063mm): 97.99  
 Percent of Fines (<0.063mm): 1.94

**Sample ID: CEC-11-VC-13-6**

Sample Depth: 5.8–6.2ft

Easting: 3,514,548\*

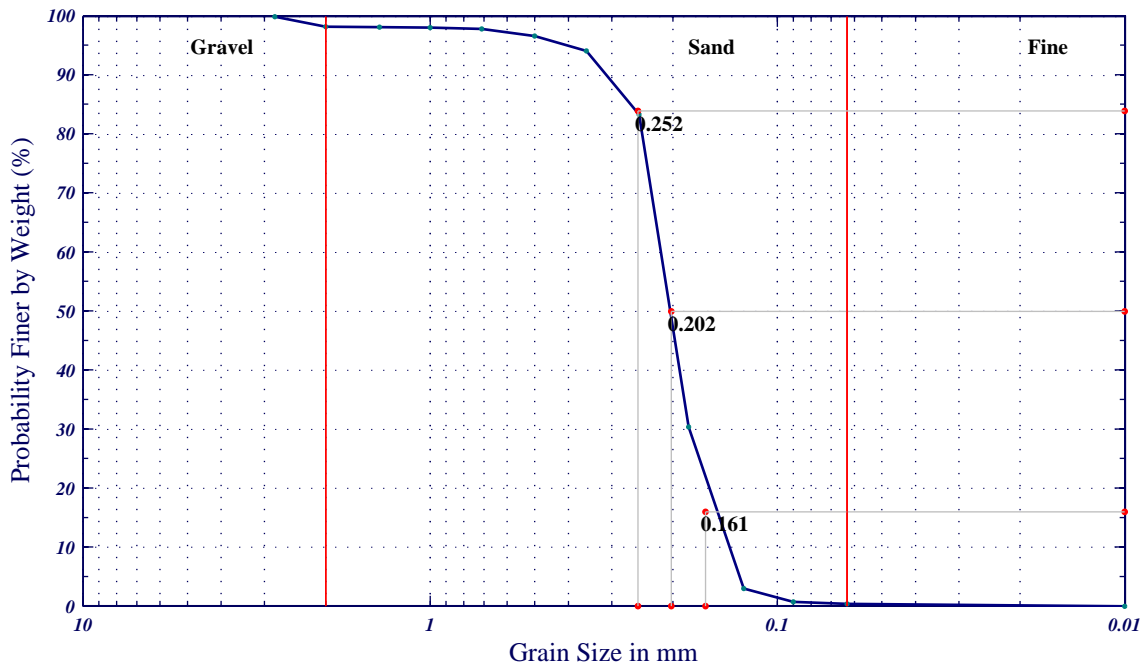
Northing: 150,989\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.133	2.911
D10:	0.149	2.747
D16:	0.161	2.635
D25:	0.173	2.531
D30:	0.179	2.482
D50:	0.202	2.308
D60:	0.210	2.252
D75:	0.230	2.120
D84:	0.252	1.989
D95:	0.382	1.388
Mean Grain Size:	0.202	2.310
Standard Deviation:	1.334	-0.415

Percent of Gravel (16mm–2mm): 1.71  
 Percent of Sand (<2mm–0.063mm): 97.54  
 Percent of Fines (<0.063mm): 0.75

**Sample ID: CEC-11-VC-13-8**

Sample Depth: 7.8–8.2ft

Easting: 3,514,548\*

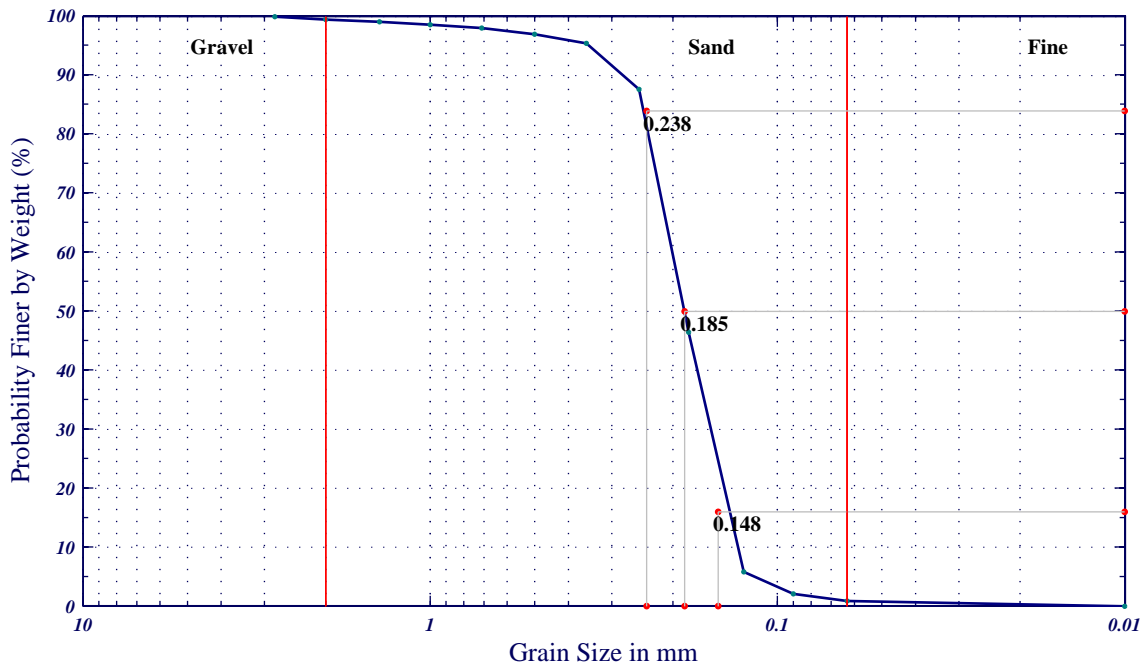
Northing: 150,989\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.121	3.047
D10:	0.136	2.878
D16:	0.148	2.756
D25:	0.159	2.653
D30:	0.163	2.617
D50:	0.185	2.434
D60:	0.196	2.351
D75:	0.216	2.211
D84:	0.238	2.071
D95:	0.343	1.544
Mean Grain Size:	0.187	2.421
Standard Deviation:	1.340	-0.422

Percent of Gravel (16mm–2mm): 0.51  
 Percent of Sand (<2mm–0.063mm): 97.41  
 Percent of Fines (<0.063mm): 2.08

**Sample ID: CEC-11-VC-13-10**

Sample Depth: 9.8–10.2ft

Easting: 3,514,548\*

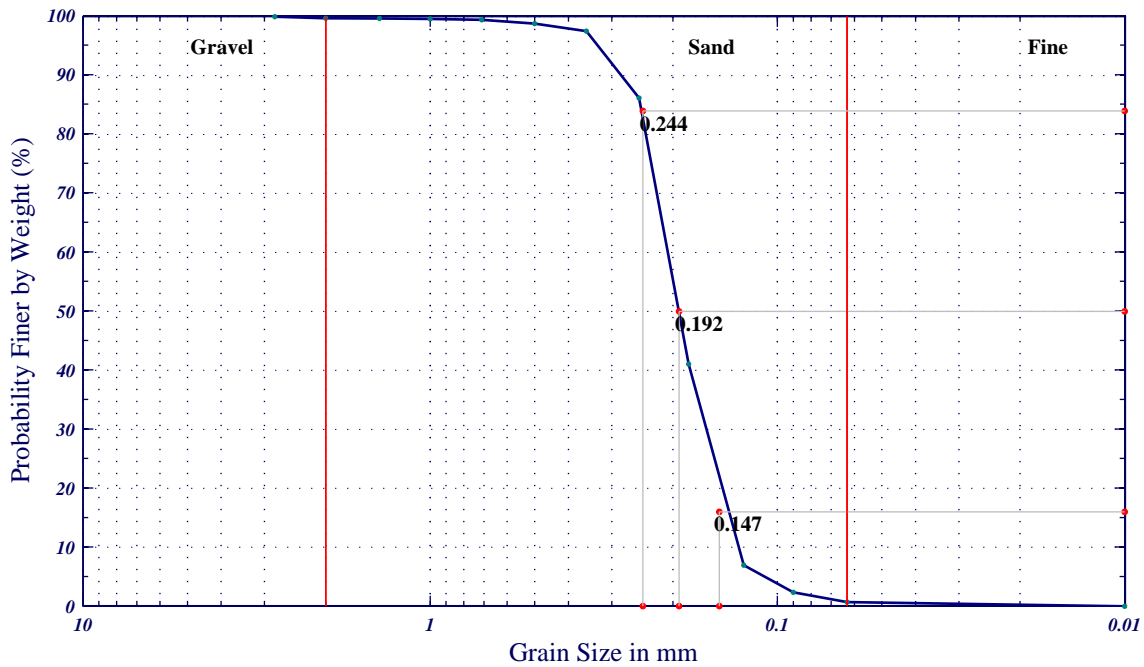
Northing: 150,989\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.115	3.120
D10:	0.134	2.900
D16:	0.147	2.766
D25:	0.161	2.635
D30:	0.166	2.591
D50:	0.192	2.381
D60:	0.202	2.308
D75:	0.223	2.165
D84:	0.244	2.035
D95:	0.309	1.694
Mean Grain Size:	0.190	2.394
Standard Deviation:	1.338	-0.420

Percent of Gravel (16mm–2mm): 0.27  
 Percent of Sand (<2mm–0.063mm): 97.39  
 Percent of Fines (<0.063mm): 2.34

**Sample ID: CEC-11-VC-13-12**

Sample Depth: 11.8–12.2ft

Easting: 3,514,548\*

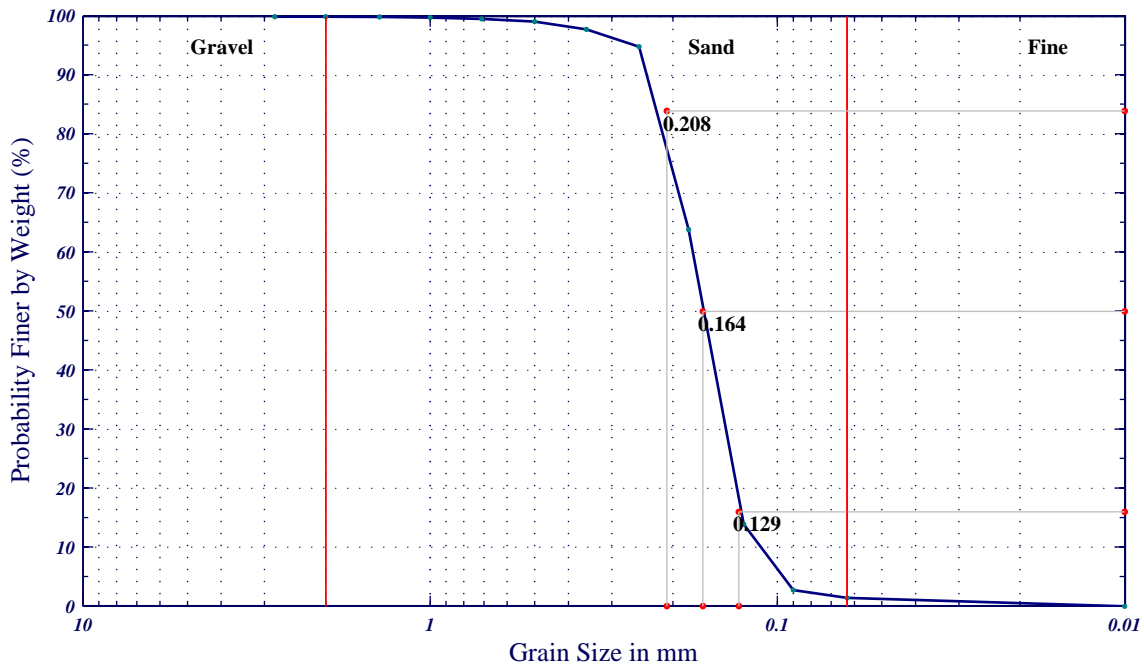
Northing: 150,989\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.103	3.279
D10:	0.118	3.083
D16:	0.129	2.955
D25:	0.141	2.826
D30:	0.147	2.766
D50:	0.164	2.608
D60:	0.175	2.515
D75:	0.193	2.373
D84:	0.208	2.265
D95:	0.251	1.994
Mean Grain Size:	0.164	2.609
Standard Deviation:	1.307	-0.386

Percent of Gravel (16mm–2mm): 0.03  
 Percent of Sand (<2mm–0.063mm): 97.24  
 Percent of Fines (<0.063mm): 2.73

**Sample ID: CEC-11-VC-13-14**

Sample Depth: 13.8–14.2ft

Easting: 3,514,548\*

Northing: 150,989\*

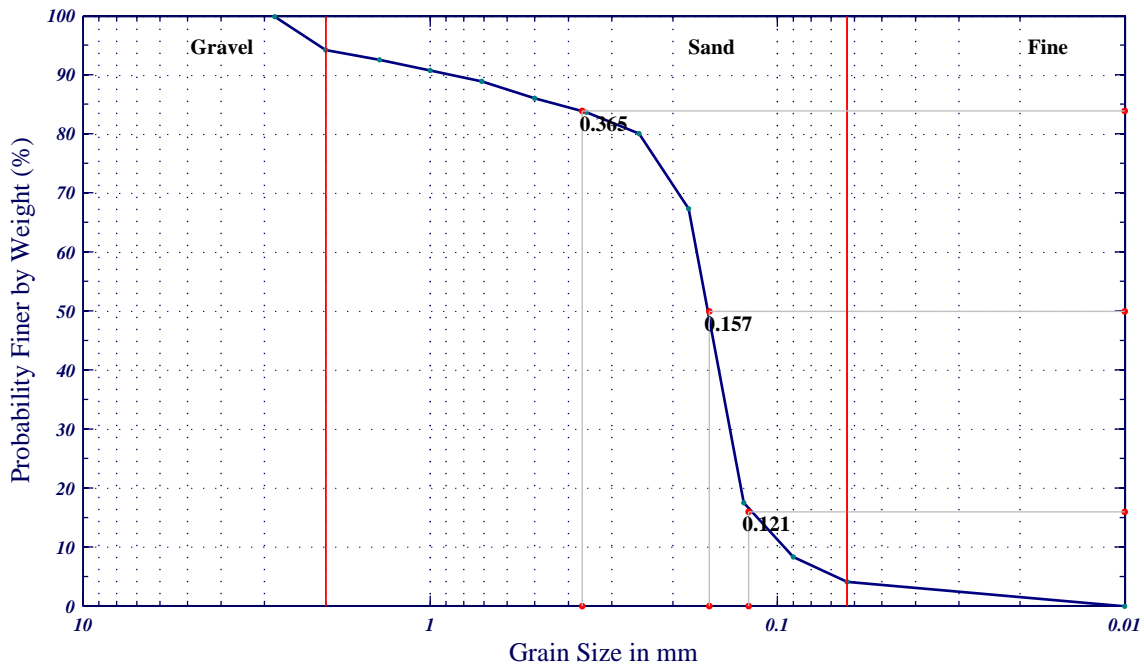
\*Coordinates are feet, LA-1702

OSI No.: 11ES008





**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.070	3.837
D10:	0.098	3.351
D16:	0.121	3.047
D25:	0.137	2.868
D30:	0.142	2.816
D50:	0.157	2.671
D60:	0.167	2.582
D75:	0.208	2.265
D84:	0.365	1.454
D95:	2.144	-1.100
Mean Grain Size:	0.191	2.391
Standard Deviation:	2.331	-1.221

Percent of Gravel (16mm–2mm): 5.66  
 Percent of Sand (<2mm–0.063mm): 86.00  
 Percent of Fines (<0.063mm): 8.34

**Sample ID: CEC-11-VC-13-16**

Sample Depth: 15.8–16.2ft

Easting: 3,514,548\*

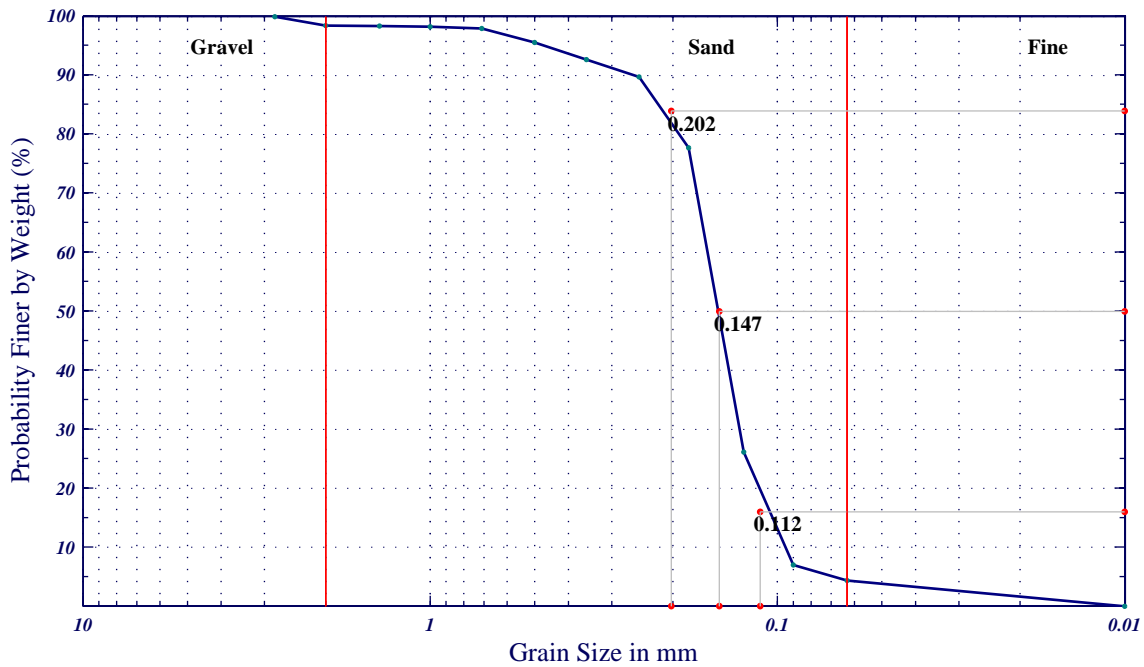
Northing: 150,989\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2011 Cores  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.071	3.816
D10:	0.100	3.322
D16:	0.112	3.158
D25:	0.123	3.023
D30:	0.130	2.943
D50:	0.147	2.766
D60:	0.155	2.690
D75:	0.175	2.515
D84:	0.202	2.308
D95:	0.463	1.111
Mean Grain Size:	0.149	2.744
Standard Deviation:	1.584	-0.664

Percent of Gravel (16mm–2mm): 1.52  
 Percent of Sand (<2mm–0.063mm): 91.48  
 Percent of Fines (<0.063mm): 7.00

**Sample ID: CEC-11-VC-13-18**

Sample Depth: 17.8–18.2ft

Easting: 3,514,548\*

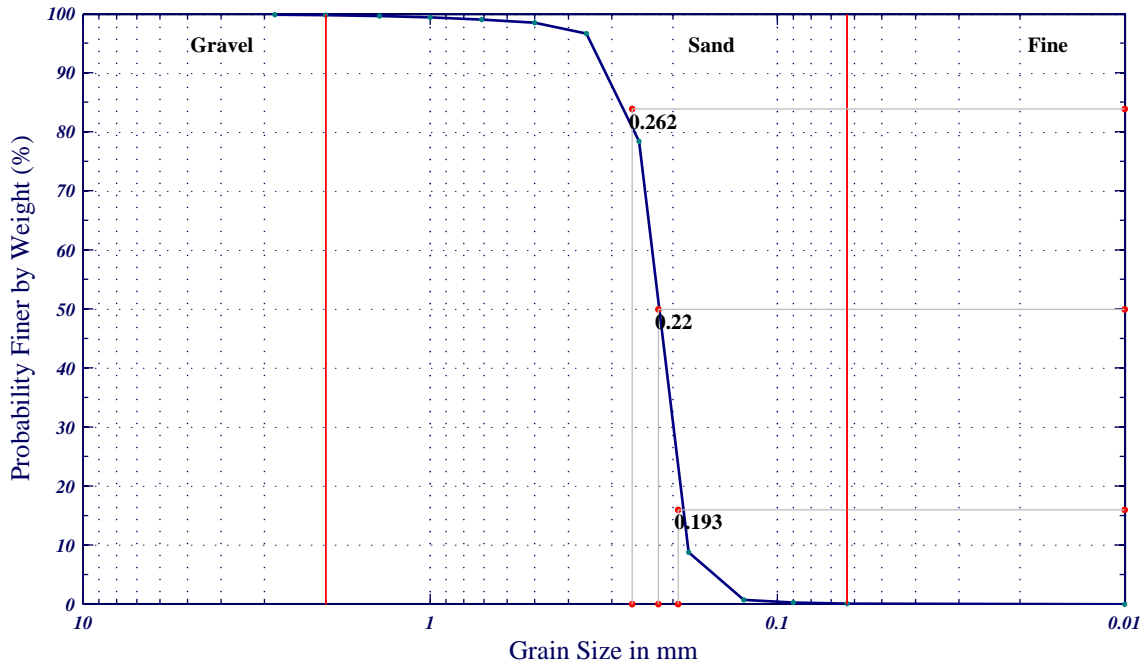
Northing: 150,989\*

\*Coordinates are feet, LA-1702

OSI No.: 11ES008



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.168	2.573
D10:	0.183	2.450
D16:	0.193	2.373
D25:	0.205	2.286
D30:	0.209	2.258
D50:	0.220	2.184
D60:	0.226	2.146
D75:	0.244	2.035
D84:	0.262	1.932
D95:	0.332	1.591
Mean Grain Size:	0.223	2.163
Standard Deviation:	1.209	-0.274

Percent of Gravel (16mm–2mm): 0.11  
 Percent of Sand (<2mm–0.063mm): 99.61  
 Percent of Fines (<0.063mm): 0.28

**Sample ID: CEC-12-VC-1-0**

Sample Depth: 0.0–0.4ft

Easting: 3,507,051\*

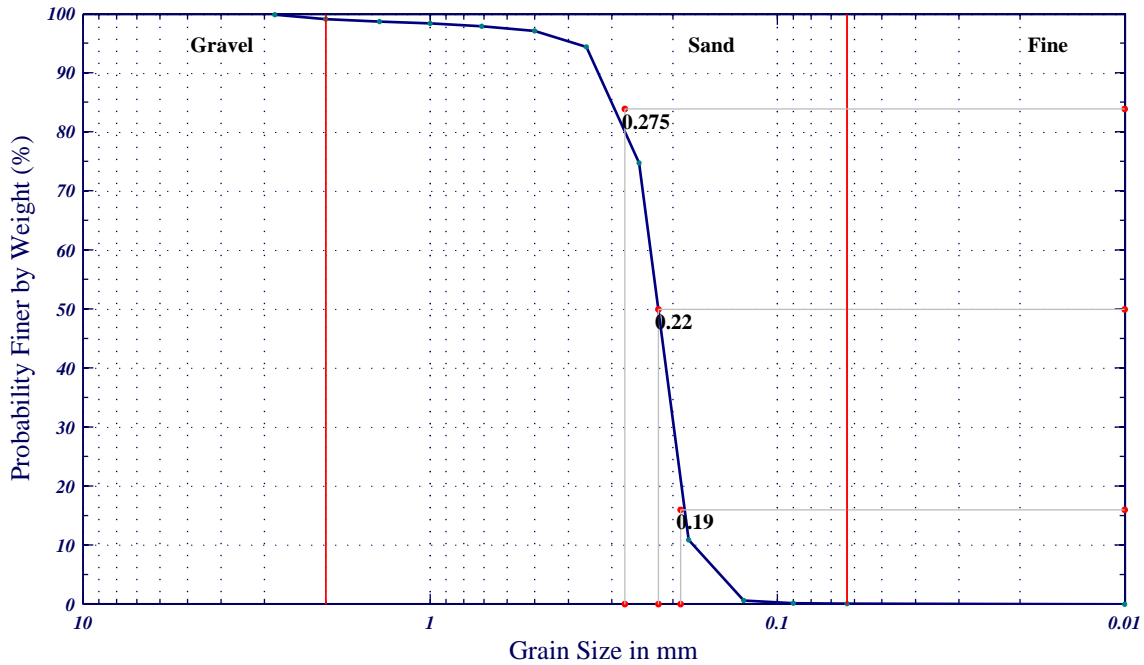
Northing: 151,827\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.164	2.608
D10:	0.178	2.490
D16:	0.190	2.396
D25:	0.202	2.308
D30:	0.207	2.272
D50:	0.220	2.184
D60:	0.228	2.133
D75:	0.250	2.000
D84:	0.275	1.862
D95:	0.364	1.458
Mean Grain Size:	0.226	2.148
Standard Deviation:	1.253	-0.325

Percent of Gravel (16mm–2mm): 0.78  
 Percent of Sand (<2mm–0.063mm): 99.06  
 Percent of Fines (<0.063mm): 0.16

**Sample ID: CEC-12-VC-1-2**

Sample Depth: 1.8–2.2ft

Easting: 3,507,051\*

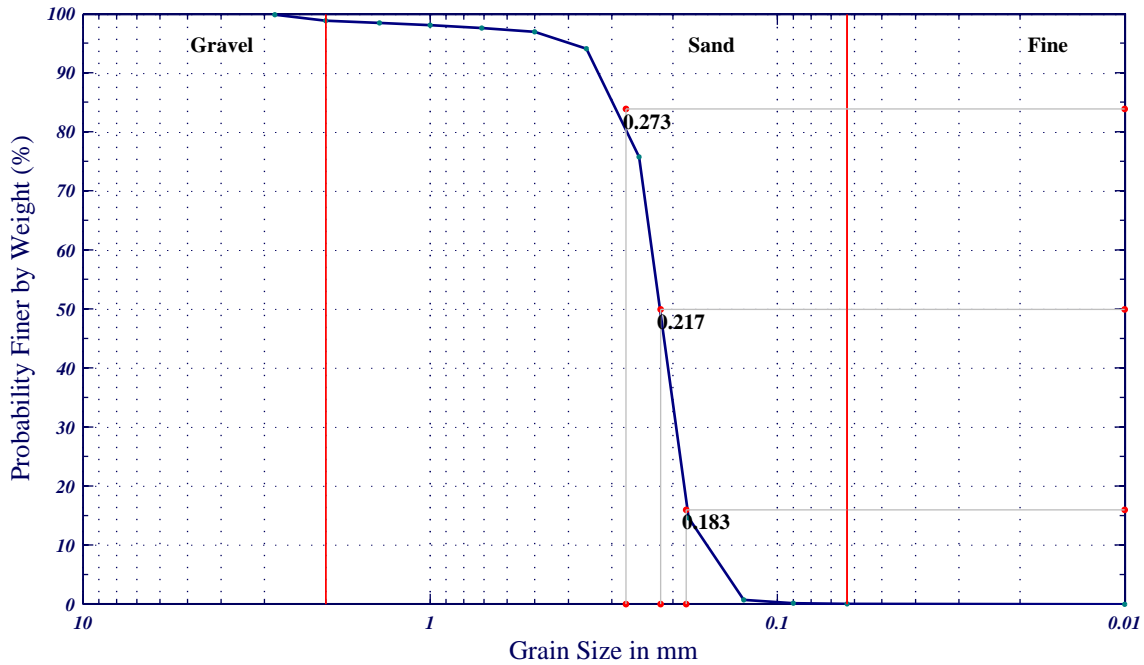
Northing: 151,827\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.156	2.680
D10:	0.172	2.540
D16:	0.183	2.450
D25:	0.197	2.344
D30:	0.202	2.308
D50:	0.217	2.204
D60:	0.226	2.146
D75:	0.248	2.012
D84:	0.273	1.873
D95:	0.371	1.431
Mean Grain Size:	0.221	2.176
Standard Deviation:	1.277	-0.353

Percent of Gravel (16mm–2mm): 1.04  
 Percent of Sand (<2mm–0.063mm): 98.79  
 Percent of Fines (<0.063mm): 0.16

**Sample ID: CEC-12-VC-1-4**

Sample Depth: 3.8–4.2ft

Easting: 3,507,051\*

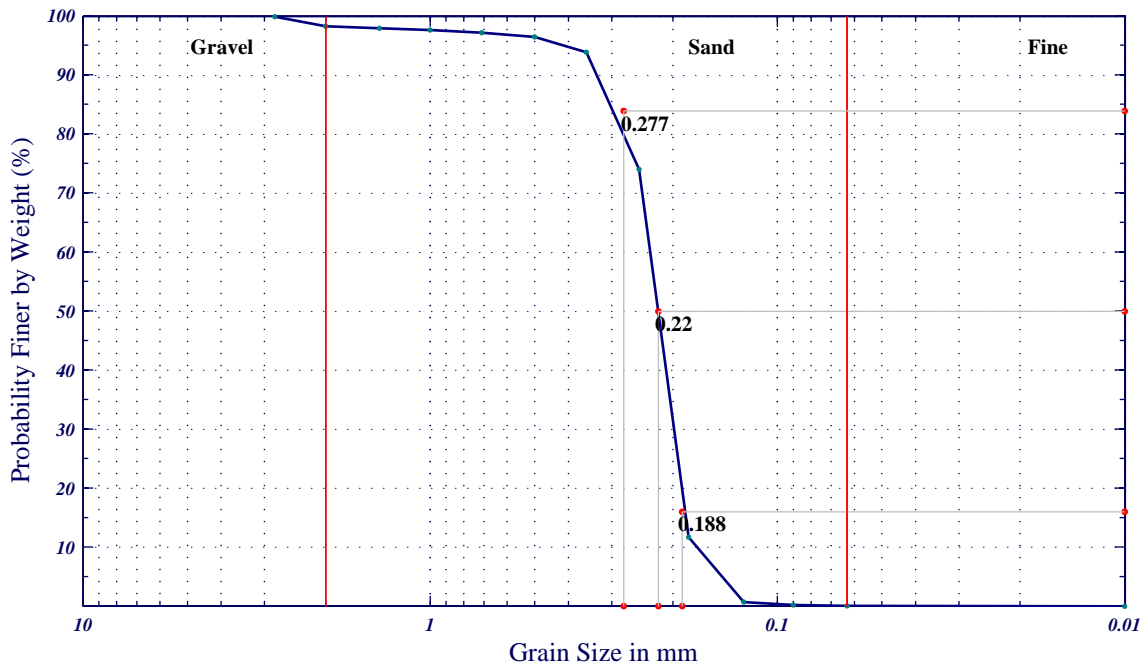
Northing: 151,827\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.162	2.626
D10:	0.177	2.498
D16:	0.188	2.411
D25:	0.201	2.315
D30:	0.206	2.279
D50:	0.220	2.184
D60:	0.229	2.127
D75:	0.252	1.989
D84:	0.277	1.852
D95:	0.384	1.381
Mean Grain Size:	0.225	2.149
Standard Deviation:	1.272	-0.347

Percent of Gravel (16mm–2mm): 1.63  
 Percent of Sand (<2mm–0.063mm): 98.17  
 Percent of Fines (<0.063mm): 0.20

**Sample ID: CEC-12-VC-1-6**

Sample Depth: 5.8–6.2ft

Easting: 3,507,051\*

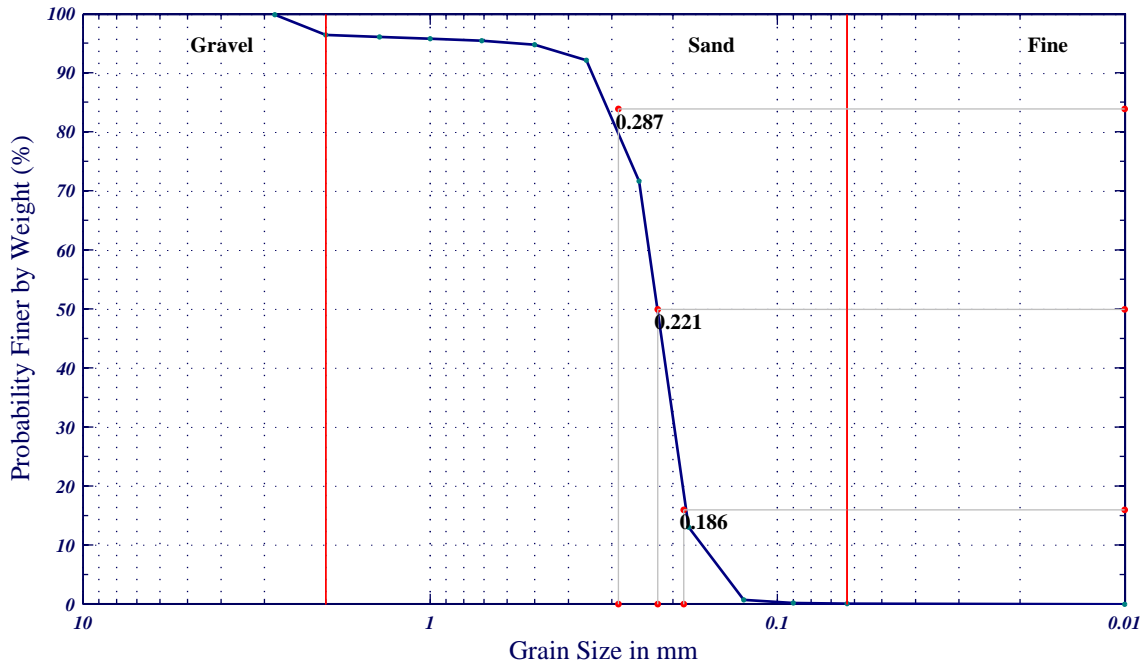
Northing: 151,827\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.159	2.653
D10:	0.174	2.523
D16:	0.186	2.427
D25:	0.200	2.322
D30:	0.205	2.286
D50:	0.221	2.178
D60:	0.231	2.114
D75:	0.257	1.960
D84:	0.287	1.801
D95:	0.516	0.955
Mean Grain Size:	0.228	2.135
Standard Deviation:	1.356	-0.439

Percent of Gravel (16mm–2mm): 3.46  
 Percent of Sand (<2mm–0.063mm): 96.34  
 Percent of Fines (<0.063mm): 0.20

**Sample ID: CEC-12-VC-1-8**

Sample Depth: 7.8–8.2ft

Easting: 3,507,051\*

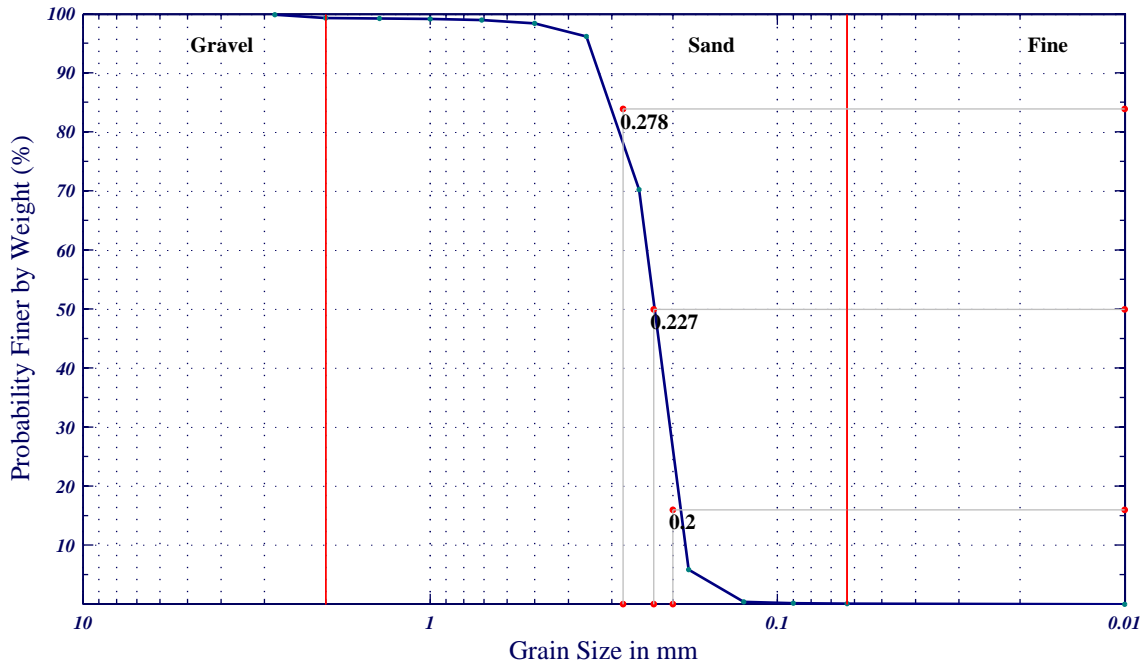
Northing: 151,827\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.178	2.490
D10:	0.190	2.396
D16:	0.200	2.322
D25:	0.211	2.245
D30:	0.215	2.218
D50:	0.227	2.139
D60:	0.235	2.089
D75:	0.258	1.955
D84:	0.278	1.847
D95:	0.343	1.544
Mean Grain Size:	0.233	2.103
Standard Deviation:	1.211	-0.276

Percent of Gravel (16mm–2mm): 0.57  
 Percent of Sand (<2mm–0.063mm): 99.24  
 Percent of Fines (<0.063mm): 0.19

**Sample ID: CEC-12-VC-1-10**

Sample Depth: 9.8–10.2ft

Easting: 3,507,051\*

Northing: 151,827\*

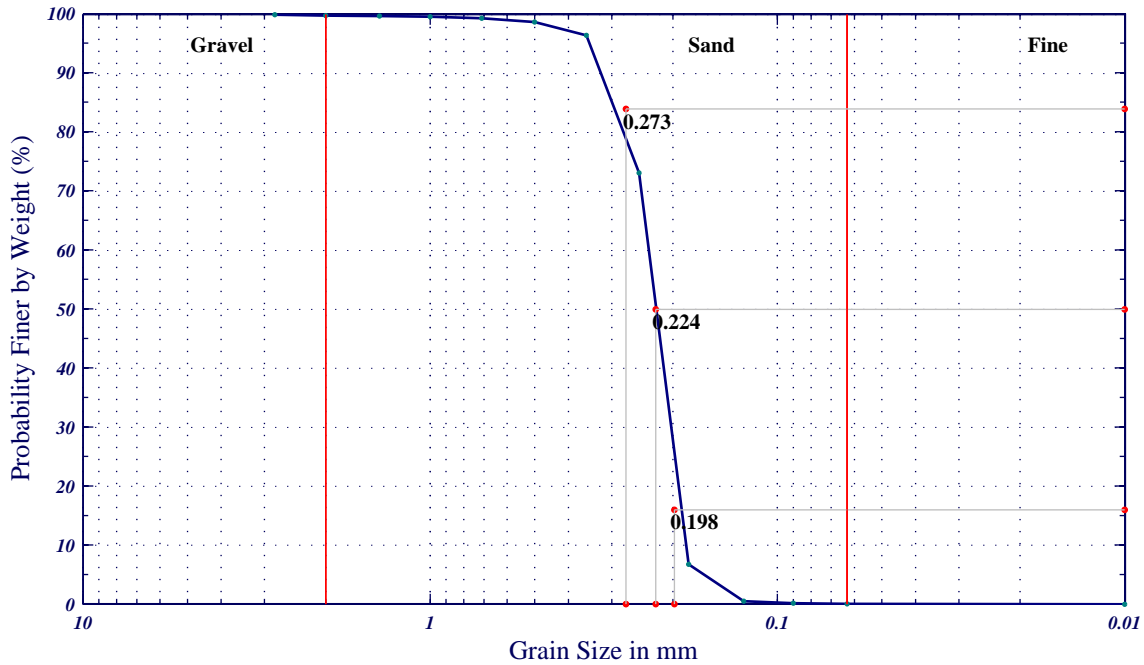
\*Coordinates are feet, LA-1702

OSI No.: 12ES018





**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.175	2.515
D10:	0.187	2.419
D16:	0.198	2.336
D25:	0.209	2.258
D30:	0.213	2.231
D50:	0.224	2.158
D60:	0.232	2.108
D75:	0.253	1.983
D84:	0.273	1.873
D95:	0.340	1.556
Mean Grain Size:	0.230	2.123
Standard Deviation:	1.210	-0.276

Percent of Gravel (16mm–2mm): 0.18  
 Percent of Sand (<2mm–0.063mm): 99.66  
 Percent of Fines (<0.063mm): 0.16

**Sample ID: CEC-12-VC-1-12**

Sample Depth: 11.8–12.2ft

Easting: 3,507,051\*

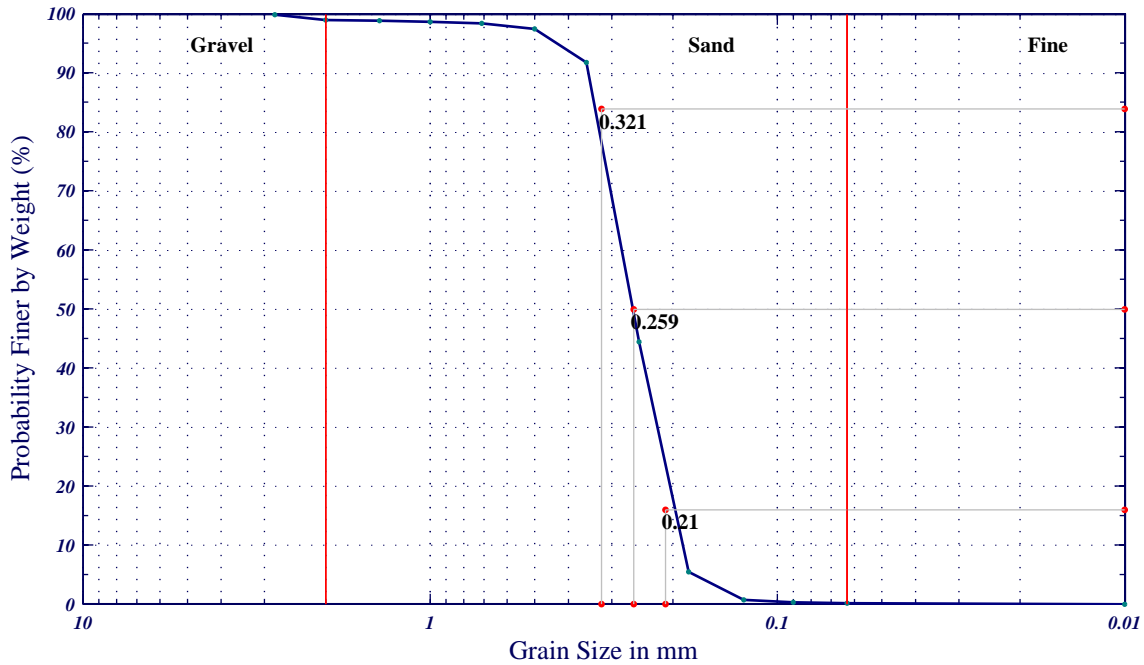
Northing: 151,827\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.178	2.490
D10:	0.195	2.358
D16:	0.210	2.252
D25:	0.224	2.158
D30:	0.230	2.120
D50:	0.259	1.949
D60:	0.272	1.878
D75:	0.296	1.756
D84:	0.321	1.639
D95:	0.398	1.329
Mean Grain Size:	0.259	1.947
Standard Deviation:	1.271	-0.347

Percent of Gravel (16mm–2mm): 0.93  
 Percent of Sand (<2mm–0.063mm): 98.75  
 Percent of Fines (<0.063mm): 0.31

**Sample ID: CEC-12-VC-1-14**

Sample Depth: 13.8–14.2ft

Easting: 3,507,051\*

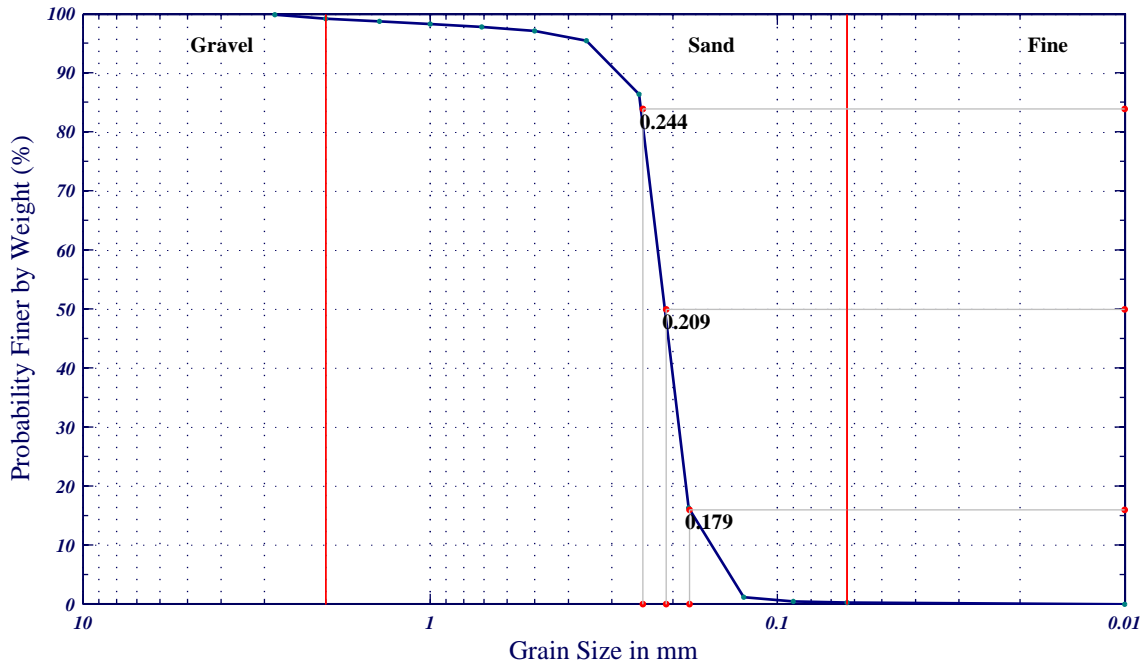
Northing: 151,827\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.152	2.718
D10:	0.169	2.565
D16:	0.179	2.482
D25:	0.193	2.373
D30:	0.198	2.336
D50:	0.209	2.258
D60:	0.215	2.218
D75:	0.229	2.127
D84:	0.244	2.035
D95:	0.342	1.548
Mean Grain Size:	0.209	2.258
Standard Deviation:	1.237	-0.307

Percent of Gravel (16mm–2mm): 0.69  
 Percent of Sand (<2mm–0.063mm): 98.84  
 Percent of Fines (<0.063mm): 0.47

**Sample ID: CEC-12-VC-2-0**

Sample Depth: 0.0–0.4ft

Easting: 3,507,298\*

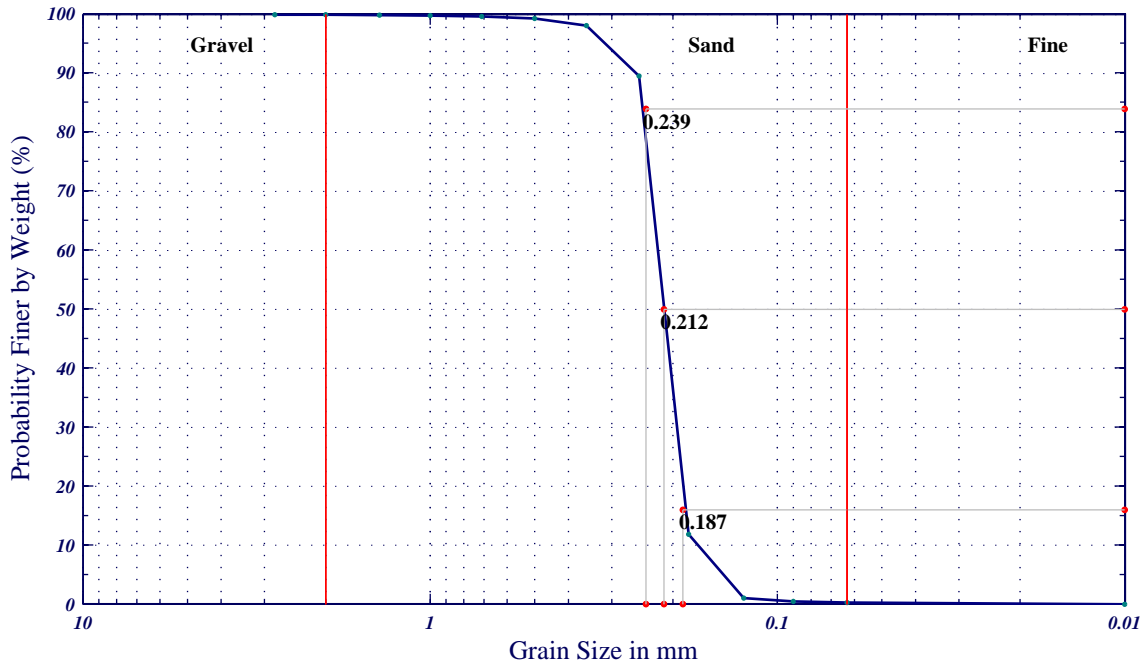
Northing: 149,398\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.160	2.644
D10:	0.177	2.498
D16:	0.187	2.419
D25:	0.198	2.336
D30:	0.202	2.308
D50:	0.212	2.238
D60:	0.216	2.211
D75:	0.227	2.139
D84:	0.239	2.065
D95:	0.290	1.786
Mean Grain Size:	0.212	2.241
Standard Deviation:	1.174	-0.231

Percent of Gravel (16mm–2mm): 0.03  
 Percent of Sand (<2mm–0.063mm): 99.49  
 Percent of Fines (<0.063mm): 0.48

**Sample ID: CEC-12-VC-2-2**

Sample Depth: 1.8–2.2ft

Easting: 3,507,298\*

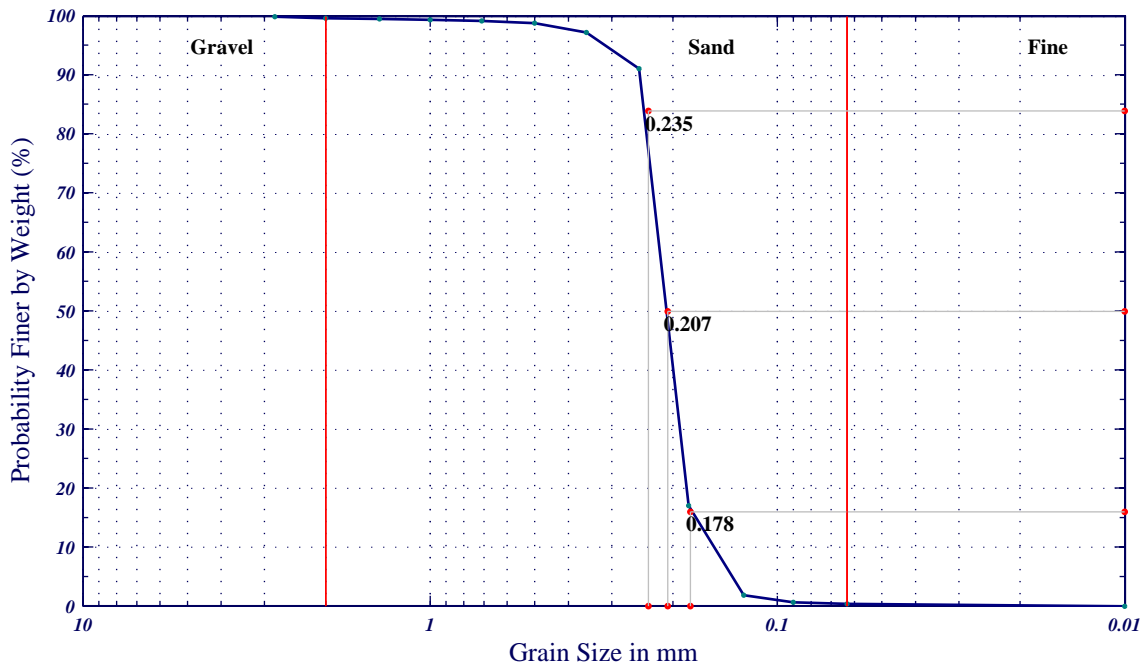
Northing: 149,398\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.147	2.766
D10:	0.166	2.591
D16:	0.178	2.490
D25:	0.191	2.388
D30:	0.196	2.351
D50:	0.207	2.272
D60:	0.211	2.245
D75:	0.223	2.165
D84:	0.235	2.089
D95:	0.293	1.771
Mean Grain Size:	0.205	2.284
Standard Deviation:	1.203	-0.266

Percent of Gravel (16mm–2mm): 0.30  
 Percent of Sand (<2mm–0.063mm): 99.06  
 Percent of Fines (<0.063mm): 0.64

**Sample ID: CEC-12-VC-2-4**

Sample Depth: 3.8–4.2ft

Easting: 3,507,298\*

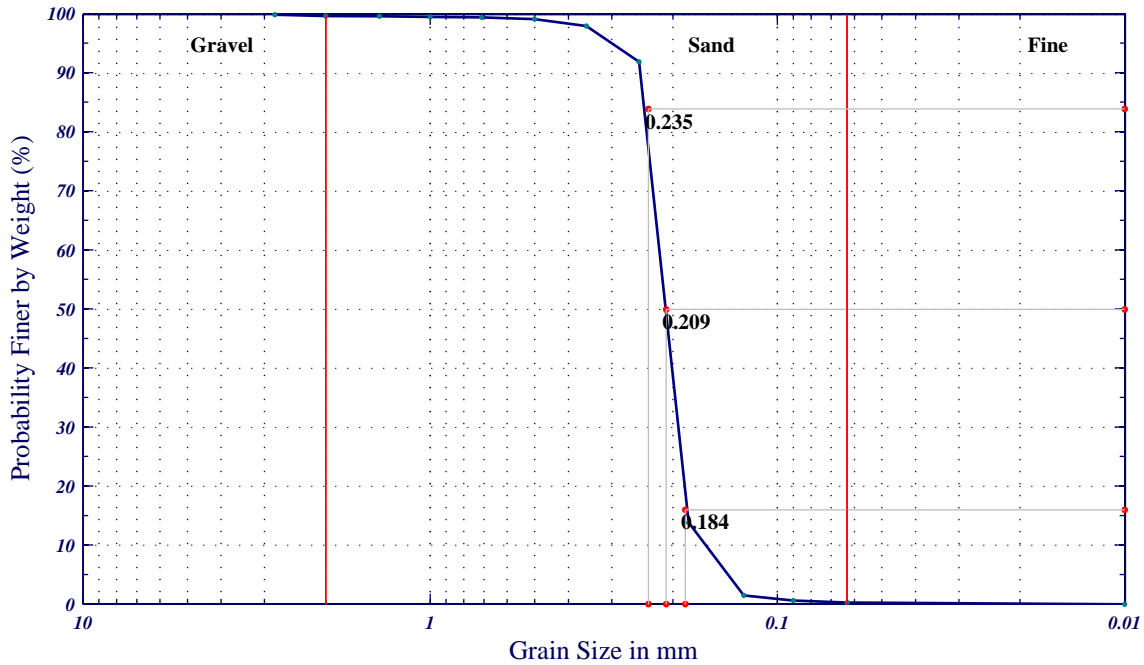
Northing: 149,398\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.153	2.708
D10:	0.173	2.531
D16:	0.184	2.442
D25:	0.195	2.358
D30:	0.200	2.322
D50:	0.209	2.258
D60:	0.213	2.231
D75:	0.223	2.165
D84:	0.235	2.089
D95:	0.276	1.857
Mean Grain Size:	0.208	2.263
Standard Deviation:	1.173	-0.230

Percent of Gravel (16mm–2mm): 0.25  
 Percent of Sand (<2mm–0.063mm): 99.14  
 Percent of Fines (<0.063mm): 0.61

**Sample ID: CEC-12-VC-2-6**

Sample Depth: 5.8–6.2ft

Easting: 3,507,298\*

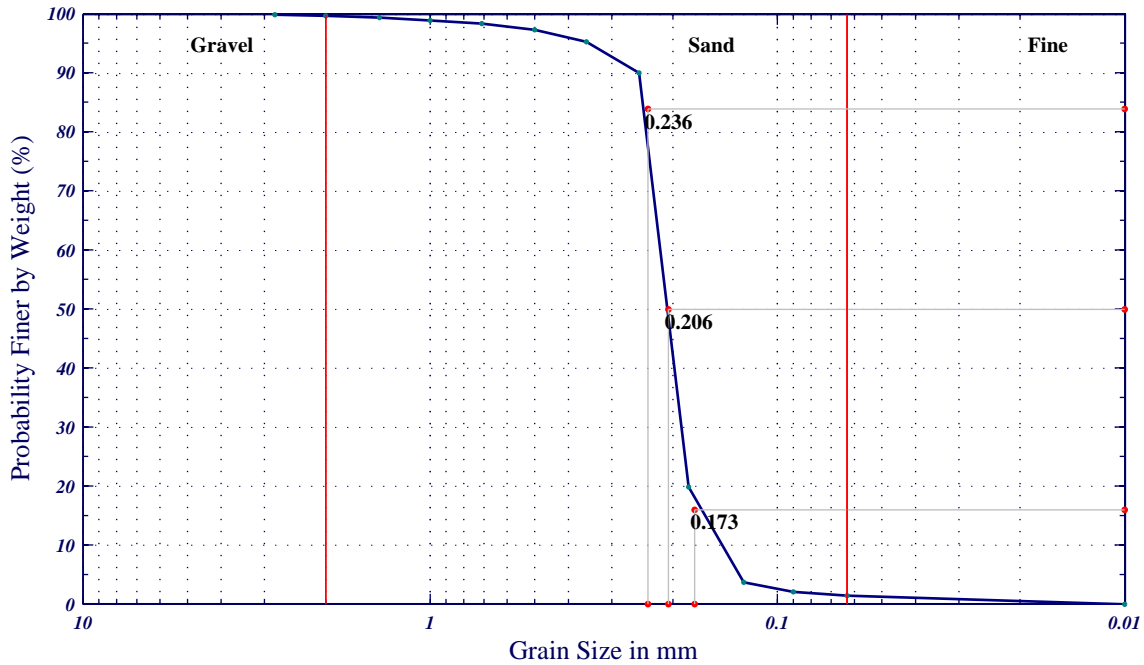
Northing: 149,398\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



<b>Sieve Analysis Results: (mm) (phi)</b>		
D5:	0.134	2.900
D10:	0.158	2.662
D16:	0.173	2.531
D25:	0.188	2.411
D30:	0.194	2.366
D50:	0.206	2.279
D60:	0.210	2.252
D75:	0.222	2.171
D84:	0.236	2.083
D95:	0.343	1.544
Mean Grain Size:	0.203	2.298
Standard Deviation:	1.264	-0.338

Percent of Gravel (16mm–2mm): 0.20  
 Percent of Sand (<2mm–0.063mm): 97.71  
 Percent of Fines (<0.063mm): 2.09

**Sample ID: CEC-12-VC-2-8**

Sample Depth: 7.8–8.2ft

Easting: 3,507,298\*

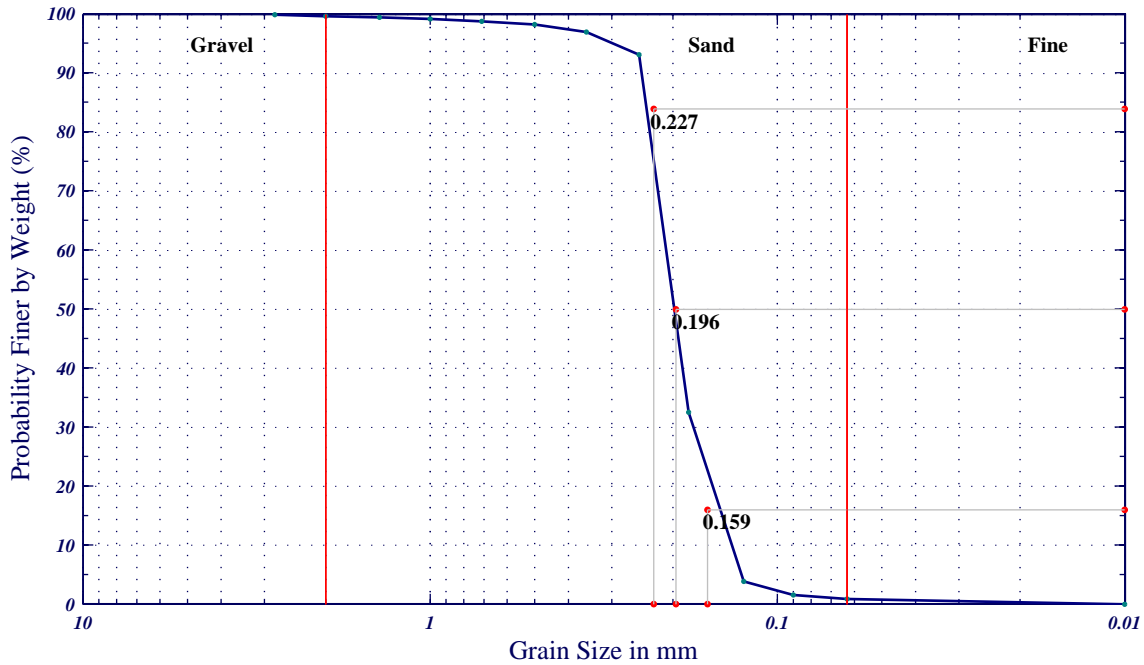
Northing: 149,398\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.130	2.943
D10:	0.146	2.776
D16:	0.159	2.653
D25:	0.171	2.548
D30:	0.177	2.498
D50:	0.196	2.351
D60:	0.202	2.308
D75:	0.214	2.224
D84:	0.227	2.139
D95:	0.278	1.847
Mean Grain Size:	0.192	2.381
Standard Deviation:	1.241	-0.311

Percent of Gravel (16mm–2mm): 0.27  
 Percent of Sand (<2mm–0.063mm): 98.17  
 Percent of Fines (<0.063mm): 1.57

**Sample ID: CEC-12-VC-2-10**

Sample Depth: 9.8–10.2ft

Easting: 3,507,298\*

Northing: 149,398\*

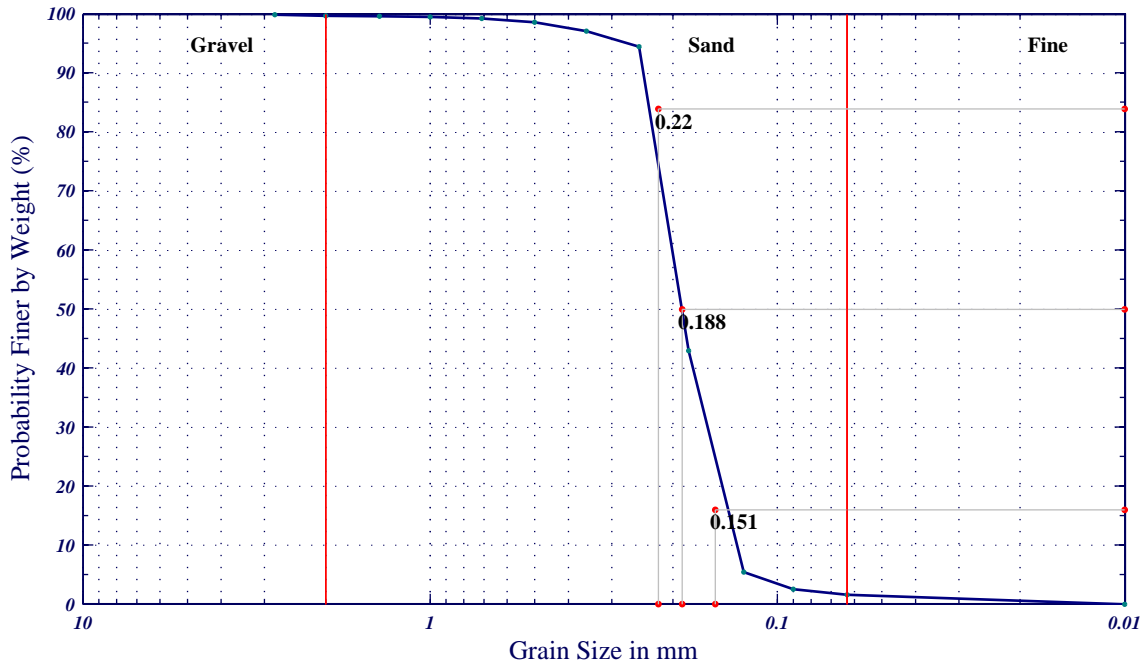
\*Coordinates are feet, LA-1702

OSI No.: 12ES018





**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.123	3.023
D10:	0.138	2.857
D16:	0.151	2.727
D25:	0.162	2.626
D30:	0.167	2.582
D50:	0.188	2.411
D60:	0.195	2.358
D75:	0.206	2.279
D84:	0.220	2.184
D95:	0.255	1.971
Mean Grain Size:	0.184	2.441
Standard Deviation:	1.241	-0.311

Percent of Gravel (16mm–2mm): 0.19  
 Percent of Sand (<2mm–0.063mm): 97.27  
 Percent of Fines (<0.063mm): 2.54

**Sample ID: CEC-12-VC-2-12**

Sample Depth: 11.8–12.2ft

Easting: 3,507,298\*

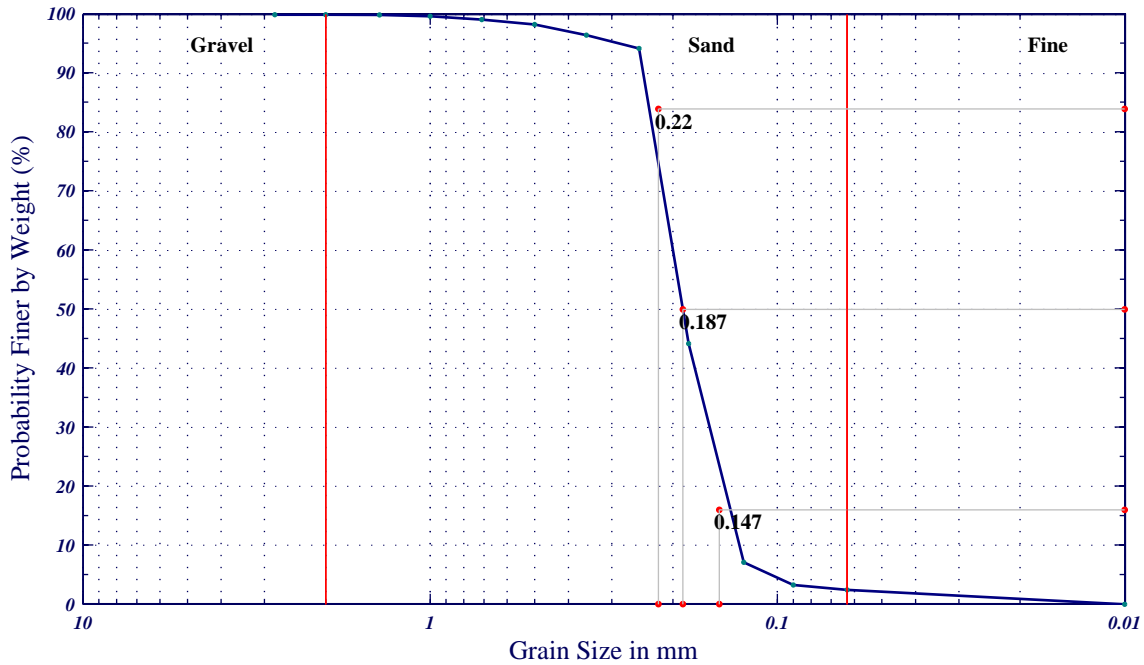
Northing: 149,398\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.112	3.158
D10:	0.134	2.900
D16:	0.147	2.766
D25:	0.160	2.644
D30:	0.165	2.599
D50:	0.187	2.419
D60:	0.194	2.366
D75:	0.206	2.279
D84:	0.220	2.184
D95:	0.268	1.900
Mean Grain Size:	0.182	2.456
Standard Deviation:	1.279	-0.355

Percent of Gravel (16mm–2mm): 0.01  
 Percent of Sand (<2mm–0.063mm): 96.72  
 Percent of Fines (<0.063mm): 3.27

**Sample ID: CEC-12-VC-2-14**

Sample Depth: 13.8–14.2ft

Easting: 3,507,298\*

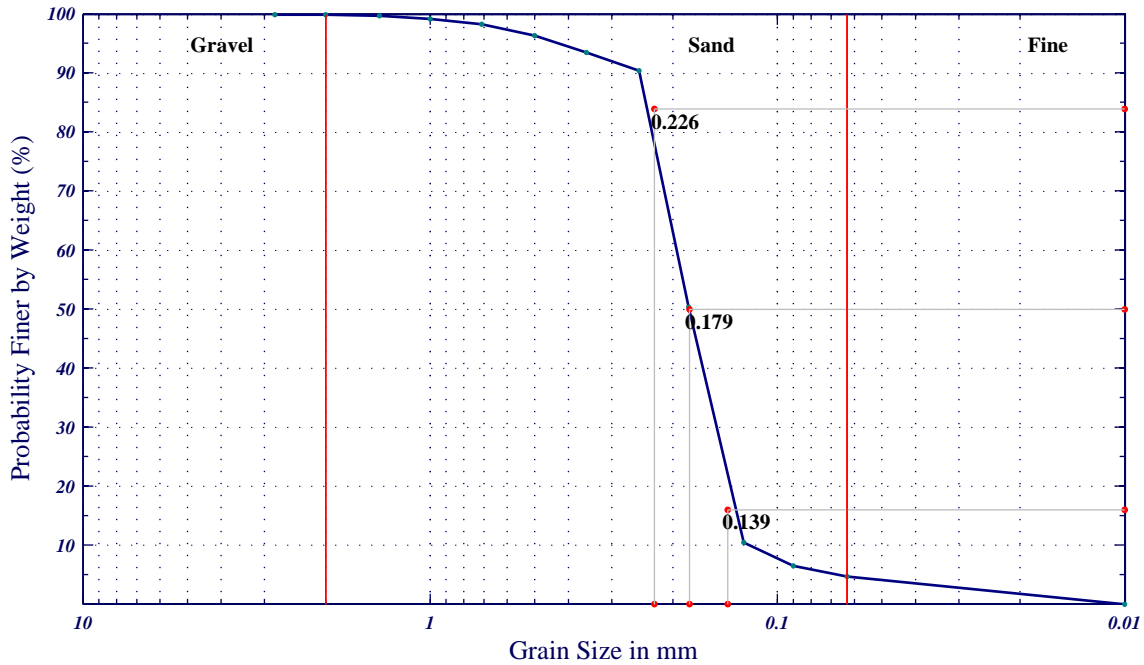
Northing: 149,398\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.067	3.900
D10:	0.123	3.023
D16:	0.139	2.847
D25:	0.154	2.699
D30:	0.159	2.653
D50:	0.179	2.482
D60:	0.191	2.388
D75:	0.206	2.279
D84:	0.226	2.146
D95:	0.416	1.265
Mean Grain Size:	0.178	2.491
Standard Deviation:	1.531	-0.614

Percent of Gravel (16mm–2mm): 0.03  
 Percent of Sand (<2mm–0.063mm): 93.48  
 Percent of Fines (<0.063mm): 6.49

**Sample ID: CEC-12-VC-2-15**

Sample Depth: 14.6–15.0ft

Easting: 3,507,298\*

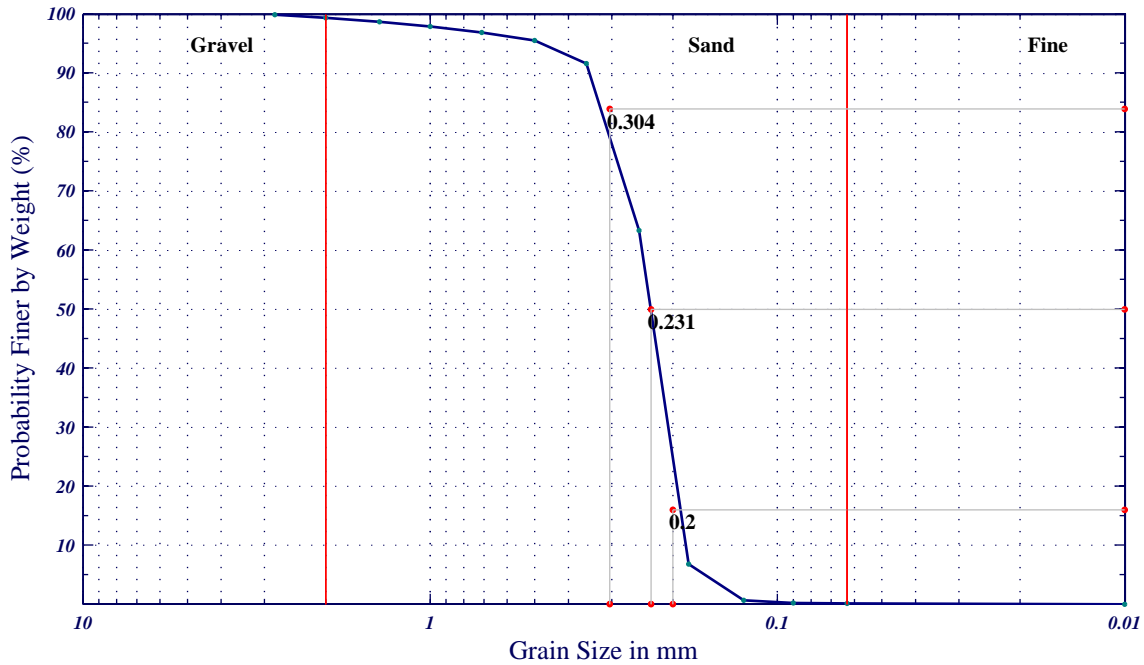
Northing: 149,398\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.174	2.523
D10:	0.188	2.411
D16:	0.200	2.322
D25:	0.212	2.238
D30:	0.217	2.204
D50:	0.231	2.114
D60:	0.244	2.035
D75:	0.273	1.873
D84:	0.304	1.718
D95:	0.462	1.114
Mean Grain Size:	0.241	2.051
Standard Deviation:	1.307	-0.386

Percent of Gravel (16mm–2mm): 0.54  
 Percent of Sand (<2mm–0.063mm): 99.26  
 Percent of Fines (<0.063mm): 0.21

**Sample ID: CEC-12-VC-3-0**

Sample Depth: 0–0.4ft

Easting: 3,508,616\*

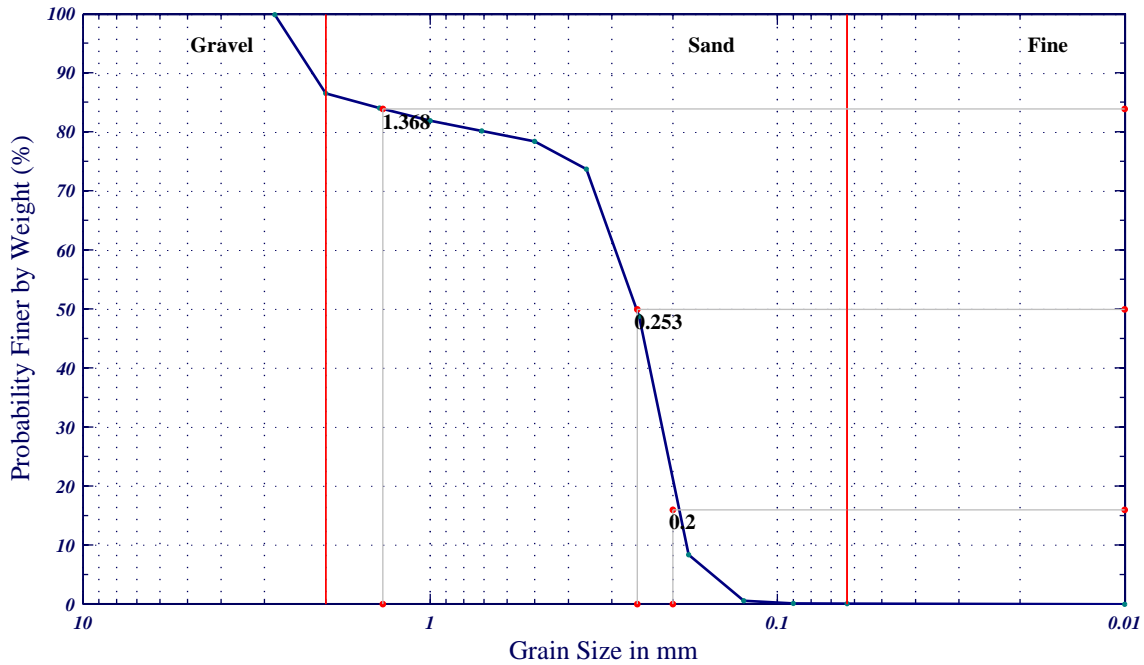
Northing: 152,178\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.169	2.565
D10:	0.185	2.434
D16:	0.200	2.322
D25:	0.214	2.224
D30:	0.220	2.184
D50:	0.253	1.983
D60:	0.278	1.847
D75:	0.373	1.423
D84:	1.368	-0.452
D95:	2.678	-1.421
Mean Grain Size:	0.411	1.284
Standard Deviation:	2.563	-1.358

Percent of Gravel (16mm–2mm): 13.35  
 Percent of Sand (<2mm–0.063mm): 86.51  
 Percent of Fines (<0.063mm): 0.15

**Sample ID: CEC-12-VC-3-2**

Sample Depth: 1.8–2.2ft

Easting: 3,508,616\*

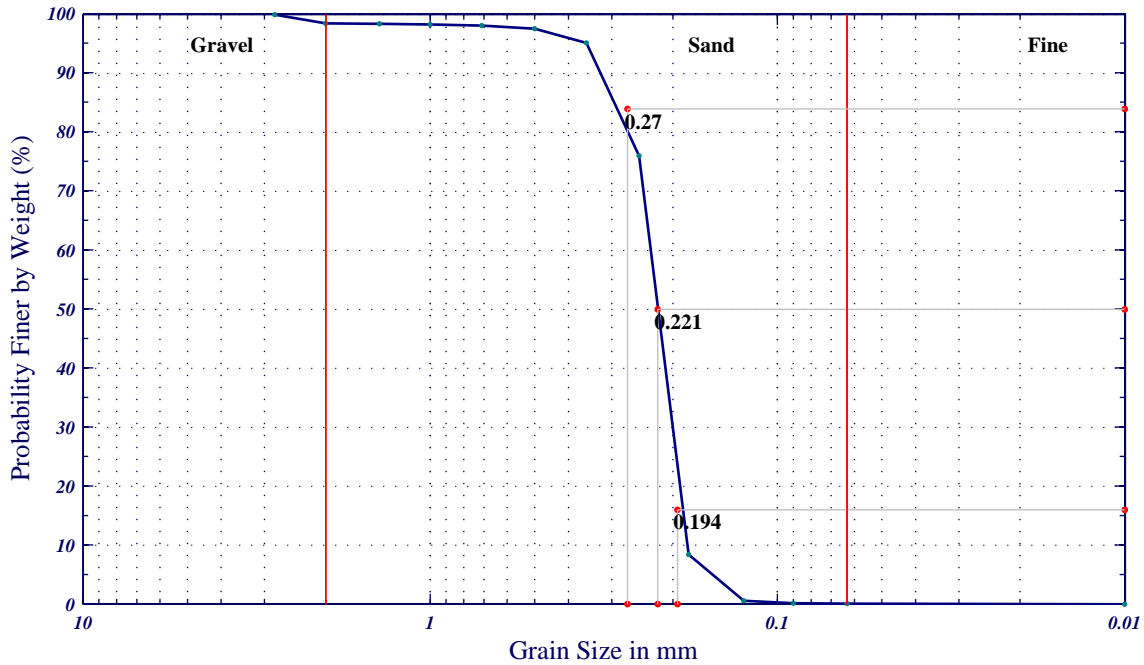
Northing: 152,178\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.170	2.556
D10:	0.183	2.450
D16:	0.194	2.366
D25:	0.206	2.279
D30:	0.210	2.252
D50:	0.221	2.178
D60:	0.228	2.133
D75:	0.248	2.012
D84:	0.270	1.889
D95:	0.353	1.502
Mean Grain Size:	0.226	2.144
Standard Deviation:	1.227	-0.295

Percent of Gravel (16mm–2mm): 1.49  
 Percent of Sand (<2mm–0.063mm): 98.35  
 Percent of Fines (<0.063mm): 0.15

**Sample ID: CEC-12-VC-3-4**

Sample Depth: 3.8–4.2ft

Easting: 3,508,616\*

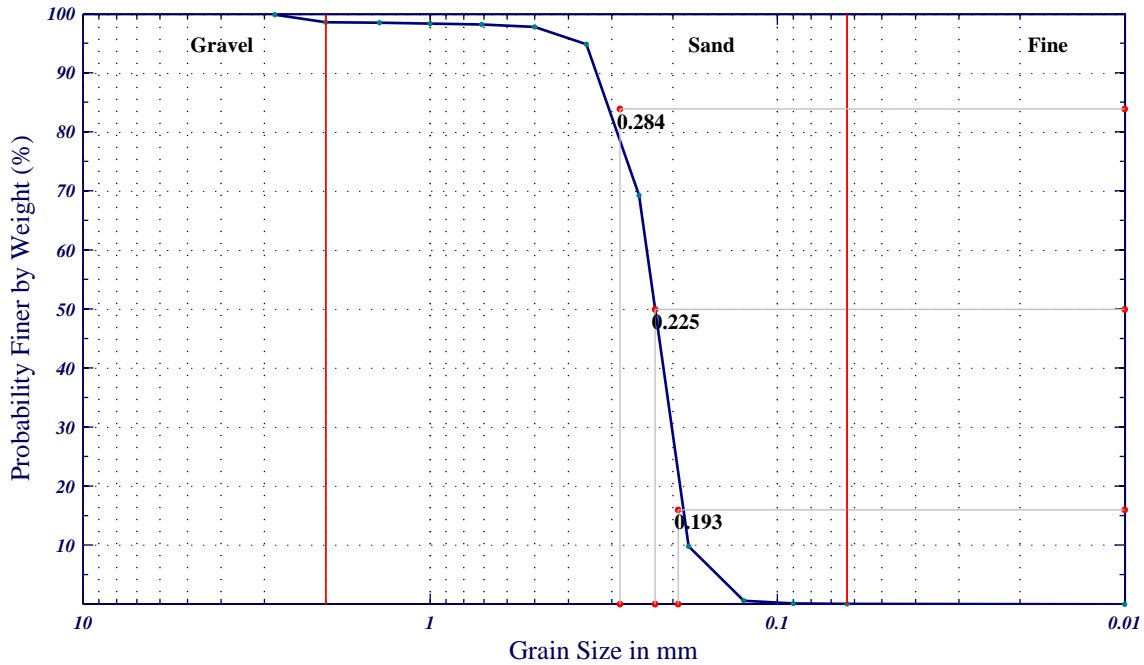
Northing: 152,178\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.166	2.591
D10:	0.180	2.474
D16:	0.193	2.373
D25:	0.205	2.286
D30:	0.210	2.252
D50:	0.225	2.152
D60:	0.235	2.089
D75:	0.260	1.943
D84:	0.284	1.816
D95:	0.355	1.494
Mean Grain Size:	0.231	2.114
Standard Deviation:	1.250	-0.322

Percent of Gravel (16mm–2mm): 1.32  
 Percent of Sand (<2mm–0.063mm): 98.55  
 Percent of Fines (<0.063mm): 0.13

**Sample ID: CEC-12-VC-3-6**

Sample Depth: 5.8–6.2ft

Easting: 3,508,616\*

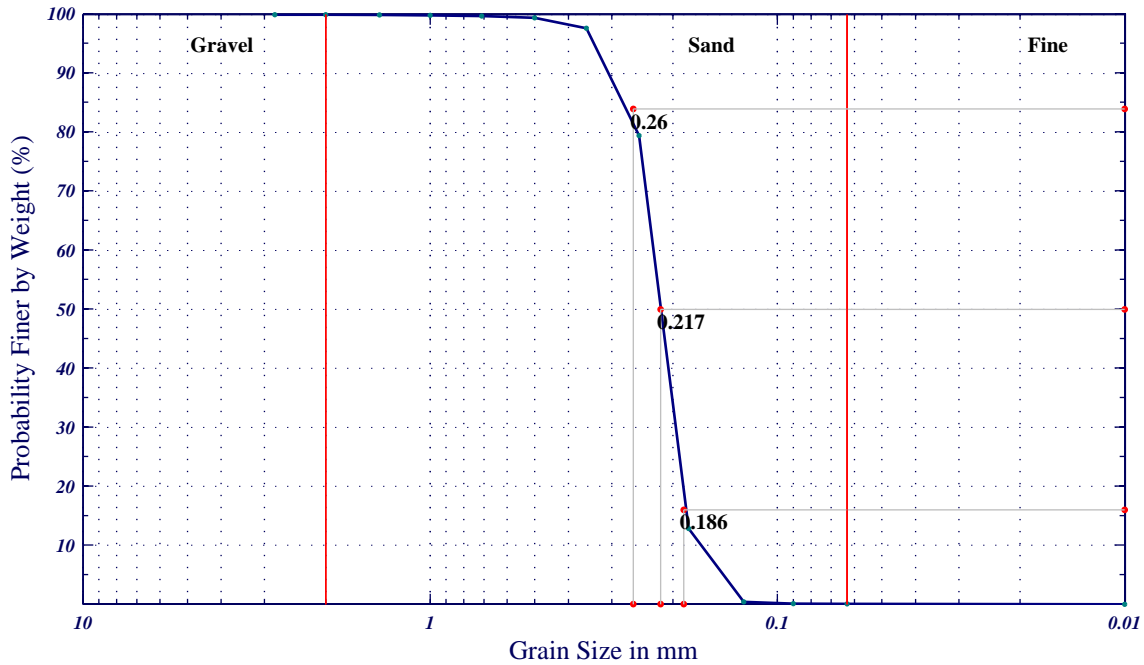
Northing: 152,178\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.162	2.626
D10:	0.175	2.515
D16:	0.186	2.427
D25:	0.198	2.336
D30:	0.204	2.293
D50:	0.217	2.204
D60:	0.224	2.158
D75:	0.242	2.047
D84:	0.260	1.943
D95:	0.322	1.635
Mean Grain Size:	0.219	2.191
Standard Deviation:	1.219	-0.286

Percent of Gravel (16mm–2mm): 0.02  
 Percent of Sand (<2mm–0.063mm): 99.88  
 Percent of Fines (<0.063mm): 0.11

**Sample ID: CEC-12-VC-3-8**

Sample Depth: 7.8–8.2ft

Easting: 3,508,616\*

Northing: 152,178\*

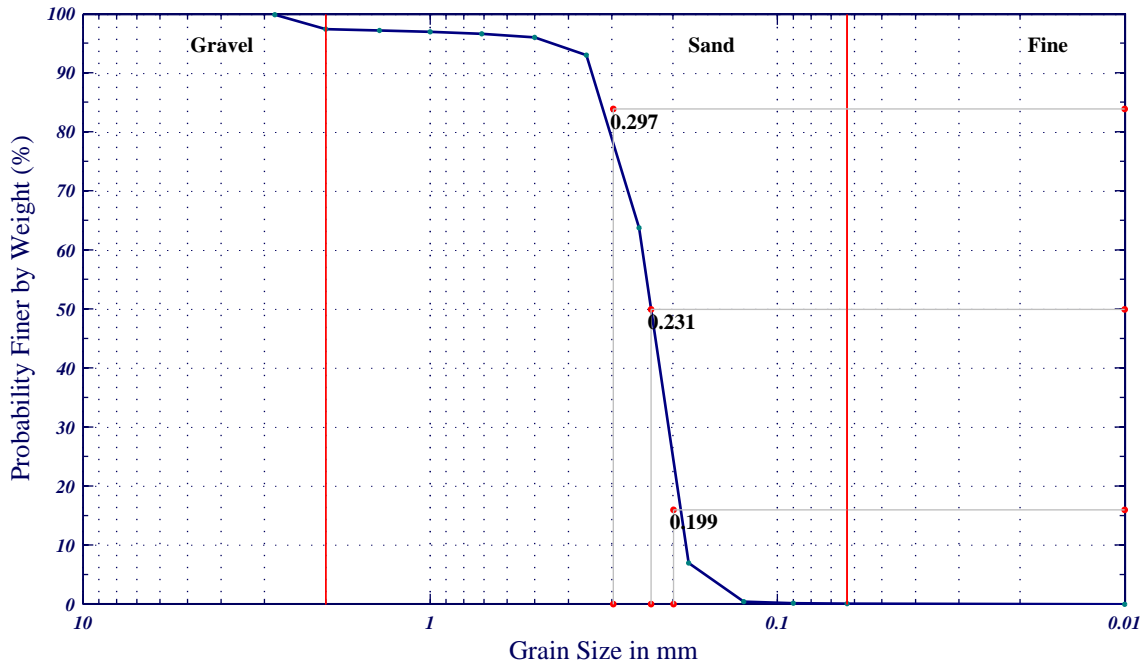
\*Coordinates are feet, LA-1702

OSI No.: 12ES018





**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



<b>Sieve Analysis Results:</b>		
	<b>(mm)</b>	<b>(phi)</b>
D5:	0.174	2.523
D10:	0.187	2.419
D16:	0.199	2.329
D25:	0.212	2.238
D30:	0.216	2.211
D50:	0.231	2.114
D60:	0.243	2.041
D75:	0.269	1.894
D84:	0.297	1.751
D95:	0.412	1.279
Mean Grain Size:	0.239	2.065
Standard Deviation:	1.276	-0.352

Percent of Gravel (16mm–2mm): 2.47  
 Percent of Sand (<2mm–0.063mm): 97.38  
 Percent of Fines (<0.063mm): 0.15

**Sample ID: CEC-12-VC-3-10**

Sample Depth: 9.8–10.2ft

Easting: 3,508,616\*

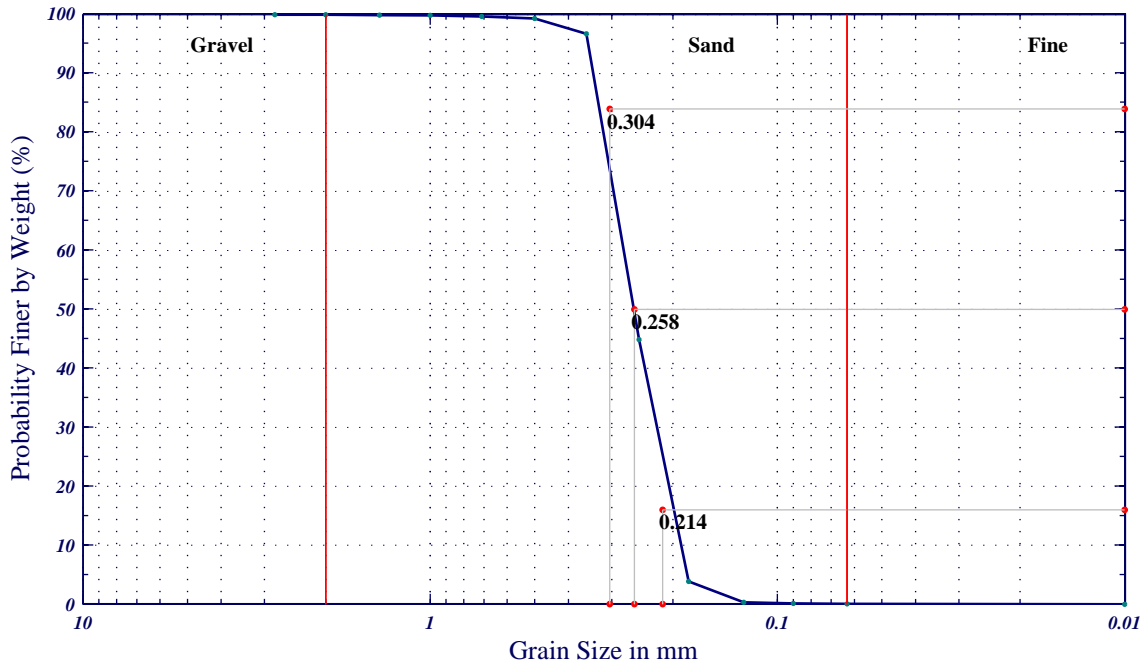
Northing: 152,178\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.184	2.442
D10:	0.200	2.322
D16:	0.214	2.224
D25:	0.227	2.139
D30:	0.232	2.108
D50:	0.258	1.955
D60:	0.269	1.894
D75:	0.285	1.811
D84:	0.304	1.718
D95:	0.346	1.531
Mean Grain Size:	0.256	1.966
Standard Deviation:	1.213	-0.278

Percent of Gravel (16mm–2mm): 0.02  
 Percent of Sand (<2mm–0.063mm): 99.85  
 Percent of Fines (<0.063mm): 0.12

**Sample ID: CEC-12-VC-3-11**

Sample Depth: 11.3–11.7ft

Easting: 3,508,616\*

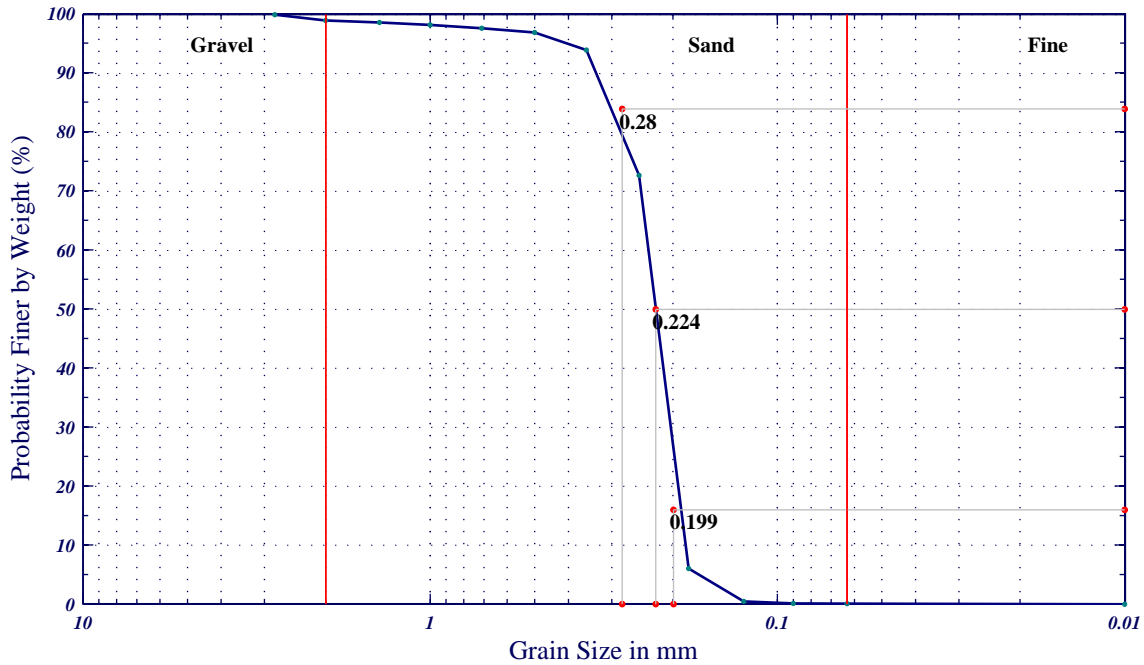
Northing: 152,178\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.177	2.498
D10:	0.189	2.404
D16:	0.199	2.329
D25:	0.210	2.252
D30:	0.214	2.224
D50:	0.224	2.158
D60:	0.232	2.108
D75:	0.254	1.977
D84:	0.280	1.837
D95:	0.376	1.411
Mean Grain Size:	0.232	2.108
Standard Deviation:	1.235	-0.304

Percent of Gravel (16mm–2mm): 0.99  
 Percent of Sand (<2mm–0.063mm): 98.86  
 Percent of Fines (<0.063mm): 0.15

**Sample ID: CEC-12-VC-4-0**

Sample Depth: 0–0.4ft

Easting: 3,508,418\*

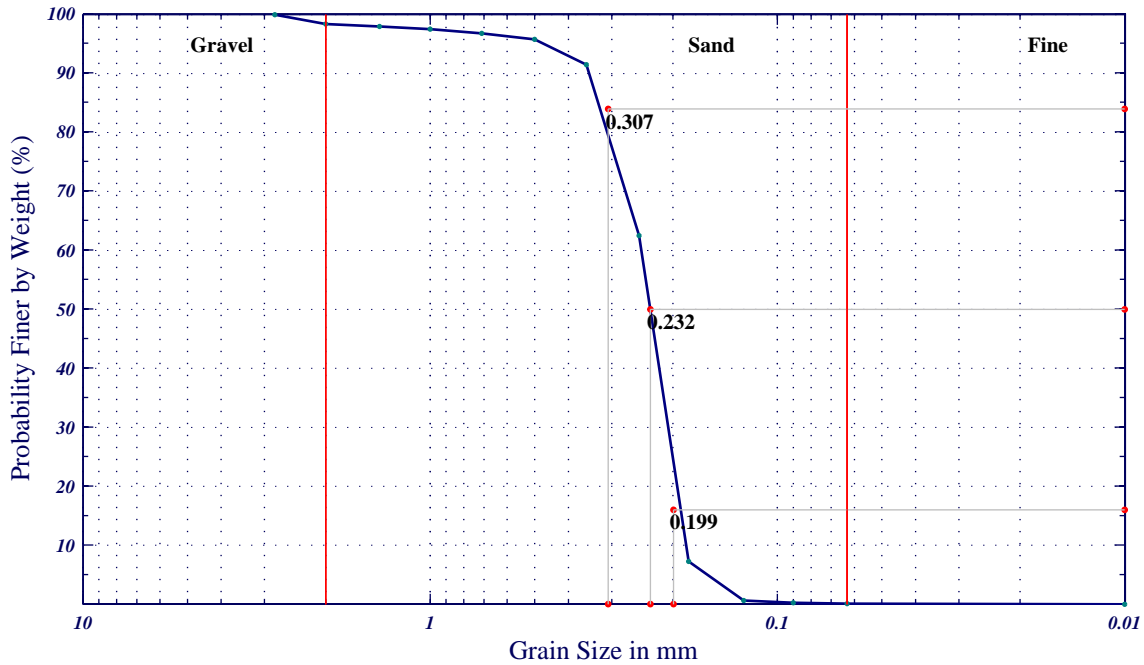
Northing: 151,397\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.173	2.531
D10:	0.187	2.419
D16:	0.199	2.329
D25:	0.212	2.238
D30:	0.216	2.211
D50:	0.232	2.108
D60:	0.245	2.029
D75:	0.275	1.862
D84:	0.307	1.704
D95:	0.452	1.146
Mean Grain Size:	0.242	2.047
Standard Deviation:	1.308	-0.387

Percent of Gravel (16mm–2mm): 1.60  
 Percent of Sand (<2mm–0.063mm): 98.17  
 Percent of Fines (<0.063mm): 0.23

**Sample ID: CEC-12-VC-4-2**

Sample Depth: 1.8–2.2ft

Easting: 3,508,418\*

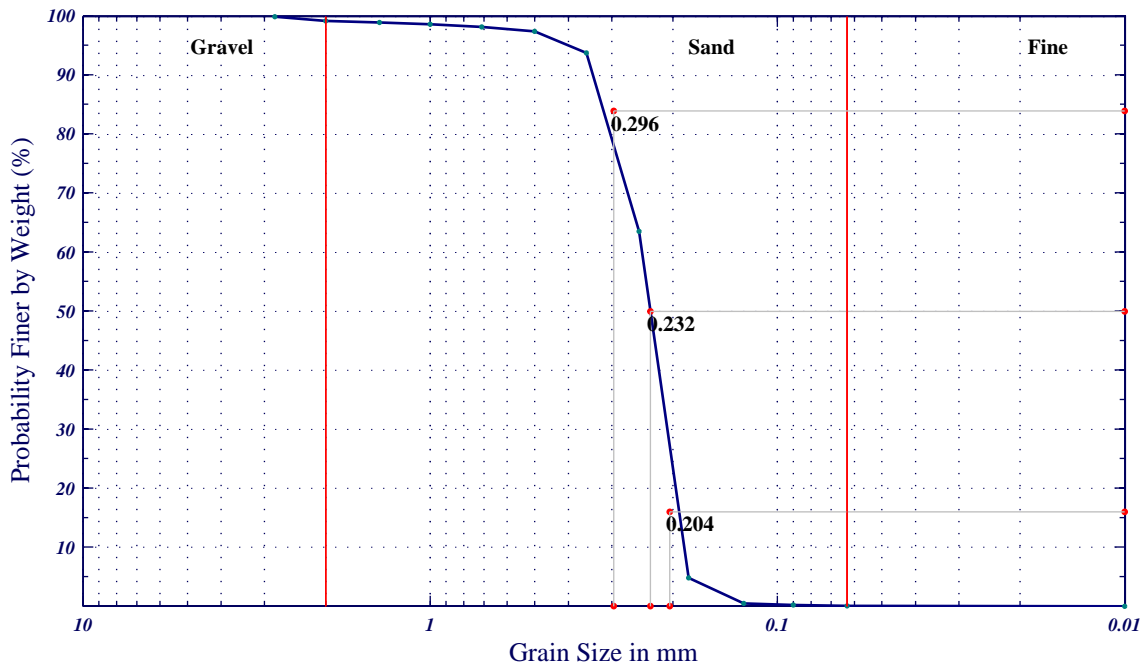
Northing: 151,397\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.181	2.466
D10:	0.193	2.373
D16:	0.204	2.293
D25:	0.215	2.218
D30:	0.220	2.184
D50:	0.232	2.108
D60:	0.244	2.035
D75:	0.270	1.889
D84:	0.296	1.756
D95:	0.373	1.423
Mean Grain Size:	0.241	2.052
Standard Deviation:	1.238	-0.308

Percent of Gravel (16mm–2mm): 0.74  
 Percent of Sand (<2mm–0.063mm): 99.05  
 Percent of Fines (<0.063mm): 0.21

**Sample ID: CEC-12-VC-4-4**

Sample Depth: 3.8–4.2ft

Easting: 3,508,418\*

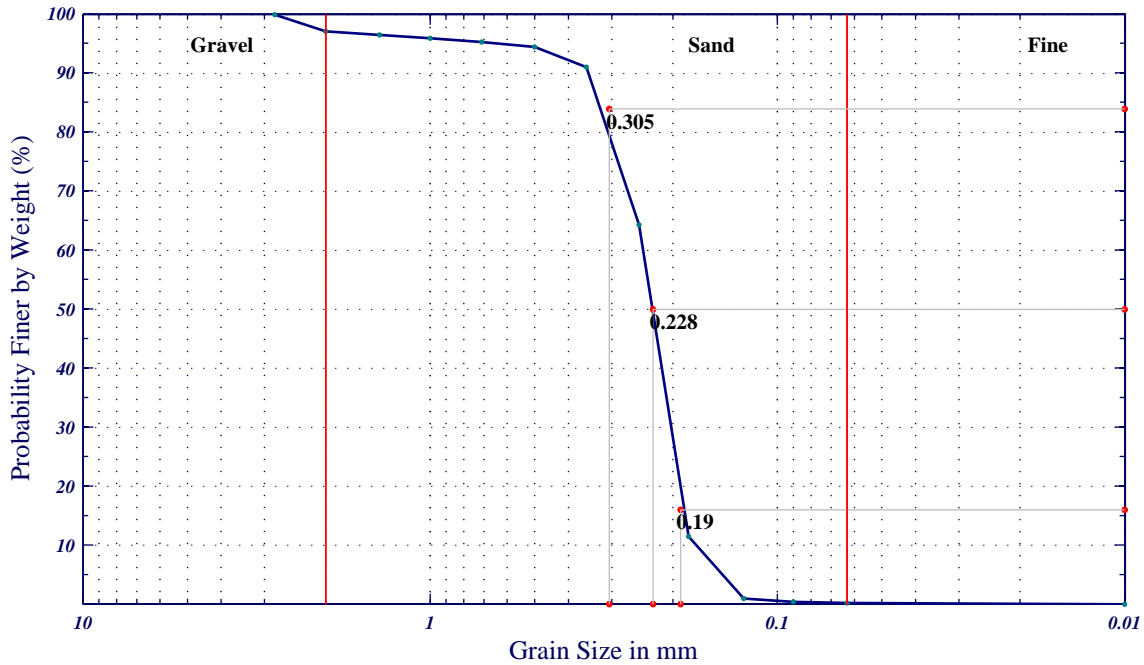
Northing: 151,397\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.161	2.635
D10:	0.177	2.498
D16:	0.190	2.396
D25:	0.204	2.293
D30:	0.210	2.252
D50:	0.228	2.133
D60:	0.242	2.047
D75:	0.272	1.878
D84:	0.305	1.713
D95:	0.600	0.737
Mean Grain Size:	0.236	2.081
Standard Deviation:	1.402	-0.487

Percent of Gravel (16mm–2mm): 2.84  
 Percent of Sand (<2mm–0.063mm): 96.74  
 Percent of Fines (<0.063mm): 0.41

**Sample ID: CEC-12-VC-4-6**

Sample Depth: 5.8–6.2ft

Easting: 3,508,418\*

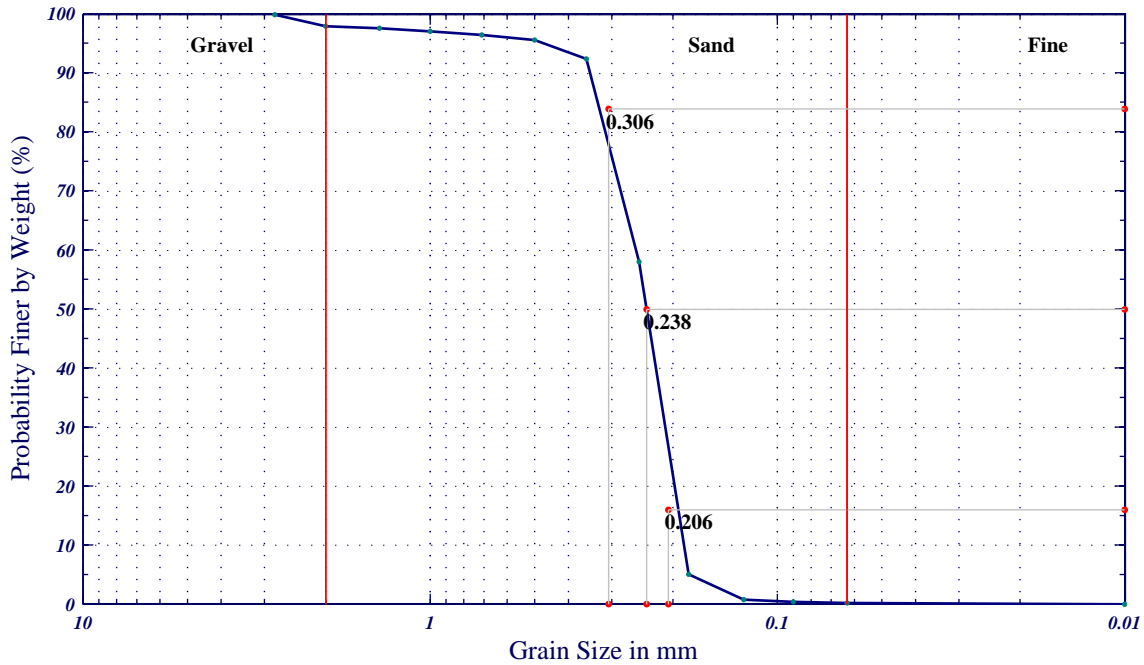
Northing: 151,397\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.180	2.474
D10:	0.194	2.366
D16:	0.206	2.279
D25:	0.218	2.198
D30:	0.222	2.171
D50:	0.238	2.071
D60:	0.253	1.983
D75:	0.278	1.847
D84:	0.306	1.708
D95:	0.448	1.158
Mean Grain Size:	0.247	2.020
Standard Deviation:	1.285	-0.362

Percent of Gravel (16mm–2mm): 1.96  
 Percent of Sand (<2mm–0.063mm): 97.62  
 Percent of Fines (<0.063mm): 0.41

**Sample ID: CEC-12-VC-4-8**

Sample Depth: 7.8–8.2ft

Easting: 3,508,418\*

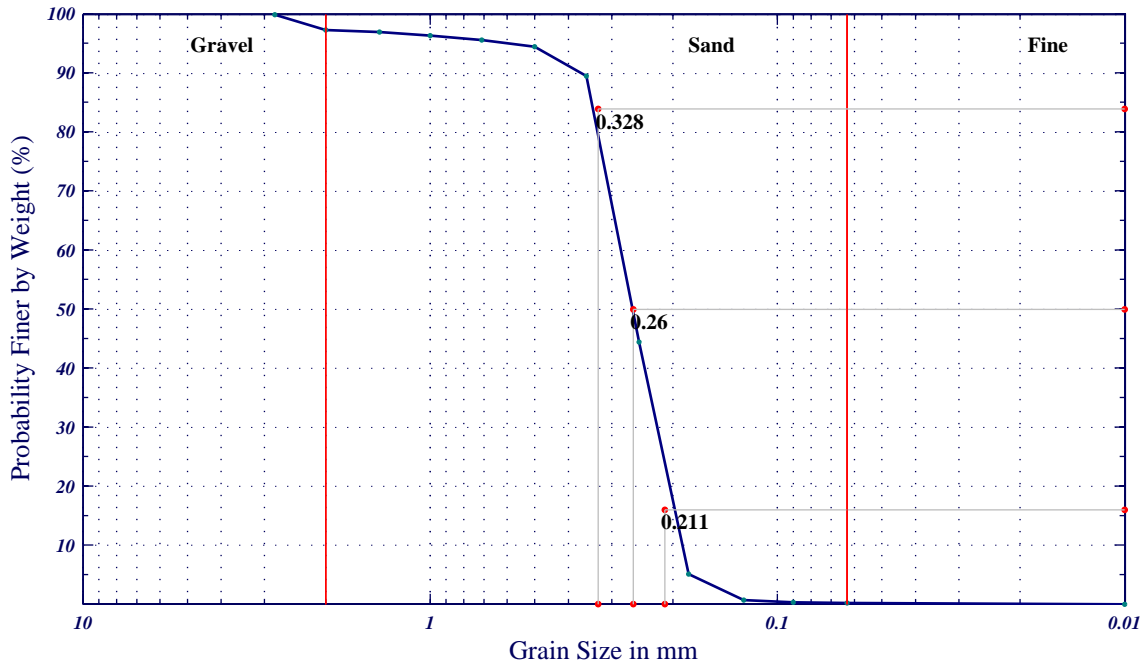
Northing: 151,397\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.180	2.474
D10:	0.196	2.351
D16:	0.211	2.245
D25:	0.224	2.158
D30:	0.230	2.120
D50:	0.260	1.943
D60:	0.273	1.873
D75:	0.298	1.747
D84:	0.328	1.608
D95:	0.555	0.849
Mean Grain Size:	0.262	1.932
Standard Deviation:	1.347	-0.430

Percent of Gravel (16mm–2mm): 2.60  
 Percent of Sand (<2mm–0.063mm): 97.07  
 Percent of Fines (<0.063mm): 0.33

**Sample ID: CEC-12-VC-4-10**

Sample Depth: 9.8–10.2ft

Easting: 3,508,418\*

Northing: 151,397\*

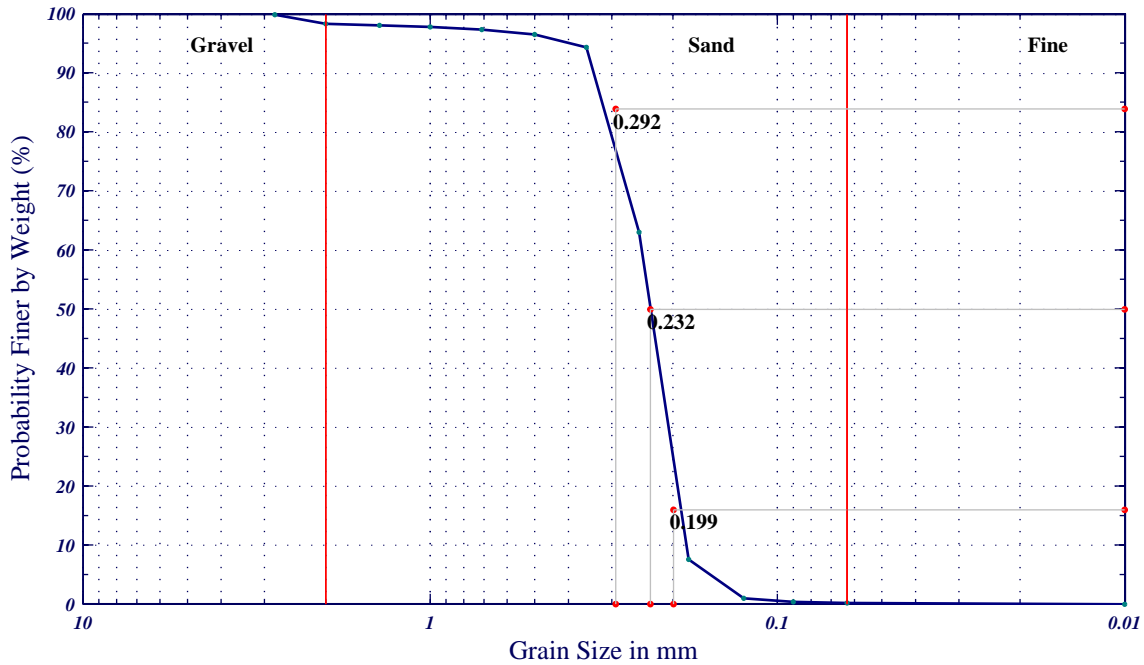
\*Coordinates are feet, LA-1702

OSI No.: 12ES018





**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.170	2.556
D10:	0.186	2.427
D16:	0.199	2.329
D25:	0.211	2.245
D30:	0.216	2.211
D50:	0.232	2.108
D60:	0.245	2.029
D75:	0.269	1.894
D84:	0.292	1.776
D95:	0.369	1.438
Mean Grain Size:	0.238	2.071
Standard Deviation:	1.252	-0.325

Percent of Gravel (16mm–2mm): 1.58  
 Percent of Sand (<2mm–0.063mm): 98.02  
 Percent of Fines (<0.063mm): 0.40

**Sample ID: CEC-12-VC-4-12**

Sample Depth: 11.8–12.2ft

Easting: 3,508,418\*

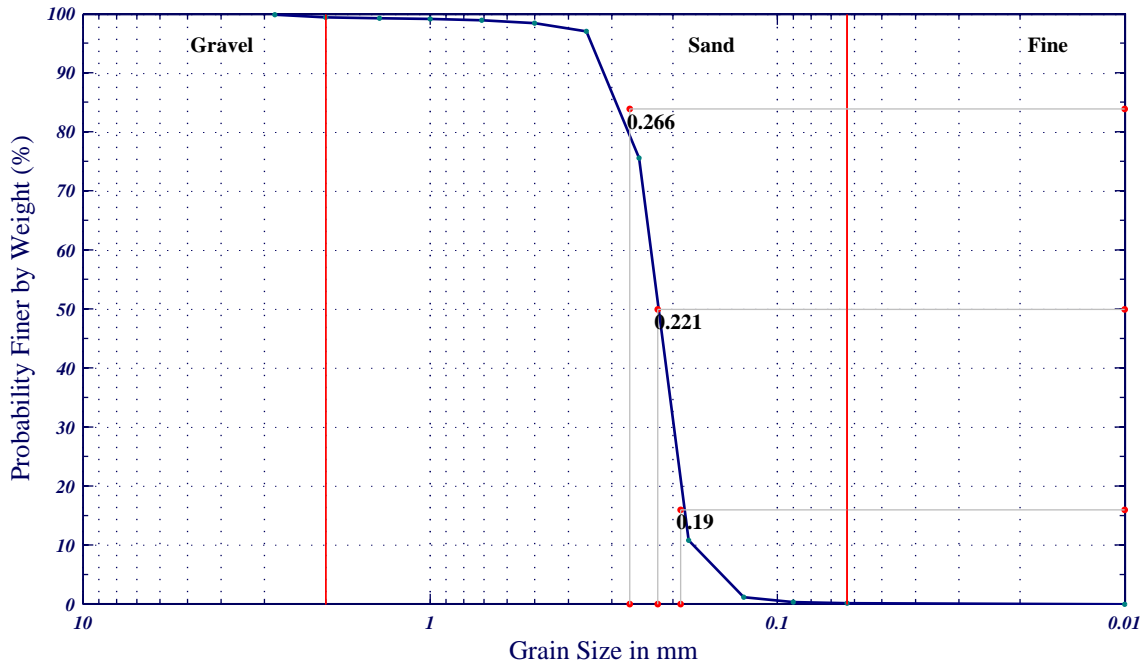
Northing: 151,397\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.160	2.644
D10:	0.178	2.490
D16:	0.190	2.396
D25:	0.203	2.300
D30:	0.208	2.265
D50:	0.221	2.178
D60:	0.228	2.133
D75:	0.249	2.006
D84:	0.266	1.911
D95:	0.330	1.599
Mean Grain Size:	0.224	2.161
Standard Deviation:	1.227	-0.295

Percent of Gravel (16mm–2mm): 0.46  
 Percent of Sand (<2mm–0.063mm): 99.18  
 Percent of Fines (<0.063mm): 0.36

**Sample ID: CEC-12-VC-4-14**

Sample Depth: 13.8–14.2ft

Easting: 3,508,418\*

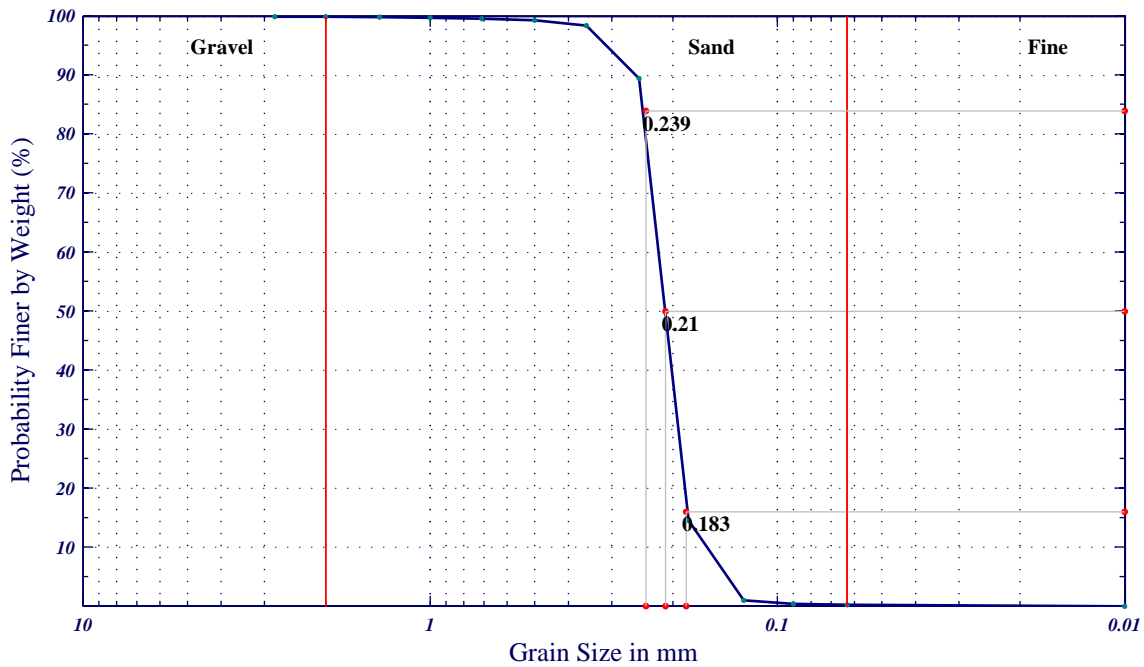
Northing: 151,397\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results:**

	(mm)	(phi)
D5:	0.156	2.680
D10:	0.173	2.531
D16:	0.183	2.450
D25:	0.195	2.358
D30:	0.199	2.329
D50:	0.210	2.252
D60:	0.214	2.224
D75:	0.226	2.146
D84:	0.239	2.065
D95:	0.284	1.816
Mean Grain Size:	0.209	2.256
Standard Deviation:	1.181	-0.240

Percent of Gravel (16mm–2mm): 0.03  
 Percent of Sand (<2mm–0.063mm): 99.55  
 Percent of Fines (<0.063mm): 0.41

**Sample ID: CEC-12-VC-4-16**

Sample Depth: 15.8–16.2ft

Easting: 3,508,418\*

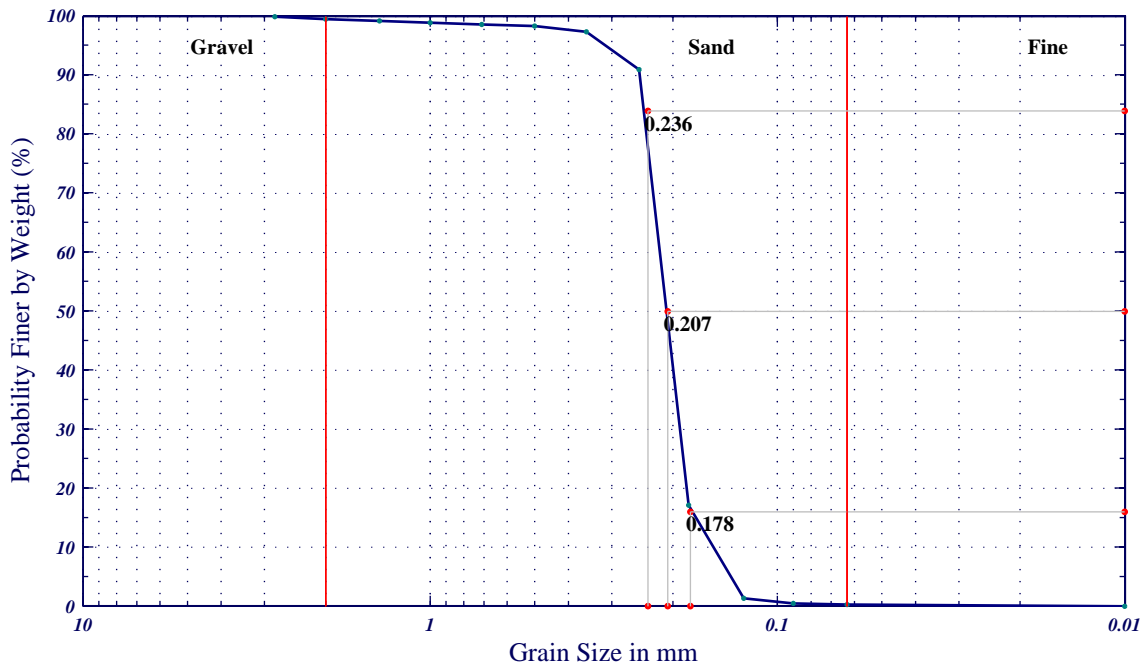
Northing: 151,397\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.150	2.737
D10:	0.168	2.573
D16:	0.178	2.490
D25:	0.191	2.388
D30:	0.196	2.351
D50:	0.207	2.272
D60:	0.211	2.245
D75:	0.223	2.165
D84:	0.236	2.083
D95:	0.288	1.796
Mean Grain Size:	0.206	2.282
Standard Deviation:	1.196	-0.259

Percent of Gravel (16mm–2mm): 0.44  
 Percent of Sand (<2mm–0.063mm): 99.10  
 Percent of Fines (<0.063mm): 0.46

**Sample ID: CEC-12-VC-5-0**

Sample Depth: 0.0–0.4ft

Easting: 3,506,933\*

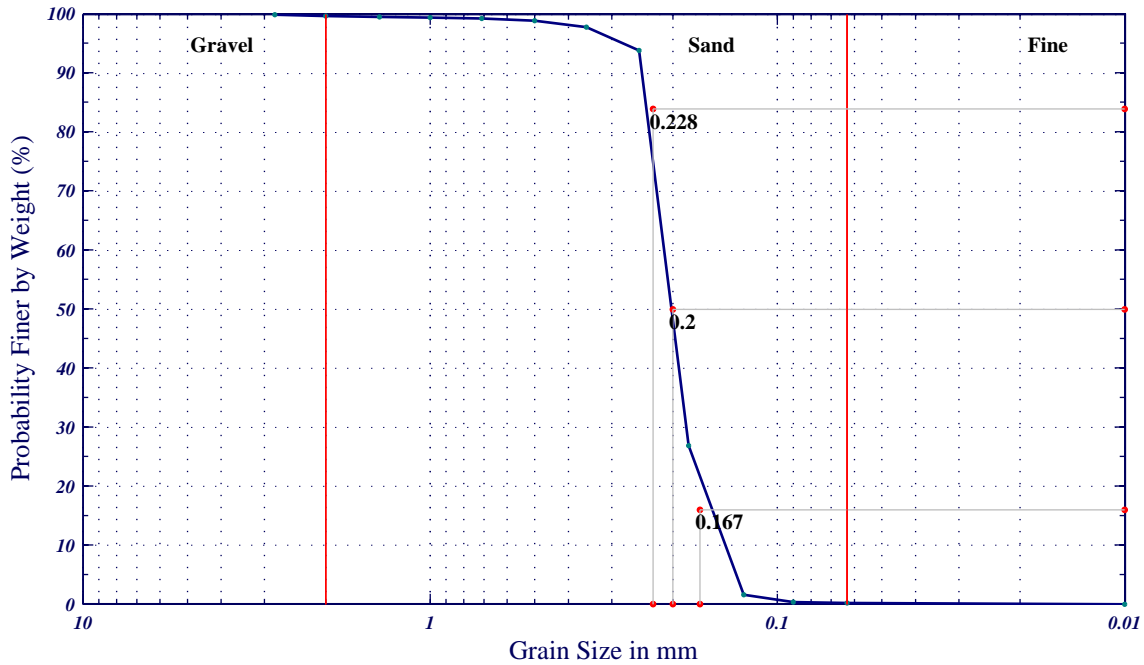
Northing: 148,990\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



<b>Sieve Analysis Results:</b>	<b>(mm)</b>	<b>(phi)</b>
D5:	0.141	2.826
D10:	0.157	2.671
D16:	0.167	2.582
D25:	0.177	2.498
D30:	0.184	2.442
D50:	0.200	2.322
D60:	0.204	2.293
D75:	0.215	2.218
D84:	0.228	2.133
D95:	0.260	1.943
Mean Grain Size:	0.197	2.346
Standard Deviation:	1.197	-0.259

Percent of Gravel (16mm–2mm): 0.23  
 Percent of Sand (<2mm–0.063mm): 99.41  
 Percent of Fines (<0.063mm): 0.36

**Sample ID: CEC-12-VC-5-2**

Sample Depth: 1.8–2.2ft

Easting: 3,506,933\*

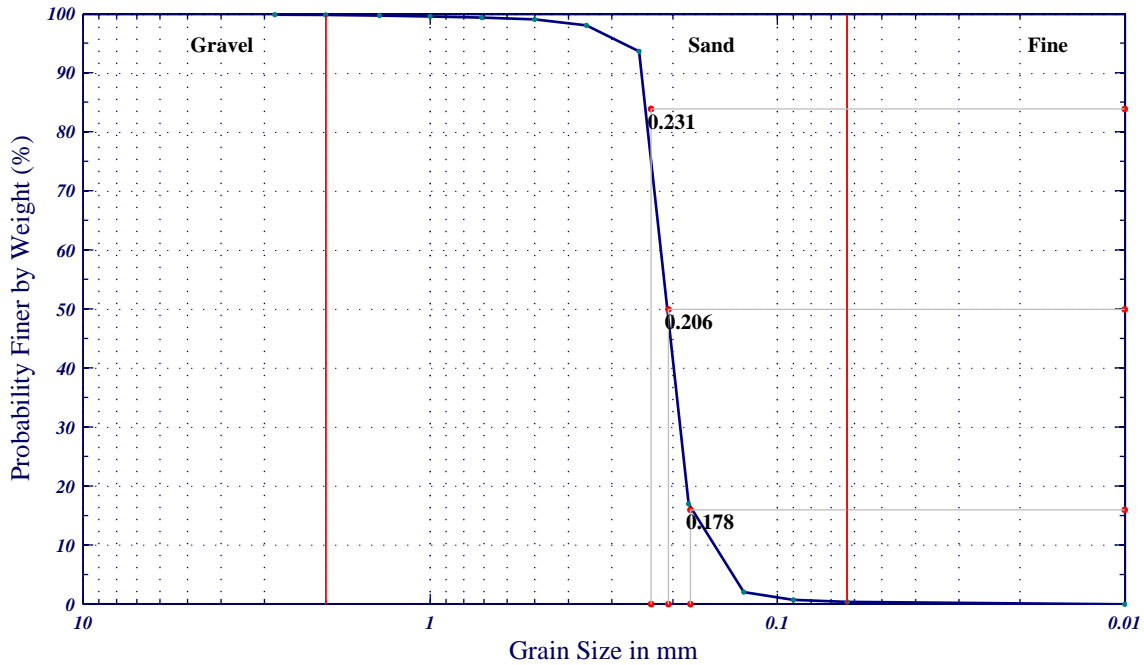
Northing: 148,990\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.145	2.786
D10:	0.166	2.591
D16:	0.178	2.490
D25:	0.191	2.388
D30:	0.196	2.351
D50:	0.206	2.279
D60:	0.210	2.252
D75:	0.219	2.191
D84:	0.231	2.114
D95:	0.260	1.943
Mean Grain Size:	0.204	2.294
Standard Deviation:	1.176	-0.234

Percent of Gravel (16mm–2mm): 0.04  
 Percent of Sand (<2mm–0.063mm): 99.22  
 Percent of Fines (<0.063mm): 0.74

**Sample ID: CEC-12-VC-5-4**

Sample Depth: 3.8–4.2ft

Easting: 3,506,933\*

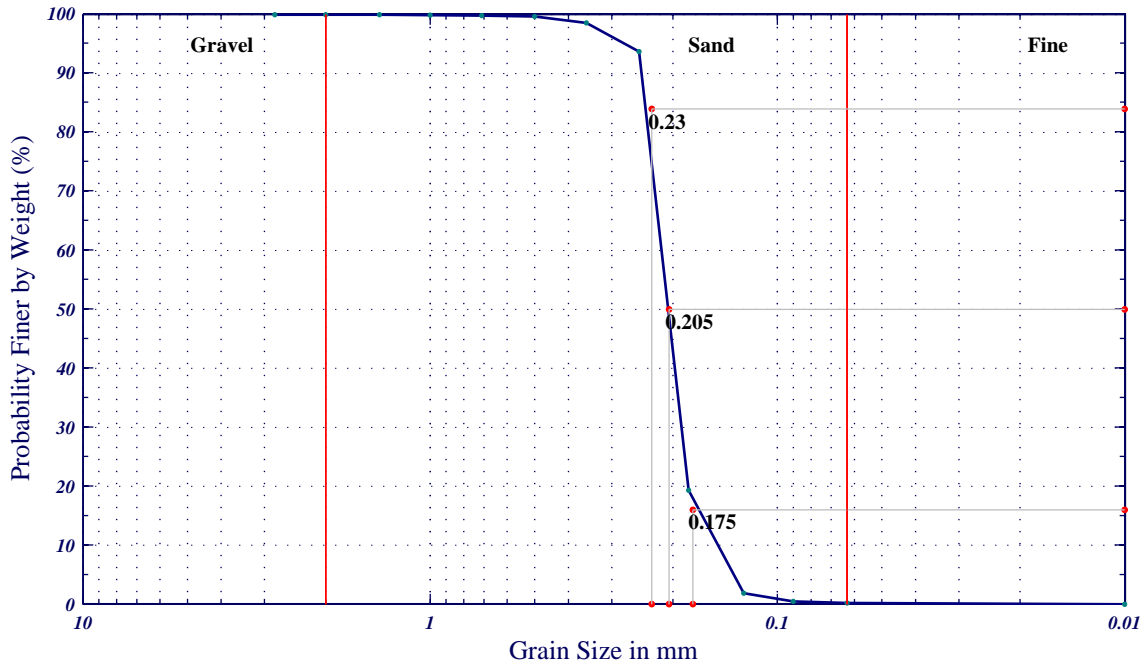
Northing: 148,990\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.144	2.796
D10:	0.163	2.617
D16:	0.175	2.515
D25:	0.188	2.411
D30:	0.193	2.373
D50:	0.205	2.286
D60:	0.209	2.258
D75:	0.219	2.191
D84:	0.230	2.120
D95:	0.259	1.949
Mean Grain Size:	0.202	2.307
Standard Deviation:	1.181	-0.240

Percent of Gravel (16mm–2mm): 0.01  
 Percent of Sand (<2mm–0.063mm): 99.50  
 Percent of Fines (<0.063mm): 0.49

**Sample ID: CEC-12-VC-5-6**

Sample Depth: 5.8–6.2ft

Easting: 3,506,933\*

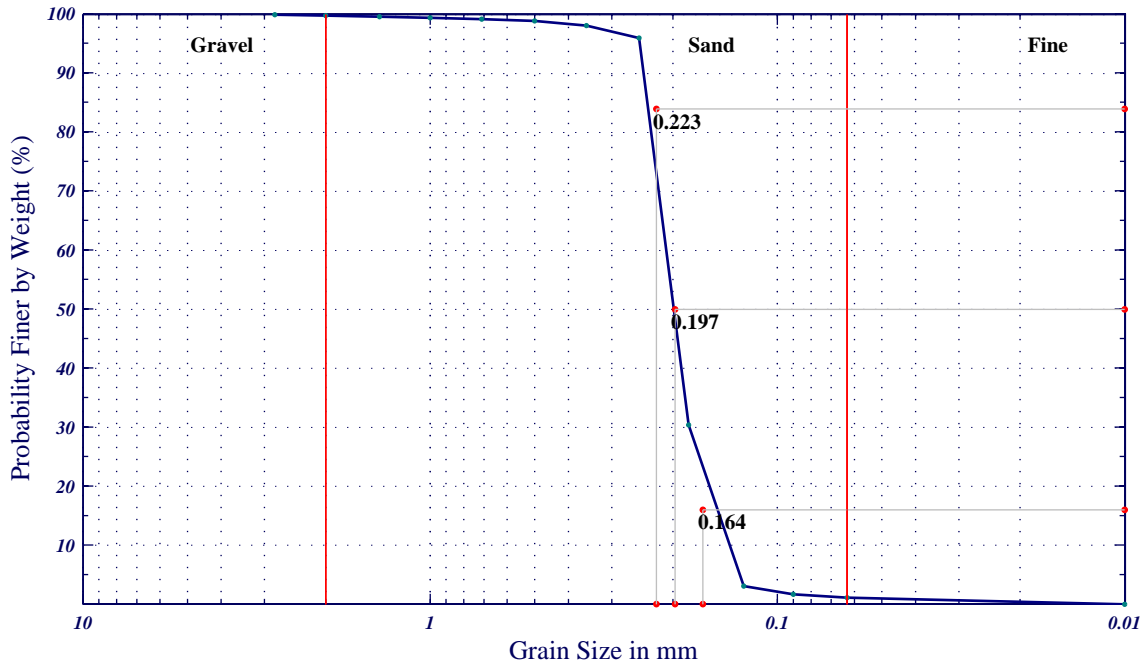
Northing: 148,990\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



<b>Sieve Analysis Results:</b>		
	<b>(mm)</b>	<b>(phi)</b>
D5:	0.134	2.900
D10:	0.151	2.727
D16:	0.164	2.608
D25:	0.174	2.523
D30:	0.179	2.482
D50:	0.197	2.344
D60:	0.201	2.315
D75:	0.211	2.245
D84:	0.223	2.165
D95:	0.247	2.017
Mean Grain Size:	0.193	2.372
Standard Deviation:	1.196	-0.258

Percent of Gravel (16mm–2mm): 0.18  
 Percent of Sand (<2mm–0.063mm): 98.15  
 Percent of Fines (<0.063mm): 1.66

**Sample ID: CEC-12-VC-5-8**

Sample Depth: 7.8–8.2ft

Easting: 3,506,933\*

Northing: 148,990\*

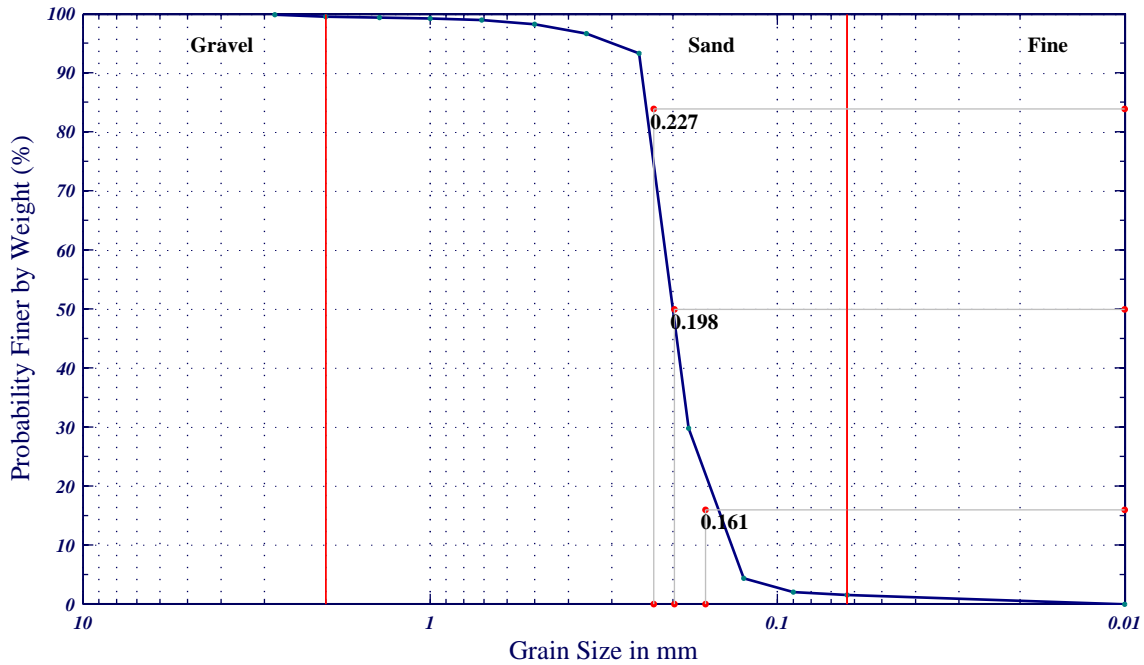
\*Coordinates are feet, LA-1702

OSI No.: 12ES018





**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.128	2.966
D10:	0.147	2.766
D16:	0.161	2.635
D25:	0.173	2.531
D30:	0.180	2.474
D50:	0.198	2.336
D60:	0.203	2.300
D75:	0.214	2.224
D84:	0.227	2.139
D95:	0.279	1.842
Mean Grain Size:	0.193	2.370
Standard Deviation:	1.241	-0.311

Percent of Gravel (16mm–2mm): 0.37  
 Percent of Sand (<2mm–0.063mm): 97.57  
 Percent of Fines (<0.063mm): 2.06

**Sample ID: CEC-12-VC-5-10**

Sample Depth: 9.8–10.2ft

Easting: 3,506,933\*

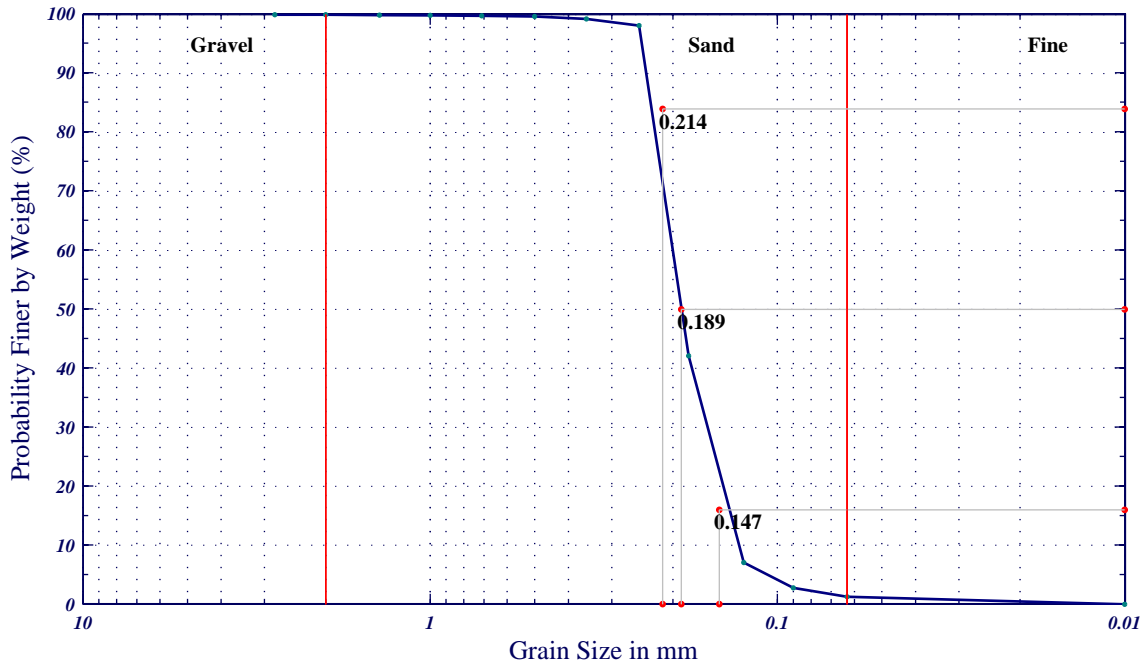
Northing: 148,990\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.113	3.146
D10:	0.134	2.900
D16:	0.147	2.766
D25:	0.161	2.635
D30:	0.166	2.591
D50:	0.189	2.404
D60:	0.195	2.358
D75:	0.203	2.300
D84:	0.214	2.224
D95:	0.240	2.059
Mean Grain Size:	0.181	2.465
Standard Deviation:	1.245	-0.317

Percent of Gravel (16mm–2mm): 0.01  
 Percent of Sand (<2mm–0.063mm): 97.24  
 Percent of Fines (<0.063mm): 2.75

**Sample ID: CEC-12-VC-5-12**

Sample Depth: 11.8–12.2ft

Easting: 3,506,933\*

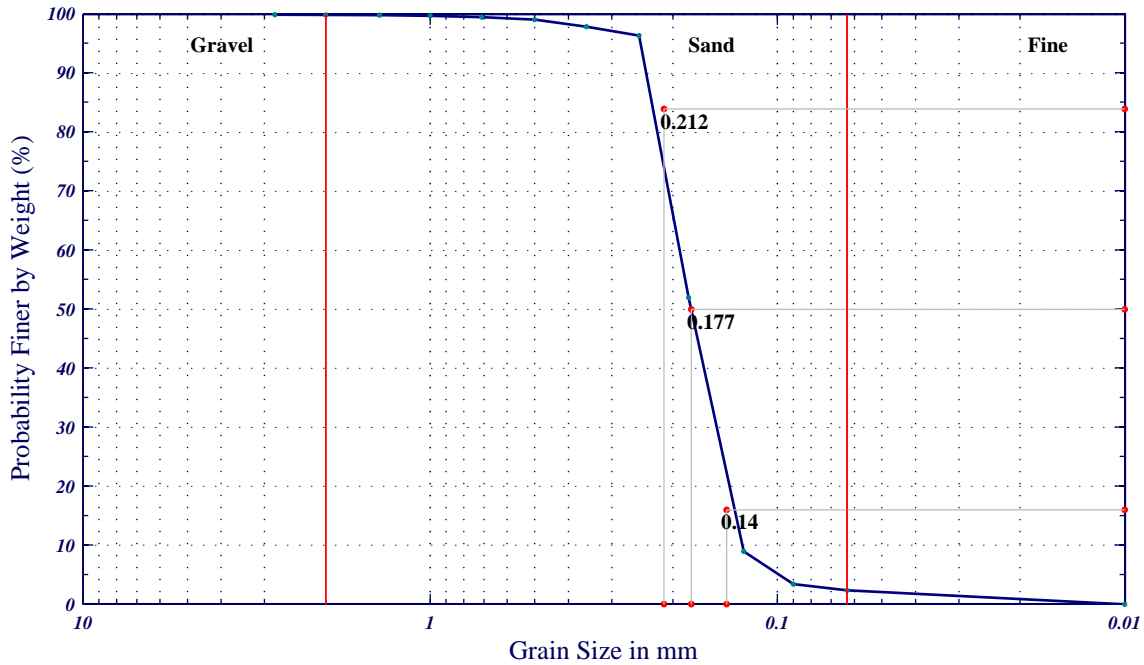
Northing: 148,990\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.106	3.238
D10:	0.128	2.966
D16:	0.140	2.837
D25:	0.153	2.708
D30:	0.158	2.662
D50:	0.177	2.498
D60:	0.188	2.411
D75:	0.199	2.329
D84:	0.212	2.238
D95:	0.244	2.035
Mean Grain Size:	0.174	2.524
Standard Deviation:	1.275	-0.350

Percent of Gravel (16mm–2mm): 0.05  
 Percent of Sand (<2mm–0.063mm): 96.55  
 Percent of Fines (<0.063mm): 3.40

**Sample ID: CEC-12-VC-5-14**

Sample Depth: 13.8–14.2ft

Easting: 3,506,933\*

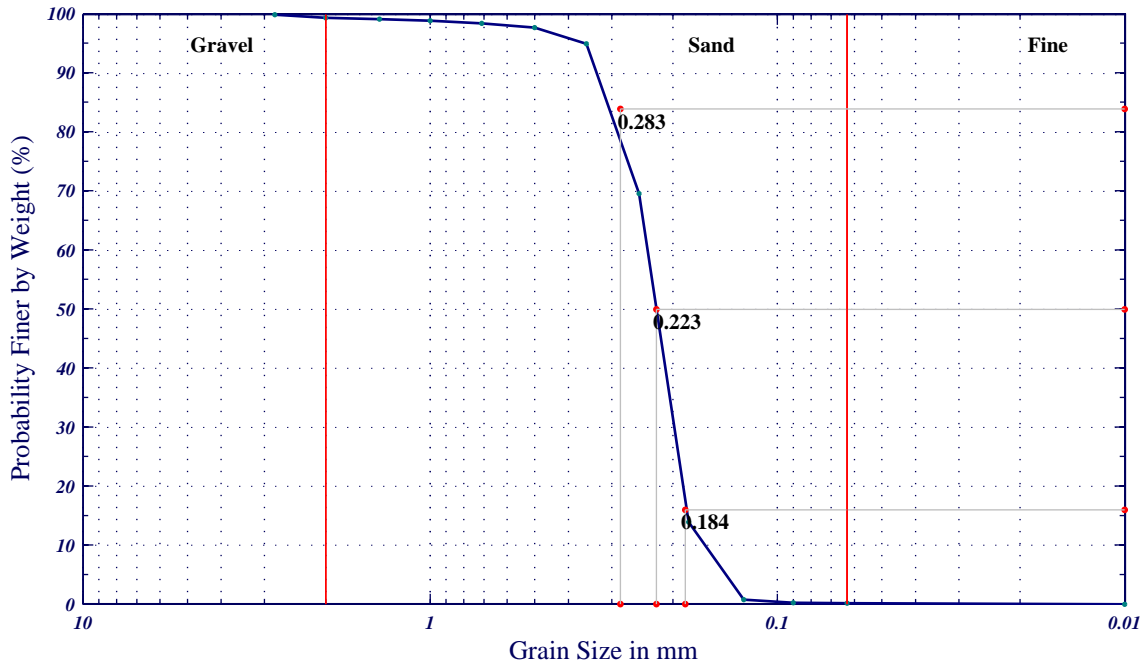
Northing: 148,990\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.158	2.662
D10:	0.173	2.531
D16:	0.184	2.442
D25:	0.199	2.329
D30:	0.205	2.286
D50:	0.223	2.165
D60:	0.234	2.095
D75:	0.260	1.943
D84:	0.283	1.821
D95:	0.354	1.498
Mean Grain Size:	0.226	2.143
Standard Deviation:	1.274	-0.349

Percent of Gravel (16mm–2mm): 0.55  
 Percent of Sand (<2mm–0.063mm): 99.20  
 Percent of Fines (<0.063mm): 0.24

**Sample ID: CEC-12-VC-6-0**

Sample Depth: 0–0.4ft

Easting: 3,507,253\*

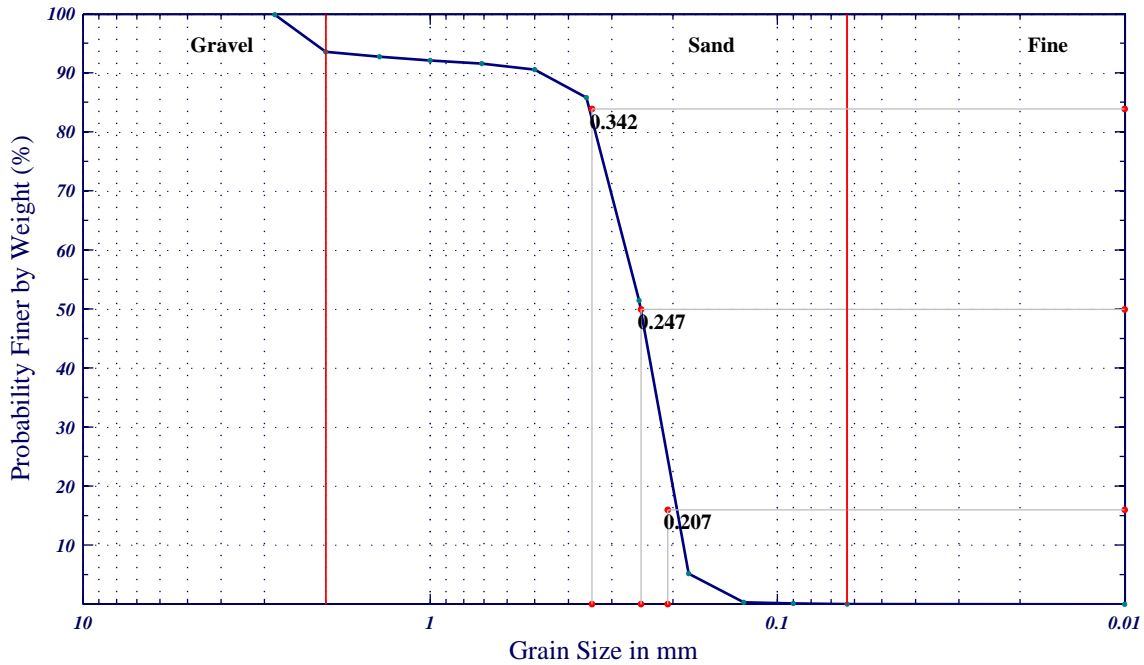
Northing: 150,814\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.179	2.482
D10:	0.194	2.366
D16:	0.207	2.272
D25:	0.219	2.191
D30:	0.224	2.158
D50:	0.247	2.017
D60:	0.265	1.916
D75:	0.299	1.742
D84:	0.342	1.548
D95:	2.307	-1.206
Mean Grain Size:	0.260	1.946
Standard Deviation:	1.736	-0.796

Percent of Gravel (16mm–2mm): 6.32  
 Percent of Sand (<2mm–0.063mm): 93.55  
 Percent of Fines (<0.063mm): 0.14

**Sample ID: CEC-12-VC-6-2**

Sample Depth: 1.8–2.2ft

Easting: 3,507,253\*

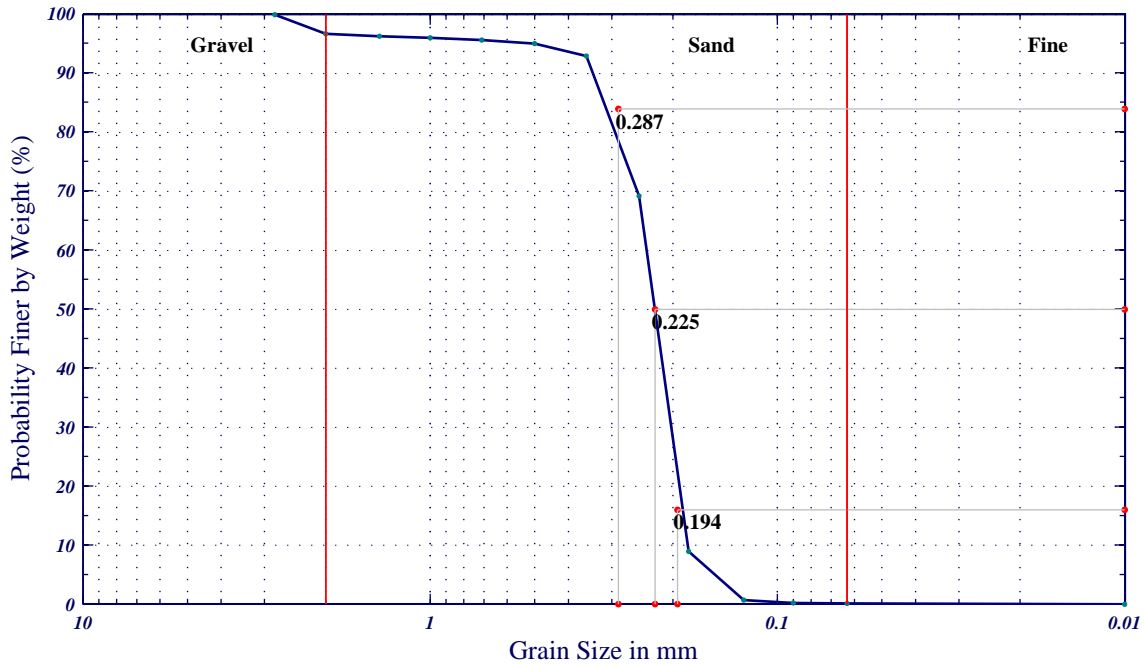
Northing: 150,814\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.168	2.573
D10:	0.182	2.458
D16:	0.194	2.366
D25:	0.207	2.272
D30:	0.211	2.245
D50:	0.225	2.152
D60:	0.235	2.089
D75:	0.261	1.938
D84:	0.287	1.801
D95:	0.492	1.023
Mean Grain Size:	0.232	2.106
Standard Deviation:	1.319	-0.400

Percent of Gravel (16mm–2mm): 3.27  
 Percent of Sand (<2mm–0.063mm): 96.52  
 Percent of Fines (<0.063mm): 0.21

**Sample ID: CEC-12-VC-6-4**

Sample Depth: 3.8–4.2ft

Easting: 3,507,253\*

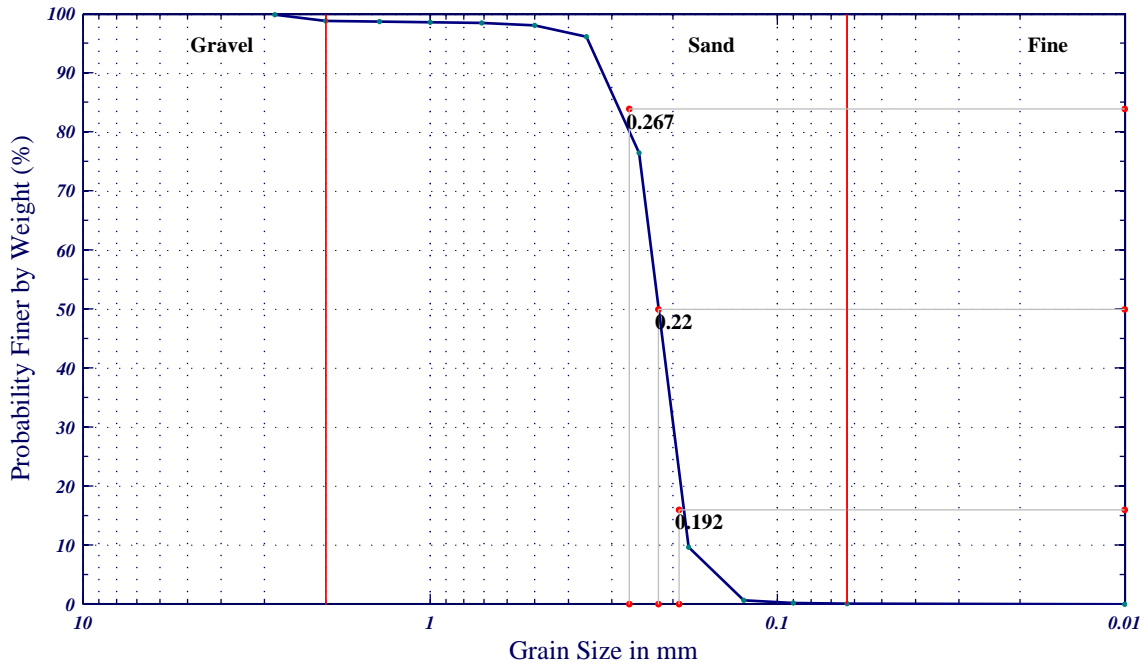
Northing: 150,814\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.166	2.591
D10:	0.181	2.466
D16:	0.192	2.381
D25:	0.204	2.293
D30:	0.208	2.265
D50:	0.220	2.184
D60:	0.227	2.139
D75:	0.247	2.017
D84:	0.267	1.905
D95:	0.340	1.556
Mean Grain Size:	0.224	2.157
Standard Deviation:	1.224	-0.291

Percent of Gravel (16mm–2mm): 1.09  
 Percent of Sand (<2mm–0.063mm): 98.71  
 Percent of Fines (<0.063mm): 0.20

**Sample ID: CEC-12-VC-6-6**

Sample Depth: 5.8–6.2ft

Easting: 3,507,253\*

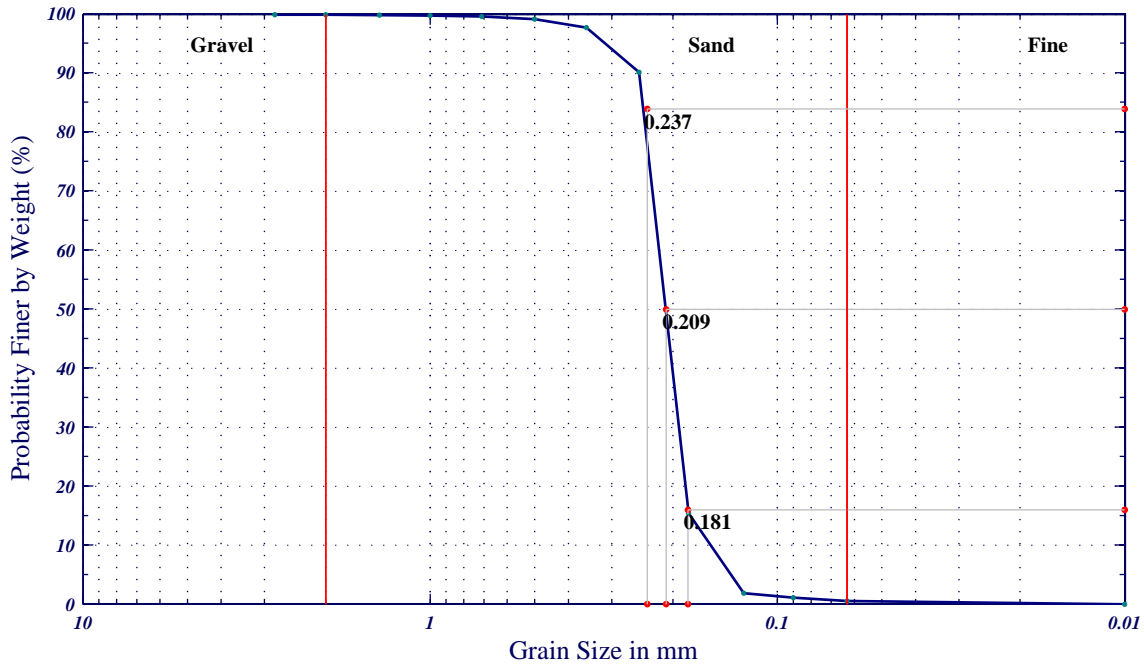
Northing: 150,814\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.150	2.737
D10:	0.170	2.556
D16:	0.181	2.466
D25:	0.194	2.366
D30:	0.198	2.336
D50:	0.209	2.258
D60:	0.213	2.231
D75:	0.225	2.152
D84:	0.237	2.077
D95:	0.292	1.776
Mean Grain Size:	0.208	2.267
Standard Deviation:	1.195	-0.257

Percent of Gravel (16mm–2mm): 0.03  
 Percent of Sand (<2mm–0.063mm): 98.86  
 Percent of Fines (<0.063mm): 1.11

**Sample ID: CEC-12-VC-6-8**

Sample Depth: 7.8–8.2ft

Easting: 3,507,253\*

Northing: 150,814\*

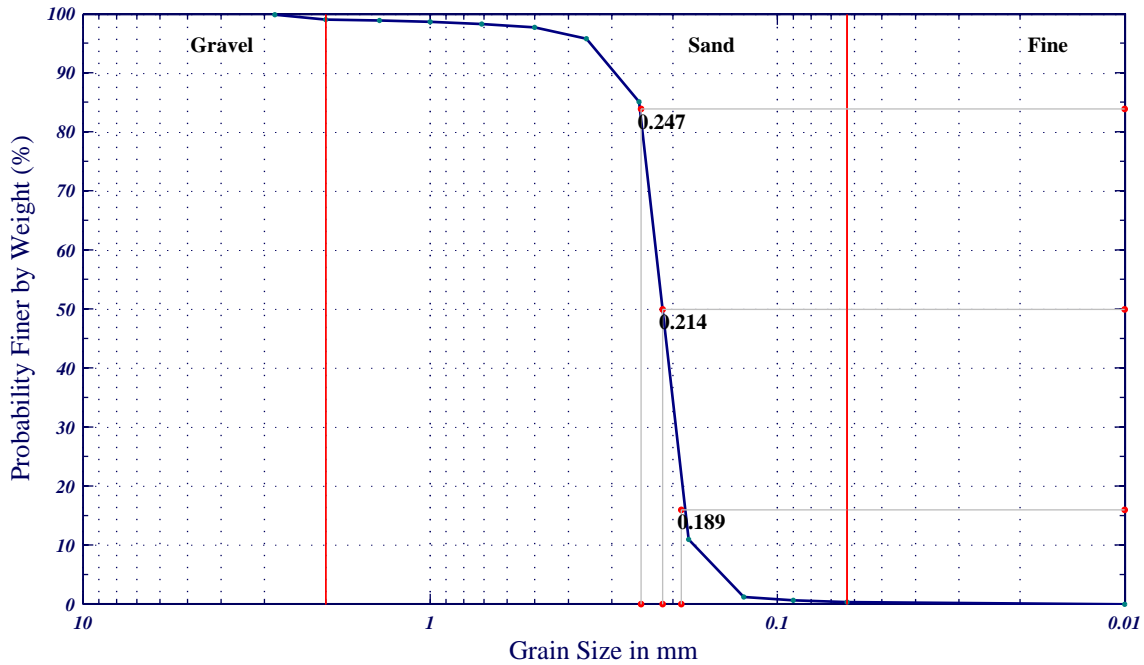
\*Coordinates are feet, LA-1702

OSI No.: 12ES018





**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.161	2.635
D10:	0.178	2.490
D16:	0.189	2.404
D25:	0.200	2.322
D30:	0.204	2.293
D50:	0.214	2.224
D60:	0.219	2.191
D75:	0.232	2.108
D84:	0.247	2.017
D95:	0.337	1.569
Mean Grain Size:	0.215	2.215
Standard Deviation:	1.209	-0.274

Percent of Gravel (16mm–2mm): 0.85  
 Percent of Sand (<2mm–0.063mm): 98.49  
 Percent of Fines (<0.063mm): 0.66

**Sample ID: CEC-12-VC-6-10**

Sample Depth: 9.8–10.2ft

Easting: 3,507,253\*

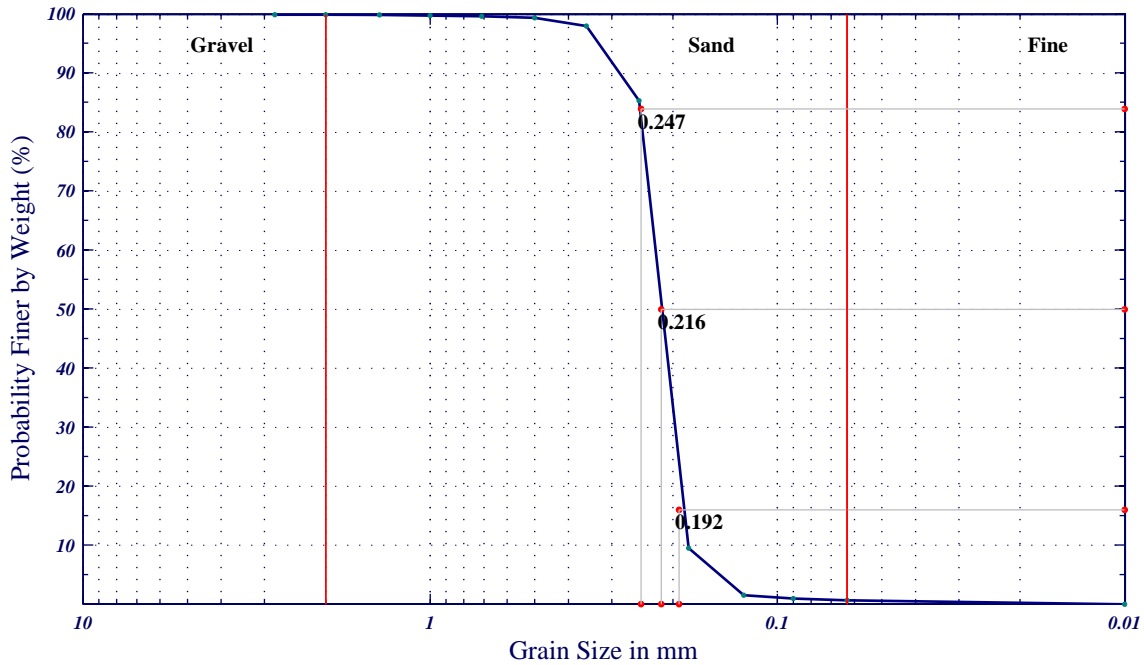
Northing: 150,814\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.163	2.617
D10:	0.181	2.466
D16:	0.192	2.381
D25:	0.203	2.300
D30:	0.207	2.272
D50:	0.216	2.211
D60:	0.220	2.184
D75:	0.233	2.102
D84:	0.247	2.017
D95:	0.306	1.708
Mean Grain Size:	0.217	2.203
Standard Deviation:	1.183	-0.242

Percent of Gravel (16mm–2mm): 0.01  
 Percent of Sand (<2mm–0.063mm): 99.05  
 Percent of Fines (<0.063mm): 0.94

**Sample ID: CEC-12-VC-6-12**

Sample Depth: 11.8–12.2ft

Easting: 3,507,253\*

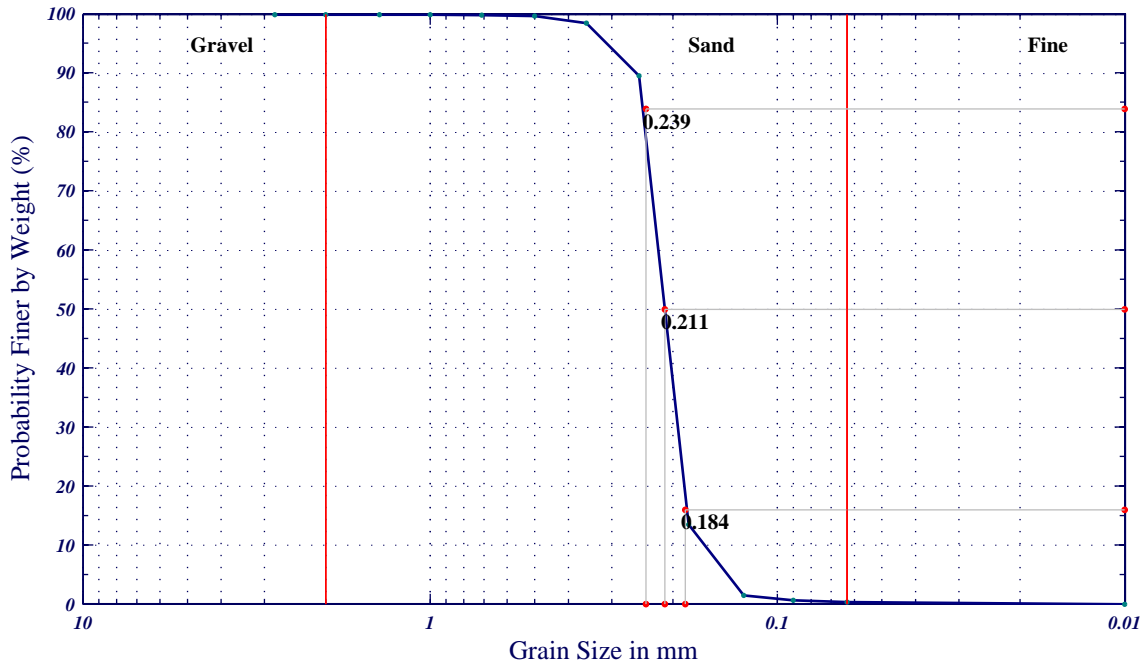
Northing: 150,814\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.154	2.699
D10:	0.173	2.531
D16:	0.184	2.442
D25:	0.196	2.351
D30:	0.201	2.315
D50:	0.211	2.245
D60:	0.215	2.218
D75:	0.226	2.146
D84:	0.239	2.065
D95:	0.285	1.811
Mean Grain Size:	0.210	2.251
Standard Deviation:	1.183	-0.242

Percent of Gravel (16mm–2mm): 0.01  
 Percent of Sand (<2mm–0.063mm): 99.32  
 Percent of Fines (<0.063mm): 0.67

**Sample ID: CEC-12-VC-6-13**

Sample Depth: 13.1–13.5ft

Easting: 3,507,253\*

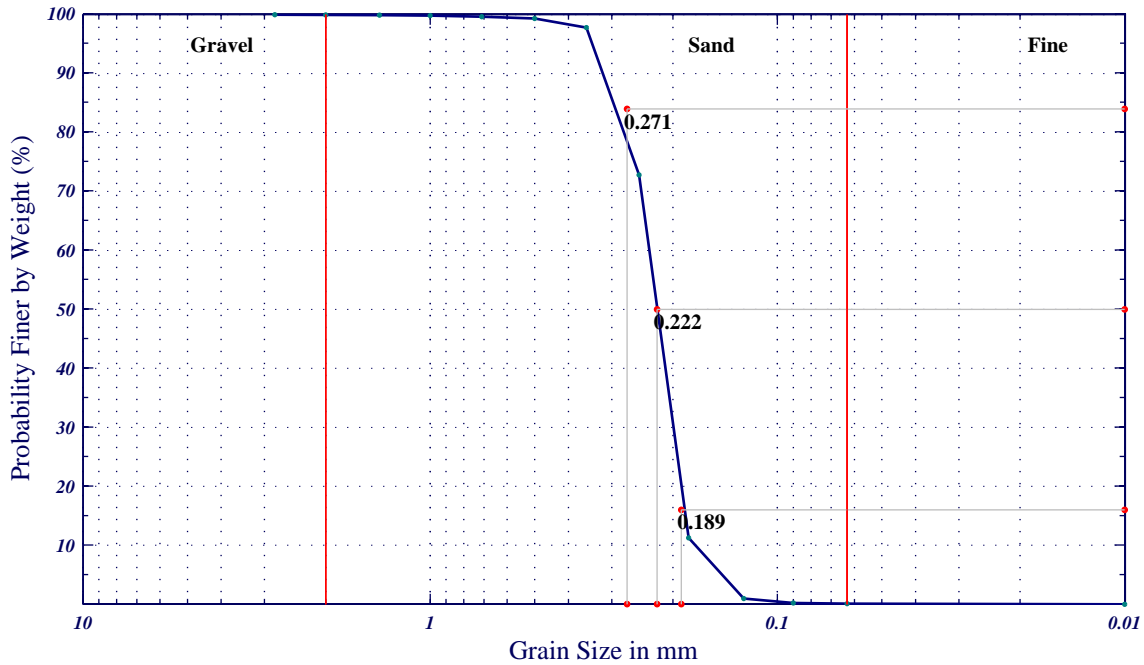
Northing: 150,814\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.160	2.644
D10:	0.177	2.498
D16:	0.189	2.404
D25:	0.203	2.300
D30:	0.208	2.265
D50:	0.222	2.171
D60:	0.231	2.114
D75:	0.254	1.977
D84:	0.271	1.884
D95:	0.328	1.608
Mean Grain Size:	0.225	2.153
Standard Deviation:	1.233	-0.303

Percent of Gravel (16mm–2mm): 0.06  
 Percent of Sand (<2mm–0.063mm): 99.73  
 Percent of Fines (<0.063mm): 0.21

**Sample ID: CEC-12-VC-7-0**

Sample Depth: 0–0.4ft

Easting: 3,506,519\*

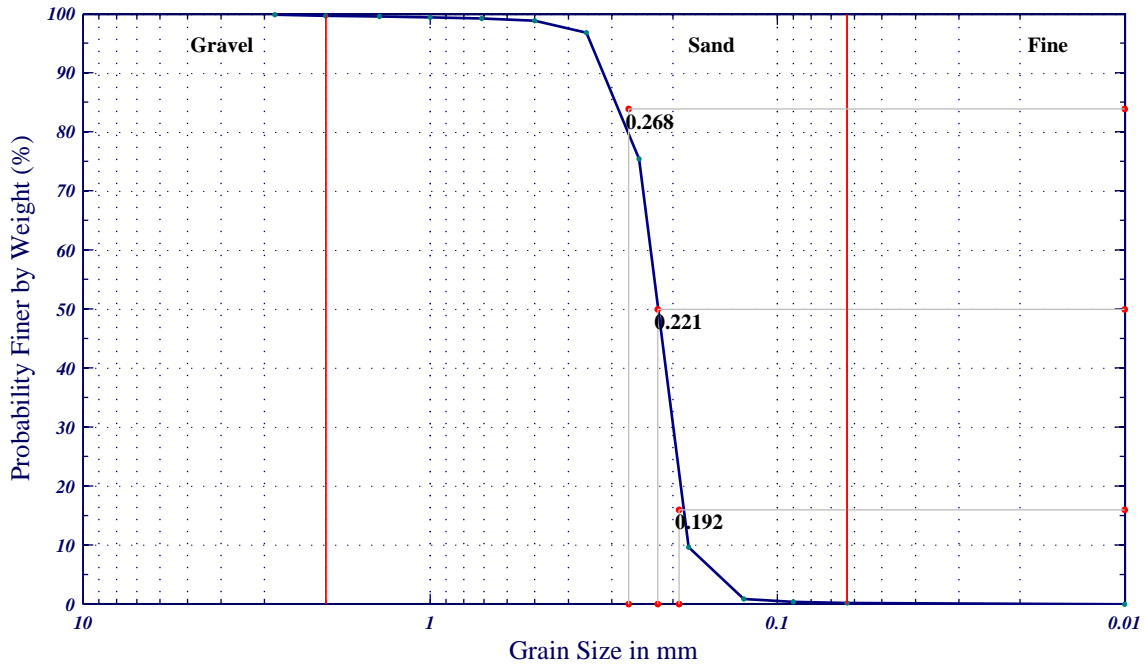
Northing: 149,659\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.165	2.599
D10:	0.181	2.466
D16:	0.192	2.381
D25:	0.204	2.293
D30:	0.209	2.258
D50:	0.221	2.178
D60:	0.229	2.127
D75:	0.249	2.006
D84:	0.268	1.900
D95:	0.334	1.582
Mean Grain Size:	0.225	2.153
Standard Deviation:	1.223	-0.290

Percent of Gravel (16mm–2mm): 0.20  
 Percent of Sand (<2mm–0.063mm): 99.41  
 Percent of Fines (<0.063mm): 0.39

**Sample ID: CEC-12-VC-7-2**

Sample Depth: 1.8–2.2ft

Easting: 3,506,519\*

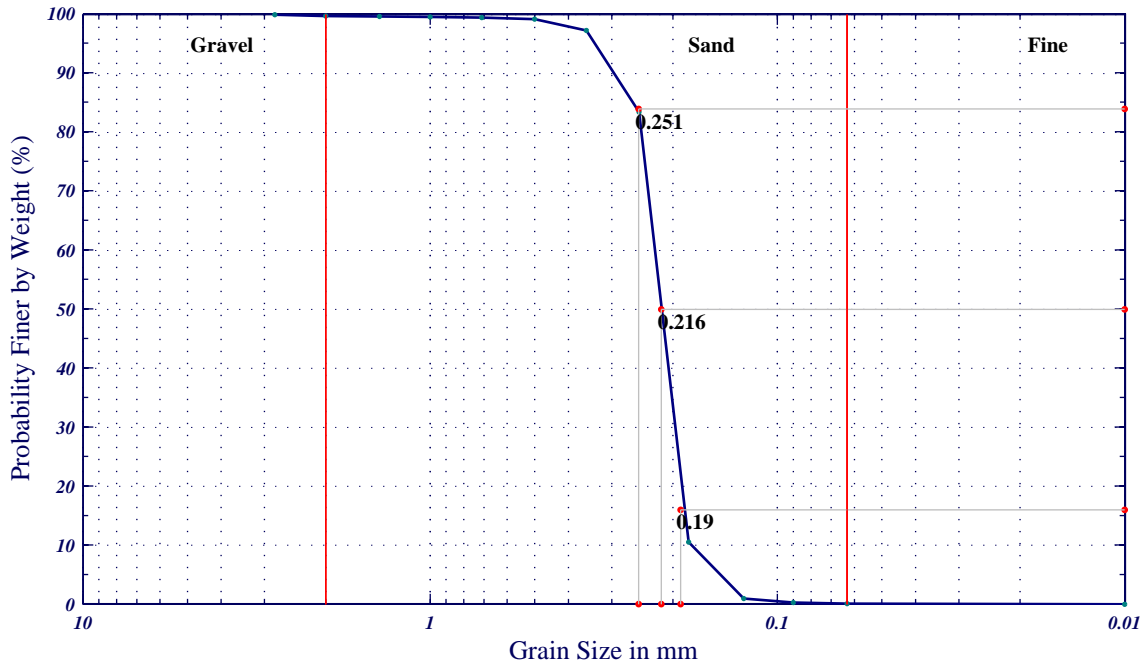
Northing: 149,659\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.162	2.626
D10:	0.179	2.482
D16:	0.190	2.396
D25:	0.201	2.315
D30:	0.205	2.286
D50:	0.216	2.211
D60:	0.221	2.178
D75:	0.235	2.089
D84:	0.251	1.994
D95:	0.320	1.644
Mean Grain Size:	0.218	2.200
Standard Deviation:	1.201	-0.264

Percent of Gravel (16mm–2mm): 0.25  
 Percent of Sand (<2mm–0.063mm): 99.45  
 Percent of Fines (<0.063mm): 0.30

**Sample ID: CEC-12-VC-7-4**

Sample Depth: 3.8–4.2ft

Easting: 3,506,519\*

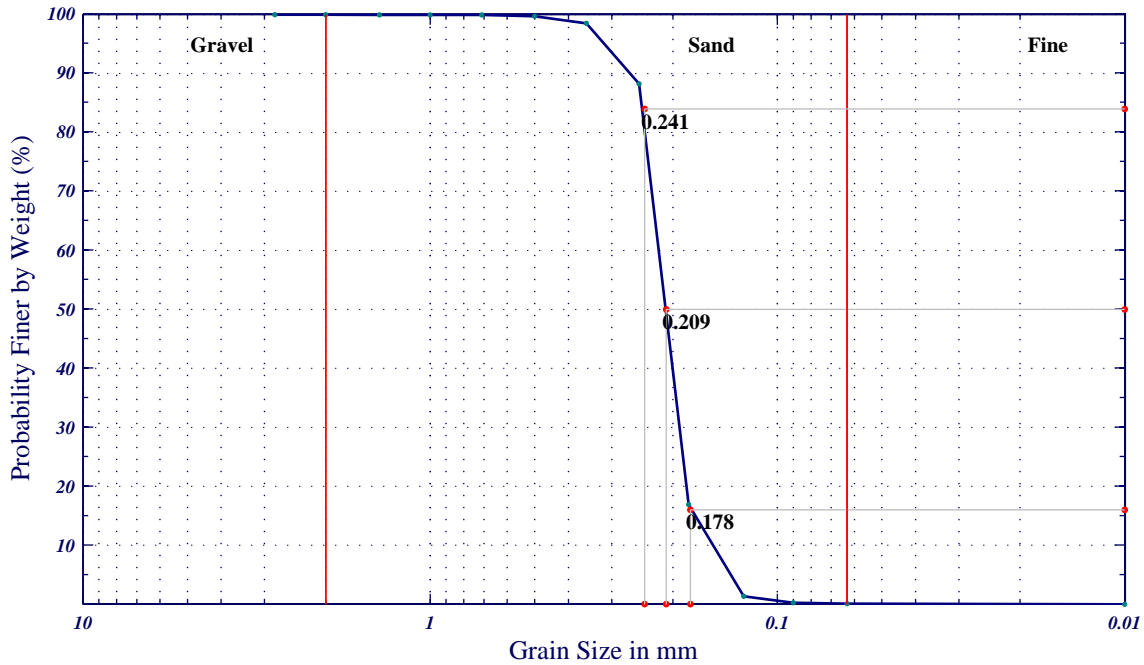
Northing: 149,659\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.149	2.747
D10:	0.168	2.573
D16:	0.178	2.490
D25:	0.192	2.381
D30:	0.197	2.344
D50:	0.209	2.258
D60:	0.214	2.224
D75:	0.227	2.139
D84:	0.241	2.053
D95:	0.291	1.781
Mean Grain Size:	0.208	2.267
Standard Deviation:	1.206	-0.270

Percent of Gravel (16mm–2mm): 0.02  
 Percent of Sand (<2mm–0.063mm): 99.75  
 Percent of Fines (<0.063mm): 0.24

**Sample ID: CEC-12-VC-7-6**

Sample Depth: 5.8–6.2ft

Easting: 3,506,519\*

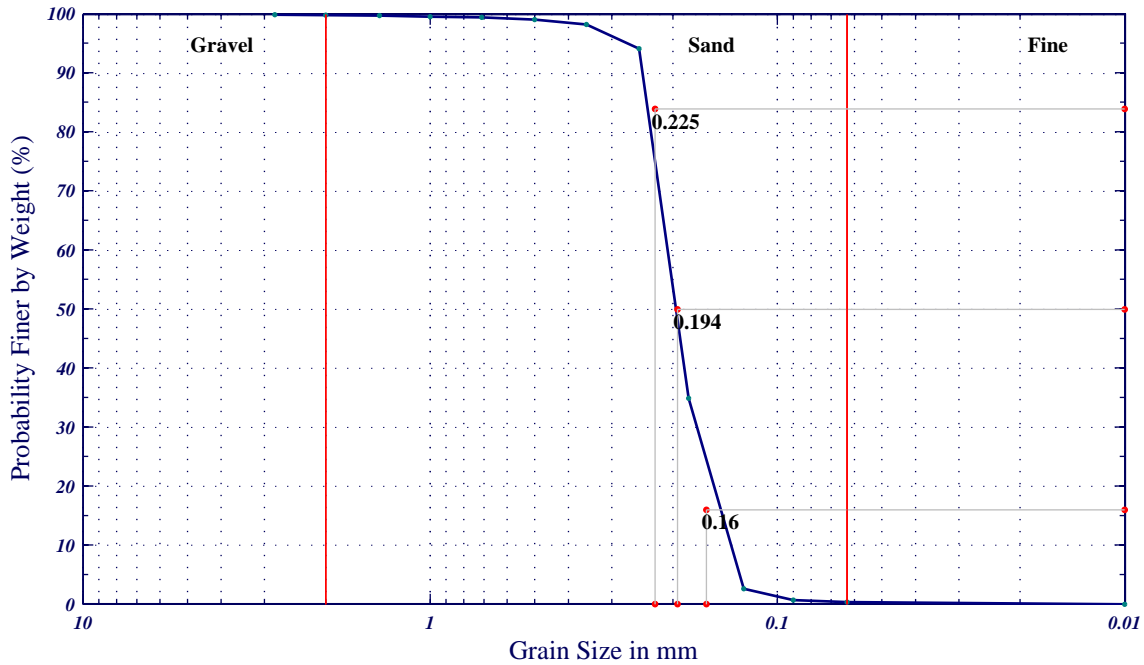
Northing: 149,659\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



<b>Sieve Analysis Results: (mm) (phi)</b>		
D5:	0.134	2.900
D10:	0.149	2.747
D16:	0.160	2.644
D25:	0.170	2.556
D30:	0.174	2.523
D50:	0.194	2.366
D60:	0.200	2.322
D75:	0.212	2.238
D84:	0.225	2.152
D95:	0.255	1.971
Mean Grain Size:	0.191	2.387
Standard Deviation:	1.212	-0.278

Percent of Gravel (16mm–2mm): 0.11  
 Percent of Sand (<2mm–0.063mm): 99.21  
 Percent of Fines (<0.063mm): 0.68

**Sample ID: CEC-12-VC-7-8**

Sample Depth: 7.8–8.2ft

Easting: 3,506,519\*

Northing: 149,659\*

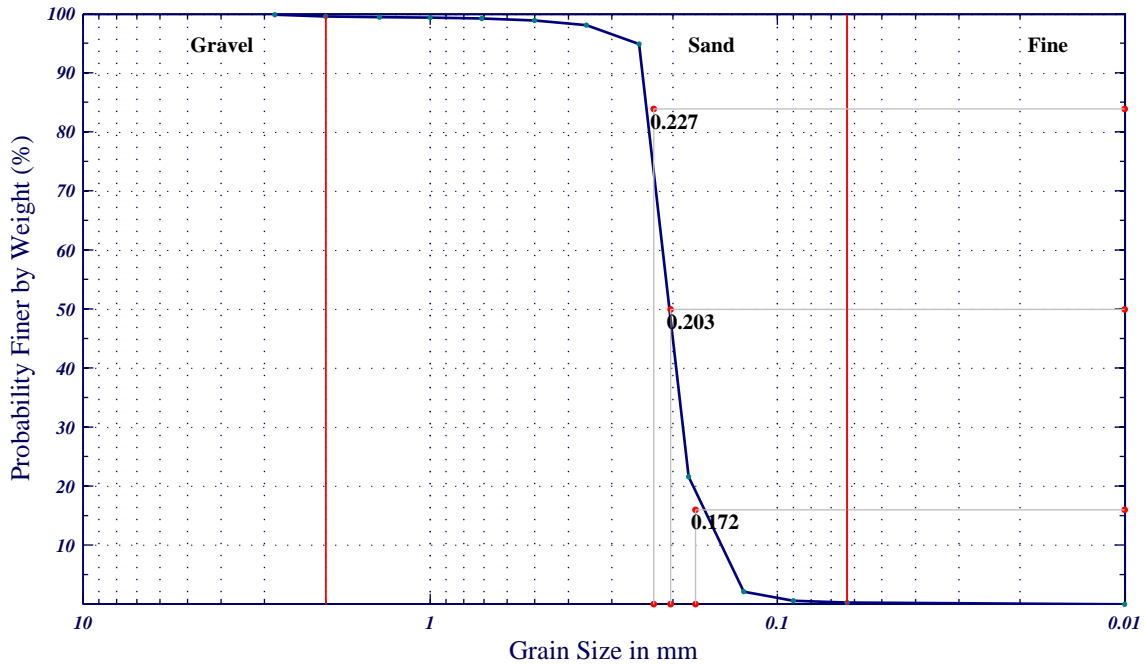
\*Coordinates are feet, LA-1702

OSI No.: 12ES018





**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.141	2.826
D10:	0.160	2.644
D16:	0.172	2.540
D25:	0.185	2.434
D30:	0.191	2.388
D50:	0.203	2.300
D60:	0.206	2.279
D75:	0.216	2.211
D84:	0.227	2.139
D95:	0.250	2.000
Mean Grain Size:	0.199	2.326
Standard Deviation:	1.179	-0.238

Percent of Gravel (16mm–2mm): 0.32  
 Percent of Sand (<2mm–0.063mm): 99.12  
 Percent of Fines (<0.063mm): 0.57

**Sample ID: CEC-12-VC-7-10**

Sample Depth: 9.8–10.2ft

Easting: 3,506,519\*

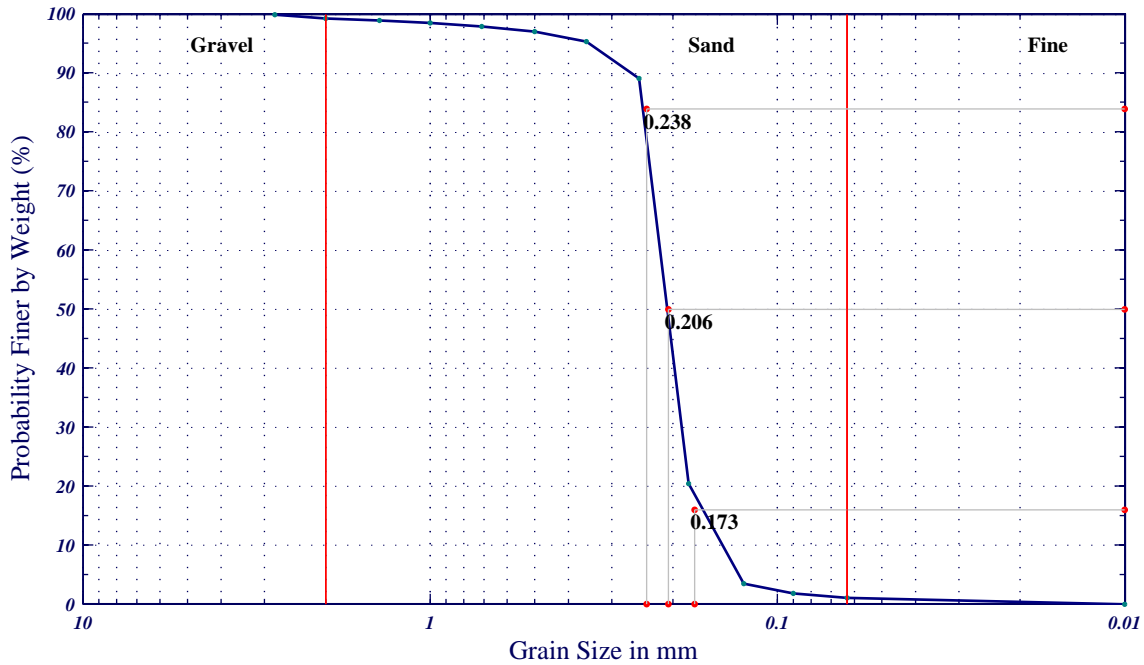
Northing: 149,659\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.135	2.889
D10:	0.158	2.662
D16:	0.173	2.531
D25:	0.187	2.419
D30:	0.193	2.373
D50:	0.206	2.279
D60:	0.211	2.245
D75:	0.224	2.158
D84:	0.238	2.071
D95:	0.341	1.552
Mean Grain Size:	0.204	2.294
Standard Deviation:	1.264	-0.338

Percent of Gravel (16mm–2mm): 0.65  
 Percent of Sand (<2mm–0.063mm): 97.52  
 Percent of Fines (<0.063mm): 1.84

**Sample ID: CEC-12-VC-7-12**

Sample Depth: 11.8–12.2ft

Easting: 3,506,519\*

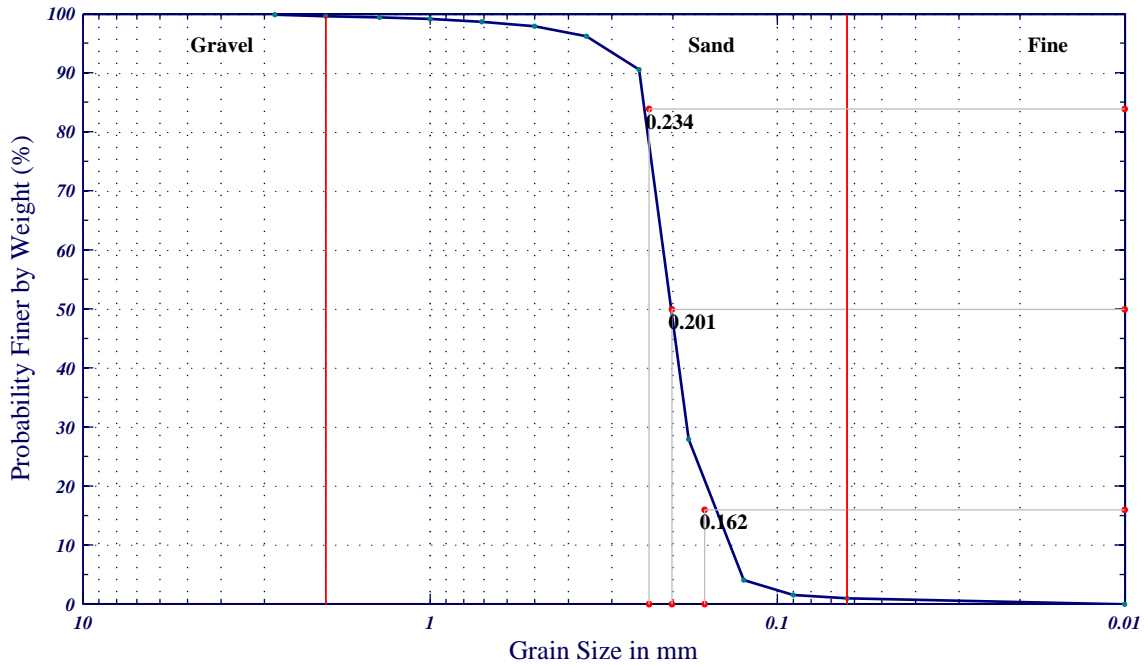
Northing: 149,659\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.129	2.955
D10:	0.148	2.756
D16:	0.162	2.626
D25:	0.176	2.506
D30:	0.183	2.450
D50:	0.201	2.315
D60:	0.206	2.279
D75:	0.219	2.191
D84:	0.234	2.095
D95:	0.315	1.667
Mean Grain Size:	0.197	2.345
Standard Deviation:	1.272	-0.347

Percent of Gravel (16mm–2mm): 0.27  
 Percent of Sand (<2mm–0.063mm): 98.16  
 Percent of Fines (<0.063mm): 1.58

**Sample ID: CEC-12-VC-7-14**

Sample Depth: 13.8–14.2ft

Easting: 3,506,519\*

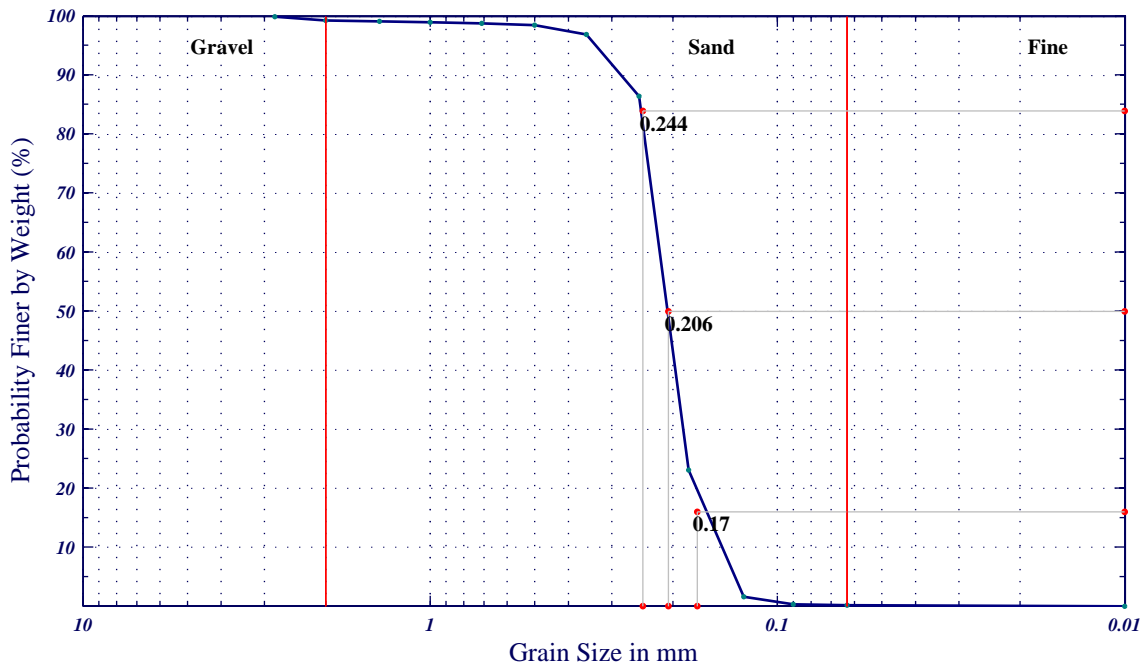
Northing: 149,659\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.143	2.806
D10:	0.160	2.644
D16:	0.170	2.556
D25:	0.183	2.450
D30:	0.190	2.396
D50:	0.206	2.279
D60:	0.212	2.238
D75:	0.228	2.133
D84:	0.244	2.035
D95:	0.317	1.657
Mean Grain Size:	0.204	2.290
Standard Deviation:	1.250	-0.322

Percent of Gravel (16mm–2mm): 0.67  
 Percent of Sand (<2mm–0.063mm): 99.00  
 Percent of Fines (<0.063mm): 0.33

**Sample ID: CEC-12-VC-8-0**

Sample Depth: 0.0–0.4ft

Easting: 3,509,050\*

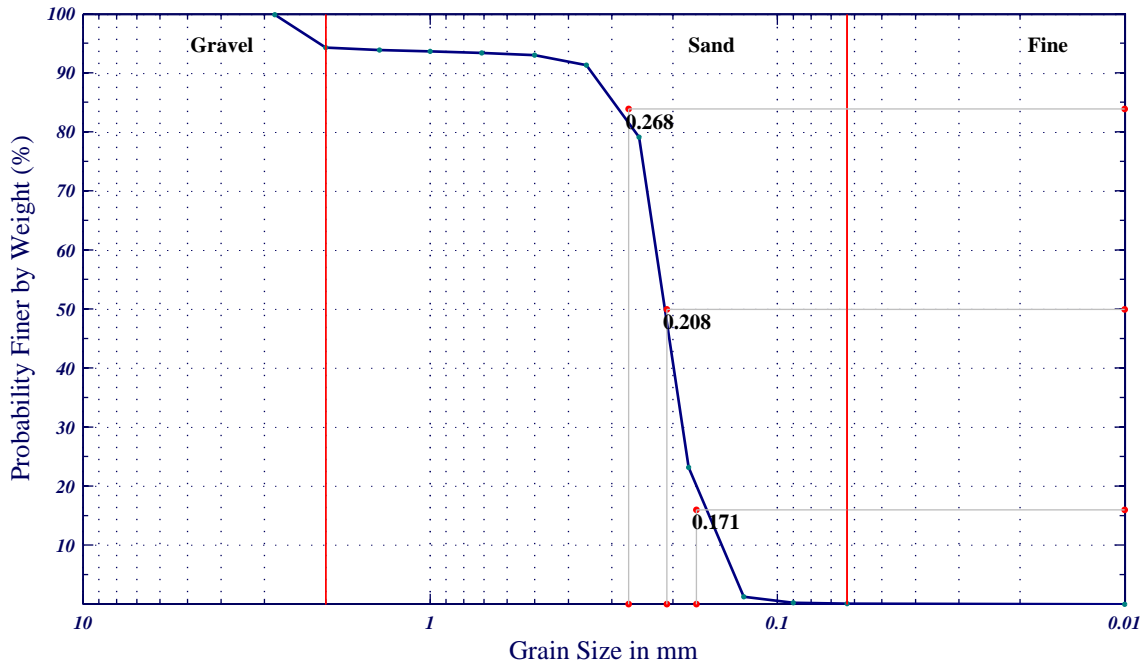
Northing: 150,295\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.145	2.786
D10:	0.161	2.635
D16:	0.171	2.548
D25:	0.183	2.450
D30:	0.190	2.396
D50:	0.208	2.265
D60:	0.217	2.204
D75:	0.240	2.059
D84:	0.268	1.900
D95:	2.194	-1.134
Mean Grain Size:	0.212	2.238
Standard Deviation:	1.760	-0.815

Percent of Gravel (16mm–2mm): 5.61  
 Percent of Sand (<2mm–0.063mm): 94.14  
 Percent of Fines (<0.063mm): 0.25

**Sample ID: CEC-12-VC-8-2**

Sample Depth: 1.8–2.2ft

Easting: 3,509,050\*

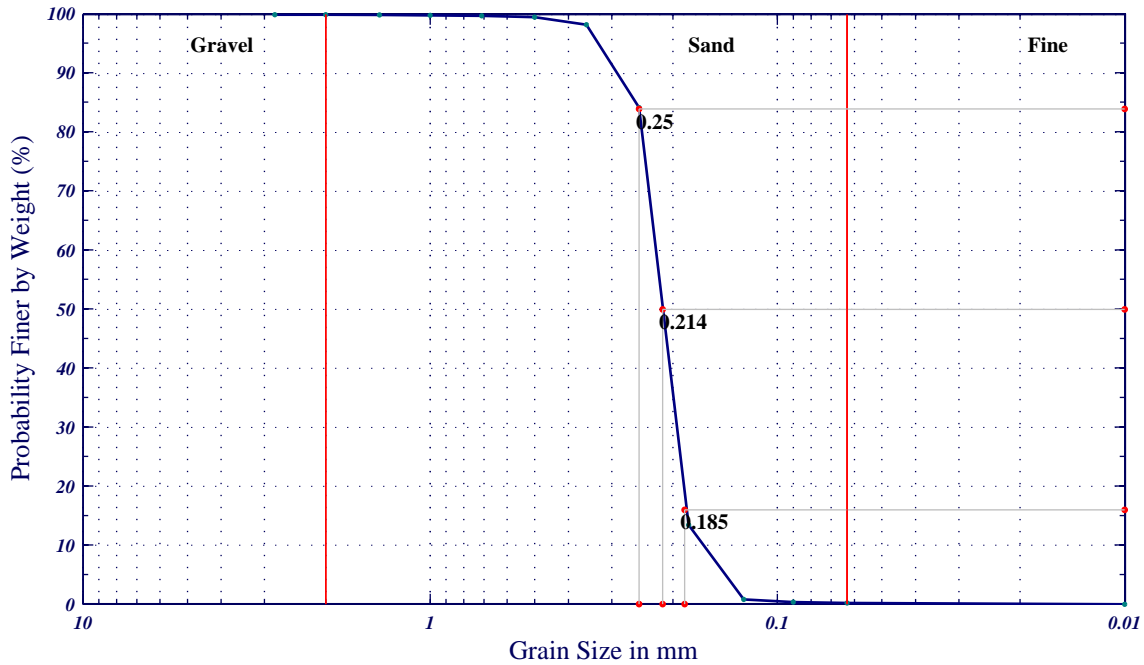
Northing: 150,295\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.159	2.653
D10:	0.174	2.523
D16:	0.185	2.434
D25:	0.197	2.344
D30:	0.202	2.308
D50:	0.214	2.224
D60:	0.219	2.191
D75:	0.234	2.095
D84:	0.250	2.000
D95:	0.306	1.708
Mean Grain Size:	0.215	2.220
Standard Deviation:	1.202	-0.266

Percent of Gravel (16mm–2mm): 0.03  
 Percent of Sand (<2mm–0.063mm): 99.61  
 Percent of Fines (<0.063mm): 0.35

**Sample ID: CEC-12-VC-8-4**

Sample Depth: 3.8–4.2ft

Easting: 3,509,050\*

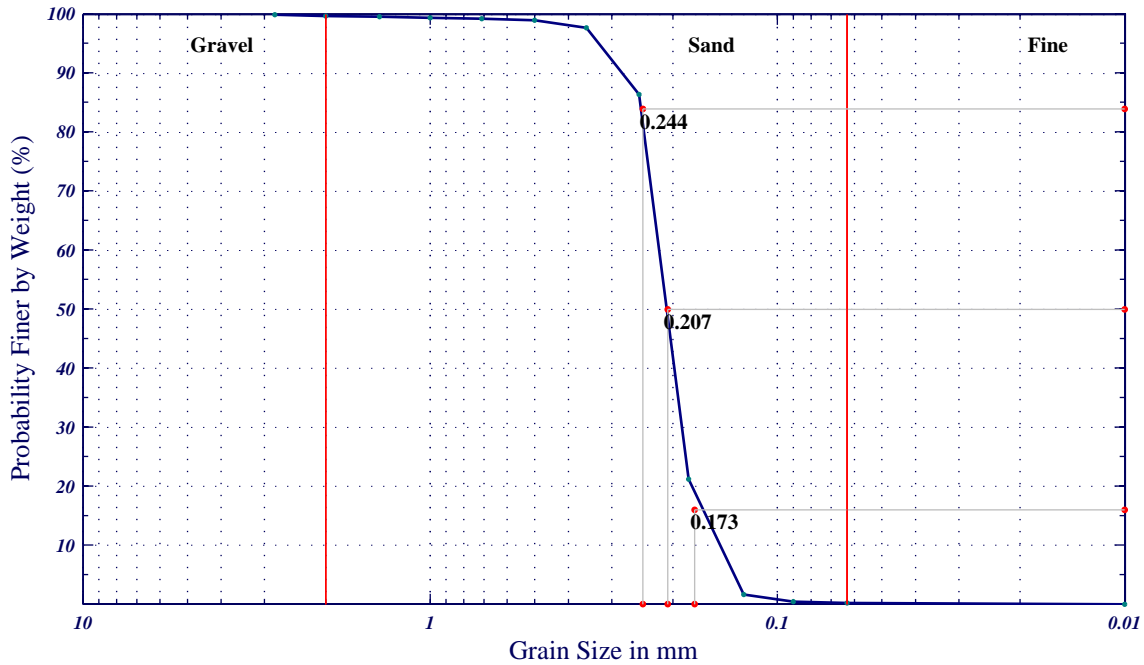
Northing: 150,295\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.144	2.796
D10:	0.162	2.626
D16:	0.173	2.531
D25:	0.186	2.427
D30:	0.192	2.381
D50:	0.207	2.272
D60:	0.213	2.231
D75:	0.229	2.127
D84:	0.244	2.035
D95:	0.306	1.708
Mean Grain Size:	0.206	2.280
Standard Deviation:	1.236	-0.305

Percent of Gravel (16mm–2mm): 0.25  
 Percent of Sand (<2mm–0.063mm): 99.29  
 Percent of Fines (<0.063mm): 0.45

**Sample ID: CEC-12-VC-8-6**

Sample Depth: 5.8–6.2ft

Easting: 3,509,050\*

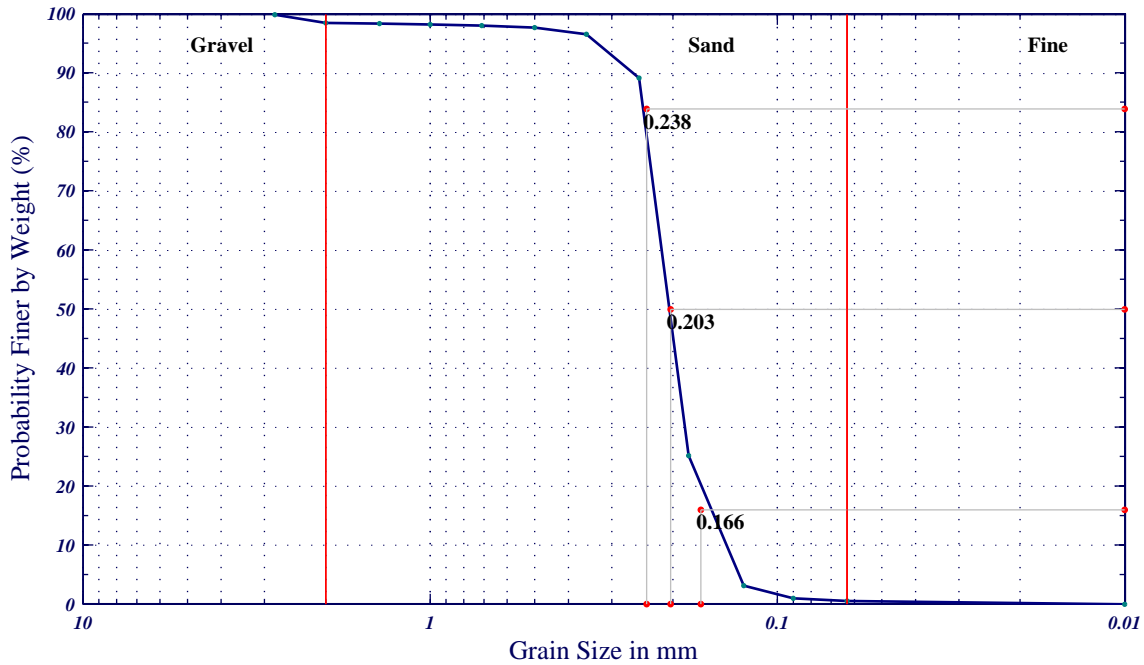
Northing: 150,295\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



**Sieve Analysis Results: (mm) (phi)**

D5:	0.134	2.900
D10:	0.153	2.708
D16:	0.166	2.591
D25:	0.180	2.474
D30:	0.187	2.419
D50:	0.203	2.300
D60:	0.209	2.258
D75:	0.223	2.165
D84:	0.238	2.071
D95:	0.310	1.690
Mean Grain Size:	0.200	2.321
Standard Deviation:	1.258	-0.332

Percent of Gravel (16mm–2mm): 1.40  
 Percent of Sand (<2mm–0.063mm): 97.60  
 Percent of Fines (<0.063mm): 1.01

**Sample ID: CEC-12-VC-8-8**

Sample Depth: 7.8–8.2ft

Easting: 3,509,050\*

Northing: 150,295\*

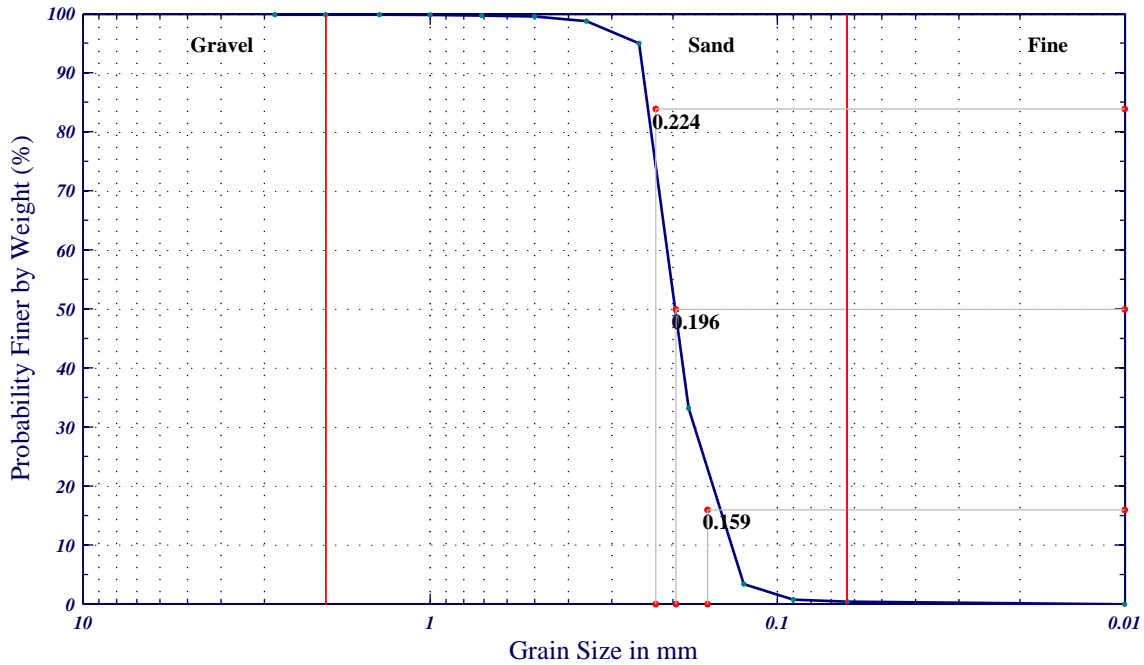
\*Coordinates are feet, LA-1702

OSI No.: 12ES018





**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.131	2.932
D10:	0.147	2.766
D16:	0.159	2.653
D25:	0.170	2.556
D30:	0.176	2.506
D50:	0.196	2.351
D60:	0.201	2.315
D75:	0.212	2.238
D84:	0.224	2.158
D95:	0.250	2.000
Mean Grain Size:	0.191	2.387
Standard Deviation:	1.213	-0.279

Percent of Gravel (16mm–2mm): 0.01  
 Percent of Sand (<2mm–0.063mm): 99.21  
 Percent of Fines (<0.063mm): 0.78

**Sample ID: CEC-12-VC-8-10**

Sample Depth: 9.8–10.2ft

Easting: 3,509,050\*

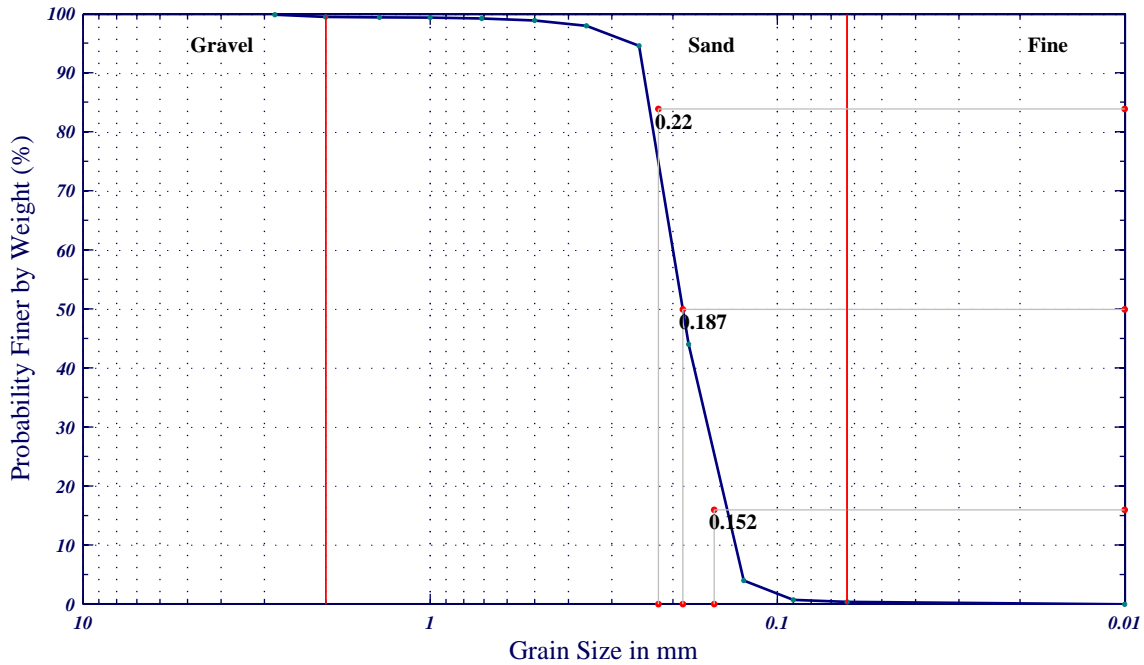
Northing: 150,295\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.128	2.966
D10:	0.141	2.826
D16:	0.152	2.718
D25:	0.162	2.626
D30:	0.166	2.591
D50:	0.187	2.419
D60:	0.194	2.366
D75:	0.206	2.279
D84:	0.220	2.184
D95:	0.252	1.989
Mean Grain Size:	0.184	2.440
Standard Deviation:	1.228	-0.296

Percent of Gravel (16mm–2mm): 0.41  
 Percent of Sand (<2mm–0.063mm): 98.86  
 Percent of Fines (<0.063mm): 0.73

**Sample ID: CEC-12-VC-8J-10**

Sample Depth: 9.8–10.2ft

Easting: 3,509,050\*

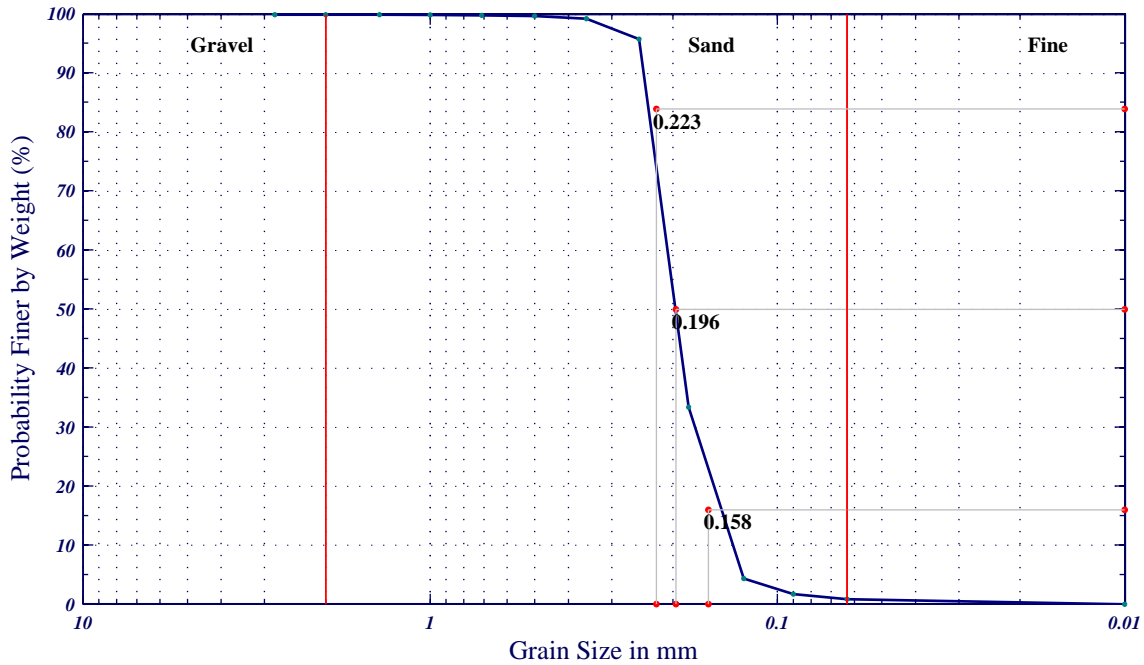
Northing: 150,295\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.128	2.966
D10:	0.145	2.786
D16:	0.158	2.662
D25:	0.170	2.556
D30:	0.176	2.506
D50:	0.196	2.351
D60:	0.201	2.315
D75:	0.211	2.245
D84:	0.223	2.165
D95:	0.248	2.012
Mean Grain Size:	0.190	2.393
Standard Deviation:	1.217	-0.283

Percent of Gravel (16mm–2mm): 0.01  
 Percent of Sand (<2mm–0.063mm): 98.29  
 Percent of Fines (<0.063mm): 1.70

**Sample ID: CEC-12-VC-8J-12**

Sample Depth: 11.8–12.2ft

Easting: 3,509,050\*

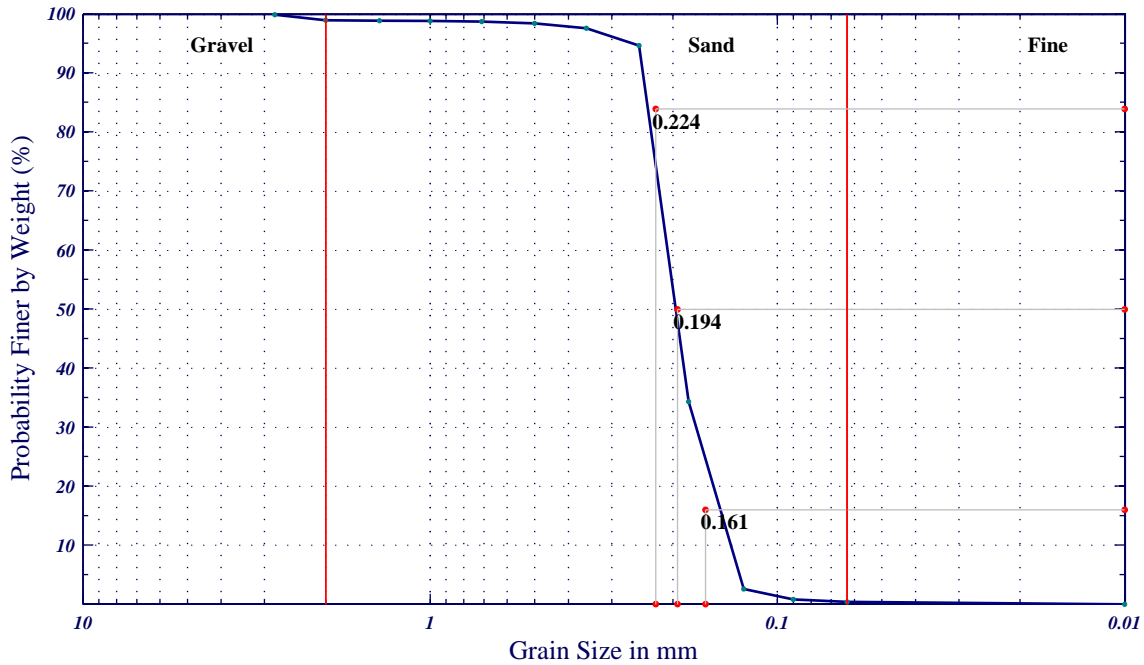
Northing: 150,295\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



<b>Sieve Analysis Results:</b>		
	<b>(mm)</b>	<b>(phi)</b>
D5:	0.134	2.900
D10:	0.149	2.747
D16:	0.161	2.635
D25:	0.170	2.556
D30:	0.175	2.515
D50:	0.194	2.366
D60:	0.200	2.322
D75:	0.211	2.245
D84:	0.224	2.158
D95:	0.251	1.994
Mean Grain Size:	0.191	2.386
Standard Deviation:	1.206	-0.270

Percent of Gravel (16mm–2mm): 0.96  
 Percent of Sand (<2mm–0.063mm): 98.23  
 Percent of Fines (<0.063mm): 0.81

**Sample ID: CEC-12-VC-8J-14**

Sample Depth: 13.8–14.2ft

Easting: 3,509,050\*

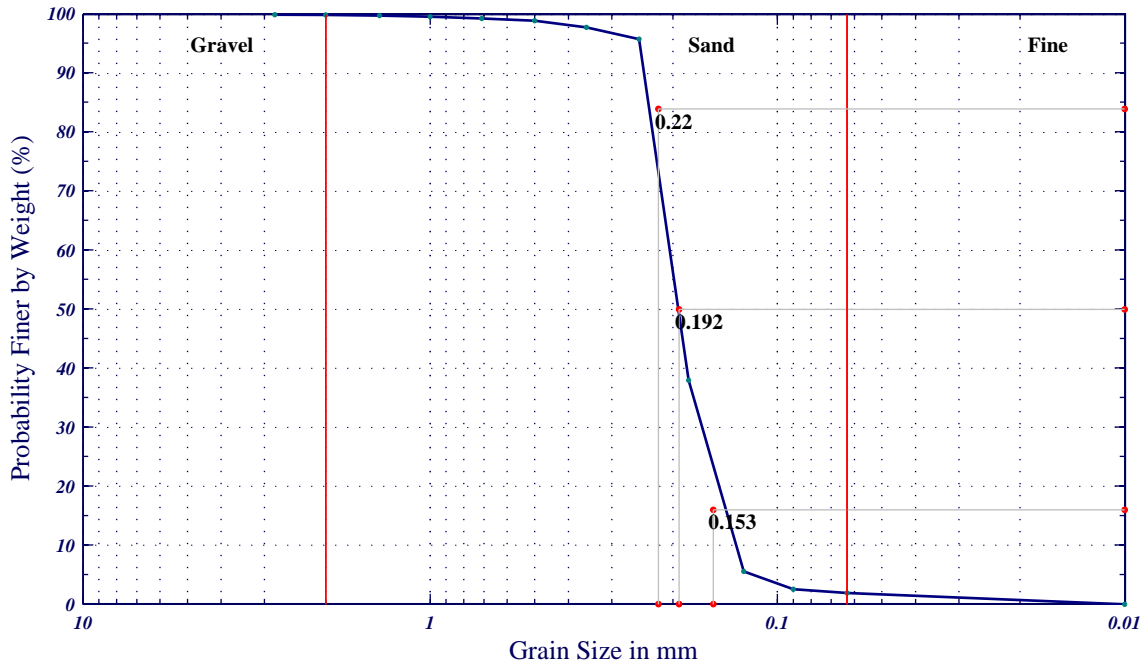
Northing: 150,295\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.122	3.035
D10:	0.139	2.847
D16:	0.153	2.708
D25:	0.166	2.591
D30:	0.171	2.548
D50:	0.192	2.381
D60:	0.197	2.344
D75:	0.207	2.272
D84:	0.220	2.184
D95:	0.247	2.017
Mean Grain Size:	0.186	2.425
Standard Deviation:	1.232	-0.301

Percent of Gravel (16mm–2mm): 0.06  
 Percent of Sand (<2mm–0.063mm): 97.40  
 Percent of Fines (<0.063mm): 2.55

**Sample ID: CEC-12-VC-8J-16**

Sample Depth: 15.8–16.2ft

Easting: 3,509,050\*

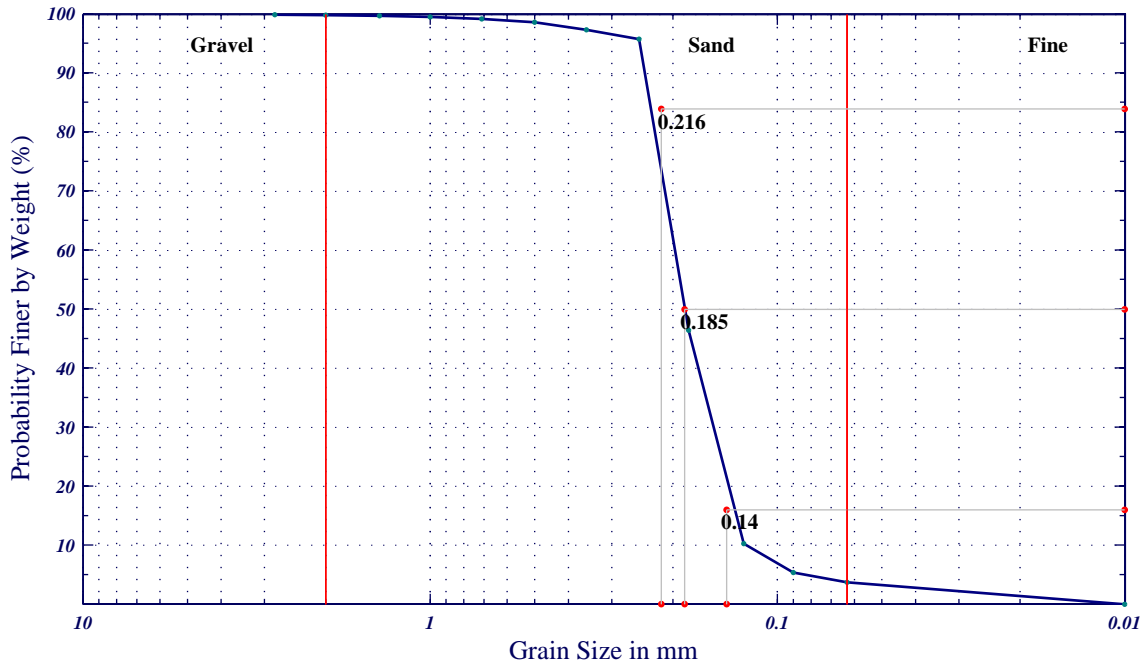
Northing: 150,295\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.085	3.556
D10:	0.124	3.012
D16:	0.140	2.837
D25:	0.155	2.690
D30:	0.161	2.635
D50:	0.185	2.434
D60:	0.193	2.373
D75:	0.203	2.300
D84:	0.216	2.211
D95:	0.247	2.017
Mean Grain Size:	0.178	2.494
Standard Deviation:	1.331	-0.413

Percent of Gravel (16mm–2mm): 0.08  
 Percent of Sand (<2mm–0.063mm): 94.56  
 Percent of Fines (<0.063mm): 5.36

**Sample ID: CEC-12-VC-8J-18**

Sample Depth: 17.8–18.2ft

Easting: 3,509,050\*

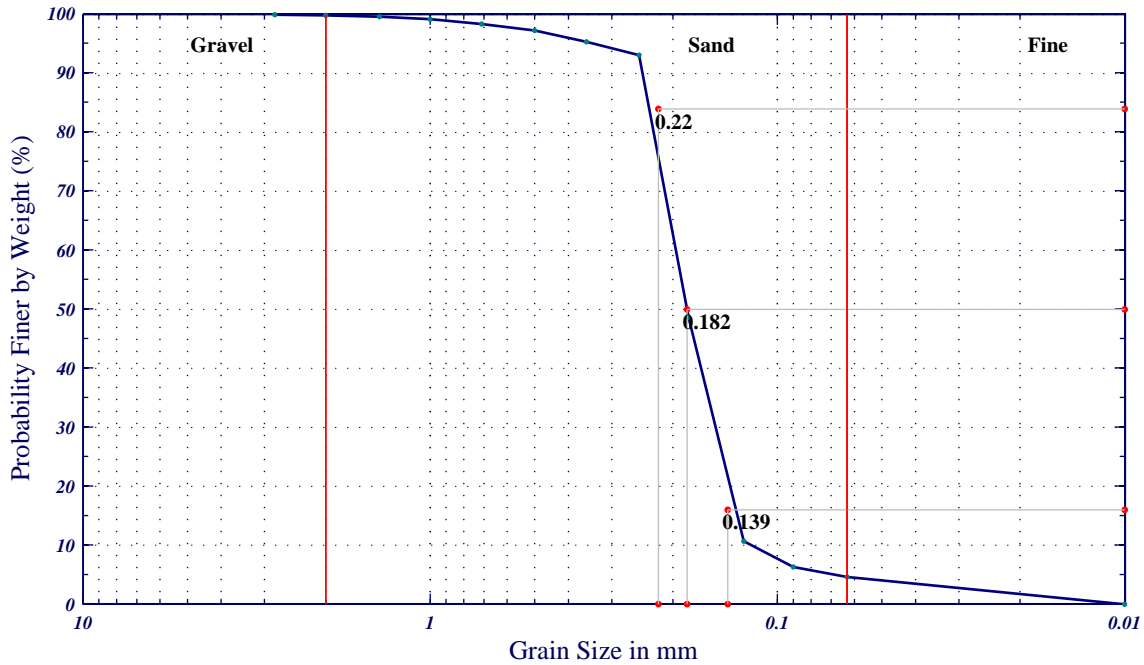
Northing: 150,295\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018



**CEC Ship Shoal 2012 Cores – CAM II  
Caminada Headland Beach and Dune Restoration Project  
Grain Size Distribution–Cumulative Probability Curve**



Sieve Analysis Results:	(mm)	(phi)
D5:	0.069	3.857
D10:	0.122	3.035
D16:	0.139	2.847
D25:	0.154	2.699
D30:	0.160	2.644
D50:	0.182	2.458
D60:	0.192	2.381
D75:	0.204	2.293
D84:	0.220	2.184
D95:	0.332	1.591
Mean Grain Size:	0.177	2.496
Standard Deviation:	1.457	-0.543

Percent of Gravel (16mm–2mm): 0.13  
 Percent of Sand (<2mm–0.063mm): 93.54  
 Percent of Fines (<0.063mm): 6.33

**Sample ID: CEC-12-VC-8J-19**

Sample Depth: 18.8–19.1ft

Easting: 3,509,050\*

Northing: 150,295\*

\*Coordinates are feet, LA-1702

OSI No.: 12ES018

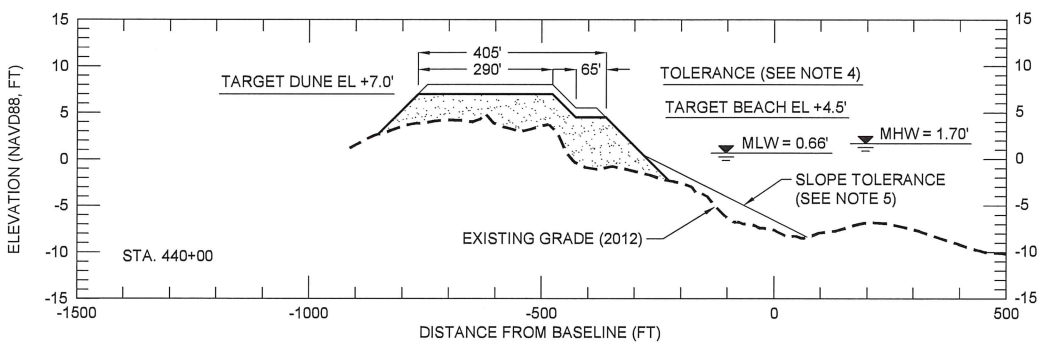
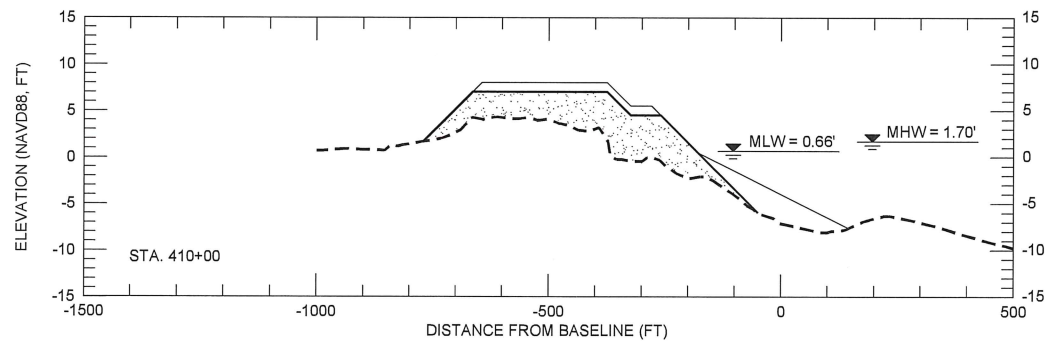
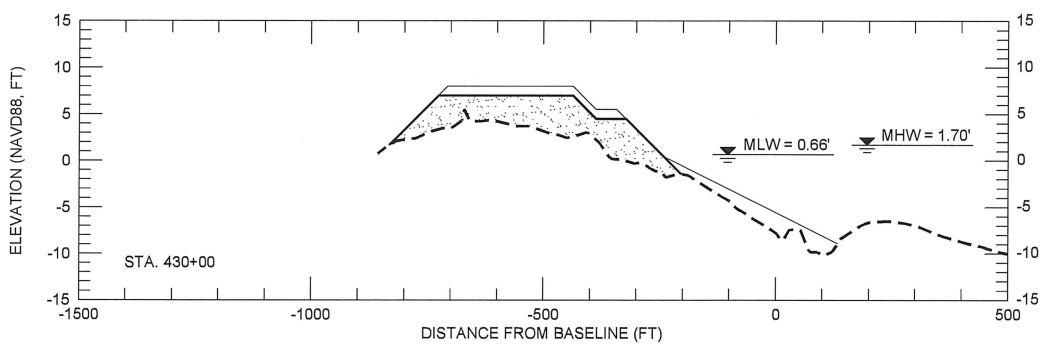
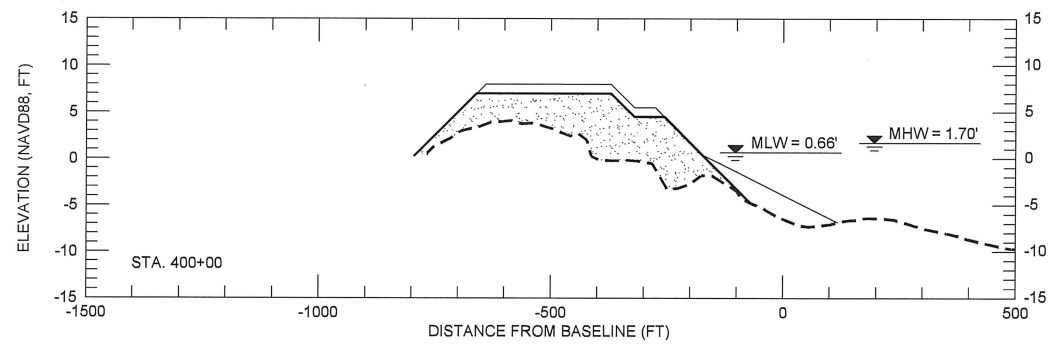
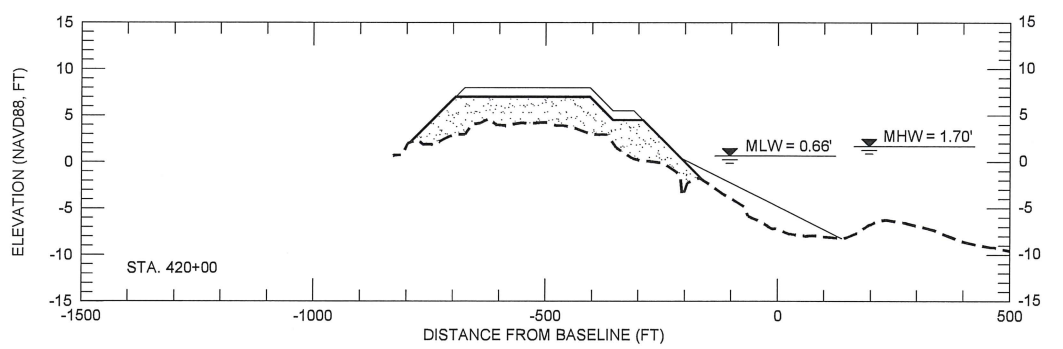
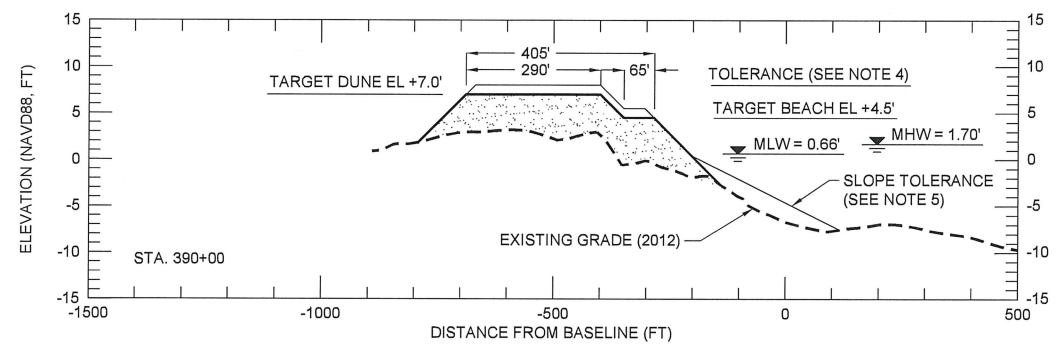


**ATTACHMENT C**

Revised Construction Plans Sheets



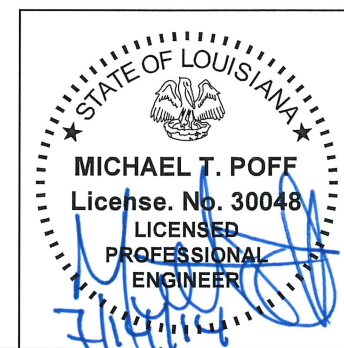
SCALE:  
H: 1" = 400'  
V: 1" = 20'



LEGEND:  
 INCREMENT II BEACH / DUNE FILL  
 - - - EXISTING GRADE (2012)  
 — DESIGN  
 — CONSTRUCTION TOLERANCE (SEE NOTE 4)

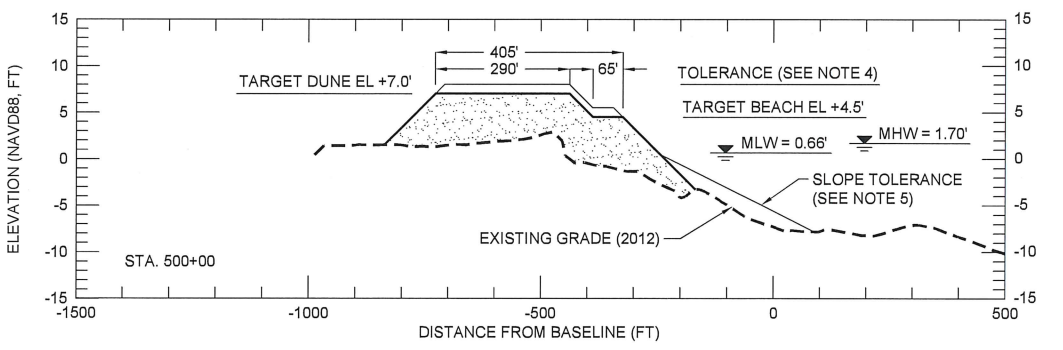
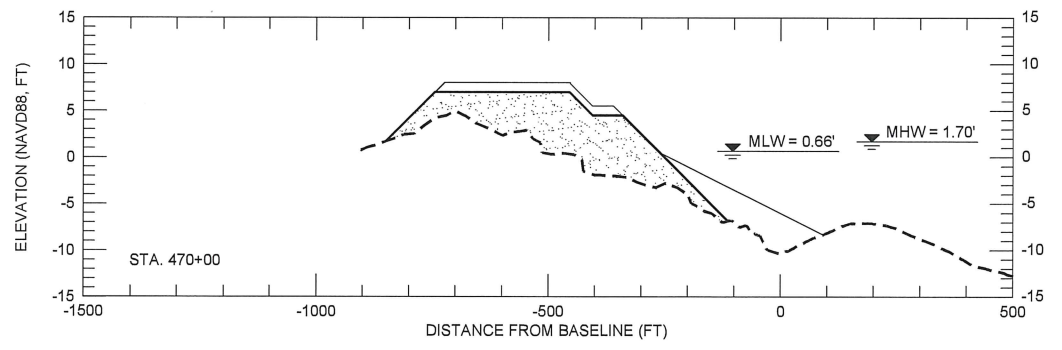
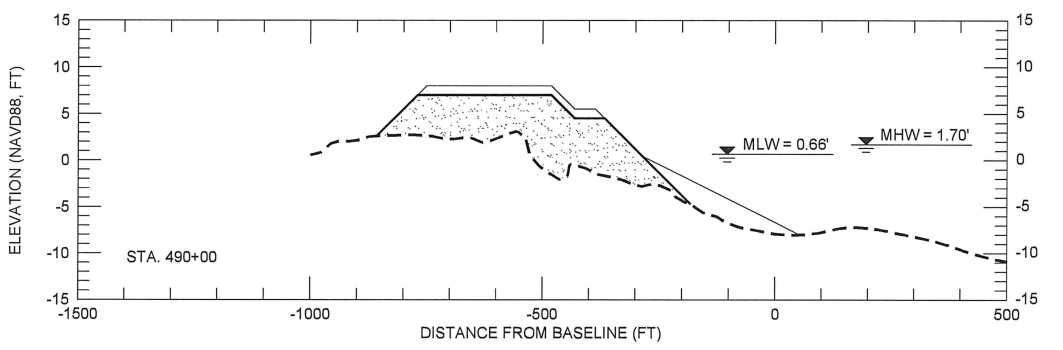
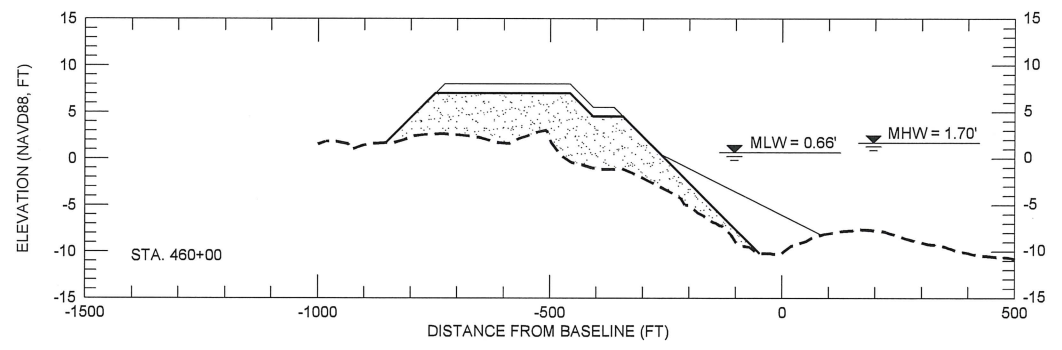
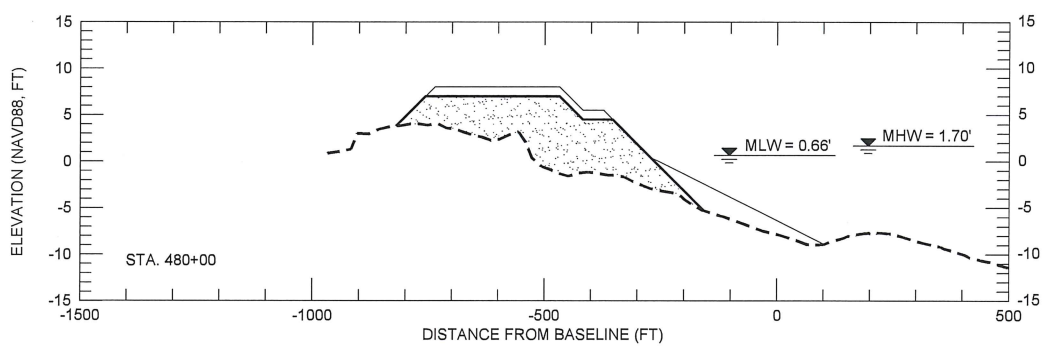
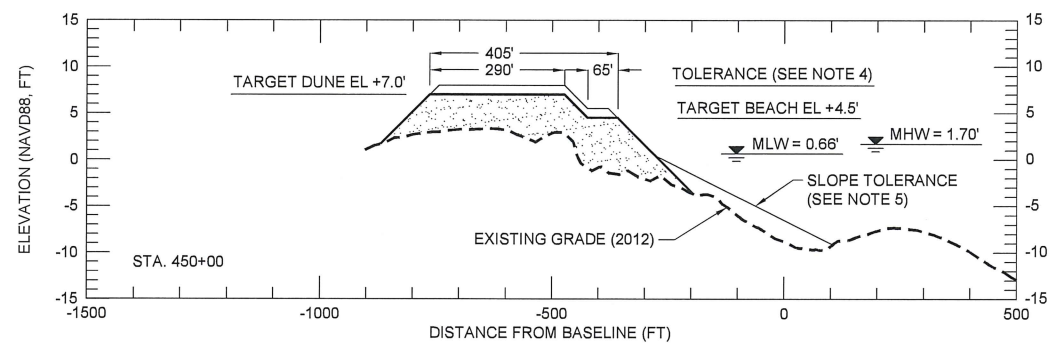
NOTES:

1. SECTIONS ARE VIEWED AS LOOKING EAST.
2. SURVEY CONDUCTED BY EMC INC., 2012.
3. ALL SLOPES 1V:20H UNLESS OTHERWISE DESIGNATED.
4. A PLUS ONE FOOT TOLERANCE IS INCLUDED TO ACCOUNT FOR CONSTRUCTION METHODS AND CONSOLIDATION/SETTLEMENT OF THE FILL.
5. CONSTRUCTION SLOPE TOLERANCE OF 1V:40H PROVIDED FROM MEAN LOW WATER SEAWARD.



				<b>COASTAL ENGINEERING CONSULTANTS, INC.</b> PH: (225) 768-1982 FAX: (225) 769-3596 5745 ESSEN LANE, SUITE 200 BATON ROUGE, LA 70810	<b>LOUISIANA COASTAL PROTECTION AND RESTORATION AUTHORITY</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		CAMINADA HEADLAND BEACH AND DUNE RESTORATION - INCREMENT II STATE PROJECT NUMBER: BA-143 FEDERAL PROJECT NUMBER:		FILL AREA CROSS SECTIONS STATION 390+00 TO 440+00		
01	7/14/2014	ADDENDUM 04	MTP		DRAWN BY: STEVE DARTEZ	DESIGNED BY: MICHAEL T. POFF, P.E.	APPROVED BY: CATHERINE RICKS, P.E.	DATE: MARCH 2014	SHEET 33 OF 42		
REV.	DATE	DESCRIPTION	BY								

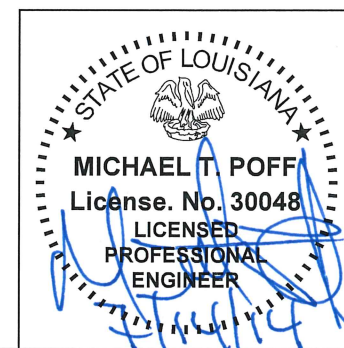
SCALE:  
H: 1" = 400'  
V: 1" = 20'



LEGEND:  
 INCREMENT II BEACH / DUNE FILL  
 - - - EXISTING GRADE (2012)  
 ——— DESIGN  
 ——— CONSTRUCTION TOLERANCE (SEE NOTE 4)

NOTES:

1. SECTIONS ARE VIEWED AS LOOKING EAST.
2. SURVEY CONDUCTED BY EMC INC., 2012.
3. ALL SLOPES 1V:20H UNLESS OTHERWISE DESIGNATED.
4. A PLUS ONE FOOT TOLERANCE IS INCLUDED TO ACCOUNT FOR CONSTRUCTION METHODS AND CONSOLIDATION/SETTLEMENT OF THE FILL.
5. CONSTRUCTION SLOPE TOLERANCE OF 1V:40H PROVIDED FROM MEAN LOW WATER SEAWARD.



				<b>COASTAL ENGINEERING CONSULTANTS, INC.</b> PH: (225) 768-1982 FAX: (225) 769-3596 5745 ESSEN LANE, SUITE 200 BATON ROUGE, LA 70810	<b>LOUISIANA COASTAL PROTECTION AND RESTORATION AUTHORITY</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		CAMINADA HEADLAND BEACH AND DUNE RESTORATION - INCREMENT II STATE PROJECT NUMBER: BA-143 FEDERAL PROJECT NUMBER:		FILL AREA CROSS SECTIONS STATION 450+00 TO 550+00 DATE: MARCH 2014		
01	70/14/2014	ADDENDUM 04	MTP		DRAWN BY: STEVE DARTEZ	DESIGNED BY: MICHAEL T. POFF, P.E.	APPROVED BY: CATHERINE RICKS, P.E.	SHEET 34 OF 42			
REV.	DATE	DESCRIPTION	BY								