A Preliminary Report to the U.S. Coast Guard

Characterization of Sediments from the Gulf of Mexico and Atlantic Shorelines, Texas to Florida

By John T. Lisle and Norris N. Comer

Open-File Report 2011–1199

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Suggested citation:
Lisle, J.T., and Comer, N.N., 2011, Characterization of sediments from the Gulf of Mexico and Atlantic shorelines, Texas to Florida: U.S. Geological Survey Open File Report 2011-1199, xxp.

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Characterization of Sediments from the Gulf of Mexico and Atlantic Shorelines, Texas to Florida

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Abstract

In response to the *Deepwater Horizon* oil spill, sediment samples that were projected to have a high probability of being impacted by the oil were collected from shoreline zones of Texas, Louisiana, Mississippi, Alabama, and Florida. Sixty-one sites were sampled and analyzed for hydraulic conductivity, porosity, and grain-size distribution. The objective of this effort was to provide a set of baseline data on sediment characteristics known to directly influence (1) the penetration of oil into coastal sediments and (2) the efficacy of chemical and (or) bioremediation.

Introduction

From April 20 to July 15, 2010, approximately 4.4 million barrels of crude oil from the *Deepwater Horizon* oil rig discharged into the Gulf of Mexico (Crone and Tolstoy, 2010). The oil, classified as Macondo-1, was estimated to cover 68,000 square miles as a surface-water layer (Amos, 2010). In response to this spill and before oil associated with the spill made landfall, the U.S. Geological Survey (USGS) collected surficial beach and coastal sediments at 61 sites along the coasts of Texas, Louisiana, Mississippi, Alabama, and Florida for standard sedimentological characterization. Sites were selected to include various shoreline types—for example, sandy beaches, wetlands, marshes, and barrier islands. The purpose of this project was to establish baseline characterization data.

Data presented in this report include porosity, hydraulic conductivity, and particle-size distribution for 61 samples. Collectively, these data can provide insight into how deep oil will penetrate into the sediments and the proficiency of bioremediation by naturally occurring microbial populations. For example, sandy shorelines that are characterized as having low organic content, moderately low total porosities, and high hydraulic conductivities have been shown to rapidly and efficiently degrade low to moderate concentrations of crude oils without nutrient and (or) oxygen augmentation (Kvenvolden and Cooper, 2003). These elevated degradation rates are due to the water containing adequate concentrations of oxygen and nutrients to facilitate microbial degradation of the crude oil. The water is driven into and flushed out of the pore spaces of the sediments by wave action.

On the contrary, in salt marshes and coastal areas where wave action is low and the organic content of the respective sediment systems is high, the microbial communities are larger and oxygen concentrations are low to anaerobic. These types of sediment systems are generally characterized as having moderately high total porosities and low hydraulic conductivities due to the presence of smaller organic and inorganic particles that occlude the interconnected (effective) pore spaces. Accordingly, the water that interacts with these sediment systems cannot supply enough nutrients or oxygen to facilitate rapid or efficient oil degradation by the natural microbial communities. Oil remediation efforts for sediment systems like those in salt marshes and those with low to no oxygen may require the addition of nutrient solutions and (or) aeration to increase the oxygen concentrations.

The data in this report can be used as a guideline for the design of remediation plans for coastal areas that have been impacted by crude oil. The data can also be used by regulatory agencies for monitoring the progress of oil remediation, if required.

Methods

Sampling

Shoreline sediments were collected from 61 sites (table 1 and fig. 1) that had been identified as locations with a high probability of being impacted by oil released from the *Deepwater Horizon* oil spill in the Gulf of Mexico. These sites had not been contaminated with Macondo-1 oil at the time of their sampling. Samples were collected from May 7 to June 16, 2010, along the Gulf of Mexico shorelines in Texas, Louisiana, Mississippi, and Alabama and the Gulf of Mexico and Atlantic shorelines of Florida. Replicate samples were collected from the following sites: TX-51 (3 replicates), LA-23 (3 replicates), LA-25 (2 replicates), LA-26 (2 replicates), LA-31 (3 replicates), MS-45 (3 replicates), AL-2 (3 replicates), FL-7 (2 replicates), FL-11 (3 replicates), FL-16 (3 replicates), FL-18 (2 replicates), and FL-21 (3 replicates). The fine sediment particles in the samples from Lake Felicity (LA-24), Point Chevreuil (LA-28), and the Mississippi River at Main Pass (LA-32) prevented accurate readings for porosity and hydraulic conductivity. Data from these sites are excluded from this report.

All samples were collected, processed, and shipped as described in the USGS National Field Manual for the Collection of Water-Quality Data (NFM) (http://pubs.water.usgs.gov/twri9A/) and Sampling Protocol for Post-Landfall *Deepwater Horizon* Oil Release, Gulf of Mexico, 2010 (http://pubs.usgs.gov/of/2010/1191/) (Wilde and others, 2010). This set of manuals includes all of the protocols and methods that ensured sample integrity, consistency, and data reliability for the entire project.

Sample Processing and Storage

Samples were stored at -80°C until ready for processing. Each sample was subsampled by breaking off a portion of the frozen sample into a dish and heating at 40°C until dry. The dried samples were used for all analyses described in this report.

Sediment Porosity

Sediment porosity is the quantification of the open or pore space in sediment (table 2). The larger the porosity value, the greater the quantity of water the sediment can retain (total porosity) or potentially transmit (effective porosity). A sediment-column device was designed to retain a sediment sample without losing material while allowing water to be injected via a syringe portal in the base of the column. The design allows the up-flow introduction of water into the sediment and gravity to drain the injected water. The percent total porosity of each sample was calculated using the following equation:

$$(V_i / V_s) \times 100 \qquad (1)$$

where V_i is the volume of water injected into the sediment column (milliliters, mL) and V_s is the volume of the sediment sample (mL).

A second type of porosity, effective porosity, was quantified for each sample using the same column device (table 2). Effective porosity represents the interconnectred pore spaces in a sediment or rock matrix. Hydrophobic and (or) electrostatic-interaction forces retain water in the smaller-size pores between sediment particles.

After the volume of injected water was recorded for the porosity determination, the water in the sediment column was allowed to drain. The discharged water was collected and the volume measured. The syringe was reattached to the base of the sediment column and used to forcibly draw air through the

column, thereby extracting residual water from the sediment. The percent effective porosity of each sample was calculated using the following equation:

$$[(V_i - V_g - V_e) / V_s] \times 100 \qquad (2)$$

where V_i is the volume of water injected into the sediment column (mL), V_g is the volume of water drained from the column by gravity (mL), V_e is the volume of water extracted from the column by the syringe, and V_s is the volume of the sediment sample (mL).

Sediment Hydraulic Conductivity

Hydraulic conductivity (K) is the rate at which water moves through the pore spaces in rocks or sediments. The hydraulic conductivity of each sediment sample (table 2) was quantified using a constant-head permeameter. This type of permeameter is preferred for the determination of porosity in noncohesive sediments, such as sands and friable rocks. Constant-head permeameters provide a constant hydraulic head while maintaining a steady-state flow rate through the sediment sample (Fetter, 1988). The hydraulic conductivity was calculated using the following equation that describes Darcy's Law:

$$K = (Q \times L) / (A \times t \times h) \qquad (3)$$

where

Q is the volume of water discharging from the sediment column in the permeameter (cubic centimeters, cm^3),

L is the length of the sample in the permeameter (centimeters, cm),

A is the cross-sectional area of the sample in the permeameter (squared centimeters, cm^2),

t is the time interval used to collect water discharging from the permeameter (seconds, s),

h is the hydraulic head above the sediment column (cm), and

K is the hydraulic conductivity (centimeters per second, cm/s).

The volume of water (Q) discharging from the permeameter during a 60- s (t) period was collected and weighed in a preweighed glass flask (F_t). The flask was weighed a second time (F_w) for a total weight (grams, g). The mass of the collected water was converted to volume using the following equation:

$$Q = (F_w - F_t) \times (\text{cm}^3 / 1 \text{ g}) \quad (4)$$

The cross-sectional areas (A) of the sediment samples in the permeameter were constant at 33.16 cm^2. Three hydraulic-head (h) values were used for each sample: 95 cm, 115 cm, and 135 cm. The hydraulic-conductivity values listed in table 2 are averages of the three assessments.

Grain-Size Analysis

Sediment samples from the hydraulic-conductivity assessments were retained and used to determine grain-size distributions. Each sample was prepared by first passing it through a 1-millimeter (mm) screen sieve. The sediment material that passed through the sieve was processed for analyses using a Beckman Coulter LS™ 200 laser-diffraction particle-size analyzer equipped with a variable-speed fluid module. The analyzer was operated and sample manipulations performed as recommended by the manufacturer.

The raw data for the particle-size distributions were exported from the analyzer and used to calculate the grain-size distributions using the GRADISTAT program (Blott and Pye, 2001). GRADISTAT uses the data from the particle analyses to calculate a series of statistical metrics. Sediment grain-size distributions are generally categorized into four groups, based on measurements of (1) mean particle size, (2) distribution of particle sizes around the mean, (3) skewness of the distribution relative to the mean, and (4) kurtosis of the distribution relative to the mean. GRADISTAT uses two methods to generate data needed for determining these measurements. The first one is the “method of

moments" (Krumbein and Pettijohn, 1938; Friedman and Johnson, 1982), which is relatively accurate but can be negatively influenced by sediment particle sizes that lie in the tails of the distributions. The other method is that of Folk and Ward (1957), which is insensitive to sediment particle sizes that would be considered outliers and therefore fall in the tails of the distributions. The pertinent statistics calculated include the means, mode(s), standard deviations (sorting), skewness, kurtosis, and a range of cumulative sediment particle grain-size rankings based on percentile values. GRADISTAT uses the "method of moments" approach to calculate these statistics arithmetically, geometrically, and logarithmically, as described by Krumbein and Pettijohn (1938). The logarithmic approach produces summary data in the more familiar units of phi (Φ), which is preferred by sedimentologists. The data from the arithmetic and geometric calculations are in micrometers (μm), a unit commonly used by nonsedimentologists. Specific data from the "method of moments" analyses are used in the method of Folk and Ward (1957) to calculate the same summary statistics geometrically (μm) and logarithmically (Φ). These statistical metrics are also related to a descriptive interpretation of the sediment particle-size distributions using a modified Udden-Wentworth grade scale (Udden, 1914; Wentworth, 1922). All of these statistics are presented in an output that also includes a histogram of sediment particle-size distributions based on both measures of particle diameter (Φ and μm). The statistics and histogram for each sediment sample are included in the appendix.

Acknowledgments

The USGS funded this pre-impact sampling and analytical study. Additional funding was provided by the U.S. Coast Guard. We thank Chris Reich, Jim Flocks and John Watson for thoughtful reviews of the manuscript, as they improved the report. We thank also Barbara Lidz and Heather Schreppel for editorial and technical support and Matthew Streubert for generating the map resources.

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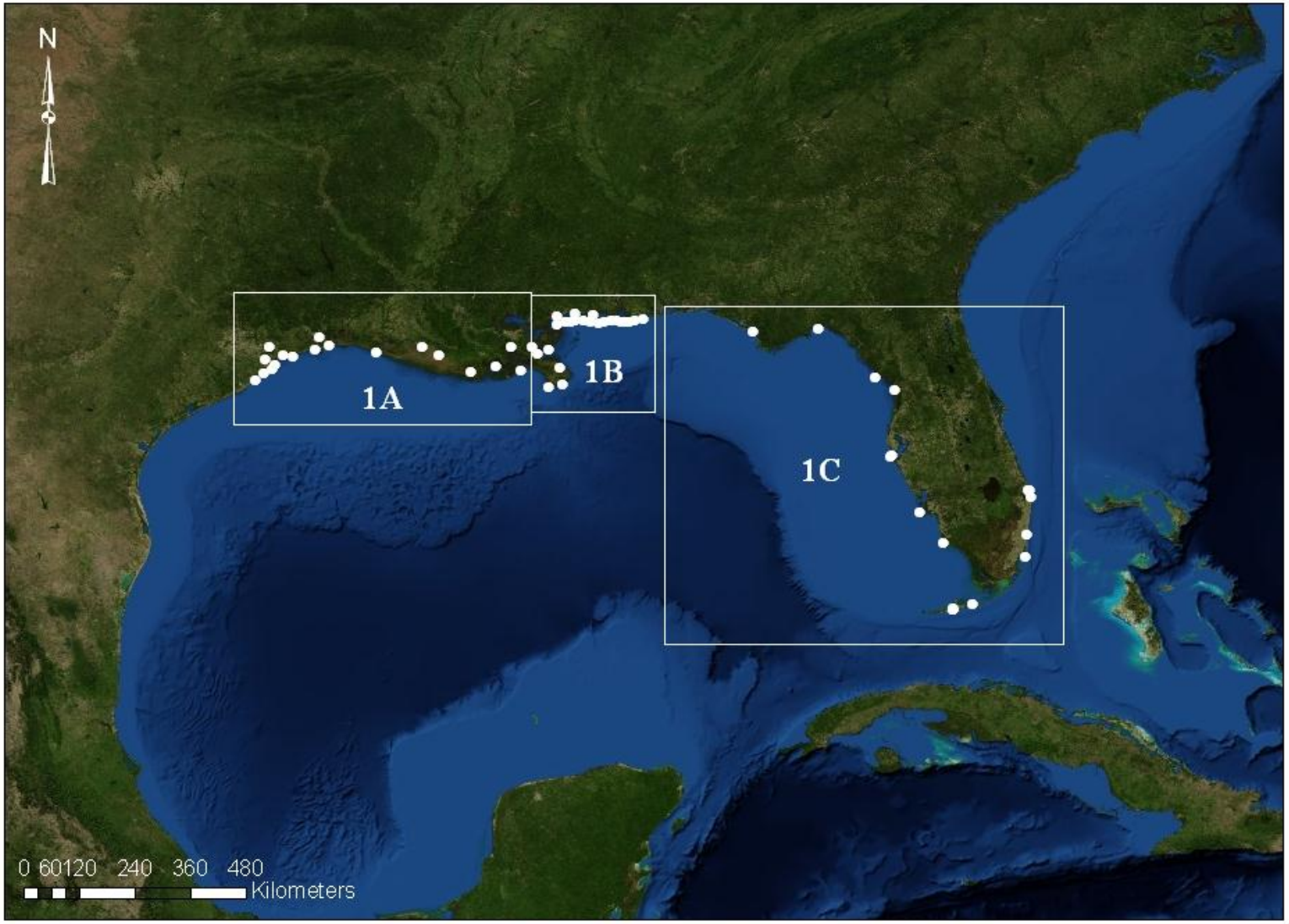


Figure 1. Sample sites, Gulf of Mexico and Atlantic shorelines.

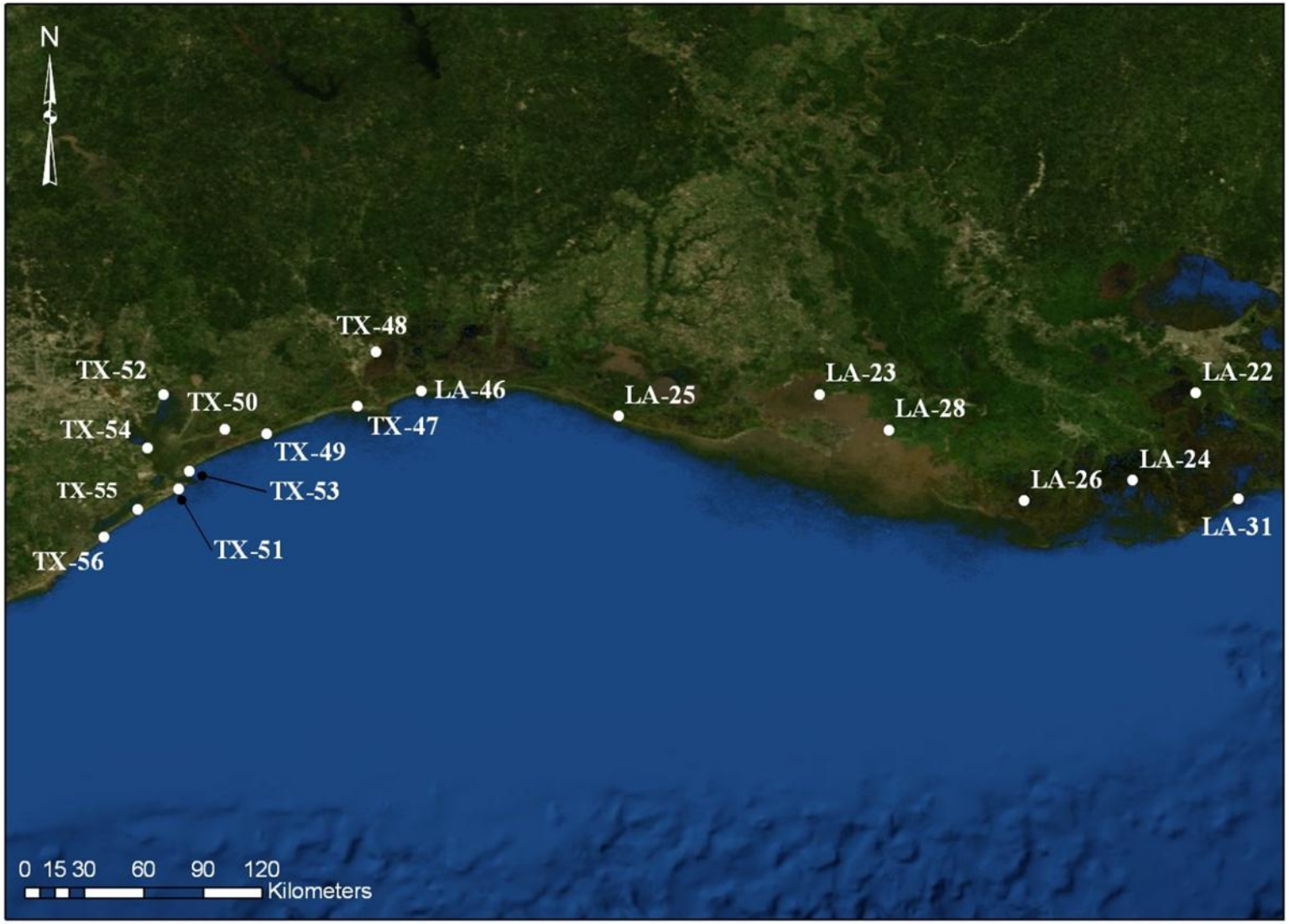


Figure 1A. Sample sites, Gulf of Mexico and Atlantic shorelines, Texas to Louisiana.

Figure 1B. Sample sites, Gulf of Mexico and Atlantic shorelines, Louisiana to Alabama.

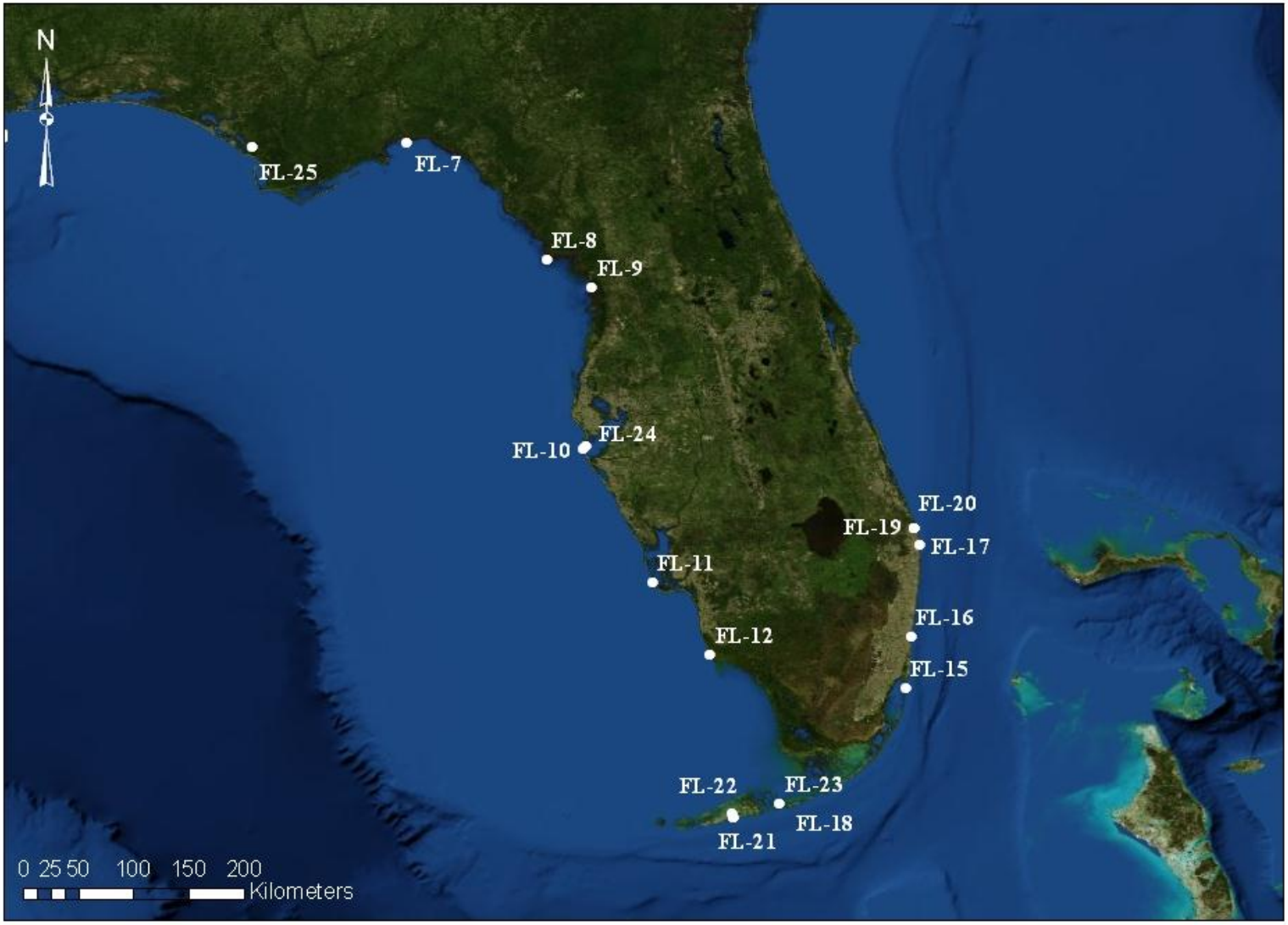


Figure 1C. Sample sites, Gulf of Mexico and Atlantic shorelines, Florida.

Table 1. Sediment samples, Gulf of Mexico and Atlantic shorelines.

Map Site Label	Sample Site Name	Latitude	Longitude	Sample Date
		(decimal degrees)		
TX-47	Texas Point	29.682500	-93.956389	5/10/10
TX-48	Sabine Lake	29.928333	-93.871389	5/10/10
TX-49	High Island	29.556667	-94.368333	5/10/10
TX-50	East Bay near Anahuac	29.574722	-94.555833	5/10/10
TX-51	Galveston Island	29.304167	-94.769444	5/10/10
TX-52	Trinity Bay near Beach City	29.735556	-94.836389	5/11/10
TX-53	Bolivar Peninsula	29.388333	-94.719167	5/11/10
TX-54	Galveston Bay near Eagle Point	29.493611	-94.911111	5/11/10
TX-55	West Bay, Galveston Island State Park	29.214167	-94.953889	5/11/10
TX-56	San Luis Pass	29.086667	-95.108611	5/11/10
LA-22	Jean Lafitte National Park	29.742222	-90.141944	5/14/10
LA-23	Cypremort Point	29.735000	-91.853611	5/13/10
LA-24	Lake Felicity	29.346111	-90.429167	5/18/10
LA-25	Rockefeller Refuge Beach	29.635556	-92.767222	5/13/10
LA-26	Sister Lake	29.251944	-90.921667	5/17/10
LA-28	Point Chevreuil	29.573333	-91.537778	5/13/10
LA-29	Crooked Bayou	29.723333	-89.723611	5/18/10
LA-30	Mississippi River Gulf Outlet	29.685556	-89.395833	5/7/10
LA-31	Grand Isle Beach State Park	29.260278	-89.950278	5/10/10
LA-32	Mississippi River at Main Pass	29.320556	-89.181944	5/7/10
LA-33	Breton Sound	29.588333	-89.611944	5/7/10
LA-34	Mississippi Sound at Grand Pass	30.151944	-89.245833	5/7/10
LA-35	Mississippi River at South Pass	28.997500	-89.148889	5/7/10
LA-36	Mississippi River at Southwest Pass	28.937500	-89.398889	5/7/10
LA-46	East Sabine	29.748889	-93.663333	5/10/10
MS-37	South Cat Island Beach	30.219167	-89.079722	5/7/10
MS-38	West Ship Island Beach	30.207500	-88.972222	5/7/10
MS-39	East Ship Island Beach	30.232778	-88.892500	5/7/10
MS-40	West Horn Island Beach	30.240278	-88.735000	5/8/10
MS-41	East Horn Island Beach	30.222500	-88.592500	5/8/10
MS-42	Petit Bois Island Beach	30.202222	-88.426667	5/8/10
MS-43	Pass Christian Beach	30.316111	-89.236111	5/8/10
MS-44	Biloxi Beach	30.393333	-88.899444	5/8/10
MS-45	Pascagoula Beach	30.342778	-88.547778	5/8/10
AL-1	West Dauphin Island	30.227425	-88.326300	5/8/10
AL-2	Dauphin Island	30.248815	-88.184168	5/9/10
AL-3	Dauphin Island	30.246870	-88.077777	5/9/10
AL-4	Fort Morgan	30.224926	-88.008330	5/8/10
AL-5	Fort Morgan	30.230481	-87.904438	5/8/10
AL-6	Gulf Shores	30.241314	-87.730265	5/8/10
AL-7	Orange Beach	30.269091	-87.581649	5/8/10

AL-8	BLM Tract 1 at Fort Morgan	30.231593	-87.937772	5/24/10
AL-9	BLM Tract 2 at Fort Morgan	30.228815	-87.867214	5/24/10
AL-10	BLM Tract 3 at Fort Morgan	30.228259	-87.831102	5/24/10
FL-7	St. Marks National Wildlife Refuge near St. Marks	30.074194	-84.180444	5/18/10
FL-8	Piney Point Beach at Cedar Key	29.127750	-83.053361	5/18/10
FL-9	Fort Island Gulf Beach near Chassahowitzka	28.907194	-82.690778	5/19/10
FL-10	Fort DeSoto Park near St. Petersburg	27.624444	-82.738333	5/17/10
FL-11	Captiva Island Beach near Captiva Island	26.525639	-82.194222	5/20/10
FL-12	Tiger Tail Beach at Marco Island	25.936139	-81.734583	5/21/10
FL-15	Bill Baggs Cape, near Key Biscayne	25.667417	-80.155528	6/1/10
FL-16	Lloyd Beach at Ft. Lauderdale	26.081694	-80.109444	5/26/10
FL-17	MacArthur Beach at West Palm Beach	26.822583	-80.038056	5/27/10
FL-18	Coco Plum Beach near Marathon	24.729250	-81.169972	5/24/10
FL-19	BLM Tract 1 near Jupiter Inlet	26.956111	-80.081667	6/16/10
FL-20	BLM Tract 2 near Jupiter Inlet	26.956111	-80.081944	6/16/10
FL-21	BLM Tract 1 near Park Key	24.650556	-81.557500	6/9/10
FL-22	BLM Tract 2 near Sugarloaf Key	24.617500	-81.543611	6/9/10
FL-23	BLM Tract 3 near Sugarloaf Key	24.616667	-81.539722	6/9/10
FL-24	BLM Tract 4 at Egmont Key	27.601389	-82.763611	6/14/10
FL-25	BLM Lathrop Bayou near Panama City	30.038944	-85.435472	6/10/10

Table 2. Hydraulic conductivity and porosity data for sediment samples, Gulf of Mexico and Atlantic shorelines.

Map Site	Sample Site Name	Replicate Samples	Hydraulic Conductivity (+/- SD) (centimeters/second)			Total Porosity (percent)	Effective Porosity (percent)
TX-47	Texas Point	1	0.010300	±	0.0002	42.4	11.6
TX-48	Sabine Lake	1	0.011673	±	0.0006	40.0	12.0
TX-49	High Island	1	0.019474	±	0.0006	32.4	11.6
TX-50	East Bay near Anahuac	1	0.000884	±	0.0001	44.4	16.4
TX-51	Galveston Island	3	0.008900	±	0.0017	45.6	22.0
TX-52	Trinity Bay near Beach City	1	0.016767	±	0.0013	34.0	11.6
TX-53	Bolivar Peninsula	1	0.014417	±	0.0013	42.4	21.6
TX-54	Galveston Bay near Eagle Point	1	0.006923	±	0.0001	46.4	18.8
TX-55	West Bay, Galveston Island State Park	1	0.011588	±	0.0008	41.6	20.4
TX-56	San Luis Pass	1	0.009506	±	0.0004	37.6	18.0
LA-22	Jean Lafitte National Park	1	0.001049	±	0.0000	56.0	13.2
LA-23	Cypremort Point	3	0.019400	±	0.0027	39.2	21.3
LA-24	Lake Felicity	1	*		*	61.8	16.4
LA-25	Rockefeller Refuge Beach	2	0.024200	±	0.0020	64.3	43.7
LA-26	Sister Lake	2	0.014200	±	0.0047	46.0	20.0
LA-28	Point Chevreuil	1	*		*	0.0	0.0
LA-29	Crooked Bayou	1	0.011665	±	0.0012	40.0	15.3
LA-30	Mississippi River Gulf Outlet	1	0.013446	±	0.0009	37.4	11.7
LA-31	Grand Isle Beach at State Park	3	0.007400	±	0.0007	40.0	17.3
LA-32	Mississippi River at Main Pass	1	*		*	38.2	20.0
LA-33	Breton Sound	1	0.004784	±	0.0001	78.0	12.0
LA-34	Mississippi Sound at Grand Pass	1	0.001926	±	0.0003	44.0	5.0
LA-35	Mississippi River at South Pass	1	0.006422	±	0.0004	43.0	19.0
LA-36	Mississippi River at Southwest Pass	1	0.006068	±	0.0006	50.0	25.0
LA-46	East Sabine	1	0.015624	±	0.0014	43.2	19.6
MS-37	South Cat Island Beach	1	0.017651	±	0.0012	48.0	27.2
MS-38	West Ship Island Beach	1	0.016185	±	0.0010	44.4	20.4
MS-39	East Ship Island Beach	1	0.016044	±	0.0016	43.2	22.8
MS-40	West Horn Island Beach	1	0.015219	±	0.0013	47.1	24.3
MS-41	East Horn Island Beach	1	0.020312	±	0.0019	46.8	27.2
MS-42	Petit Bois Island Beach	1	0.018024	±	0.0014	44.0	23.2
MS-43	Pass Christian Beach	1	0.015788	±	0.0014	51.2	24.4
MS-44	Biloxi Beach	1	0.014756	±	0.0008	43.6	21.6
MS-45	Pascagoula Beach	3	0.016560	±	0.0018	39.3	19.0
AL-1	West Dauphin Island	1	0.018490	±	0.0015	46.8	26.8
AL-2	Dauphin Island	3	0.012110	±	0.0016	47.1	25.7

AL-3	Dauphin Island	1	0.011746	±	0.0011	45.0	23.5
AL-4	Fort Morgan	1	0.015191	±	0.0012	48.9	24.9
AL-5	Fort Morgan	1	0.013256	±	0.0014	47.6	28.4
AL-6	Gulf Shores	1	0.015145	±	0.0013	29.4	18.6
AL-7	Orange Beach	1	0.017777	±	0.0011	46.8	27.6
AL-8	BLM Tract 1 at Fort Morgan	1	0.004252	±	0.0005	58.0	28.0
AL-9	BLM Tract 2 at Fort Morgan	1	0.004530	±	0.0005	50.0	34.0
AL-10	BLM Tract 3 at Fort Morgan	1	0.004587	±	0.0004	58.0	34.0
FL-7	St. Marks National Wildlife Refuge near St. Marks	2	0.014000	±	0.0034	42.3	16.3
FL-8	Piney Point Beach at Cedar Key	1	0.013521	±	0.0005	39.2	17.2
FL-9	Fort Island Gulf Beach near Chassahowitzka	1	0.009205	±	0.0006	45.2	20.8
FL-10	Fort DeSoto Park near St. Petersburg	1	0.006520	±	0.0001	40.0	19.0
FL-11	Captiva Island Beach near Captiva	3	0.016200	±	0.0025	40.0	15.1
FL-12	Tiger Tail Beach at Marco Island	1	0.010374	±	0.0008	44.4	22.4
FL-15	Bill Baggs Cape, near Key Biscayne	1	0.005444	±	0.0005	41.4	32.9
FL-16	Lloyd Beach at Ft. Lauderdale	3	0.018200	±	0.0019	48.0	17.2
FL-17	MacArthur Beach at West Palm Beach	1	0.021982	±	0.0020	39.3	20.3
FL-18	Coco Plum Beach near Marathon	2	0.011500	±	0.0040	41.4	7.1
FL-19	BLM Tract 1 near Jupiter Inlet	1	0.013089	±	0.0014	39.2	19.2
FL-20	BLM Tract 2 near Jupiter Inlet	1	0.014421	±	0.0012	38.2	20.0
FL-21	BLM Tract 1 near Park Key	3	0.002560	±	0.0007	52.5	19.2
FL-22	BLM Tract 2 near Sugarloaf Key	1	0.004081	±	0.0002	38.0	11.0
FL-23	BLM Tract 3 near Sugarloaf Key	1	0.004845	±	0.0009	68.0	22.0
FL-24	BLM Tract 4 at Egmont Key	1	0.008716	±	0.0010	46.0	28.0
FL-25	BLM Lathrop Bayou near Panama City	1	0.016923	±	0.0016	52.0	30.4

* Sediment sample too silty and clogged the permeameter.

Appendix. Sample statistics and grainsize distributions for samples collected from the shorelines of Texas, Louisiana, Mississippi, Alabama, and Florida, May 7 to June 16, 2010.

SAMPLE STATISTICS

SAMPLE IDENTITY: **Texas Point, TX-47**

ANALYST & DATE: , 7/23/2010 12:41:00 PM

SAMPLE TYPE: Bimodal, Poorly Sorted

TEXTURAL GROUP: Sand

SEDIMENT NAME: Poorly Sorted Fine Sand

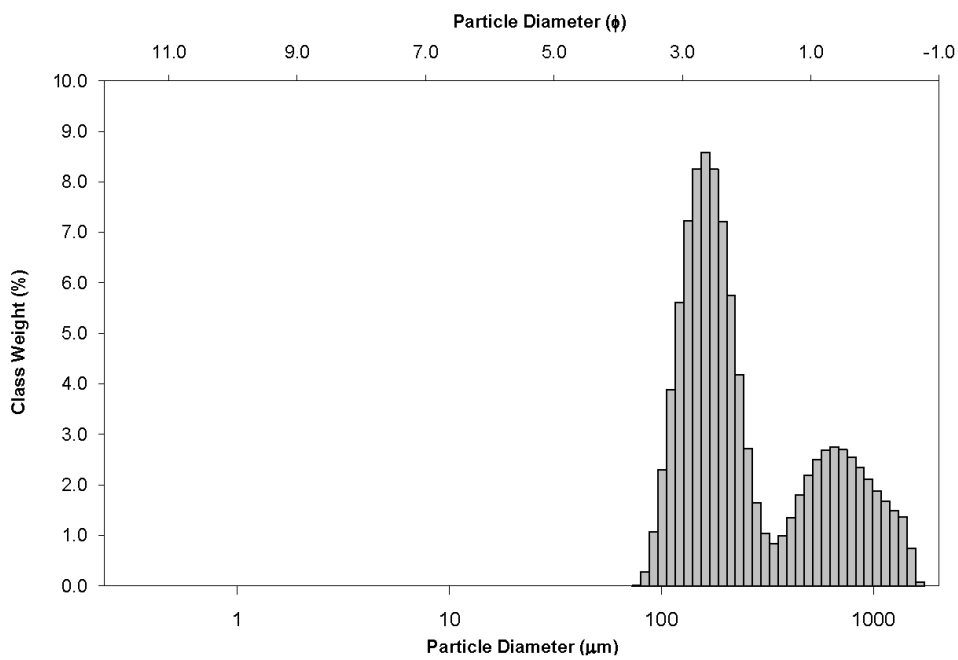
	µm	ϕ
MODE 1:	161.4	2.633
MODE 2:	653.8	0.615
MODE 3:		
D_{10}:	121.1	0.181
MEDIAN or D_{50}:	196.8	2.345
D_{90}:	882.3	3.046
(D_{90} / D_{10}):	7.287	16.86
(D_{90} - D_{10}):	761.2	2.865
(D_{75} / D_{25}):	3.487	2.882
(D_{75} - D_{25}):	367.3	1.802

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	18.6%
SAND:	100.0%	MEDIUM SAND:	11.3%
MUD:	0.0%	FINE SAND:	51.1%
		V FINE SAND:	11.9%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	7.1%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	363.3	263.0	1.927	264.1	1.921	Medium Sand
SORTING (σ):	330.5	2.131	1.092	2.161	1.112	Poorly Sorted
SKEWNESS (Sk):	1.603	0.742	-0.742	0.510	-0.510	Very Coarse Skewed
KURTOSIS (K):	4.734	2.254	2.254	0.762	0.762	Platykurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Sabine Lake, TX-48** ANALYST & DATE: , 7/23/2010 12:42:00 PM

SAMPLE TYPE: Unimodal, Moderately Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Sorted Medium Sand

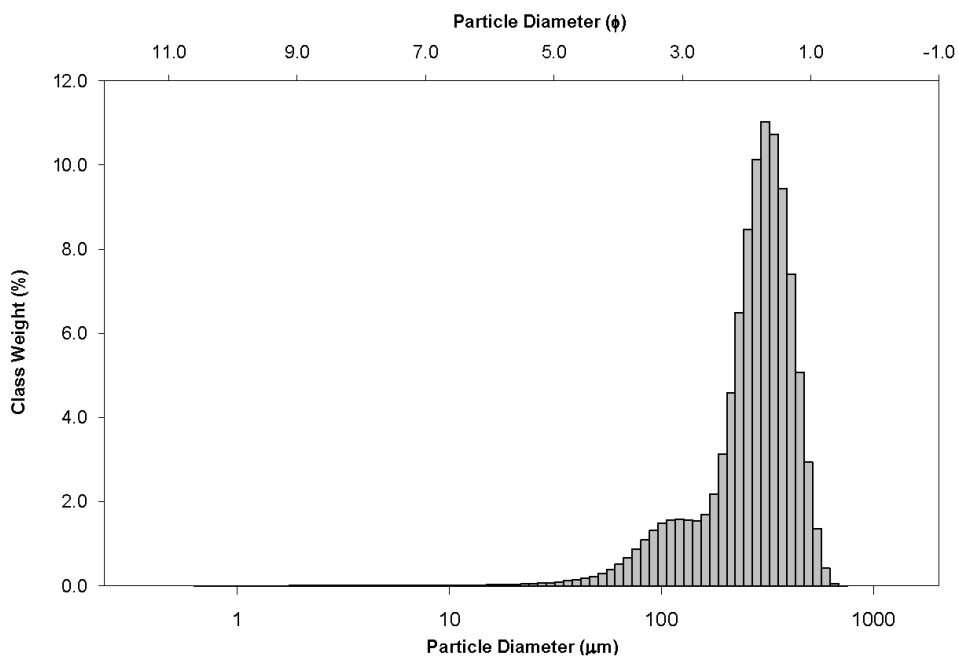
	µm	ϕ
MODE 1:	310.0	1.691
MODE 2:		
MODE 3:		
D_{10}:	114.2	1.223
MEDIAN or D_{50}:	291.0	1.781
D_{90}:	428.4	3.130
(D_{90} / D_{10}):	3.751	2.560
(D_{90} - D_{10}):	314.2	1.907
(D_{75} / D_{25}):	1.675	1.508
(D_{75} - D_{25}):	145.9	0.744

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	2.9%
SAND:	97.1%	MEDIUM SAND:	62.2%
MUD:	2.9%	FINE SAND:	23.3%
		V FINE SAND:	8.6%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	1.7%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.4%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.2%
FINE GRAVEL:	0.0%	FINE SILT:	0.2%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.2%
V COARSE SAND:	0.0%	CLAY:	0.1%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	285.6	250.5	1.997	265.7	1.912	Medium Sand
SORTING (σ):	115.3	1.873	0.906	1.631	0.706	Moderately Sorted
SKEWNESS (Sk):	-0.124	-2.882	2.882	-0.380	0.380	Very Fine Skewed
KURTOSIS (K):	2.792	17.38	17.38	1.393	1.393	Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **High Island, TX-49** ANALYST & DATE: , 7/23/2010 12:42:00 PM

SAMPLE TYPE: Bimodal, Poorly Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Poorly Sorted Fine Sand

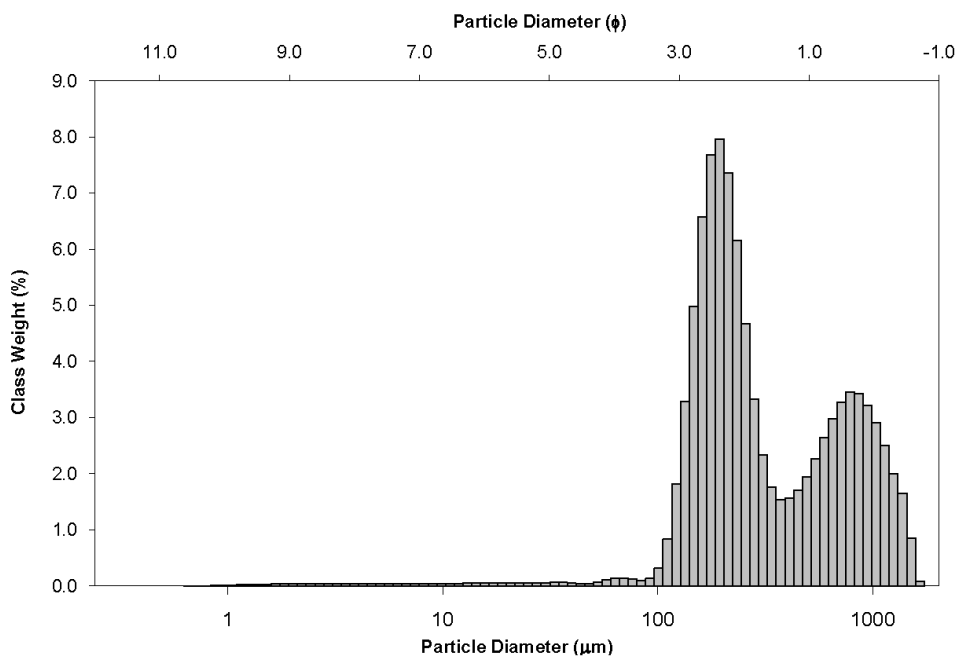
	µm	ϕ
MODE 1:	194.5	2.364
MODE 2:	787.8	0.346
MODE 3:		
D_{10}:	142.0	0.009
MEDIAN or D_{50}:	245.6	2.025
D_{90}:	993.7	2.817
(D_{90} / D_{10}):	7.000	309.5
(D_{90} - D_{10}):	851.8	2.807
(D_{75} / D_{25}):	3.658	4.009
(D_{75} - D_{25}):	472.2	1.871

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	22.1%
SAND:	97.6%	MEDIUM SAND:	17.2%
MUD:	2.4%	FINE SAND:	45.3%
		V FINE SAND:	3.2%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.6%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.5%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.4%
FINE GRAVEL:	0.0%	FINE SILT:	0.4%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.4%
V COARSE SAND:	9.8%	CLAY:	0.3%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	429.3	302.6	1.725	319.1	1.648	Medium Sand
SORTING (σ):	354.5	2.534	1.341	2.145	1.101	Poorly Sorted
SKEWNESS (Sk):	1.217	-1.320	1.320	0.424	-0.424	Very Coarse Skewed
KURTOSIS (K):	3.468	9.208	9.208	0.720	0.720	Platykurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **East Bay nr Anahuac, TX-50** ANALYST & DATE: , 7/23/2010 12:40:00 PM

SAMPLE TYPE: Unimodal, Poorly Sorted TEXTURAL GROUP: Muddy Sand

SEDIMENT NAME: Very Coarse Silty Very Fine Sand

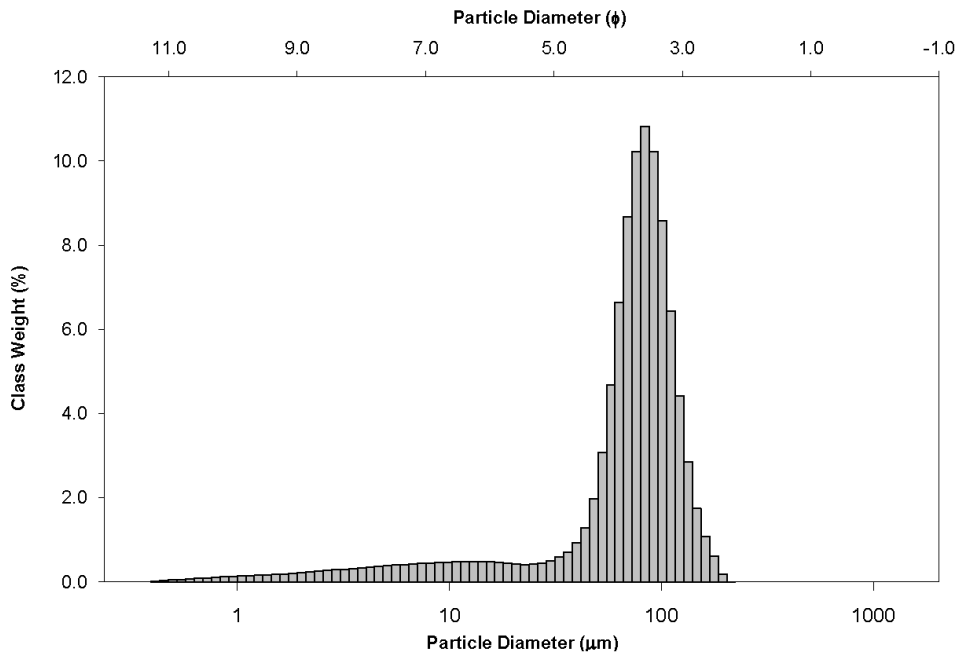
	µm	ϕ
MODE 1:	83.99	3.575
MODE 2:		
MODE 3:		
D_{10}:	13.14	3.076
MEDIAN or D_{50}:	77.84	3.683
D_{90}:	118.6	6.250
(D_{90} / D_{10}):	9.030	2.032
(D_{90} - D_{10}):	105.5	3.175
(D_{75} / D_{25}):	1.696	1.227
(D_{75} - D_{25}):	40.02	0.763

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	0.0%
SAND:	70.1%	MEDIUM SAND:	0.0%
MUD:	29.9%	FINE SAND:	7.5%
		V FINE SAND:	62.6%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	15.6%
COARSE GRAVEL:	0.0%	COARSE SILT:	3.4%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	3.6%
FINE GRAVEL:	0.0%	FINE SILT:	3.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	2.1%
V COARSE SAND:	0.0%	CLAY:	2.2%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	75.46	57.11	4.130	69.10	3.855	Very Fine Sand
SORTING (σ):	36.89	2.765	1.467	2.144	1.100	Poorly Sorted
SKEWNESS (Sk):	-0.125	-2.335	2.335	-0.514	0.514	Very Fine Skewed
KURTOSIS (K):	3.135	8.353	8.353	2.607	2.607	Very Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Galveston Island, TX-51** ANALYST & DATE: nnc, 7/23/2010 12:37:00 PM

SAMPLE TYPE: Unimodal, Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Well Sorted Fine Sand

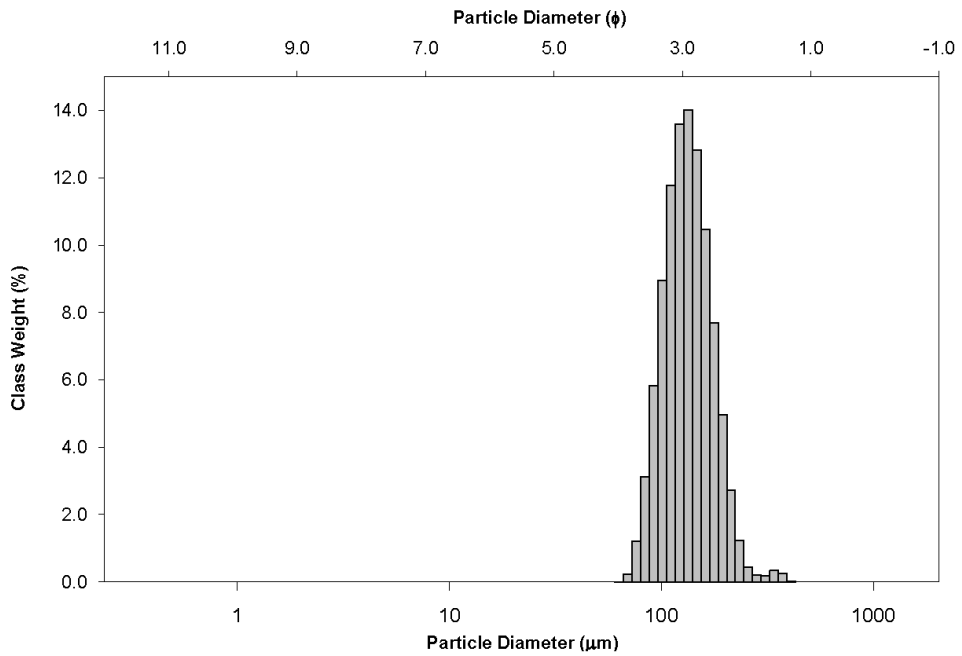
	µm	ϕ
MODE 1:	133.9	2.902
MODE 2:		
MODE 3:		
D_{10}:	95.81	2.420
MEDIAN or D_{50}:	132.3	2.918
D_{90}:	186.9	3.384
(D_{90} / D_{10}):	1.951	1.398
(D_{90} - D_{10}):	91.09	0.964
(D_{75} / D_{25}):	1.434	1.196
(D_{75} - D_{25}):	48.07	0.520

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	0.0%
SAND:	100.0%	MEDIUM SAND:	1.4%
MUD:	0.0%	FINE SAND:	57.0%
		V FINE SAND:	41.6%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.0%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	138.8	133.6	2.904	132.8	2.912	Fine Sand
SORTING (σ):	40.06	1.304	0.383	1.298	0.376	Well Sorted
SKEWNESS (Sk):	1.643	0.409	-0.409	0.038	-0.038	Symmetrical
KURTOSIS (K):	8.695	3.554	3.554	0.966	0.966	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Trinity Bay nr Beach City, TX-52** ANALYST & DATE: nnc, 7/23/2010 12:43:00 PM

SAMPLE TYPE: Unimodal, Poorly Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Poorly Sorted Medium Sand

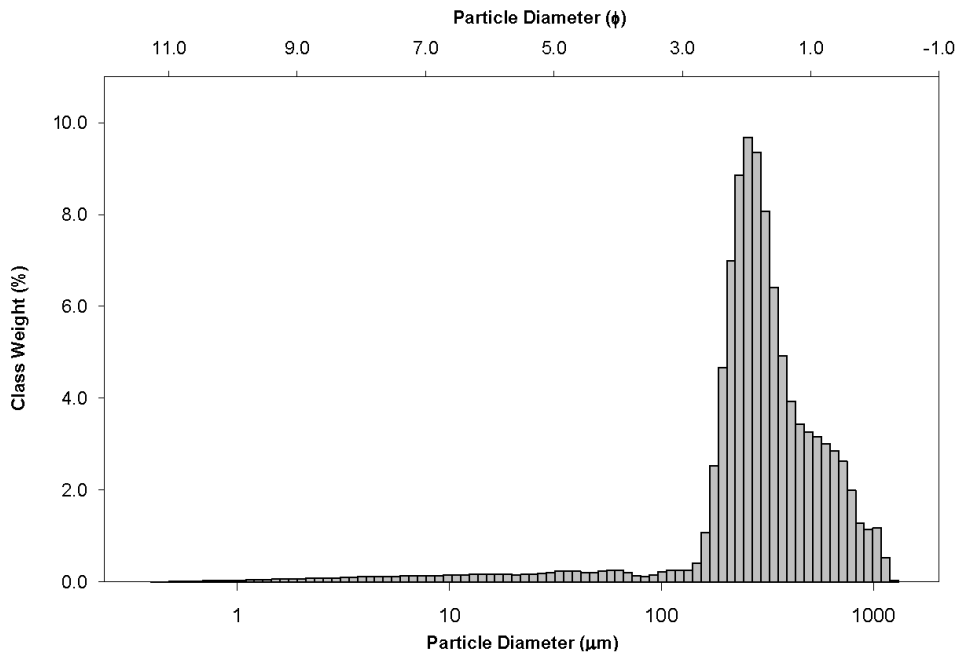
	µm	ϕ
MODE 1:	257.2	1.961
MODE 2:		
MODE 3:		
D_{10}:	166.2	0.603
MEDIAN or D_{50}:	289.2	1.790
D_{90}:	658.6	2.589
(D_{90} / D_{10}):	3.963	4.297
(D_{90} - D_{10}):	492.4	1.987
(D_{75} / D_{25}):	1.888	1.742
(D_{75} - D_{25}):	199.8	0.917

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	17.4%
SAND:	93.2%	MEDIUM SAND:	45.8%
MUD:	6.8%	FINE SAND:	26.8%
		V FINE SAND:	1.5%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	1.8%
COARSE GRAVEL:	0.0%	COARSE SILT:	1.4%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	1.2%
FINE GRAVEL:	0.0%	FINE SILT:	1.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.7%
V COARSE SAND:	1.7%	CLAY:	0.7%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	348.1	261.2	1.937	315.1	1.666	Medium Sand
SORTING (σ):	214.8	2.781	1.476	2.109	1.077	Poorly Sorted
SKEWNESS (Sk):	1.255	-2.784	2.784	-0.062	0.062	Symmetrical
KURTOSIS (K):	4.838	13.11	13.11	2.097	2.097	Very Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Bolivar Peninsula, TX-53** ANALYST & DATE: nnc, 7/23/2010 12:46:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Well Sorted Fine Sand

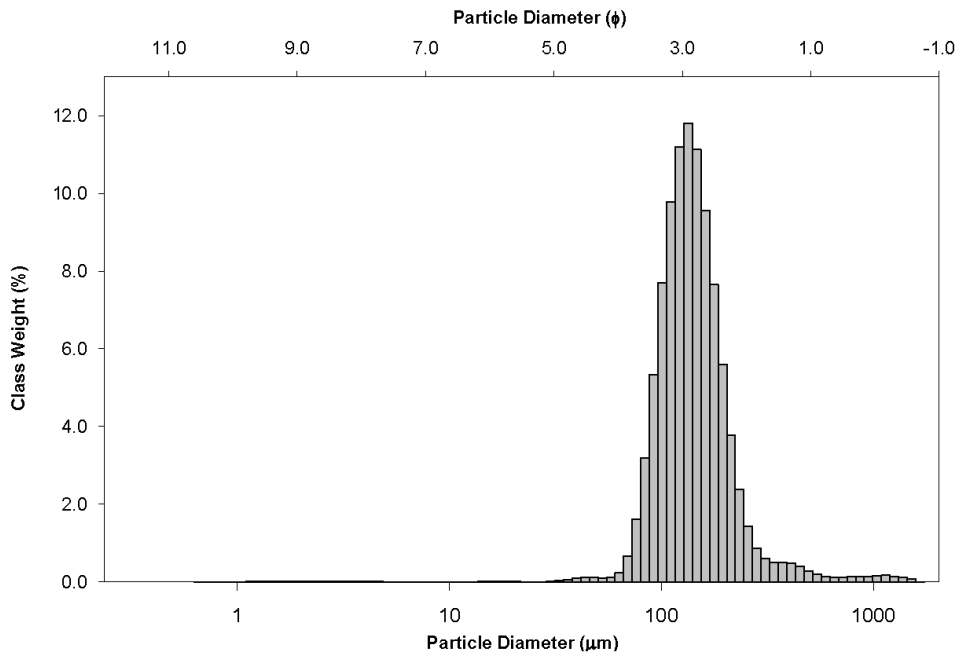
	μm	ϕ
MODE 1:	133.9	2.902
MODE 2:		
MODE 3:		
D_{10}:	92.12	2.186
MEDIAN or D_{50}:	136.8	2.870
D_{90}:	219.8	3.440
(D_{90} / D_{10}):	2.386	1.574
(D_{90} - D_{10}):	127.6	1.254
(D_{75} / D_{25}):	1.550	1.249
(D_{75} - D_{25}):	60.91	0.632

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	1.2%
SAND:	98.3%	MEDIUM SAND:	4.8%
MUD:	1.7%	FINE SAND:	54.6%
		V FINE SAND:	37.1%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.8%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.2%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.1%
FINE GRAVEL:	0.0%	FINE SILT:	0.1%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.2%
V COARSE SAND:	0.7%	CLAY:	0.2%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN ($\bar{x}$):	161.4	139.7	2.840	138.7	2.850	Fine Sand
SORTING (σ):	126.4	1.716	0.779	1.423	0.509	Moderately Well Sorted
SKEWNESS (Sk):	6.053	-1.968	1.968	0.120	-0.120	Coarse Skewed
KURTOSIS (K):	49.94	25.60	25.60	1.161	1.161	Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Galveston Bay nr Eagle Pt, TX-54** ANALYST & DATE: , 7/23/2010 12:39:00 PM

SAMPLE TYPE: Unimodal, Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Well Sorted Fine Sand

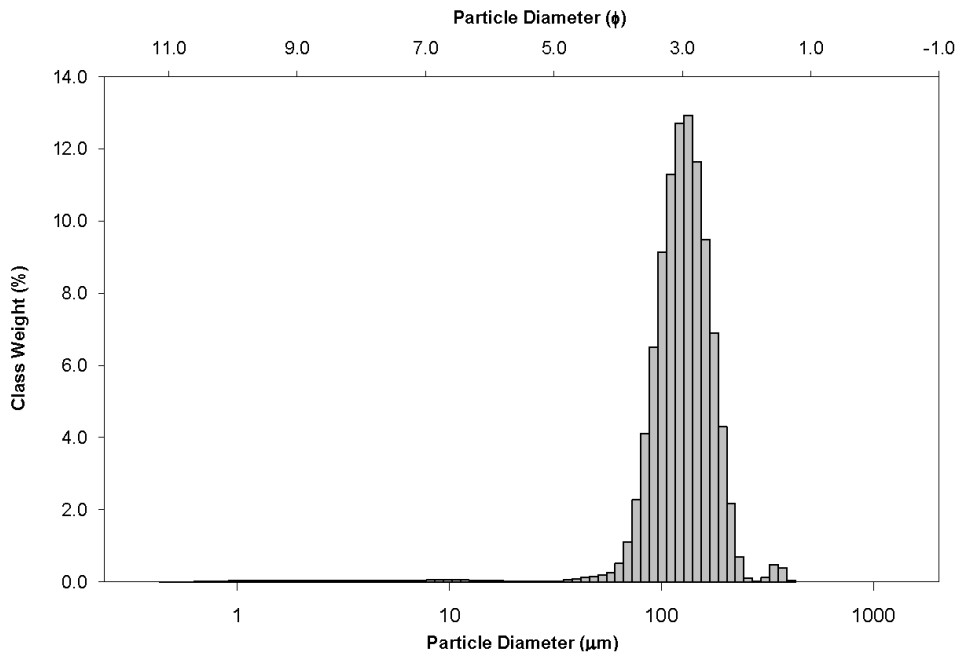
	µm	ϕ
MODE 1:	133.9	2.902
MODE 2:		
MODE 3:		
D_{10}:	85.49	2.463
MEDIAN or D_{50}:	126.9	2.978
D_{90}:	181.3	3.548
(D_{90} / D_{10}):	2.121	1.440
(D_{90} - D_{10}):	95.86	1.085
(D_{75} / D_{25}):	1.477	1.208
(D_{75} - D_{25}):	49.54	0.562

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	0.0%
SAND:	96.6%	MEDIUM SAND:	1.2%
MUD:	3.4%	FINE SAND:	50.9%
		V FINE SAND:	44.6%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	1.2%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.3%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.5%
FINE GRAVEL:	0.0%	FINE SILT:	0.4%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.4%
V COARSE SAND:	0.0%	CLAY:	0.6%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	130.7	118.3	3.080	126.1	2.988	Fine Sand
SORTING (σ):	45.46	1.822	0.866	1.344	0.427	Well Sorted
SKEWNESS (Sk):	1.019	-4.795	4.795	-0.065	0.065	Symmetrical
KURTOSIS (K):	8.625	34.03	34.03	1.051	1.051	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **West Bay, Galveston IS SPK, TX-55** ANALYST & DATE: nnc, 7/23/2010 1:01:00 PM

SAMPLE TYPE: Unimodal, Well Sorted TEXTURAL GROUP: Sand
SEDIMENT NAME: Well Sorted Fine Sand

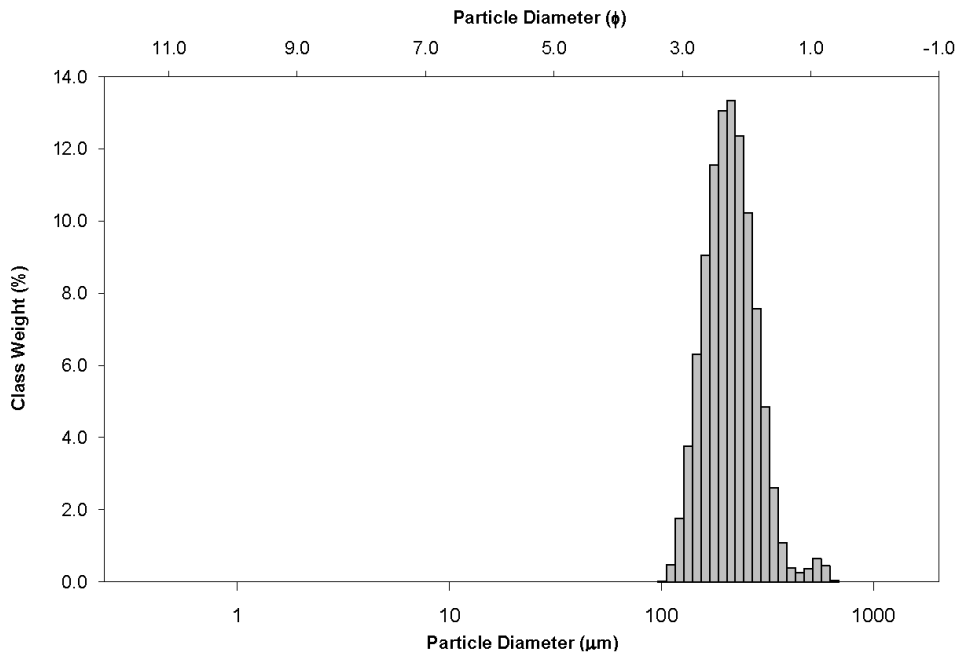
	µm	ϕ
MODE 1:	213.5	2.230
MODE 2:		
MODE 3:		
D_{10}:	148.6	1.738
MEDIAN or D_{50}:	209.5	2.255
D_{90}:	299.8	2.750
(D_{90} / D_{10}):	2.017	1.582
(D_{90} - D_{10}):	151.2	1.012
(D_{75} / D_{25}):	1.456	1.273
(D_{75} - D_{25}):	79.24	0.542

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	1.3%
SAND:	100.0%	MEDIUM SAND:	25.1%
MUD:	0.0%	FINE SAND:	71.7%
		V FINE SAND:	1.9%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.0%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	221.3	211.9	2.238	210.1	2.251	Fine Sand
SORTING (σ):	70.21	1.327	0.408	1.314	0.394	Well Sorted
SKEWNESS (Sk):	1.918	0.524	-0.524	0.032	-0.032	Symmetrical
KURTOSIS (K):	9.632	3.851	3.851	0.979	0.979	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **San Luis Pass, TX-56** ANALYST & DATE: nnc, 7/23/2010 12:46:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Well Sorted Fine Sand

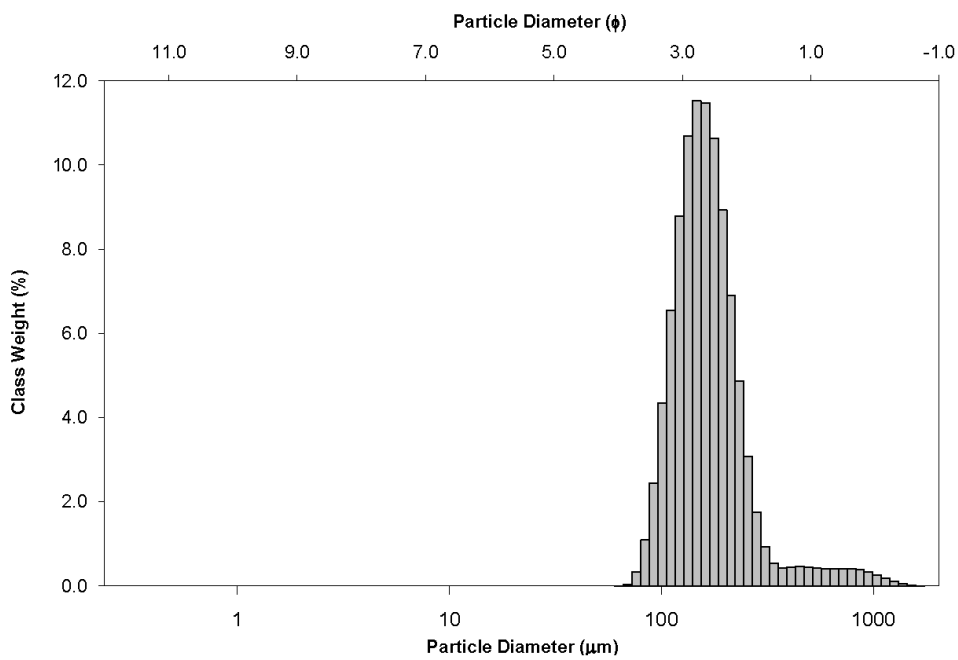
	µm	ϕ
MODE 1:	147.0	2.768
MODE 2:		
MODE 3:		
D_{10}:	108.6	1.958
MEDIAN or D_{50}:	159.3	2.650
D_{90}:	257.4	3.203
(D_{90} / D_{10}):	2.371	1.636
(D_{90} - D_{10}):	148.8	1.245
(D_{75} / D_{25}):	1.547	1.271
(D_{75} - D_{25}):	70.71	0.629

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	3.0%
SAND:	100.0%	MEDIUM SAND:	7.3%
MUD:	0.0%	FINE SAND:	67.4%
		V FINE SAND:	21.6%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.7%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	191.2	169.0	2.565	161.7	2.629	Fine Sand
SORTING (σ):	138.0	1.537	0.620	1.443	0.529	Moderately Well Sorted
SKEWNESS (Sk):	4.495	1.712	-1.712	0.180	-0.180	Coarse Skewed
KURTOSIS (K):	27.74	7.632	7.632	1.267	1.267	Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Jean Lafitte National Park, LA-22** ANALYST & DATE: , 7/23/2010 12:39:00 PM

SAMPLE TYPE: Unimodal, Poorly Sorted TEXTURAL GROUP: Muddy Sand

SEDIMENT NAME: Very Coarse Silty Very Fine Sand

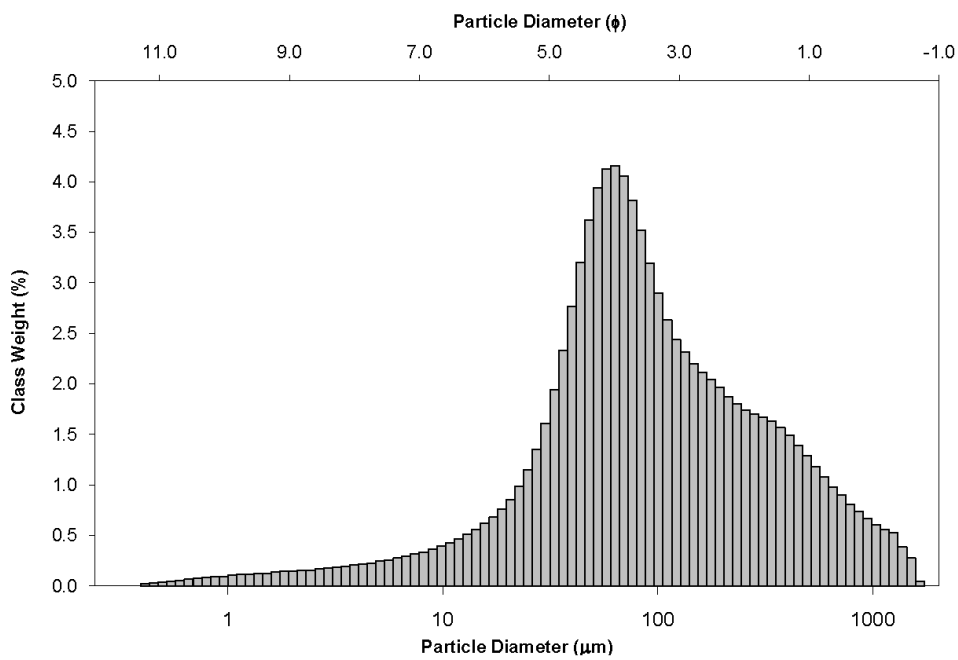
	µm	ϕ
MODE 1:	63.49	3.979
MODE 2:		
MODE 3:		
D_{10}:	19.84	1.079
MEDIAN or D_{50}:	80.50	3.635
D_{90}:	473.4	5.655
(D_{90} / D_{10}):	23.86	5.242
(D_{90} - D_{10}):	453.6	4.577
(D_{75} / D_{25}):	4.581	1.954
(D_{75} - D_{25}):	158.5	2.196

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	6.9%
SAND:	60.8%	MEDIUM SAND:	11.6%
MUD:	39.2%	FINE SAND:	15.2%
		V FINE SAND:	24.7%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	23.4%
COARSE GRAVEL:	0.0%	COARSE SILT:	7.6%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	3.4%
FINE GRAVEL:	0.0%	FINE SILT:	2.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	1.3%
V COARSE SAND:	2.4%	CLAY:	1.6%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	180.3	85.56	3.547	94.09	3.410	Very Fine Sand
SORTING (σ):	248.3	3.767	1.913	3.538	1.823	Poorly Sorted
SKEWNESS (Sk):	2.683	-0.572	0.572	0.090	-0.090	Symmetrical
KURTOSIS (K):	11.03	4.227	4.227	1.208	1.208	Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Cypremort Point, LA-23** ANALYST & DATE: nnc, 7/23/2010 12:12:00 PM

SAMPLE TYPE: Unimodal, Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Well Sorted Coarse Sand

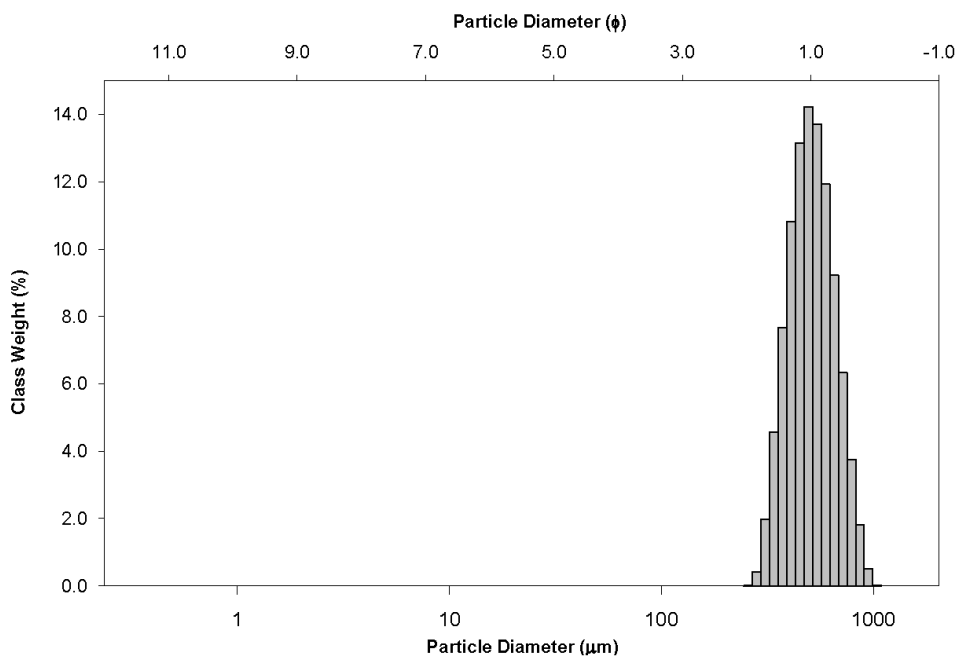
	µm	ϕ
MODE 1:	494.2	1.019
MODE 2:		
MODE 3:		
D_{10}:	369.3	0.495
MEDIAN or D_{50}:	507.9	0.977
D_{90}:	709.5	1.437
(D_{90} / D_{10}):	1.921	2.902
(D_{90} - D_{10}):	340.2	0.942
(D_{75} / D_{25}):	1.421	1.704
(D_{75} - D_{25}):	179.7	0.506

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	52.3%
SAND:	100.0%	MEDIUM SAND:	47.6%
MUD:	0.0%	FINE SAND:	0.0%
		V FINE SAND:	0.0%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.0%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	526.2	510.1	0.971	509.9	0.972	Coarse Sand
SORTING (σ):	130.5	1.277	0.352	1.286	0.363	Well Sorted
SKEWNESS (Sk):	0.643	0.079	-0.079	0.026	-0.026	Symmetrical
KURTOSIS (K):	3.101	2.515	2.515	0.952	0.952	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Lake Felicity, LA-24** ANALYST & DATE: nnc, 7/23/2010 1:24:00 PM

SAMPLE TYPE: Bimodal, Very Poorly Sorted TEXTURAL GROUP: Muddy Sand

SEDIMENT NAME: Very Coarse Silty Fine Sand

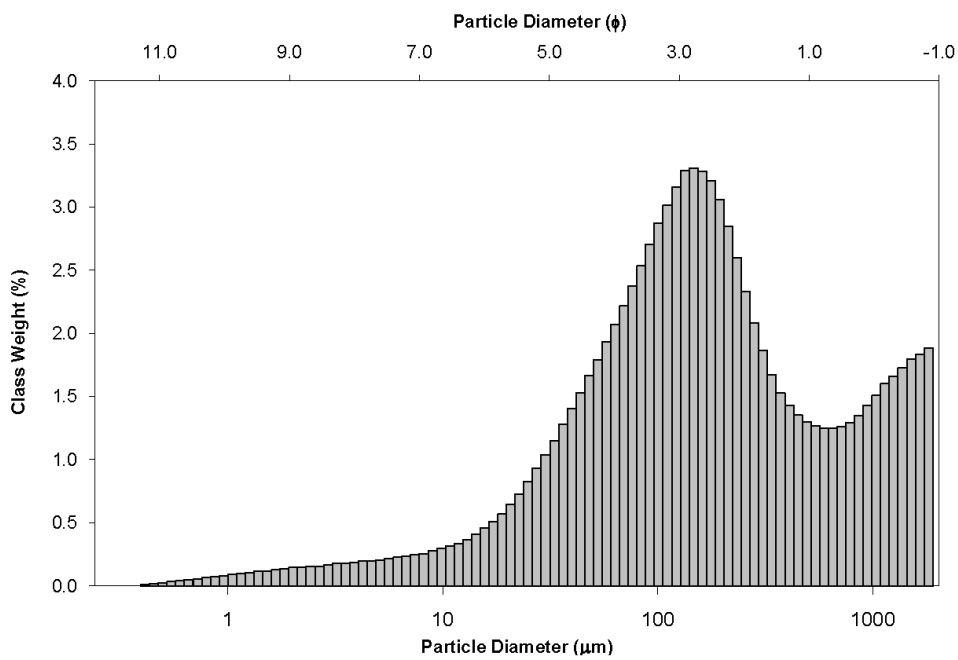
	µm	ϕ
MODE 1:	147.0	2.768
MODE 2:	1824.0	-0.866
MODE 3:		
D_{10}:	25.51	-0.166
MEDIAN or D_{50}:	152.1	2.717
D_{90}:	1121.8	5.293
(D_{90} / D_{10}):	43.98	-31.915
(D_{90} - D_{10}):	1096.3	5.459
(D_{75} / D_{25}):	5.947	2.920
(D_{75} - D_{25}):	328.8	2.572

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	9.7%
SAND:	76.4%	MEDIUM SAND:	12.6%
MUD:	23.6%	FINE SAND:	22.7%
		V FINE SAND:	19.5%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	11.5%
COARSE GRAVEL:	0.0%	COARSE SILT:	5.4%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	2.5%
FINE GRAVEL:	0.0%	FINE SILT:	1.6%
V FINE GRAVEL:	0.0%	V FINE SILT:	1.2%
V COARSE SAND:	11.9%	CLAY:	1.3%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	349.0	147.8	2.759	168.4	2.570	Fine Sand
SORTING (σ):	453.9	4.429	2.147	4.387	2.133	Very Poorly Sorted
SKEWNESS (Sk):	1.810	-0.636	0.636	0.010	-0.010	Symmetrical
KURTOSIS (K):	5.278	3.857	3.857	1.145	1.145	Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Rockefeller Refuge Bch, LA-26** ANALYST & DATE: nnc, 7/23/2010 12:09:00 PM

SAMPLE TYPE: Bimodal, Poorly Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Poorly Sorted Coarse Sand

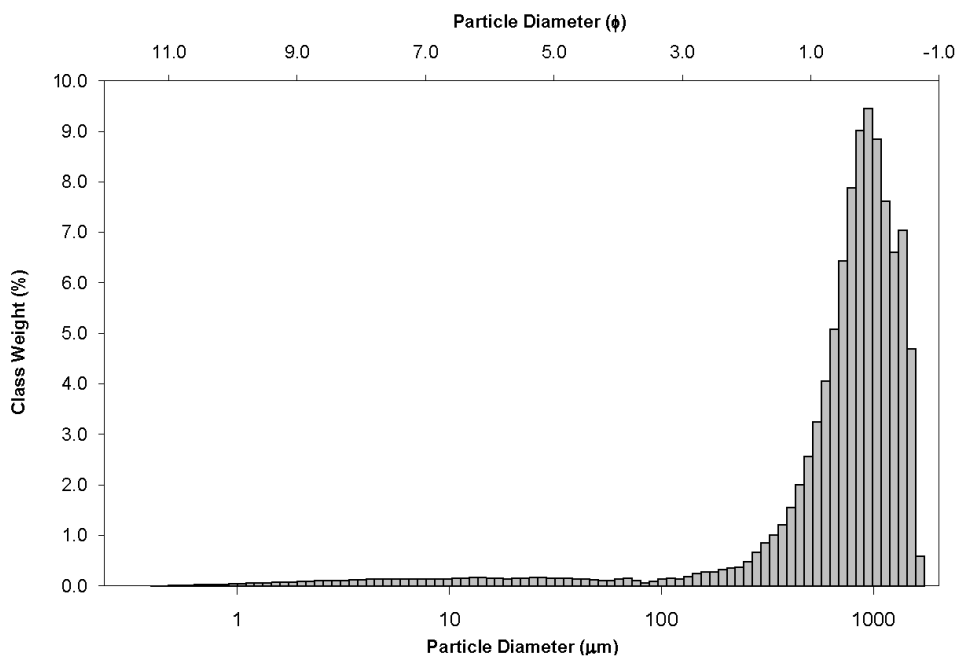
	µm	ϕ
MODE 1:	949.4	0.077
MODE 2:	1378.5	-0.462
MODE 3:		
D_{10}:	279.2	-0.438
MEDIAN or D_{50}:	857.0	0.223
D_{90}:	1355.1	1.841
(D_{90} / D_{10}):	4.854	-4.198
(D_{90} - D_{10}):	1076.0	2.279
(D_{75} / D_{25}):	1.863	-4.922
(D_{75} - D_{25}):	514.5	0.898

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	46.6%
SAND:	93.9%	MEDIUM SAND:	9.4%
MUD:	6.1%	FINE SAND:	2.2%
		V FINE SAND:	1.0%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	1.1%
COARSE GRAVEL:	0.0%	COARSE SILT:	1.2%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	1.2%
FINE GRAVEL:	0.0%	FINE SILT:	1.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.8%
V COARSE SAND:	34.7%	CLAY:	0.8%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	837.0	609.5	0.714	782.5	0.354	Coarse Sand
SORTING (σ):	392.1	3.416	1.772	2.329	1.219	Poorly Sorted
SKEWNESS (Sk):	-0.302	-3.168	3.168	-0.498	0.498	Very Fine Skewed
KURTOSIS (K):	2.589	13.60	13.60	2.563	2.563	Very Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Sister Lake, LA-26** ANALYST & DATE: nnc, 7/23/2010 12:08:00 PM

SAMPLE TYPE: Unimodal, Poorly Sorted TEXTURAL GROUP: Muddy Sand

SEDIMENT NAME: Very Coarse Silty Coarse Sand

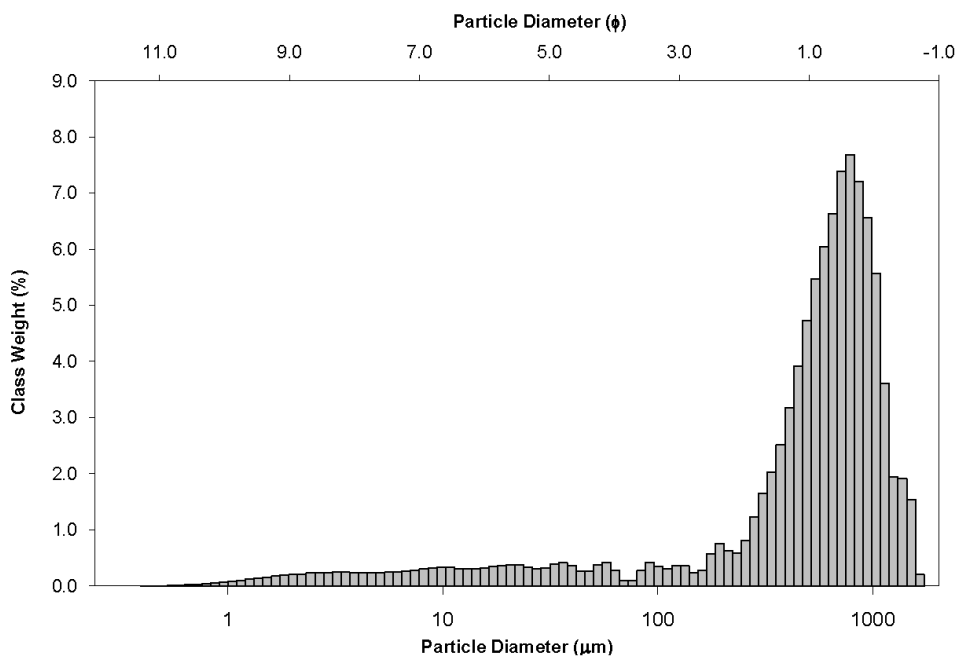
	µm	ϕ
MODE 1:	787.8	0.346
MODE 2:		
MODE 3:		
D_{10}:	30.84	-0.106
MEDIAN or D_{50}:	624.5	0.679
D_{90}:	1076.3	5.019
(D_{90} / D_{10}):	34.90	-47.320
(D_{90} - D_{10}):	1045.5	5.125
(D_{75} / D_{25}):	2.340	6.762
(D_{75} - D_{25}):	494.1	1.226

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	48.9%
SAND:	87.3%	MEDIUM SAND:	18.2%
MUD:	12.7%	FINE SAND:	3.7%
		V FINE SAND:	2.1%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	2.7%
COARSE GRAVEL:	0.0%	COARSE SILT:	2.6%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	2.4%
FINE GRAVEL:	0.0%	FINE SILT:	1.9%
V FINE GRAVEL:	0.0%	V FINE SILT:	1.8%
V COARSE SAND:	14.4%	CLAY:	1.4%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	614.7	366.3	1.449	474.9	1.074	Medium Sand
SORTING (σ):	370.0	4.597	2.201	3.312	1.728	Poorly Sorted
SKEWNESS (Sk):	0.109	-2.118	2.118	-0.606	0.606	Very Fine Skewed
KURTOSIS (K):	2.557	6.824	6.824	2.446	2.446	Very Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Point Chevreuil, LA-28** ANALYST & DATE: nnc, 7/23/2010 1:42:00 PM

SAMPLE TYPE: Bimodal, Very Poorly Sorted TEXTURAL GROUP: Sandy Mud

SEDIMENT NAME: Very Fine Sandy Very Coarse Silt

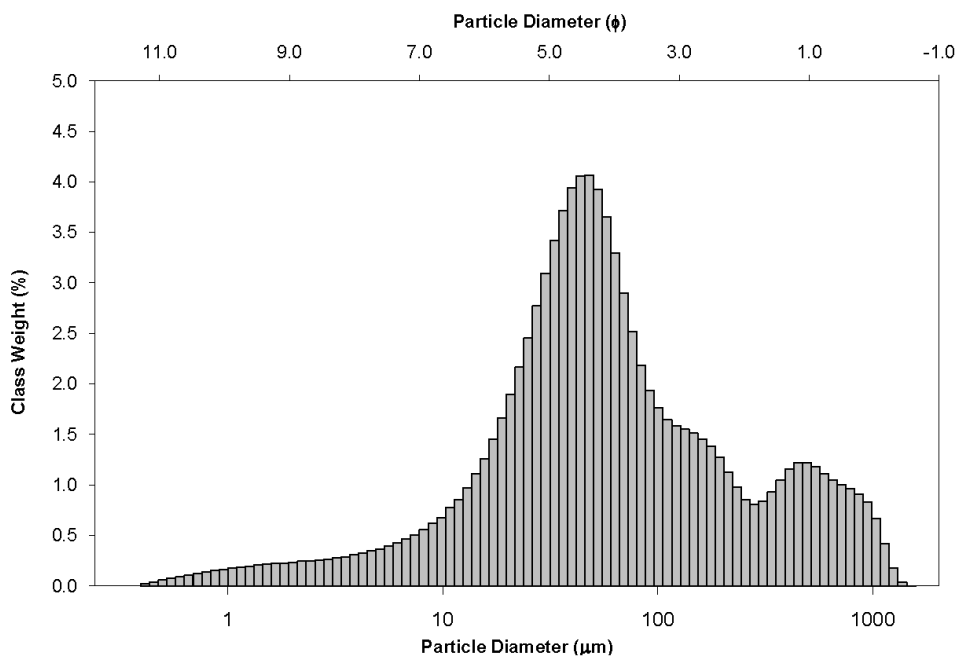
	µm	ϕ
MODE 1:	48.00	4.383
MODE 2:	450.2	1.153
MODE 3:		
D_{10}:	11.13	1.133
MEDIAN or D_{50}:	51.52	4.279
D_{90}:	456.0	6.490
(D_{90} / D_{10}):	40.99	5.729
(D_{90} - D_{10}):	444.9	5.357
(D_{75} / D_{25}):	4.919	1.791
(D_{75} - D_{25}):	106.2	2.298

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	7.5%
SAND:	42.4%	MEDIUM SAND:	7.5%
MUD:	57.6%	FINE SAND:	9.8%
		V FINE SAND:	16.3%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	28.1%
COARSE GRAVEL:	0.0%	COARSE SILT:	15.9%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	6.1%
FINE GRAVEL:	0.0%	FINE SILT:	3.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	2.0%
V COARSE SAND:	1.3%	CLAY:	2.5%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	143.7	56.78	4.139	62.29	4.005	Very Coarse Silt
SORTING (σ):	223.6	4.202	2.071	4.152	2.054	Very Poorly Sorted
SKEWNESS (Sk):	2.520	-0.257	0.257	0.122	-0.122	Coarse Skewed
KURTOSIS (K):	9.211	3.523	3.523	1.293	1.293	Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Crooked Bayou, LA-29** ANALYST & DATE: nnc, 7/23/2010 12:51:00 PM

SAMPLE TYPE: Unimodal, Poorly Sorted TEXTURAL GROUP: Muddy Sand

SEDIMENT NAME: Very Coarse Silty Fine Sand

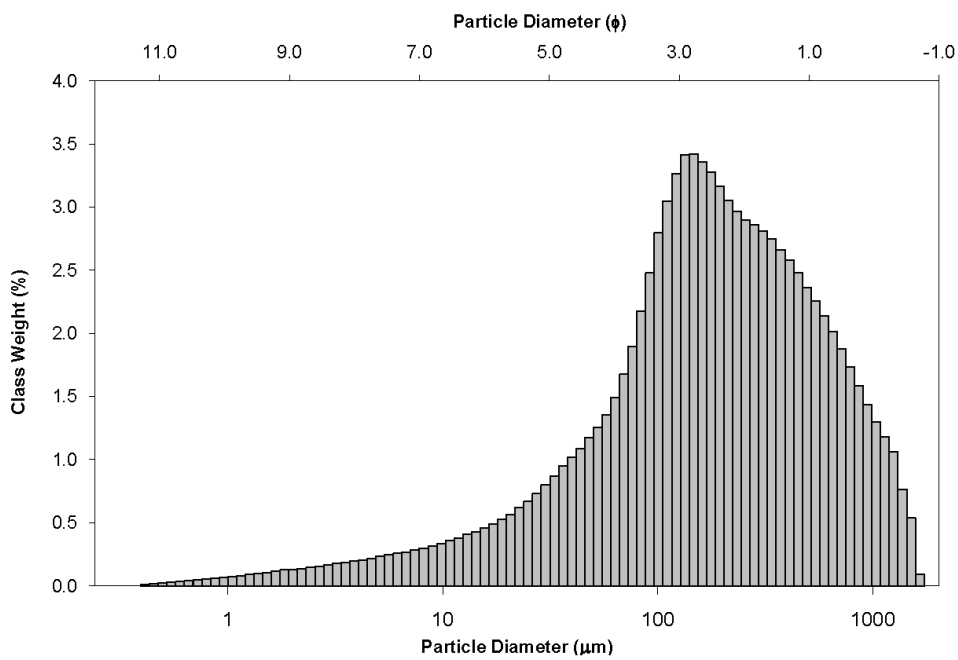
	µm	ϕ
MODE 1:	147.0	2.768
MODE 2:		
MODE 3:		
D_{10}:	25.83	0.436
MEDIAN or D_{50}:	177.4	2.495
D_{90}:	739.4	5.275
(D_{90} / D_{10}):	28.62	12.11
(D_{90} - D_{10}):	713.5	4.839
(D_{75} / D_{25}):	4.817	2.698
(D_{75} - D_{25}):	313.9	2.268

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	14.0%
SAND:	80.2%	MEDIUM SAND:	19.9%
MUD:	19.8%	FINE SAND:	23.9%
		V FINE SAND:	17.5%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	8.3%
COARSE GRAVEL:	0.0%	COARSE SILT:	4.6%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	2.7%
FINE GRAVEL:	0.0%	FINE SILT:	1.8%
V FINE GRAVEL:	0.0%	V FINE SILT:	1.2%
V COARSE SAND:	4.9%	CLAY:	1.2%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	293.1	152.0	2.718	167.7	2.576	Fine Sand
SORTING (σ):	310.0	3.962	1.986	3.730	1.899	Poorly Sorted
SKEWNESS (Sk):	1.724	-1.061	1.061	-0.161	0.161	Fine Skewed
KURTOSIS (K):	5.781	4.574	4.574	1.202	1.202	Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Mississippi R. Gulf Outlet, LA-30** ANALYST & DATE: nnc, 7/23/2010 1:12:00 PM

SAMPLE TYPE: Bimodal, Moderately Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Sorted Fine Sand

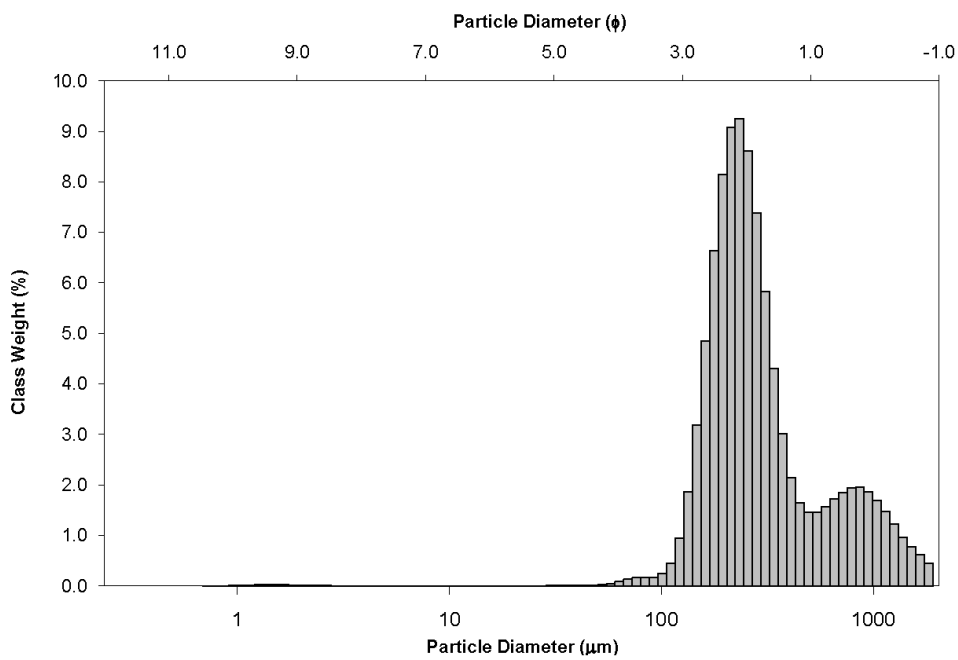
	µm	ϕ
MODE 1:	234.3	2.095
MODE 2:	864.8	0.211
MODE 3:		
D_{10}:	159.2	0.205
MEDIAN or D_{50}:	256.0	1.966
D_{90}:	867.6	2.651
(D_{90} / D_{10}):	5.448	12.94
(D_{90} - D_{10}):	708.4	2.446
(D_{75} / D_{25}):	1.976	1.722
(D_{75} - D_{25}):	192.4	0.983

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	13.0%
SAND:	99.3%	MEDIUM SAND:	32.0%
MUD:	0.7%	FINE SAND:	44.9%
		V FINE SAND:	2.2%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.2%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.1%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.1%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.1%
V COARSE SAND:	7.1%	CLAY:	0.2%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	382.2	295.8	1.757	307.2	1.703	Medium Sand
SORTING (σ):	322.7	2.052	1.037	1.897	0.924	Moderately Sorted
SKEWNESS (Sk):	2.127	-0.862	0.862	0.422	-0.422	Very Coarse Skewed
KURTOSIS (K):	7.311	12.92	12.92	1.256	1.256	Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Grand Isle Bch at State Park, LA-31** ANALYST & DATE: nnc, 7/23/2010 12:53:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Well Sorted Fine Sand

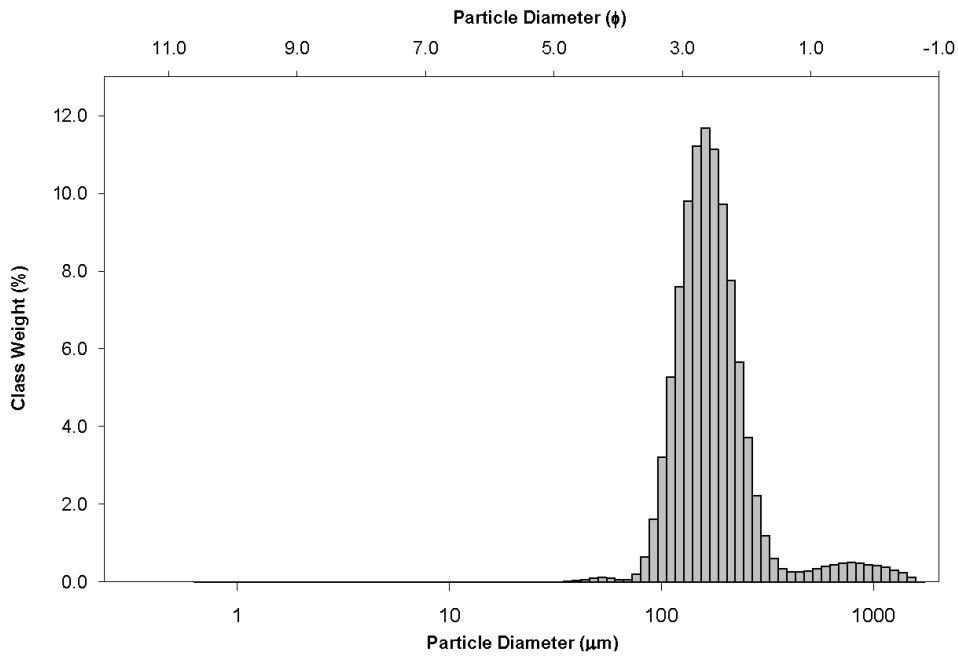
	µm	ϕ
MODE 1:	161.4	2.633
MODE 2:		
MODE 3:		
D_{10}:	112.1	1.897
MEDIAN or D_{50}:	165.9	2.592
D_{90}:	268.5	3.157
(D_{90} / D_{10}):	2.394	1.664
(D_{90} - D_{10}):	156.4	1.260
(D_{75} / D_{25}):	1.551	1.280
(D_{75} - D_{25}):	74.06	0.633

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	3.3%
SAND:	99.0%	MEDIUM SAND:	8.1%
MUD:	1.0%	FINE SAND:	69.2%
		V FINE SAND:	17.0%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.5%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.1%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.1%
FINE GRAVEL:	0.0%	FINE SILT:	0.1%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.1%
V COARSE SAND:	1.5%	CLAY:	0.1%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	206.1	174.7	2.517	168.4	2.570	Fine Sand
SORTING (σ):	172.6	1.705	0.770	1.489	0.574	Moderately Well Sorted
SKEWNESS (Sk):	4.333	-0.459	0.459	0.209	-0.209	Coarse Skewed
KURTOSIS (K):	24.40	18.56	18.56	1.439	1.439	Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Mississippi R. at Main Pass, LA-32** ANALYST & DATE: nnc, 7/23/2010 1:13:00 PM

SAMPLE TYPE: Unimodal, Poorly Sorted TEXTURAL GROUP: Sandy Mud

SEDIMENT NAME: Very Fine Sandy Very Coarse Silt

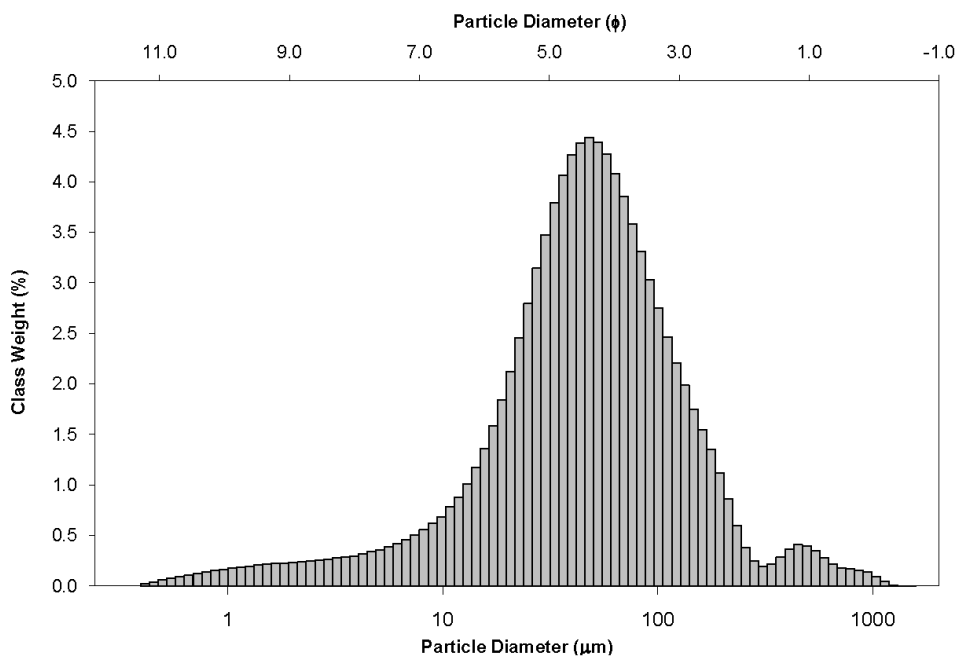
	µm	ϕ
MODE 1:	48.00	4.383
MODE 2:		
MODE 3:		
D_{10}:	11.20	2.727
MEDIAN or D_{50}:	47.39	4.399
D_{90}:	151.0	6.481
(D_{90} / D_{10}):	13.49	2.376
(D_{90} - D_{10}):	139.8	3.754
(D_{75} / D_{25}):	3.282	1.482
(D_{75} - D_{25}):	59.11	1.714

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	1.7%
SAND:	37.2%	MEDIUM SAND:	2.3%
MUD:	62.8%	FINE SAND:	9.8%
		V FINE SAND:	23.3%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	31.2%
COARSE GRAVEL:	0.0%	COARSE SILT:	17.8%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	6.3%
FINE GRAVEL:	0.0%	FINE SILT:	2.9%
V FINE GRAVEL:	0.0%	V FINE SILT:	2.0%
V COARSE SAND:	0.2%	CLAY:	2.5%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	77.41	43.09	4.536	45.99	4.443	Very Coarse Silt
SORTING (σ):	111.6	3.205	1.680	2.860	1.516	Poorly Sorted
SKEWNESS (Sk):	4.670	-0.776	0.776	-0.130	0.130	Fine Skewed
KURTOSIS (K):	31.24	4.911	4.911	1.337	1.337	Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Breton Sound, LA-33** ANALYST & DATE: nnc, 7/23/2010 1:08:00 PM

SAMPLE TYPE: Trimodal, Very Poorly Sorted TEXTURAL GROUP: Sandy Mud

SEDIMENT NAME: Very Fine Sandy Coarse Silt

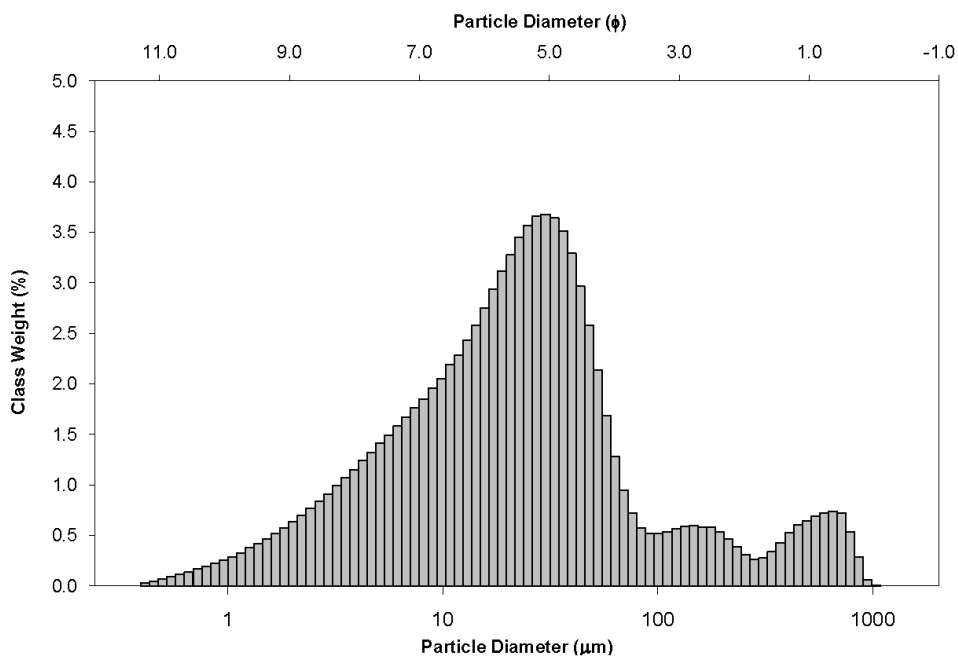
	μm	ϕ
MODE 1:	30.11	5.055
MODE 2:	653.8	0.615
MODE 3:	147.0	2.768
D_{10}:	3.594	2.752
MEDIAN or D_{50}:	22.13	5.498
D_{90}:	148.4	8.120
(D_{90} / D_{10}):	41.29	2.950
(D_{90} - D_{10}):	144.8	5.368
(D_{75} / D_{25}):	4.749	1.495
(D_{75} - D_{25}):	33.95	2.248

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	4.0%
SAND:	16.2%	MEDIUM SAND:	3.1%
MUD:	83.8%	FINE SAND:	4.0%
		V FINE SAND:	5.1%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	20.5%
COARSE GRAVEL:	0.0%	COARSE SILT:	24.7%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	16.5%
FINE GRAVEL:	0.0%	FINE SILT:	11.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	6.5%
V COARSE SAND:	0.0%	CLAY:	4.5%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN ($\bar{x}$):	67.28	21.76	5.522	19.83	5.656	Coarse Silt
SORTING (σ):	144.0	4.161	2.057	4.119	2.042	Very Poorly Sorted
SKEWNESS (Sk):	3.555	0.283	-0.283	-0.009	0.009	Symmetrical
KURTOSIS (K):	15.60	3.351	3.351	1.401	1.401	Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Mississippi Sound at Grand Pass, LA-34** ANALYST & DATE: nnc, 7/23/2010 1:00:00 PM

SAMPLE TYPE: Bimodal, Poorly Sorted TEXTURAL GROUP: Muddy Sand

SEDIMENT NAME: Very Coarse Silty Very Fine Sand

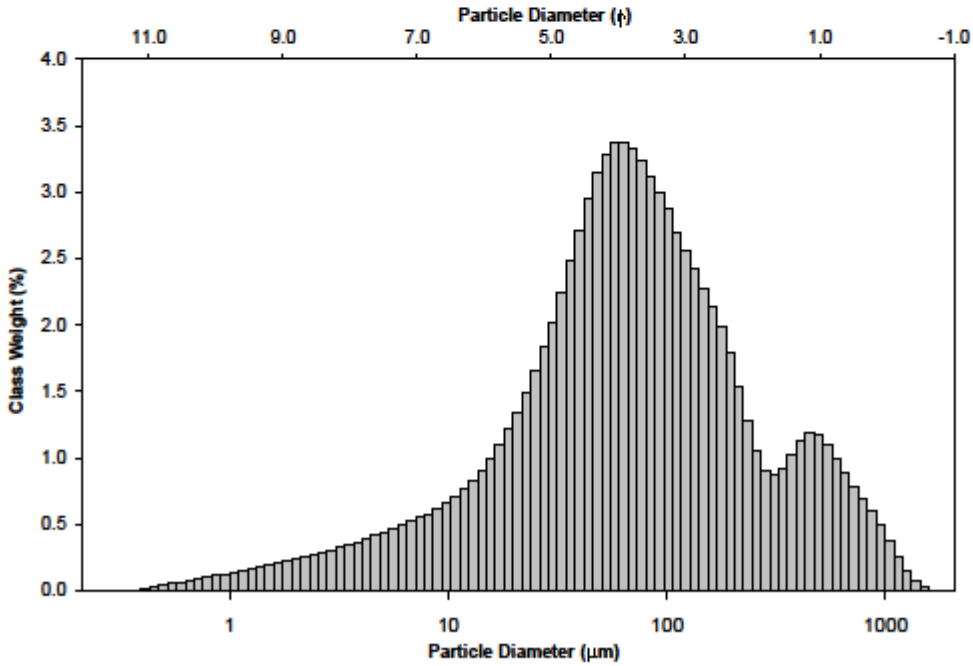
	µm	ϕ
MODE 1:	63.49	3.979
MODE 2:	450.2	1.153
MODE 3:		
D_{10}:	10.48	1.324
MEDIAN or D_{50}:	67.38	3.892
D_{90}:	399.4	6.576
(D_{90} / D_{10}):	38.09	4.966
(D_{90} - D_{10}):	388.9	5.251
(D_{75} / D_{25}):	4.774	1.821
(D_{75} - D_{25}):	117.9	2.255

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	6.2%
SAND:	52.8%	MEDIUM SAND:	7.9%
MUD:	47.2%	FINE SAND:	14.7%
		V FINE SAND:	23.1%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	22.2%
COARSE GRAVEL:	0.0%	COARSE SILT:	11.4%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	5.7%
FINE GRAVEL:	0.0%	FINE SILT:	3.6%
V FINE GRAVEL:	0.0%	V FINE SILT:	2.3%
V COARSE SAND:	0.9%	CLAY:	2.1%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	141.6	63.24	3.983	66.62	3.908	Very Fine Sand
SORTING (σ):	201.1	4.033	2.012	3.924	1.972	Poorly Sorted
SKEWNESS (Sk):	2.737	-0.523	0.523	-0.061	0.061	Symmetrical
KURTOSIS (K):	11.44	3.612	3.612	1.282	1.282	Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Mississippi R. at South Pass, LA-35** ANALYST & DATE: nnc, 7/23/2010 1:14:00 PM

SAMPLE TYPE: Unimodal, Well Sorted TEXTURAL GROUP: Sand
SEDIMENT NAME: Well Sorted Fine Sand

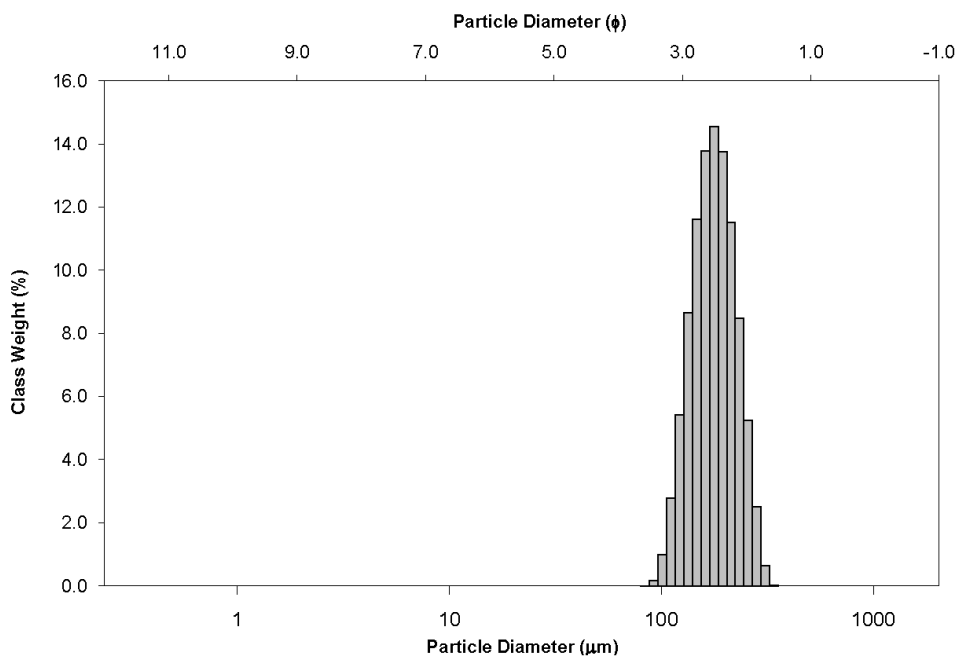
	µm	ϕ
MODE 1:	177.2	2.499
MODE 2:		
MODE 3:		
D_{10}:	128.5	2.052
MEDIAN or D_{50}:	176.2	2.505
D_{90}:	241.1	2.960
(D_{90} / D_{10}):	1.876	1.442
(D_{90} - D_{10}):	112.6	0.908
(D_{75} / D_{25}):	1.411	1.220
(D_{75} - D_{25}):	60.98	0.497

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	0.0%
SAND:	100.0%	MEDIUM SAND:	7.4%
MUD:	0.0%	FINE SAND:	84.4%
		V FINE SAND:	8.2%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.0%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	181.1	175.9	2.507	176.0	2.506	Fine Sand
SORTING (σ):	43.06	1.268	0.343	1.277	0.352	Well Sorted
SKEWNESS (Sk):	0.497	-0.039	0.039	-0.008	0.008	Symmetrical
KURTOSIS (K):	2.839	2.510	2.510	0.940	0.940	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Mississippi R. at SW Pass, LA-36** ANALYST & DATE: nnc, 7/23/2010 1:15:00 PM

SAMPLE TYPE: Unimodal, Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Well Sorted Fine Sand

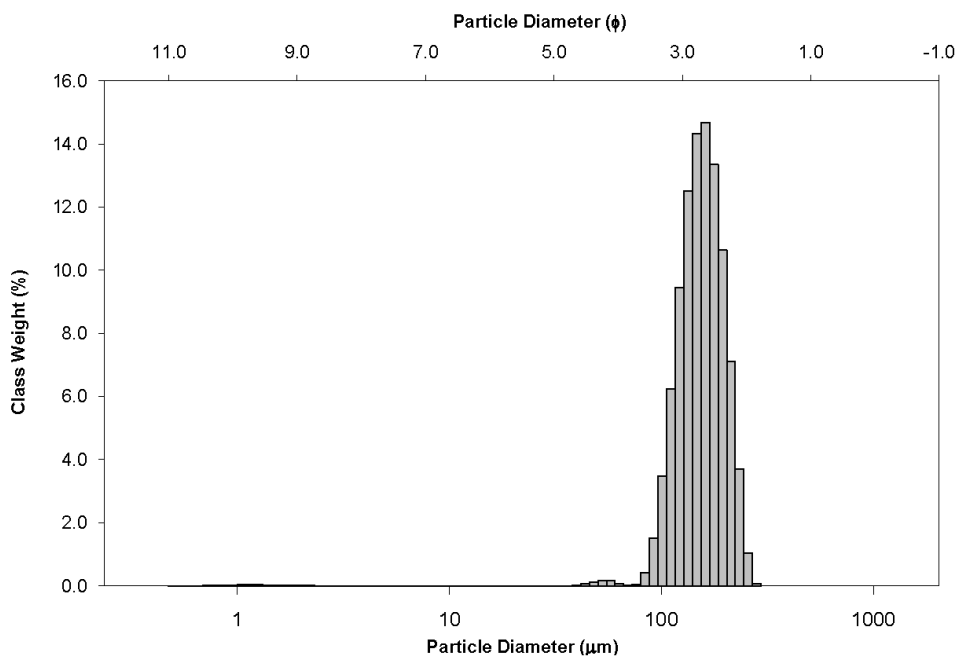
	µm	ϕ
MODE 1:	161.4	2.633
MODE 2:		
MODE 3:		
D_{10}:	110.6	2.260
MEDIAN or D_{50}:	154.3	2.696
D_{90}:	208.7	3.176
(D_{90} / D_{10}):	1.887	1.405
(D_{90} - D_{10}):	98.09	0.916
(D_{75} / D_{25}):	1.403	1.199
(D_{75} - D_{25}):	52.37	0.489

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	0.0%
SAND:	98.5%	MEDIUM SAND:	0.9%
MUD:	1.5%	FINE SAND:	78.5%
		V FINE SAND:	19.1%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.7%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.1%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.1%
V COARSE SAND:	0.0%	CLAY:	0.5%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	156.5	147.7	2.759	153.5	2.704	Fine Sand
SORTING (σ):	39.66	1.595	0.673	1.278	0.354	Well Sorted
SKEWNESS (Sk):	-0.177	-7.145	7.145	-0.056	0.056	Symmetrical
KURTOSIS (K):	4.094	72.96	72.96	0.968	0.968	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **East Sabine, LA-46**

ANALYST & DATE: nnc, 7/23/2010 12:38:00 PM

SAMPLE TYPE: Unimodal, Well Sorted

TEXTURAL GROUP: Sand

SEDIMENT NAME: Well Sorted Fine Sand

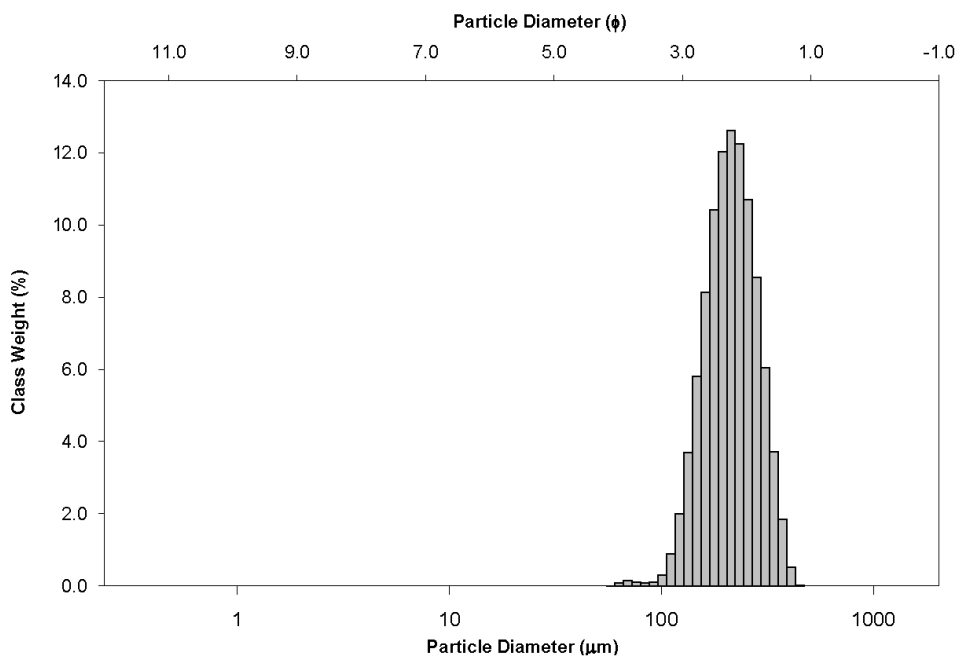
	μm	ϕ
MODE 1:	213.5	2.230
MODE 2:		
MODE 3:		
D_{10}:	145.8	1.710
MEDIAN or D_{50}:	213.0	2.231
D_{90}:	305.6	2.778
(D_{90} / D_{10}):	2.096	1.624
(D_{90} - D_{10}):	159.8	1.067
(D_{75} / D_{25}):	1.487	1.294
(D_{75} - D_{25}):	84.92	0.572

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	0.0%
SAND:	100.0%	MEDIUM SAND:	29.2%
MUD:	0.0%	FINE SAND:	67.4%
		V FINE SAND:	3.3%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.0%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic μm	Geometric μm	Logarithmic ϕ	Geometric μm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	220.2	211.3	2.242	212.4	2.235	Fine Sand
SORTING (σ):	61.55	1.331	0.413	1.331	0.413	Well Sorted
SKEWNESS (Sk):	0.493	-0.306	0.306	-0.026	0.026	Symmetrical
KURTOSIS (K):	2.997	3.293	3.293	0.962	0.962	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **South Cat Island Beach, MS-37** ANALYST & DATE: nnc, 7/23/2010 1:09:00 PM

SAMPLE TYPE: Unimodal, Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Well Sorted Medium Sand

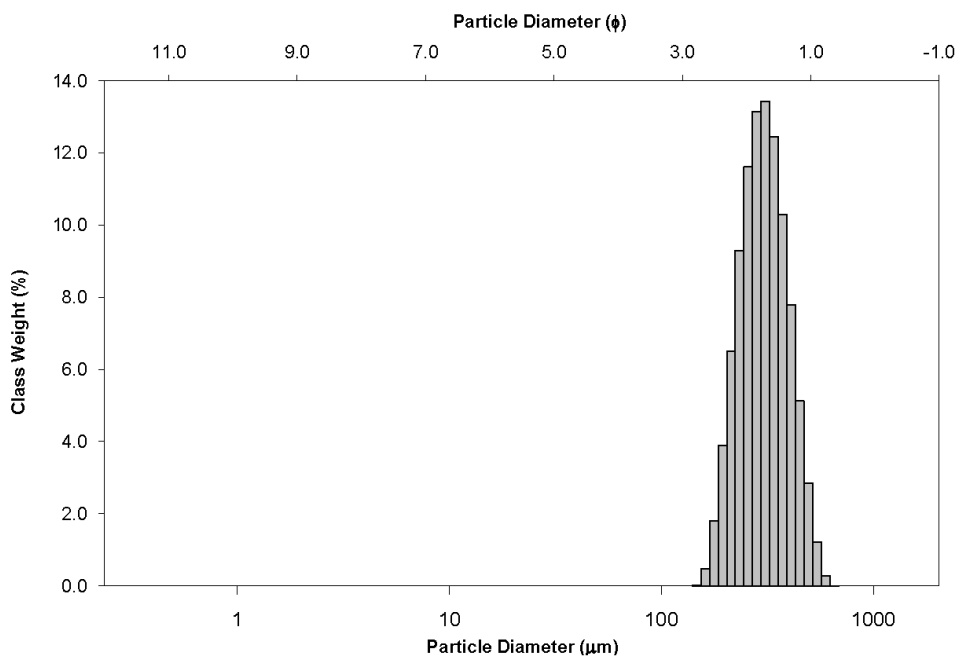
	µm	ϕ
MODE 1:	310.0	1.691
MODE 2:		
MODE 3:		
D_{10}:	214.9	1.229
MEDIAN or D_{50}:	302.5	1.725
D_{90}:	426.6	2.218
(D_{90} / D_{10}):	1.985	1.805
(D_{90} - D_{10}):	211.7	0.989
(D_{75} / D_{25}):	1.450	1.368
(D_{75} - D_{25}):	113.2	0.536

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	2.6%
SAND:	100.0%	MEDIUM SAND:	73.1%
MUD:	0.0%	FINE SAND:	24.4%
		V FINE SAND:	0.0%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.0%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	313.5	302.9	1.723	302.7	1.724	Medium Sand
SORTING (σ):	81.82	1.294	0.372	1.304	0.383	Well Sorted
SKEWNESS (Sk):	0.631	0.034	-0.034	0.006	-0.006	Symmetrical
KURTOSIS (K):	3.098	2.517	2.517	0.945	0.945	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **West Ship Island Beach, MS-38** ANALYST & DATE: nnc, 7/23/2010 1:11:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Well Sorted Medium Sand

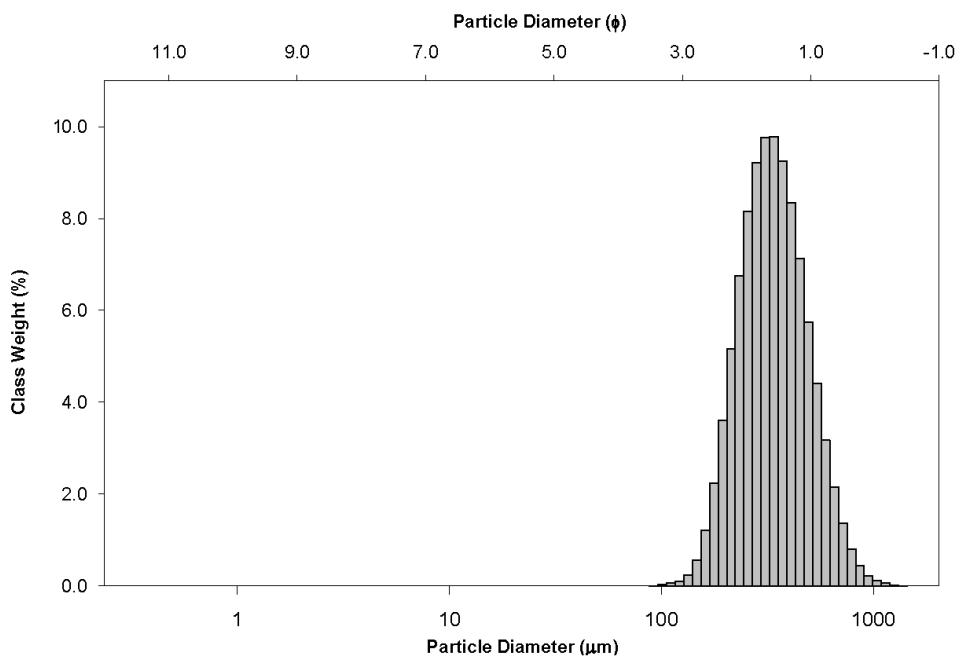
	µm	ϕ
MODE 1:	340.3	1.557
MODE 2:		
MODE 3:		
D_{10}:	210.6	0.866
MEDIAN or D_{50}:	333.7	1.583
D_{90}:	548.8	2.247
(D_{90} / D_{10}):	2.606	2.596
(D_{90} - D_{10}):	338.2	1.382
(D_{75} / D_{25}):	1.667	1.610
(D_{75} - D_{25}):	173.1	0.737

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	14.7%
SAND:	100.0%	MEDIUM SAND:	63.4%
MUD:	0.0%	FINE SAND:	21.5%
		V FINE SAND:	0.2%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.2%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	361.8	337.3	1.568	336.2	1.572	Medium Sand
SORTING (σ):	141.1	1.446	0.532	1.449	0.535	Moderately Well Sorted
SKEWNESS (Sk):	1.277	0.143	-0.143	0.040	-0.040	Symmetrical
KURTOSIS (K):	5.603	2.875	2.875	0.971	0.971	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **East Ship Island Beach, MS-39** ANALYST & DATE: nnc, 7/23/2010 1:32:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Well Sorted Medium Sand

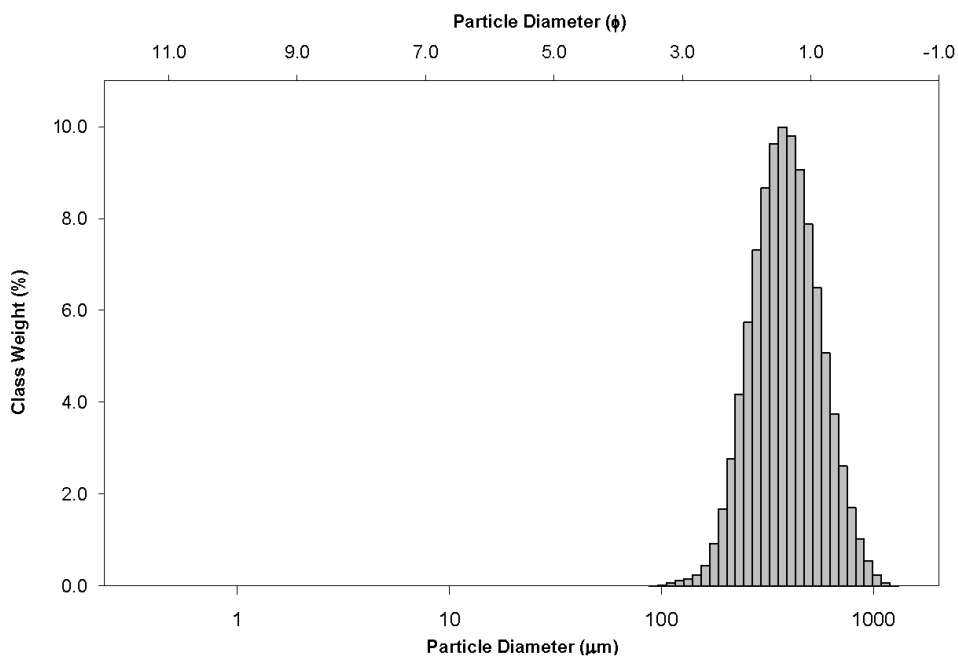
	µm	ϕ
MODE 1:	373.6	1.422
MODE 2:		
MODE 3:		
D_{10}:	241.9	0.683
MEDIAN or D_{50}:	384.3	1.380
D_{90}:	623.0	2.048
(D_{90} / D_{10}):	2.575	2.999
(D_{90} - D_{10}):	381.1	1.365
(D_{75} / D_{25}):	1.655	1.719
(D_{75} - D_{25}):	196.3	0.726

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	24.0%
SAND:	100.0%	MEDIUM SAND:	63.8%
MUD:	0.0%	FINE SAND:	11.6%
		V FINE SAND:	0.2%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.3%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	413.2	385.9	1.374	386.2	1.373	Medium Sand
SORTING (σ):	155.8	1.444	0.530	1.445	0.531	Moderately Well Sorted
SKEWNESS (Sk):	1.032	-0.008	0.008	0.022	-0.022	Symmetrical
KURTOSIS (K):	4.347	2.921	2.921	0.987	0.987	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **West Horn Island Beach, MS-40** ANALYST & DATE: nnc, 7/23/2010 1:31:00 PM

SAMPLE TYPE: Unimodal, Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Well Sorted Coarse Sand

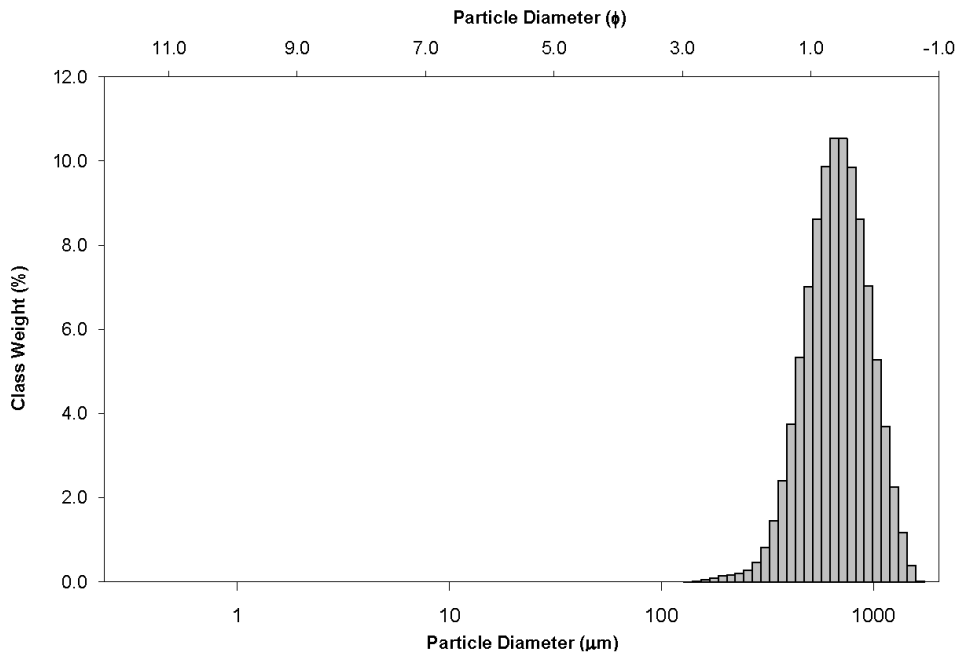
	µm	ϕ
MODE 1:	653.8	0.615
MODE 2:		
MODE 3:		
D_{10}:	429.5	-0.063
MEDIAN or D_{50}:	676.8	0.563
D_{90}:	1044.7	1.219
(D_{90} / D_{10}):	2.432	-19.344
(D_{90} - D_{10}):	615.2	1.282
(D_{75} / D_{25}):	1.607	4.049
(D_{75} - D_{25}):	323.3	0.684

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	67.8%
SAND:	100.0%	MEDIUM SAND:	18.9%
MUD:	0.0%	FINE SAND:	0.8%
		V FINE SAND:	0.0%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	12.5%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	710.1	668.9	0.580	674.3	0.568	Coarse Sand
SORTING (σ):	240.9	1.418	0.504	1.413	0.499	Well Sorted
SKEWNESS (Sk):	0.629	-0.355	0.355	-0.031	0.031	Symmetrical
KURTOSIS (K):	3.235	3.352	3.352	0.983	0.983	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **East Horn Island Beach, MS-41** ANALYST & DATE: nnc, 7/23/2010 1:28:00 PM

SAMPLE TYPE: Unimodal, Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Well Sorted Coarse Sand

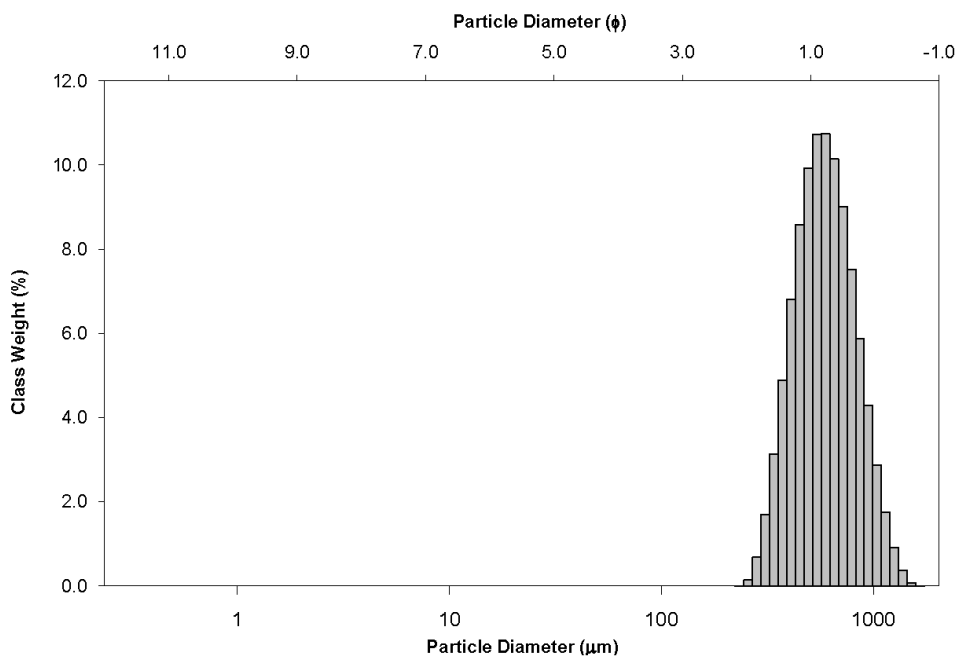
	µm	ϕ
MODE 1:	595.6	0.749
MODE 2:		
MODE 3:		
D_{10}:	386.7	0.134
MEDIAN or D_{50}:	585.3	0.773
D_{90}:	911.4	1.371
(D_{90} / D_{10}):	2.357	10.24
(D_{90} - D_{10}):	524.7	1.237
(D_{75} / D_{25}):	1.588	2.543
(D_{75} - D_{25}):	274.4	0.667

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	61.9%
SAND:	100.0%	MEDIUM SAND:	32.2%
MUD:	0.0%	FINE SAND:	0.0%
		V FINE SAND:	0.0%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	5.8%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	623.1	590.2	0.761	588.6	0.765	Coarse Sand
SORTING (σ):	209.0	1.384	0.469	1.394	0.479	Well Sorted
SKEWNESS (Sk):	0.910	0.114	-0.114	0.033	-0.033	Symmetrical
KURTOSIS (K):	3.780	2.574	2.574	0.957	0.957	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Petit Bois Island Beach, MS-42** ANALYST & DATE: nnc, 7/23/2010 1:27:00 PM

SAMPLE TYPE: Unimodal, Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Well Sorted Medium Sand

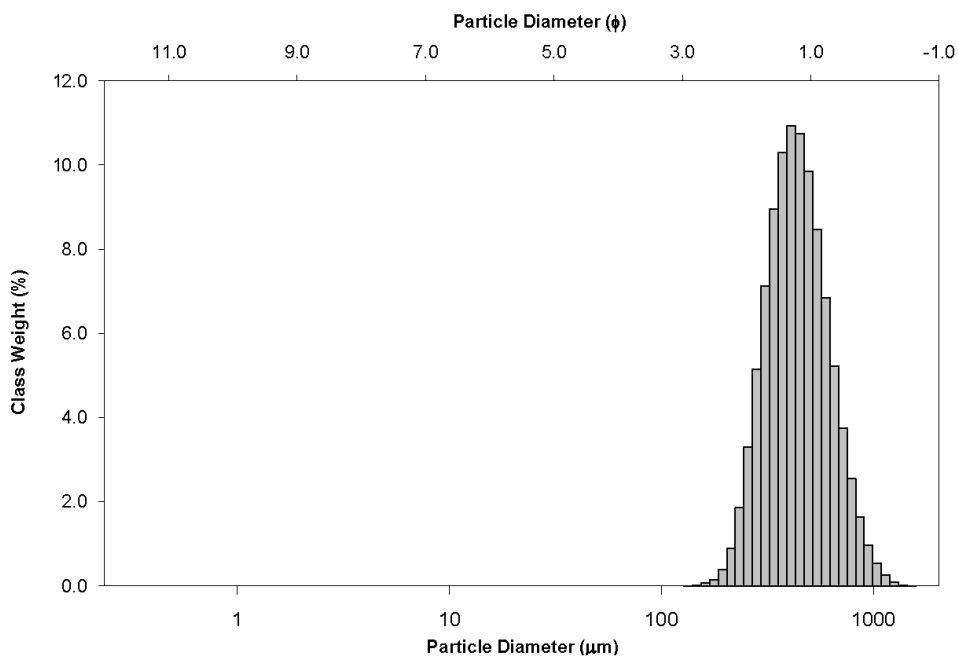
	µm	ϕ
MODE 1:	410.1	1.288
MODE 2:		
MODE 3:		
D_{10}:	285.6	0.551
MEDIAN or D_{50}:	432.5	1.209
D_{90}:	682.5	1.808
(D_{90} / D_{10}):	2.390	3.281
(D_{90} - D_{10}):	396.9	1.257
(D_{75} / D_{25}):	1.589	1.771
(D_{75} - D_{25}):	203.3	0.668

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	33.0%
SAND:	100.0%	MEDIUM SAND:	62.0%
MUD:	0.0%	FINE SAND:	4.1%
		V FINE SAND:	0.0%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.9%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	464.4	437.9	1.191	436.3	1.197	Medium Sand
SORTING (σ):	164.5	1.400	0.486	1.403	0.489	Well Sorted
SKEWNESS (Sk):	1.162	0.166	-0.166	0.050	-0.050	Symmetrical
KURTOSIS (K):	4.909	2.878	2.878	0.988	0.988	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Pass Christian Beach, MS-43** ANALYST & DATE: nnc, 7/23/2010 1:26:00 PM

SAMPLE TYPE: Unimodal, Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Well Sorted Medium Sand

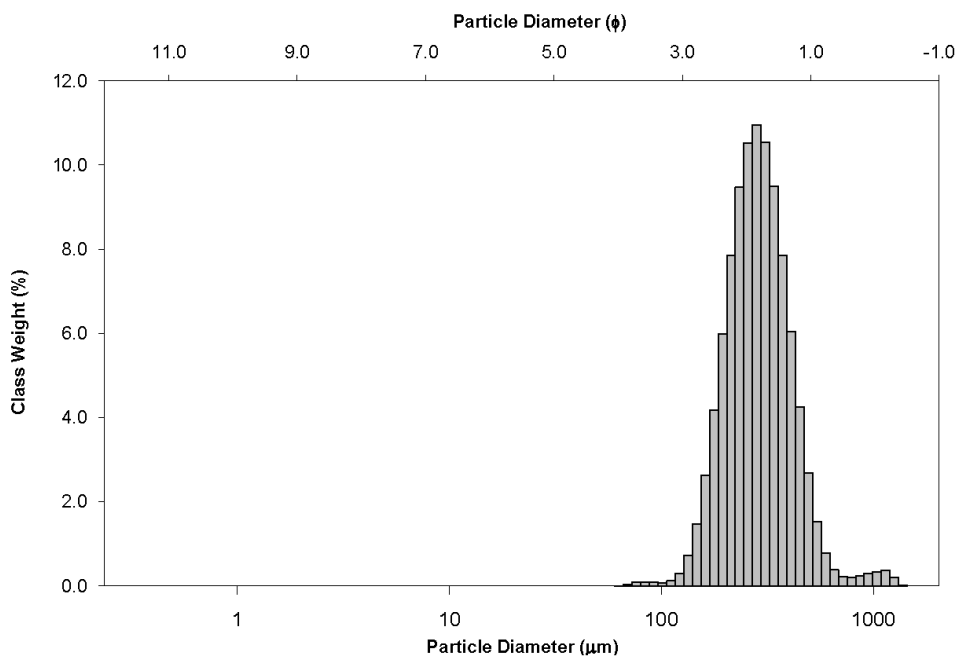
	µm	ϕ
MODE 1:	282.4	1.826
MODE 2:		
MODE 3:		
D_{10}:	185.7	1.169
MEDIAN or D_{50}:	284.3	1.815
D_{90}:	444.8	2.429
(D_{90} / D_{10}):	2.395	2.078
(D_{90} - D_{10}):	259.1	1.260
(D_{75} / D_{25}):	1.583	1.447
(D_{75} - D_{25}):	131.9	0.663

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	4.7%
SAND:	100.0%	MEDIUM SAND:	59.0%
MUD:	0.0%	FINE SAND:	34.5%
		V FINE SAND:	0.8%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.9%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	310.2	287.9	1.797	285.4	1.809	Medium Sand
SORTING (σ):	138.2	1.447	0.533	1.406	0.492	Well Sorted
SKEWNESS (Sk):	2.895	0.461	-0.461	0.027	-0.027	Symmetrical
KURTOSIS (K):	16.75	4.659	4.659	1.012	1.012	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Biloxi Beach, MS-44** ANALYST & DATE: nnc, 7/23/2010 1:28:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Well Sorted Medium Sand

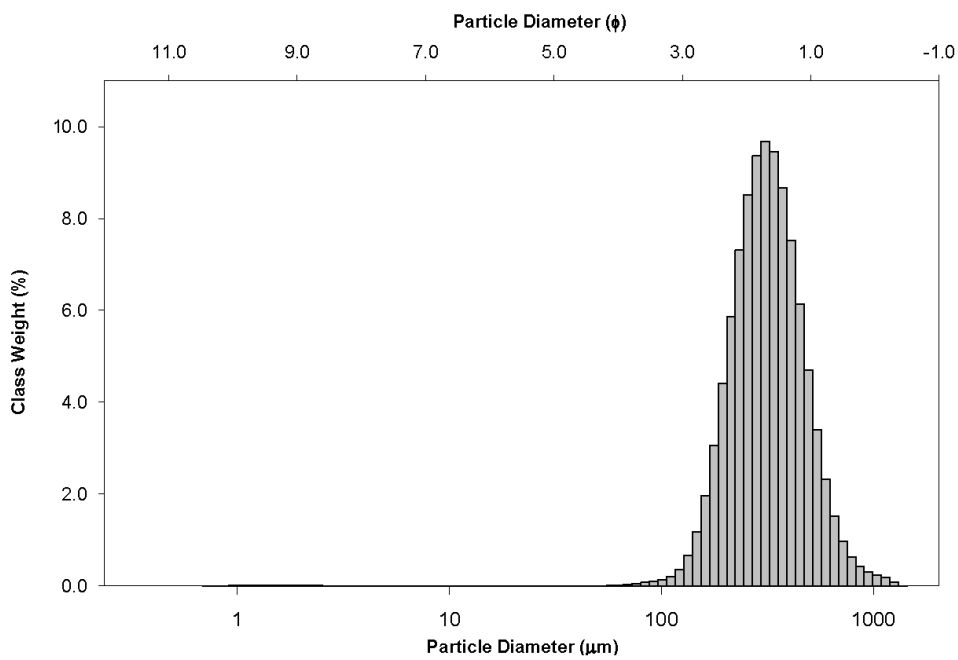
	µm	ϕ
MODE 1:	310.0	1.691
MODE 2:		
MODE 3:		
D_{10}:	191.7	0.944
MEDIAN or D_{50}:	313.8	1.672
D_{90}:	519.7	2.383
(D_{90} / D_{10}):	2.711	2.524
(D_{90} - D_{10}):	328.0	1.439
(D_{75} / D_{25}):	1.685	1.583
(D_{75} - D_{25}):	166.0	0.753

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	11.3%
SAND:	99.5%	MEDIUM SAND:	60.4%
MUD:	0.5%	FINE SAND:	26.2%
		V FINE SAND:	1.0%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.1%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.1%
V COARSE SAND:	0.5%	CLAY:	0.2%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	341.7	309.7	1.691	314.5	1.669	Medium Sand
SORTING (σ):	148.7	1.670	0.740	1.477	0.562	Moderately Well Sorted
SKEWNESS (Sk):	1.623	-3.854	3.854	0.015	-0.015	Symmetrical
KURTOSIS (K):	8.034	41.53	41.53	1.021	1.021	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Pascagoula Beach, MS-45** ANALYST & DATE: nnc, 7/23/2010 1:33:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Well Sorted Medium Sand

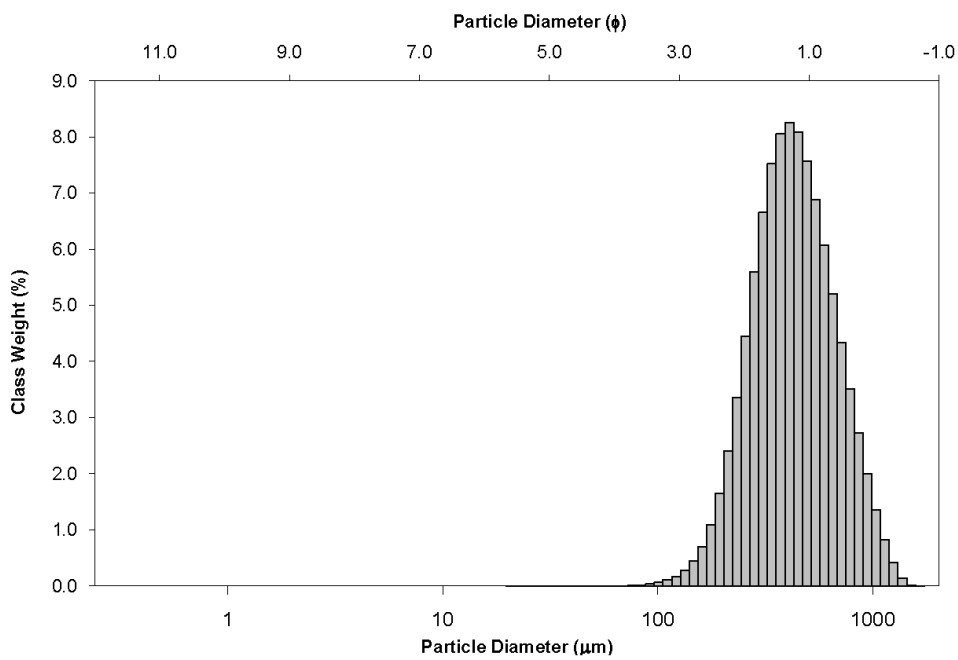
	µm	ϕ
MODE 1:	410.1	1.288
MODE 2:		
MODE 3:		
D_{10}:	241.8	0.374
MEDIAN or D_{50}:	424.7	1.236
D_{90}:	771.6	2.048
(D_{90} / D_{10}):	3.191	5.476
(D_{90} - D_{10}):	529.8	1.674
(D_{75} / D_{25}):	1.849	2.135
(D_{75} - D_{25}):	267.1	0.887

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	33.5%
SAND:	99.9%	MEDIUM SAND:	52.4%
MUD:	0.1%	FINE SAND:	10.9%
		V FINE SAND:	0.4%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	2.7%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	471.4	426.2	1.230	428.5	1.223	Medium Sand
SORTING (σ):	215.3	1.571	0.652	1.567	0.648	Moderately Well Sorted
SKEWNESS (Sk):	1.095	-0.182	0.182	0.023	-0.023	Symmetrical
KURTOSIS (K):	4.292	3.453	3.453	0.983	0.983	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **West Dauphin IS, AL-1** ANALYST & DATE: nnc, 7/23/2010 12:57:00 PM

SAMPLE TYPE: Unimodal, Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Well Sorted Medium Sand

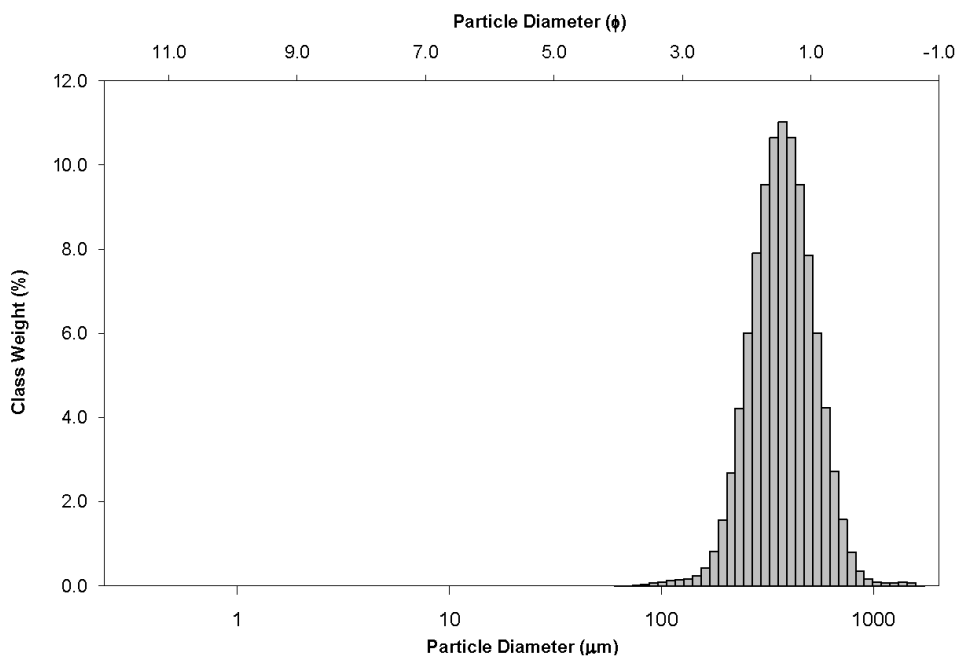
	µm	ϕ
MODE 1:	373.6	1.422
MODE 2:		
MODE 3:		
D_{10}:	241.4	0.806
MEDIAN or D_{50}:	372.5	1.425
D_{90}:	572.1	2.050
(D_{90} / D_{10}):	2.370	2.545
(D_{90} - D_{10}):	330.7	1.245
(D_{75} / D_{25}):	1.575	1.597
(D_{75} - D_{25}):	170.7	0.655

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	18.7%
SAND:	100.0%	MEDIUM SAND:	68.9%
MUD:	0.0%	FINE SAND:	11.4%
		V FINE SAND:	0.5%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.5%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	395.4	371.5	1.429	372.2	1.426	Medium Sand
SORTING (σ):	145.1	1.419	0.505	1.400	0.485	Well Sorted
SKEWNESS (Sk):	1.687	-0.103	0.103	-0.006	0.006	Symmetrical
KURTOSIS (K):	10.35	3.952	3.952	1.007	1.007	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Dauphin Island, AL-2** ANALYST & DATE: nnc, 7/23/2010 1:35:00 PM

SAMPLE TYPE: Unimodal, Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Well Sorted Medium Sand

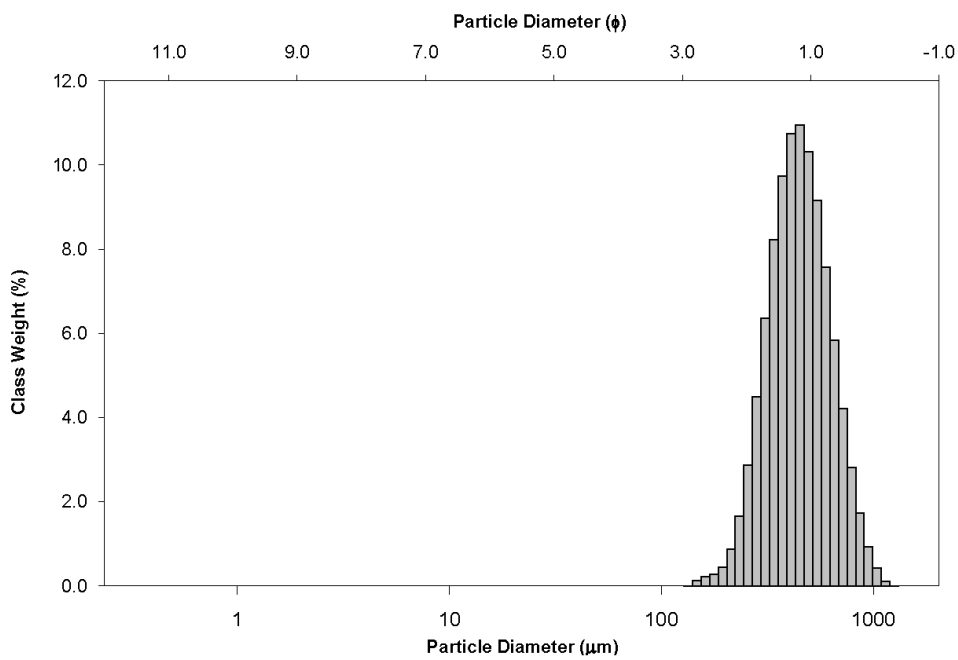
	μm	ϕ
MODE 1:	450.2	1.153
MODE 2:		
MODE 3:		
D_{10}:	289.3	0.539
MEDIAN or D_{50}:	444.1	1.171
D_{90}:	688.1	1.789
(D_{90} / D_{10}):	2.379	3.319
(D_{90} - D_{10}):	398.9	1.250
(D_{75} / D_{25}):	1.583	1.792
(D_{75} - D_{25}):	206.2	0.663

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	36.0%
SAND:	100.0%	MEDIUM SAND:	59.2%
MUD:	0.0%	FINE SAND:	4.3%
		V FINE SAND:	0.0%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.5%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic μm	Geometric μm	Logarithmic ϕ	Geometric μm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	470.6	444.5	1.170	445.0	1.168	Medium Sand
SORTING (σ):	160.2	1.400	0.485	1.401	0.486	Well Sorted
SKEWNESS (Sk):	0.871	-0.063	0.063	0.009	-0.009	Symmetrical
KURTOSIS (K):	3.861	2.920	2.920	0.991	0.991	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Dauphin IS, AL-3** ANALYST & DATE: nnc, 7/23/2010 1:43:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Well Sorted Medium Sand

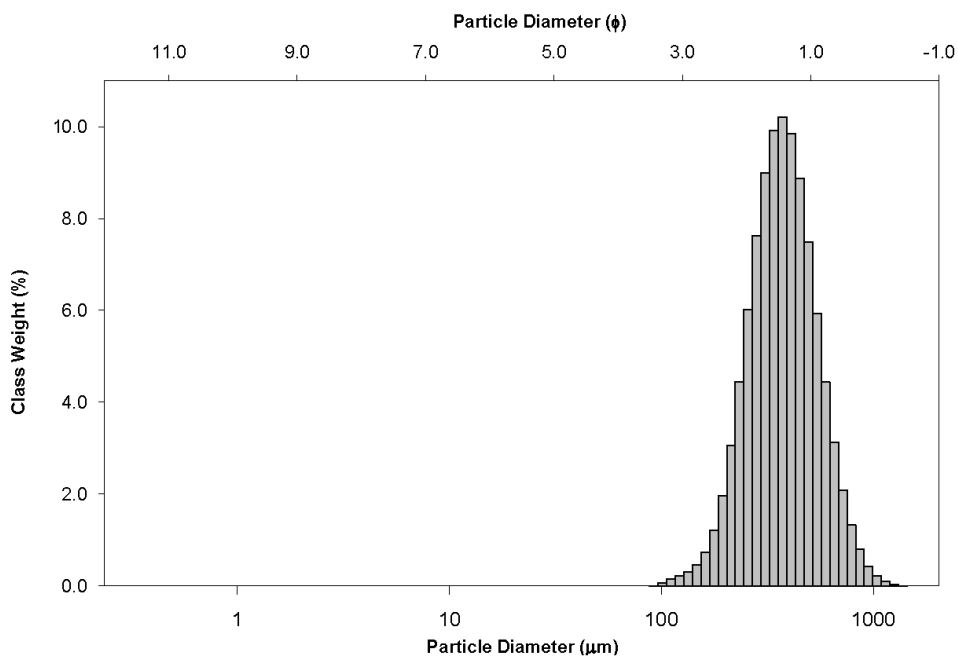
	µm	ϕ
MODE 1:	373.6	1.422
MODE 2:		
MODE 3:		
D_{10}:	231.7	0.738
MEDIAN or D_{50}:	372.3	1.426
D_{90}:	599.7	2.109
(D_{90} / D_{10}):	2.588	2.860
(D_{90} - D_{10}):	368.0	1.372
(D_{75} / D_{25}):	1.640	1.668
(D_{75} - D_{25}):	186.1	0.714

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	20.9%
SAND:	100.0%	MEDIUM SAND:	64.8%
MUD:	0.0%	FINE SAND:	13.5%
		V FINE SAND:	0.4%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.4%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	398.9	371.8	1.428	372.6	1.424	Medium Sand
SORTING (σ):	152.6	1.453	0.539	1.446	0.532	Moderately Well Sorted
SKEWNESS (Sk):	1.127	-0.084	0.084	0.000	0.000	Symmetrical
KURTOSIS (K):	5.057	3.168	3.168	1.014	1.014	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Fort Morgan, AL-4** ANALYST & DATE: nnc, 7/23/2010 1:48:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Well Sorted Medium Sand

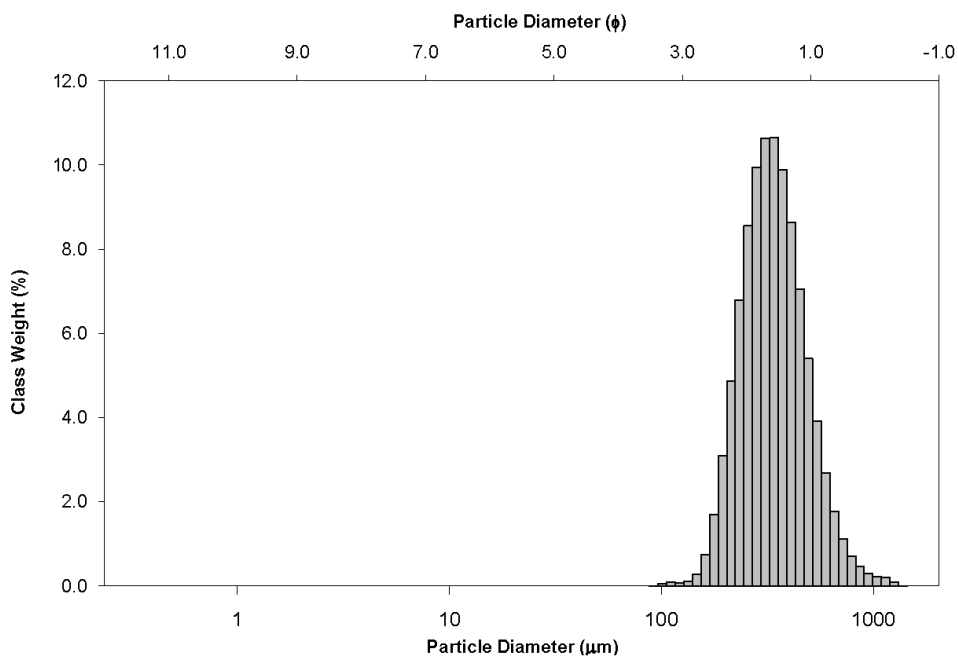
	µm	ϕ
MODE 1:	340.3	1.557
MODE 2:		
MODE 3:		
D_{10}:	218.9	0.897
MEDIAN or D_{50}:	333.4	1.585
D_{90}:	537.2	2.192
(D_{90} / D_{10}):	2.454	2.445
(D_{90} - D_{10}):	318.3	1.295
(D_{75} / D_{25}):	1.601	1.549
(D_{75} - D_{25}):	159.4	0.679

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	13.0%
SAND:	100.0%	MEDIUM SAND:	66.9%
MUD:	0.0%	FINE SAND:	19.4%
		V FINE SAND:	0.2%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.6%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	363.0	339.4	1.559	336.8	1.570	Medium Sand
SORTING (σ):	143.5	1.428	0.514	1.417	0.503	Moderately Well Sorted
SKEWNESS (Sk):	1.787	0.329	-0.329	0.063	-0.063	Symmetrical
KURTOSIS (K):	8.564	3.399	3.399	1.006	1.006	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Fort Morgan, AL-5** ANALYST & DATE: nnc, 7/23/2010 1:49:00 PM

SAMPLE TYPE: Unimodal, Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Well Sorted Coarse Sand

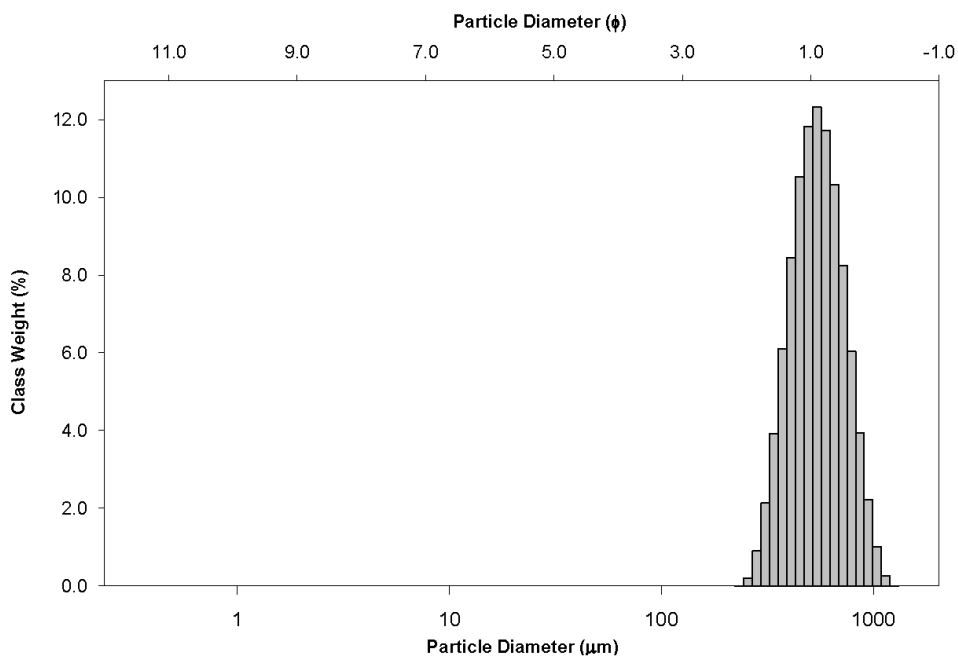
	µm	ϕ
MODE 1:	542.5	0.884
MODE 2:		
MODE 3:		
D_{10}:	371.7	0.335
MEDIAN or D_{50}:	541.3	0.886
D_{90}:	792.6	1.428
(D_{90} / D_{10}):	2.132	4.258
(D_{90} - D_{10}):	420.9	1.092
(D_{75} / D_{25}):	1.503	1.996
(D_{75} - D_{25}):	222.3	0.588

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	59.0%
SAND:	100.0%	MEDIUM SAND:	39.7%
MUD:	0.0%	FINE SAND:	0.1%
		V FINE SAND:	0.0%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	1.2%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	565.0	542.0	0.884	541.9	0.884	Coarse Sand
SORTING (σ):	162.9	1.329	0.411	1.340	0.422	Well Sorted
SKEWNESS (Sk):	0.694	0.020	-0.020	0.007	-0.007	Symmetrical
KURTOSIS (K):	3.239	2.554	2.554	0.955	0.955	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Gulf Shores, AL-6** ANALYST & DATE: nnc, 7/23/2010 1:45:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Well Sorted Medium Sand

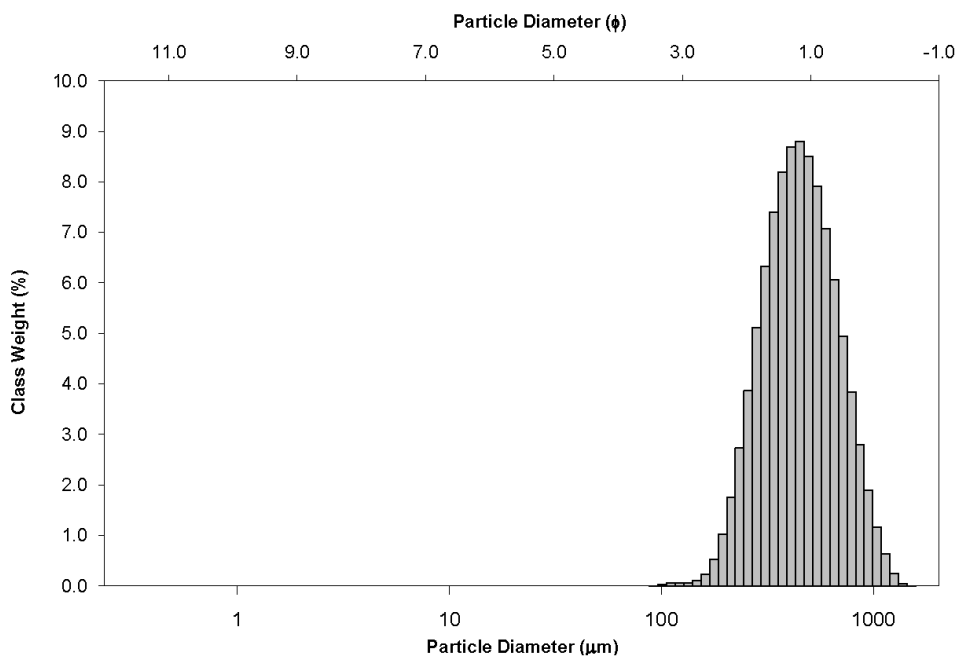
	μm	ϕ
MODE 1:	450.2	1.153
MODE 2:		
MODE 3:		
D_{10}:	266.0	0.390
MEDIAN or D_{50}:	447.1	1.161
D_{90}:	763.3	1.911
(D_{90} / D_{10}):	2.870	4.904
(D_{90} - D_{10}):	497.4	1.521
(D_{75} / D_{25}):	1.768	2.101
(D_{75} - D_{25}):	258.9	0.822

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	37.6%
SAND:	100.0%	MEDIUM SAND:	52.9%
MUD:	0.0%	FINE SAND:	7.3%
		V FINE SAND:	0.2%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	2.1%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic μm	Geometric μm	Logarithmic ϕ	Geometric μm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	486.3	448.1	1.158	448.7	1.156	Medium Sand
SORTING (σ):	199.8	1.498	0.583	1.504	0.589	Moderately Well Sorted
SKEWNESS (Sk):	0.982	-0.045	0.045	0.013	-0.013	Symmetrical
KURTOSIS (K):	3.966	2.772	2.772	0.957	0.957	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Orange Beach, AL-7** ANALYST & DATE: nnc, 7/23/2010 1:44:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Well Sorted Coarse Sand

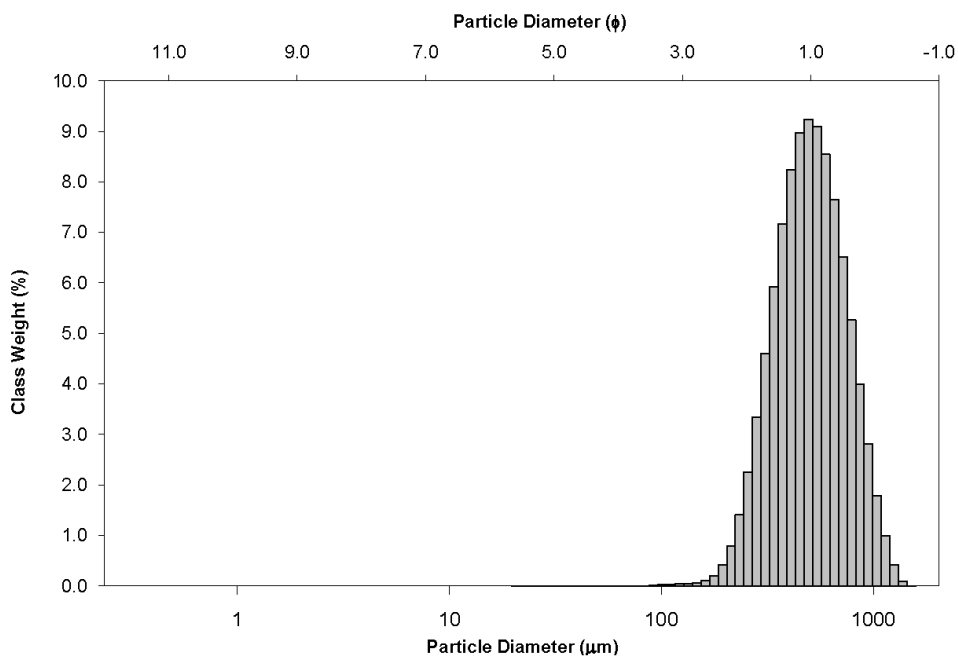
	µm	ϕ
MODE 1:	494.2	1.019
MODE 2:		
MODE 3:		
D_{10}:	302.3	0.275
MEDIAN or D_{50}:	502.2	0.994
D_{90}:	826.7	1.726
(D_{90} / D_{10}):	2.735	6.287
(D_{90} - D_{10}):	524.4	1.451
(D_{75} / D_{25}):	1.718	2.296
(D_{75} - D_{25}):	275.3	0.781

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	47.2%
SAND:	100.0%	MEDIUM SAND:	45.8%
MUD:	0.0%	FINE SAND:	3.6%
		V FINE SAND:	0.2%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	3.2%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	538.4	499.5	1.002	501.6	0.995	Coarse Sand
SORTING (σ):	208.2	1.478	0.564	1.478	0.563	Moderately Well Sorted
SKEWNESS (Sk):	0.830	-0.274	0.274	-0.010	0.010	Symmetrical
KURTOSIS (K):	3.586	3.671	3.671	0.963	0.963	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Fort Morgan BLM-1, AL-8** ANALYST & DATE: nnc, 7/23/2010 1:22:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand
SEDIMENT NAME: Moderately Well Sorted Medium Sand

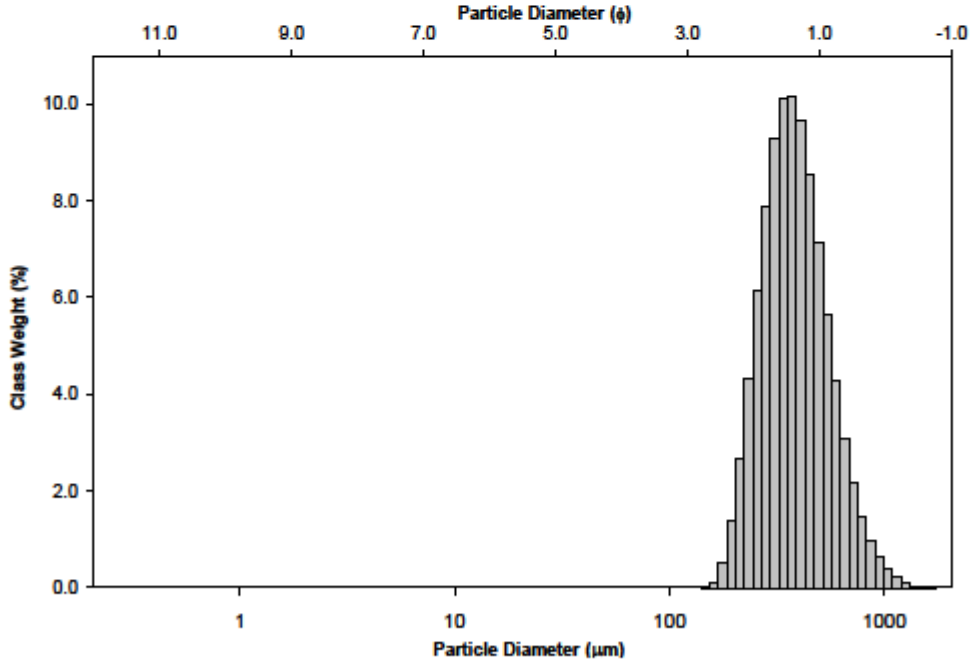
	µm	ϕ
MODE 1:	373.6	1.422
MODE 2:		
MODE 3:		
D_{10}:	247.8	0.700
MEDIAN or D_{50}:	376.6	1.409
D_{90}:	615.7	2.013
(D_{90} / D_{10}):	2.485	2.877
(D_{90} - D_{10}):	367.9	1.313
(D_{75} / D_{25}):	1.616	1.661
(D_{75} - D_{25}):	184.3	0.693

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	21.6%
SAND:	100.0%	MEDIUM SAND:	67.1%
MUD:	0.0%	FINE SAND:	10.6%
		V FINE SAND:	0.0%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.8%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	411.3	385.0	1.377	382.2	1.388	Medium Sand
SORTING (σ):	159.4	1.424	0.509	1.424	0.510	Moderately Well Sorted
SKEWNESS (Sk):	1.517	0.365	-0.365	0.087	-0.087	Symmetrical
KURTOSIS (K):	6.508	2.992	2.992	0.996	0.996	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Fort Morgan BLM-2, AL-9** ANALYST & DATE: nnc, 7/23/2010 1:22:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand
SEDIMENT NAME: Moderately Well Sorted Medium Sand

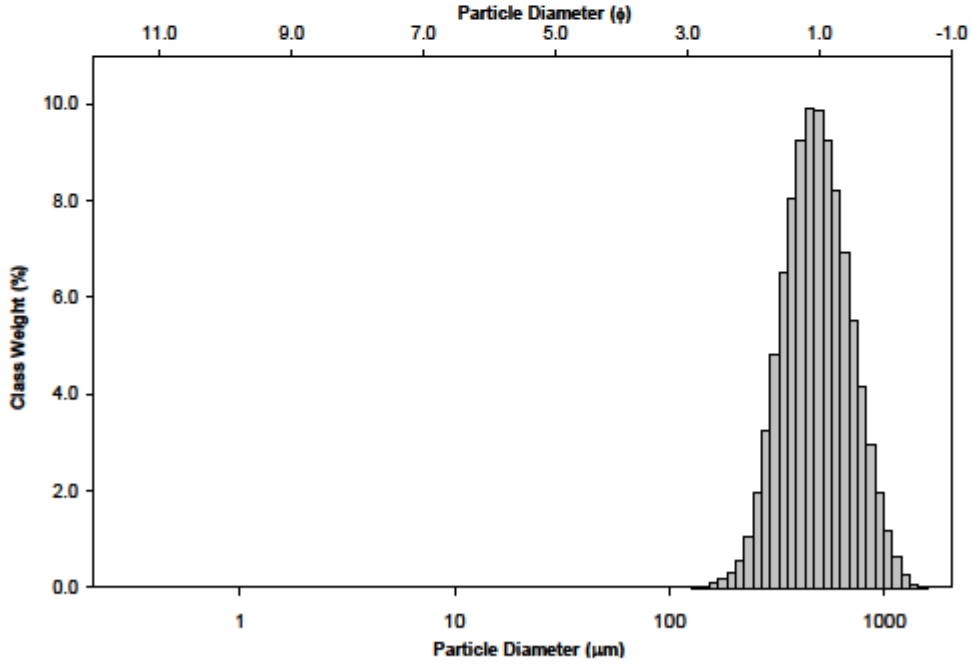
	µm	ϕ
MODE 1:	450.2	1.153
MODE 2:		
MODE 3:		
D_{10}:	308.7	0.362
MEDIAN or D_{50}:	482.6	1.051
D_{90}:	778.0	1.696
(D_{90} / D_{10}):	2.520	4.682
(D_{90} - D_{10}):	469.3	1.334
(D_{75} / D_{25}):	1.632	2.022
(D_{75} - D_{25}):	239.8	0.706

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	44.0%
SAND:	100.0%	MEDIUM SAND:	51.1%
MUD:	0.0%	FINE SAND:	2.8%
		V FINE SAND:	0.0%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	2.2%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	518.1	485.9	1.041	485.8	1.042	Medium Sand
SORTING (σ):	189.4	1.427	0.512	1.430	0.516	Moderately Well Sorted
SKEWNESS (Sk):	0.999	0.029	-0.029	0.031	-0.031	Symmetrical
KURTOSIS (K):	4.164	2.832	2.832	0.982	0.982	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Fort Morgan BLM-3, AL-10** ANALYST & DATE: nnc, 7/23/2010 1:23:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Well Sorted Medium Sand

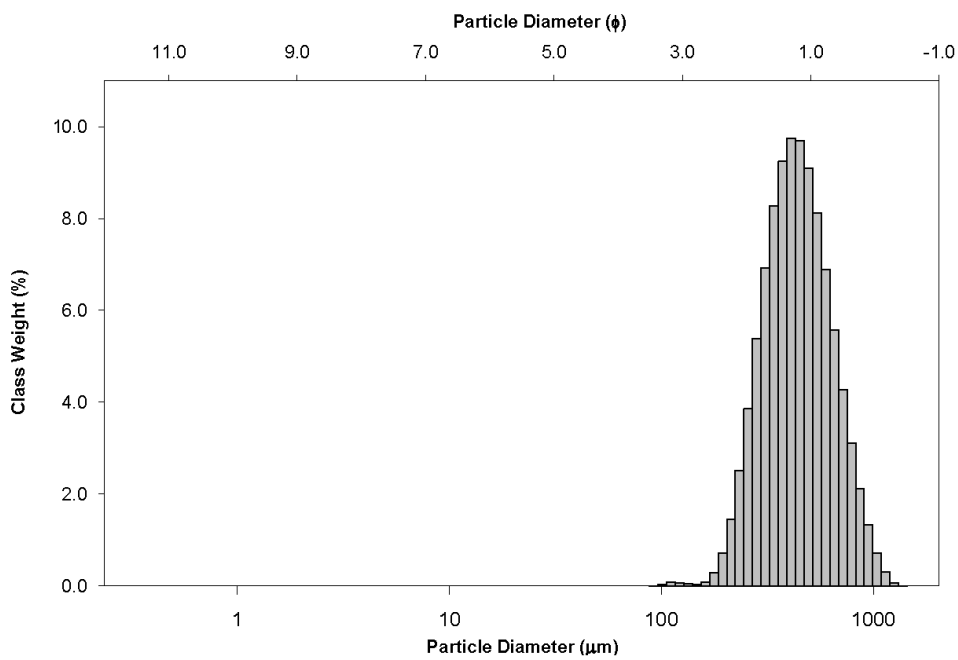
	µm	ϕ
MODE 1:	410.1	1.288
MODE 2:		
MODE 3:		
D_{10}:	272.7	0.486
MEDIAN or D_{50}:	434.4	1.203
D_{90}:	714.2	1.875
(D_{90} / D_{10}):	2.619	3.861
(D_{90} - D_{10}):	441.5	1.389
(D_{75} / D_{25}):	1.672	1.897
(D_{75} - D_{25}):	226.6	0.741

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	34.7%
SAND:	100.0%	MEDIUM SAND:	58.0%
MUD:	0.0%	FINE SAND:	6.0%
		V FINE SAND:	0.2%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	1.1%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	468.5	437.0	1.194	437.2	1.193	Medium Sand
SORTING (σ):	177.9	1.449	0.535	1.451	0.537	Moderately Well Sorted
SKEWNESS (Sk):	0.994	-0.018	0.018	0.030	-0.030	Symmetrical
KURTOSIS (K):	4.084	2.950	2.950	0.969	0.969	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **St. Marks NWR nr St. Marks, FL-7** ANALYST & DATE: nnc, 7/23/2010 12:24:00 PM

SAMPLE TYPE: Unimodal, Moderately Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Sorted Fine Sand

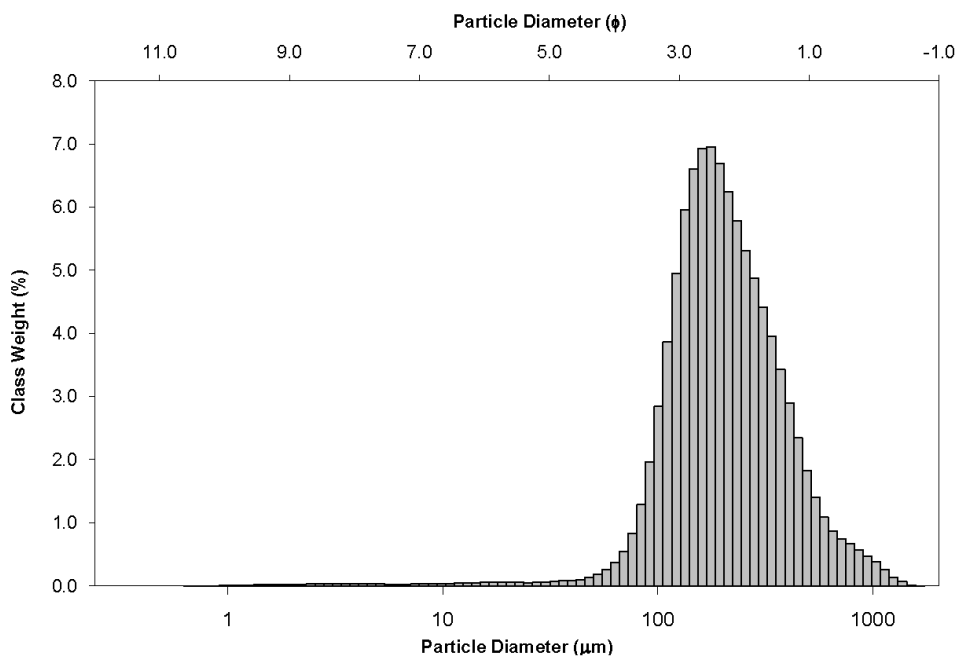
	µm	ϕ
MODE 1:	177.2	2.499
MODE 2:		
MODE 3:		
D_{10}:	104.4	1.168
MEDIAN or D_{50}:	197.1	2.343
D_{90}:	444.9	3.260
(D_{90} / D_{10}):	4.261	2.790
(D_{90} - D_{10}):	340.5	2.091
(D_{75} / D_{25}):	2.140	1.630
(D_{75} - D_{25}):	159.4	1.098

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	6.5%
SAND:	97.3%	MEDIUM SAND:	27.2%
MUD:	2.7%	FINE SAND:	47.2%
		V FINE SAND:	15.4%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	1.1%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.5%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.4%
FINE GRAVEL:	0.0%	FINE SILT:	0.3%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.3%
V COARSE SAND:	0.9%	CLAY:	0.2%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	247.7	199.8	2.323	205.8	2.281	Fine Sand
SORTING (σ):	175.4	2.052	1.037	1.775	0.828	Moderately Sorted
SKEWNESS (Sk):	2.367	-1.706	1.706	0.117	-0.117	Coarse Skewed
KURTOSIS (K):	10.89	13.08	13.08	1.045	1.045	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Piney Pt. Bch at Cedar Key, FL-8** ANALYST & DATE: nnc, 7/23/2010 12:16:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Well Sorted Medium Sand

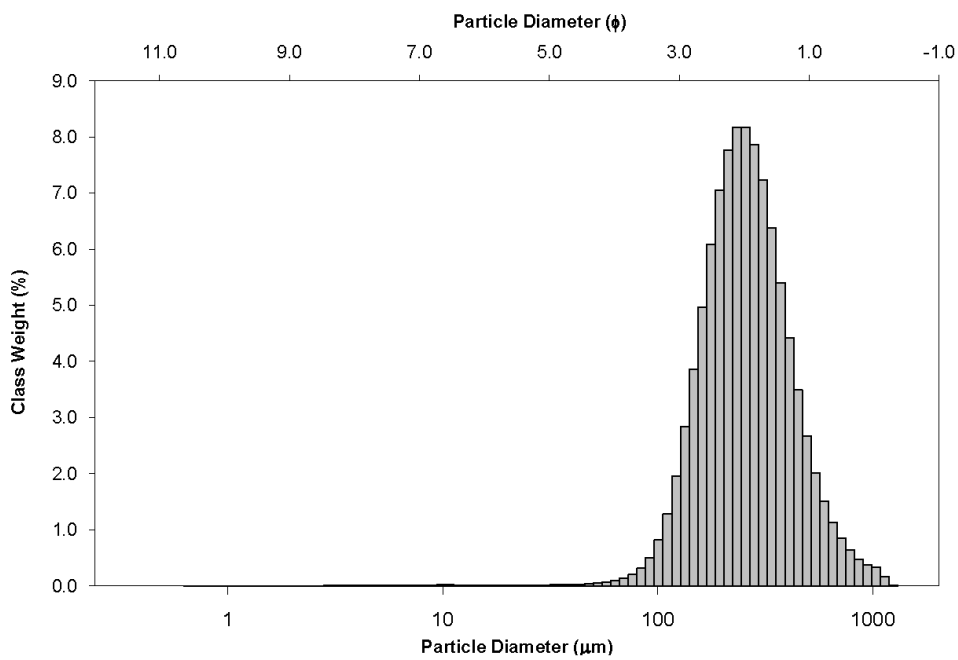
	µm	ϕ
MODE 1:	257.2	1.961
MODE 2:		
MODE 3:		
D_{10}:	143.0	1.075
MEDIAN or D_{50}:	254.0	1.977
D_{90}:	474.6	2.806
(D_{90} / D_{10}):	3.318	2.609
(D_{90} - D_{10}):	331.5	1.730
(D_{75} / D_{25}):	1.855	1.586
(D_{75} - D_{25}):	160.6	0.891

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	8.0%
SAND:	99.0%	MEDIUM SAND:	42.9%
MUD:	1.0%	FINE SAND:	42.7%
		V FINE SAND:	4.9%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.3%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.1%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.2%
FINE GRAVEL:	0.0%	FINE SILT:	0.2%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.1%
V COARSE SAND:	0.5%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	289.6	253.2	1.982	256.6	1.962	Medium Sand
SORTING (σ):	155.3	1.746	0.804	1.601	0.679	Moderately Well Sorted
SKEWNESS (Sk):	1.837	-1.731	1.731	0.044	-0.044	Symmetrical
KURTOSIS (K):	8.156	15.69	15.69	1.053	1.053	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Fort IS Gulf Bch nr Chassah, FL-9** ANALYST & DATE: nnc, 7/23/2010 12:14:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Well Sorted Fine Sand

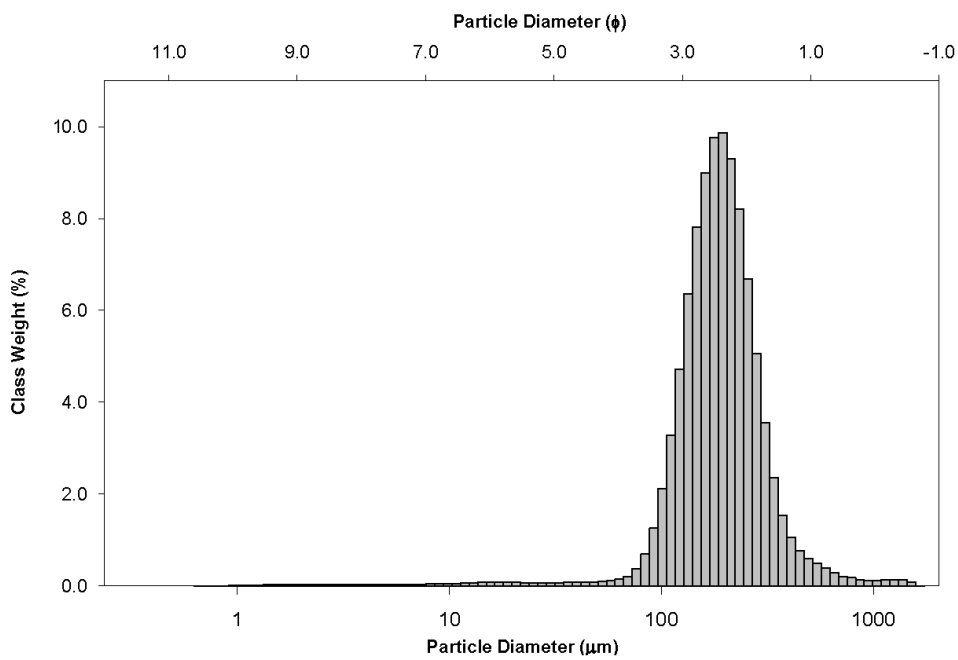
	µm	ϕ
MODE 1:	194.5	2.364
MODE 2:		
MODE 3:		
D_{10}:	113.1	1.665
MEDIAN or D_{50}:	188.0	2.411
D_{90}:	315.3	3.145
(D_{90} / D_{10}):	2.789	1.888
(D_{90} - D_{10}):	202.2	1.479
(D_{75} / D_{25}):	1.673	1.364
(D_{75} - D_{25}):	97.74	0.743

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	2.1%
SAND:	97.1%	MEDIUM SAND:	20.0%
MUD:	2.9%	FINE SAND:	62.6%
		V FINE SAND:	11.7%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.8%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.6%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.5%
FINE GRAVEL:	0.0%	FINE SILT:	0.4%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.4%
V COARSE SAND:	0.7%	CLAY:	0.3%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	212.3	180.5	2.470	188.3	2.409	Fine Sand
SORTING (σ):	135.5	1.945	0.960	1.508	0.593	Moderately Well Sorted
SKEWNESS (Sk):	4.300	-2.922	2.922	0.011	-0.011	Symmetrical
KURTOSIS (K):	32.33	21.03	21.03	1.149	1.149	Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Fort Desoto Pk nr St. Pete, FL-10** ANALYST & DATE: nnc, 7/23/2010 12:15:00 PM

SAMPLE TYPE: Unimodal, Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Well Sorted Fine Sand

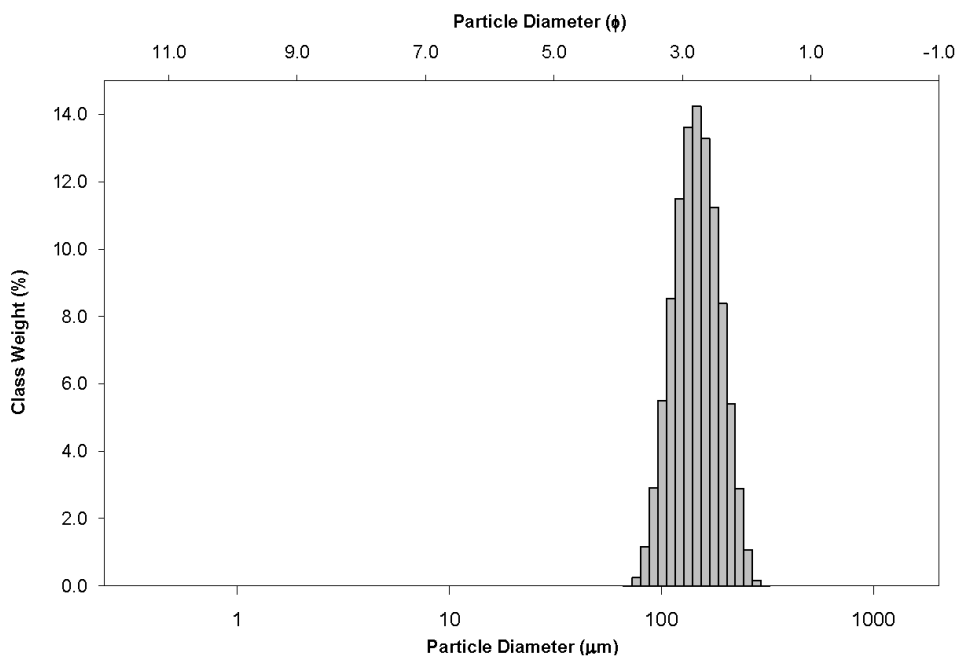
	µm	ϕ
MODE 1:	147.0	2.768
MODE 2:		
MODE 3:		
D_{10}:	106.1	2.304
MEDIAN or D_{50}:	146.3	2.773
D_{90}:	202.5	3.237
(D_{90} / D_{10}):	1.909	1.405
(D_{90} - D_{10}):	96.41	0.933
(D_{75} / D_{25}):	1.424	1.203
(D_{75} - D_{25}):	52.05	0.510

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	0.0%
SAND:	100.0%	MEDIUM SAND:	1.0%
MUD:	0.0%	FINE SAND:	71.7%
		V FINE SAND:	27.3%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.0%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	151.0	146.4	2.772	146.4	2.772	Fine Sand
SORTING (σ):	37.32	1.278	0.354	1.286	0.363	Well Sorted
SKEWNESS (Sk):	0.569	-0.004	0.004	0.004	-0.004	Symmetrical
KURTOSIS (K):	3.000	2.547	2.547	0.943	0.943	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Captiva IS Bch nr Captiva, FL-11** ANALYST & DATE: nnc, 7/23/2010 12:31:00 PM

SAMPLE TYPE: Unimodal, Moderately Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Sorted Medium Sand

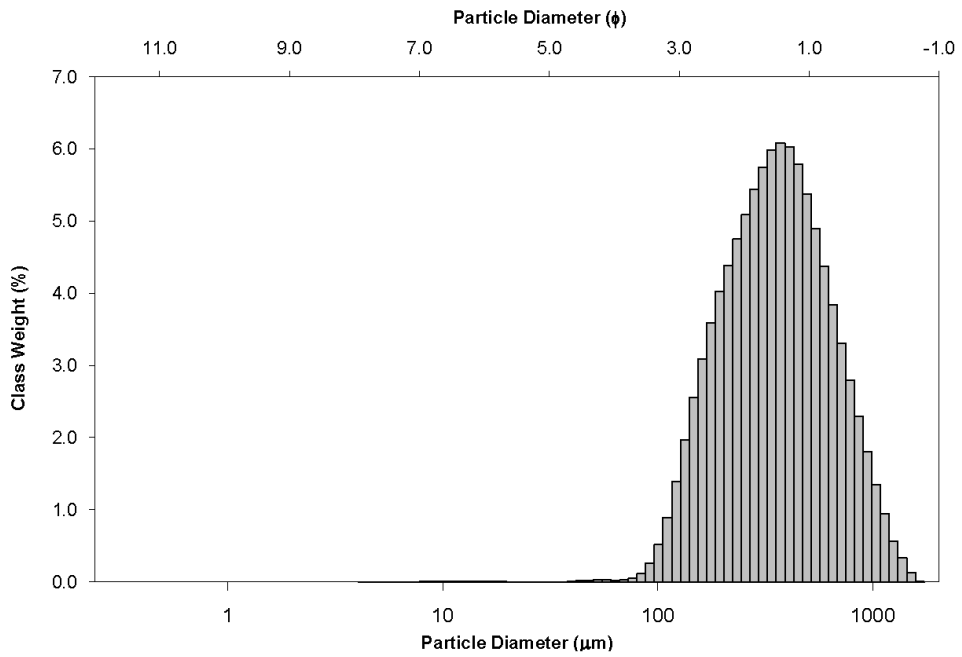
	µm	ϕ
MODE 1:	373.6	1.422
MODE 2:		
MODE 3:		
D_{10}:	162.5	0.402
MEDIAN or D_{50}:	355.2	1.493
D_{90}:	756.9	2.621
(D_{90} / D_{10}):	4.657	6.524
(D_{90} - D_{10}):	594.4	2.219
(D_{75} / D_{25}):	2.306	2.329
(D_{75} - D_{25}):	302.1	1.205

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	25.3%
SAND:	99.7%	MEDIUM SAND:	42.4%
MUD:	0.3%	FINE SAND:	25.7%
		V FINE SAND:	3.0%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.2%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.1%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.1%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	3.3%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	415.0	350.5	1.513	351.9	1.507	Medium Sand
SORTING (σ):	245.8	1.815	0.860	1.810	0.856	Moderately Sorted
SKEWNESS (Sk):	1.283	-0.387	0.387	-0.016	0.016	Symmetrical
KURTOSIS (K):	4.770	4.482	4.482	0.933	0.933	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Tiger Tail Bch at Marco IS, FL-12** ANALYST & DATE: nnc, 7/23/2010 12:35:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Well Sorted Fine Sand

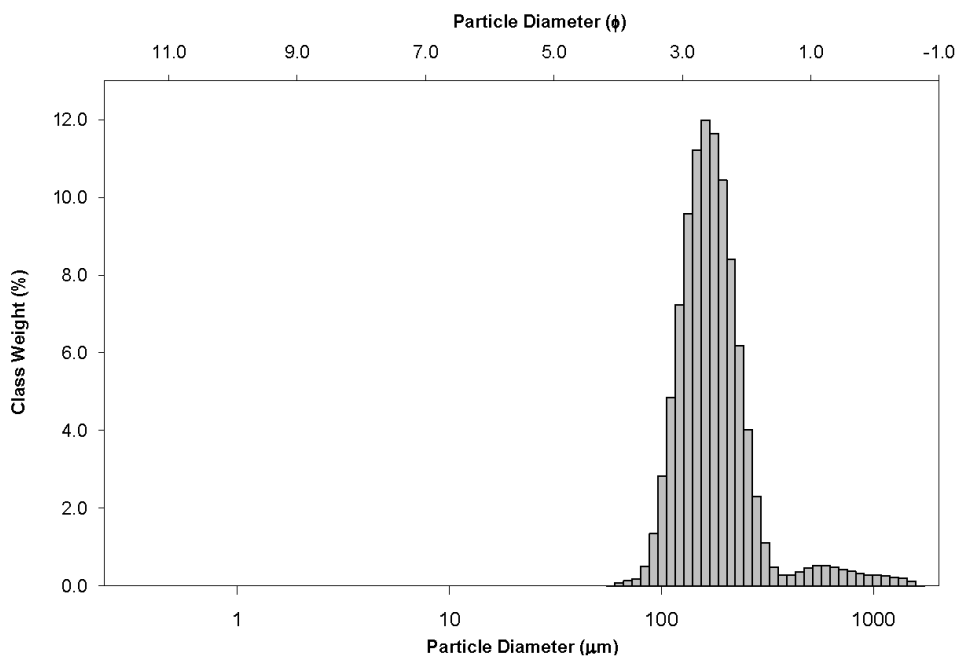
	µm	ϕ
MODE 1:	161.4	2.633
MODE 2:		
MODE 3:		
D_{10}:	116.3	1.909
MEDIAN or D_{50}:	169.0	2.565
D_{90}:	266.2	3.104
(D_{90} / D_{10}):	2.288	1.626
(D_{90} - D_{10}):	149.9	1.194
(D_{75} / D_{25}):	1.529	1.273
(D_{75} - D_{25}):	72.86	0.612

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	3.2%
SAND:	100.0%	MEDIUM SAND:	8.4%
MUD:	0.0%	FINE SAND:	71.7%
		V FINE SAND:	15.5%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	1.1%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	204.3	179.3	2.479	171.2	2.546	Fine Sand
SORTING (σ):	156.0	1.547	0.630	1.449	0.535	Moderately Well Sorted
SKEWNESS (Sk):	4.675	1.814	-1.814	0.196	-0.196	Coarse Skewed
KURTOSIS (K):	29.20	8.218	8.218	1.360	1.360	Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **B Baggs Cape nr Key Biscayne, FL-15** ANALYST & DATE: nnc, 7/23/2010 1:17:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Well Sorted Medium Sand

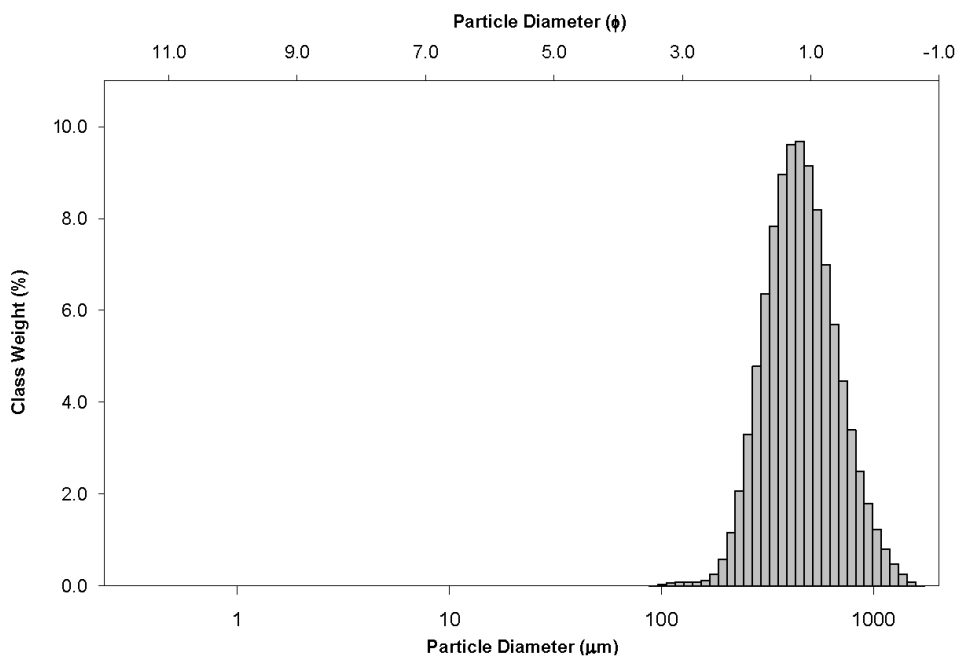
	µm	ϕ
MODE 1:	450.2	1.153
MODE 2:		
MODE 3:		
D_{10}:	280.5	0.390
MEDIAN or D_{50}:	448.9	1.156
D_{90}:	763.0	1.834
(D_{90} / D_{10}):	2.721	4.700
(D_{90} - D_{10}):	482.5	1.444
(D_{75} / D_{25}):	1.689	1.989
(D_{75} - D_{25}):	240.2	0.756

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	36.4%
SAND:	100.0%	MEDIUM SAND:	55.5%
MUD:	0.0%	FINE SAND:	5.1%
		V FINE SAND:	0.2%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	2.8%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	492.8	455.6	1.134	454.3	1.138	Medium Sand
SORTING (σ):	204.1	1.478	0.563	1.474	0.560	Moderately Well Sorted
SKEWNESS (Sk):	1.319	0.106	-0.106	0.061	-0.061	Symmetrical
KURTOSIS (K):	5.369	3.120	3.120	1.003	1.003	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Lloyd Bch at Ft. Lauderdale, FL-16** ANALYST & DATE: nnc, 7/23/2010 12:25:00 PM

SAMPLE TYPE: Unimodal, Moderately Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Sorted Medium Sand

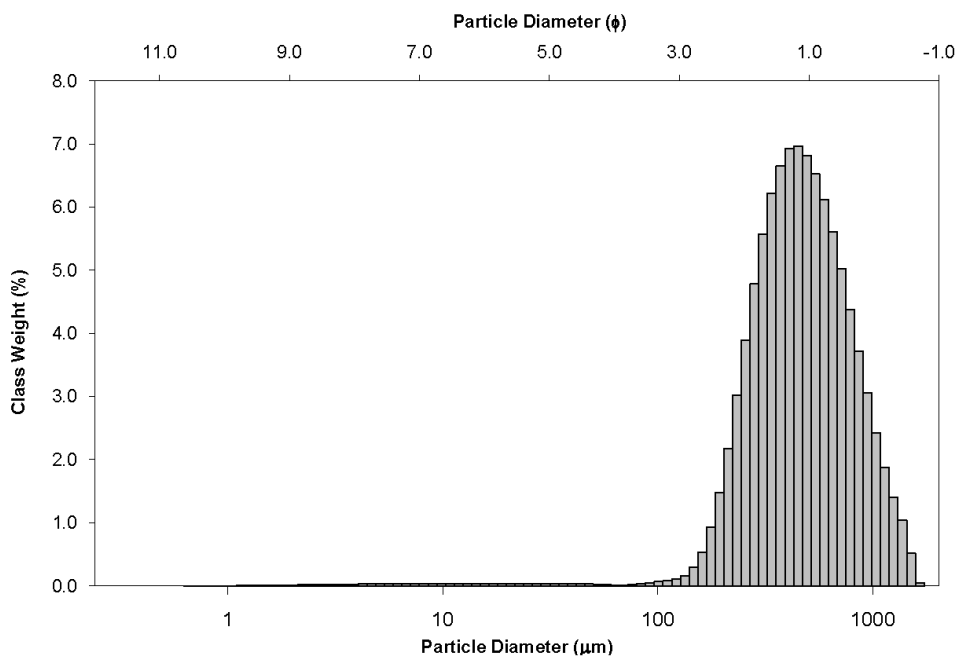
	µm	ϕ
MODE 1:	450.2	1.153
MODE 2:		
MODE 3:		
D_{10}:	240.4	0.127
MEDIAN or D_{50}:	461.4	1.116
D_{90}:	915.5	2.057
(D_{90} / D_{10}):	3.809	16.15
(D_{90} - D_{10}):	675.1	1.929
(D_{75} / D_{25}):	2.051	2.773
(D_{75} - D_{25}):	341.8	1.037

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	37.0%
SAND:	98.4%	MEDIUM SAND:	44.4%
MUD:	1.6%	FINE SAND:	9.4%
		V FINE SAND:	0.4%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.3%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.3%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.3%
FINE GRAVEL:	0.0%	FINE SILT:	0.3%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.2%
V COARSE SAND:	7.2%	CLAY:	0.1%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	525.3	443.4	1.173	466.0	1.102	Medium Sand
SORTING (σ):	278.2	2.023	1.016	1.683	0.751	Moderately Sorted
SKEWNESS (Sk):	1.050	-3.004	3.004	0.017	-0.017	Symmetrical
KURTOSIS (K):	4.081	21.26	21.26	0.972	0.972	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **MacArthur Bch at W Palm Bch, FL-17** ANALYST & DATE: nnc, 7/23/2010 12:30:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Well Sorted Medium Sand

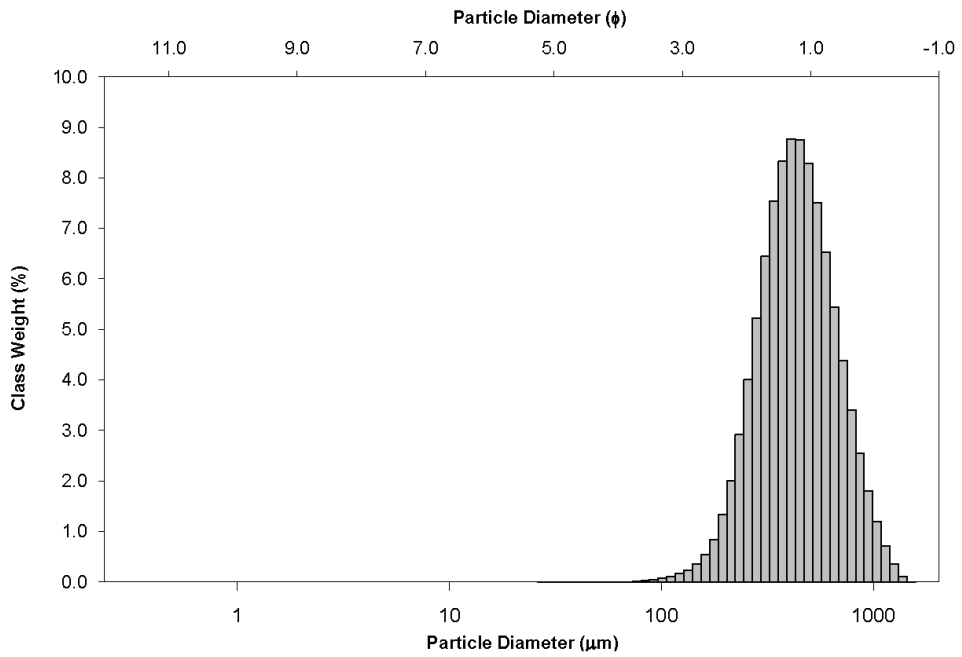
	µm	ϕ
MODE 1:	410.1	1.288
MODE 2:		
MODE 3:		
D_{10}:	252.1	0.406
MEDIAN or D_{50}:	433.7	1.205
D_{90}:	754.6	1.988
(D_{90} / D_{10}):	2.993	4.894
(D_{90} - D_{10}):	502.5	1.582
(D_{75} / D_{25}):	1.776	2.055
(D_{75} - D_{25}):	253.5	0.829

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	34.6%
SAND:	99.9%	MEDIUM SAND:	53.4%
MUD:	0.1%	FINE SAND:	9.1%
		V FINE SAND:	0.5%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.1%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	2.3%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	474.5	433.0	1.208	435.3	1.200	Medium Sand
SORTING (σ):	205.8	1.539	0.622	1.532	0.616	Moderately Well Sorted
SKEWNESS (Sk):	1.071	-0.221	0.221	0.008	-0.008	Symmetrical
KURTOSIS (K):	4.368	3.503	3.503	1.008	1.008	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **Coco Plum Bch nr Marathon, FL-18** ANALYST & DATE: nnc, 7/23/2010 12:29:00 PM

SAMPLE TYPE: Bimodal, Moderately Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Sorted Fine Sand

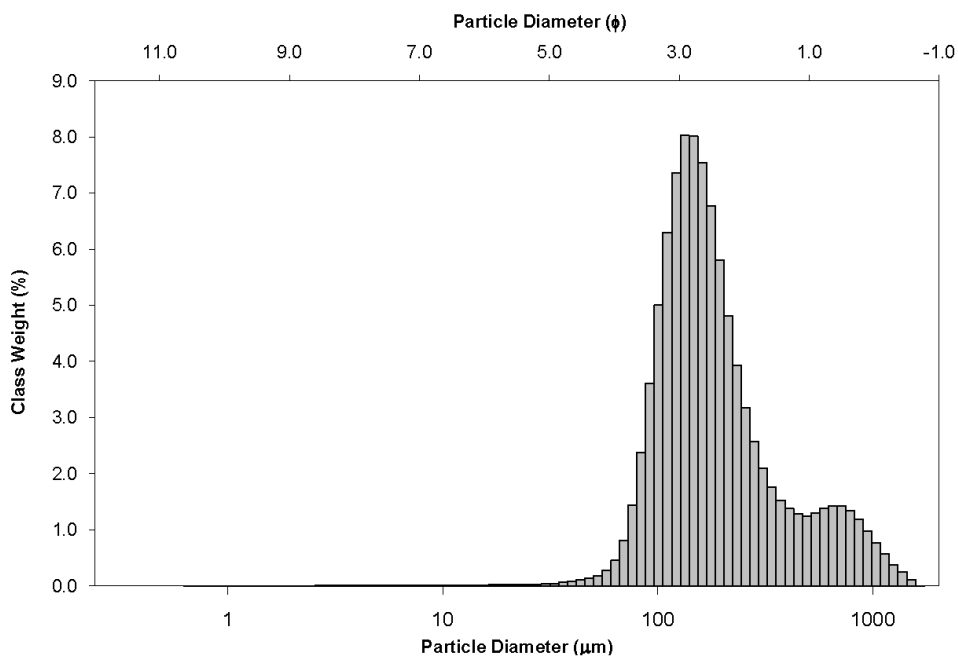
	µm	ϕ
MODE 1:	133.9	2.902
MODE 2:	653.8	0.615
MODE 3:		
D_{10}:	95.61	0.827
MEDIAN or D_{50}:	163.7	2.611
D_{90}:	563.5	3.387
(D_{90} / D_{10}):	5.894	4.093
(D_{90} - D_{10}):	467.9	2.559
(D_{75} / D_{25}):	2.096	1.541
(D_{75} - D_{25}):	133.0	1.068

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	9.6%
SAND:	98.2%	MEDIUM SAND:	13.9%
MUD:	1.8%	FINE SAND:	47.1%
		V FINE SAND:	25.5%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	1.1%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.3%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.2%
FINE GRAVEL:	0.0%	FINE SILT:	0.1%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.1%
V COARSE SAND:	2.1%	CLAY:	0.1%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	247.6	187.4	2.416	186.5	2.423	Fine Sand
SORTING (σ):	228.5	2.042	1.030	1.921	0.942	Moderately Sorted
SKEWNESS (Sk):	2.458	0.049	-0.049	0.351	-0.351	Very Coarse Skewed
KURTOSIS (K):	9.370	6.818	6.818	1.251	1.251	Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **BLM Tract1 nr Jupiter Inlet, FL-19** ANALYST & DATE: nnc, 7/23/2010 12:47:00 PM

SAMPLE TYPE: Bimodal, Moderately Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Sorted Medium Sand

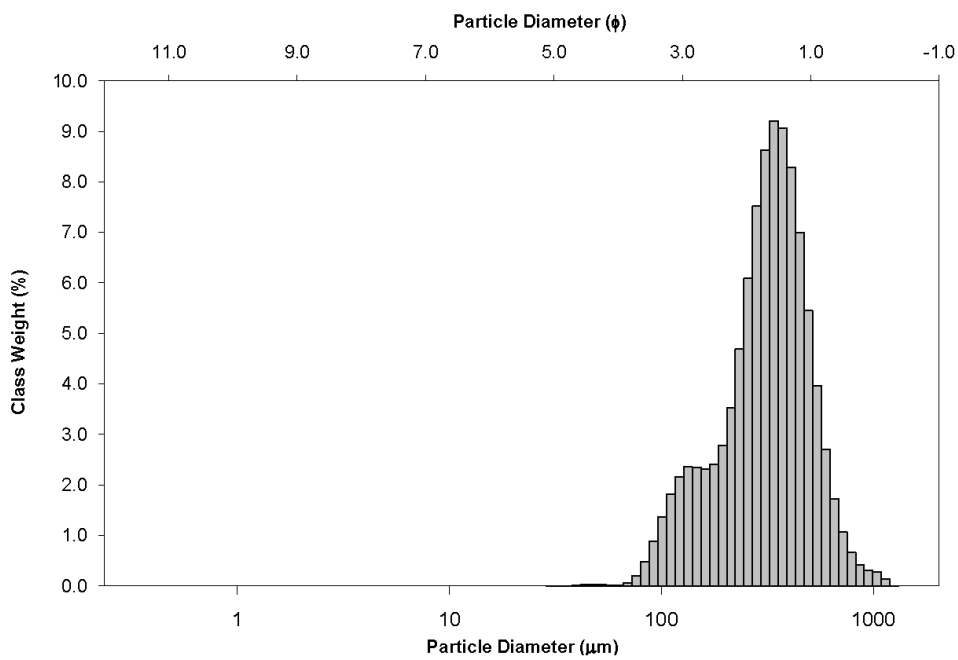
	µm	ϕ
MODE 1:	340.3	1.557
MODE 2:	133.9	2.902
MODE 3:		
D_{10}:	142.4	0.907
MEDIAN or D_{50}:	325.0	1.621
D_{90}:	533.4	2.812
(D_{90} / D_{10}):	3.744	3.100
(D_{90} - D_{10}):	390.9	1.905
(D_{75} / D_{25}):	1.818	1.695
(D_{75} - D_{25}):	190.3	0.862

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	12.9%
SAND:	99.8%	MEDIUM SAND:	57.8%
MUD:	0.2%	FINE SAND:	22.2%
		V FINE SAND:	6.6%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.2%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.4%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	339.8	303.0	1.723	303.7	1.719	Medium Sand
SORTING (σ):	158.2	1.645	0.718	1.642	0.715	Moderately Sorted
SKEWNESS (Sk):	1.044	-0.543	0.543	-0.222	0.222	Fine Skewed
KURTOSIS (K):	5.393	3.262	3.262	1.145	1.145	Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **BLM Tract2 nr Jupiter Inlet, FL-20** ANALYST & DATE: nnc, 7/23/2010 12:45:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Moderately Well Sorted Medium Sand

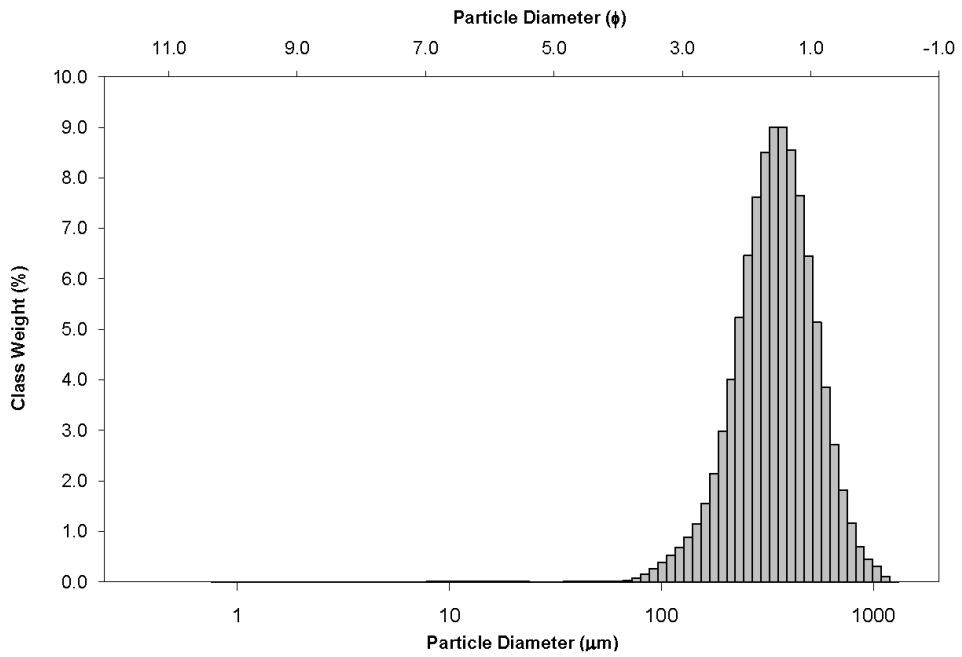
	µm	ϕ
MODE 1:	340.3	1.557
MODE 2:		
MODE 3:		
D_{10}:	194.6	0.776
MEDIAN or D_{50}:	348.3	1.522
D_{90}:	584.1	2.362
(D_{90} / D_{10}):	3.002	3.045
(D_{90} - D_{10}):	389.5	1.586
(D_{75} / D_{25}):	1.755	1.721
(D_{75} - D_{25}):	197.1	0.811

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	18.2%
SAND:	99.5%	MEDIUM SAND:	59.4%
MUD:	0.5%	FINE SAND:	19.4%
		V FINE SAND:	2.0%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.2%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.1%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.1%
FINE GRAVEL:	0.0%	FINE SILT:	0.1%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.4%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	373.7	337.4	1.567	344.4	1.538	Medium Sand
SORTING (σ):	162.3	1.628	0.703	1.538	0.621	Moderately Well Sorted
SKEWNESS (Sk):	1.020	-1.653	1.653	-0.068	0.068	Symmetrical
KURTOSIS (K):	4.822	13.40	13.40	1.067	1.067	Mesokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **BLM Tract1 nr Park Key, FL-21** ANALYST & DATE: nnc, 9:55 7 Dec 2010

SAMPLE TYPE: Unimodal, Moderately Sorted TEXTURAL GROUP: Muddy Sand

SEDIMENT NAME: Very Coarse Silty Very Fine Sand

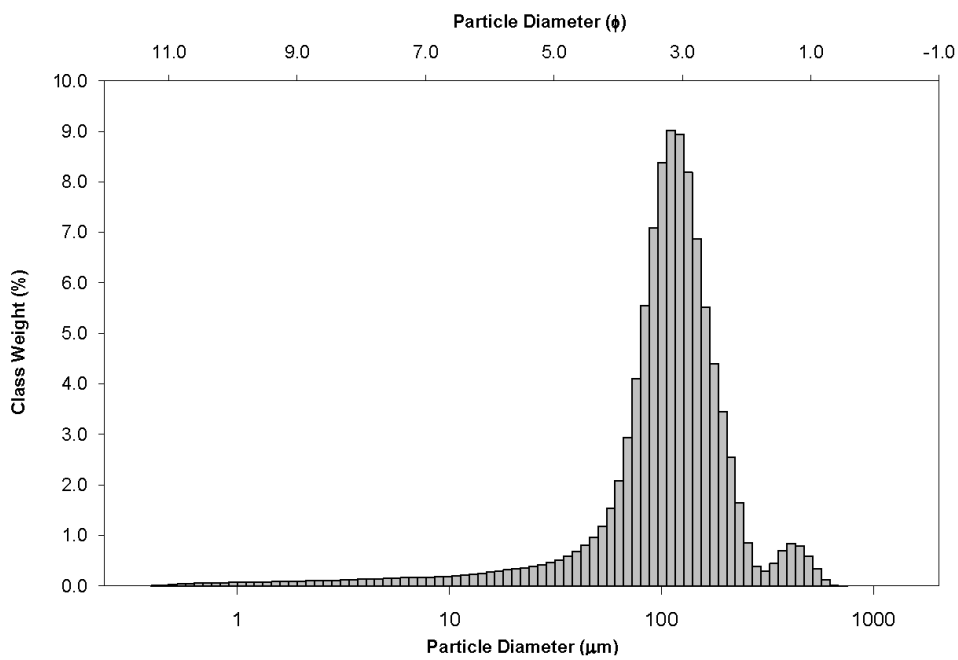
	µm	ϕ
MODE 1:	111.1	3.172
MODE 2:		
MODE 3:		
D_{10}:	44.21	2.311
MEDIAN or D_{50}:	112.6	3.150
D_{90}:	201.5	4.500
(D_{90} / D_{10}):	4.558	1.947
(D_{90} - D_{10}):	157.3	2.189
(D_{75} / D_{25}):	1.811	1.313
(D_{75} - D_{25}):	67.02	0.857

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	0.7%
SAND:	85.3%	MEDIUM SAND:	4.5%
MUD:	14.7%	FINE SAND:	34.8%
		V FINE SAND:	45.3%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	7.1%
COARSE GRAVEL:	0.0%	COARSE SILT:	2.8%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	1.6%
FINE GRAVEL:	0.0%	FINE SILT:	1.2%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.9%
V COARSE SAND:	0.0%	CLAY:	1.2%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	125.8	96.65	3.371	109.1	3.196	Very Fine Sand
SORTING (σ):	83.24	2.506	1.326	1.936	0.953	Moderately Sorted
SKEWNESS (Sk):	2.196	-2.440	2.440	-0.250	0.250	Fine Skewed
KURTOSIS (K):	10.41	11.71	11.71	1.909	1.909	Very Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **BLM Tract2 nr Sugarloaf, FL-22** ANALYST & DATE: nnc, 12/7/2010 10:48:00 AM

SAMPLE TYPE: Unimodal, Poorly Sorted TEXTURAL GROUP: Muddy Sand

SEDIMENT NAME: Very Coarse Silty Fine Sand

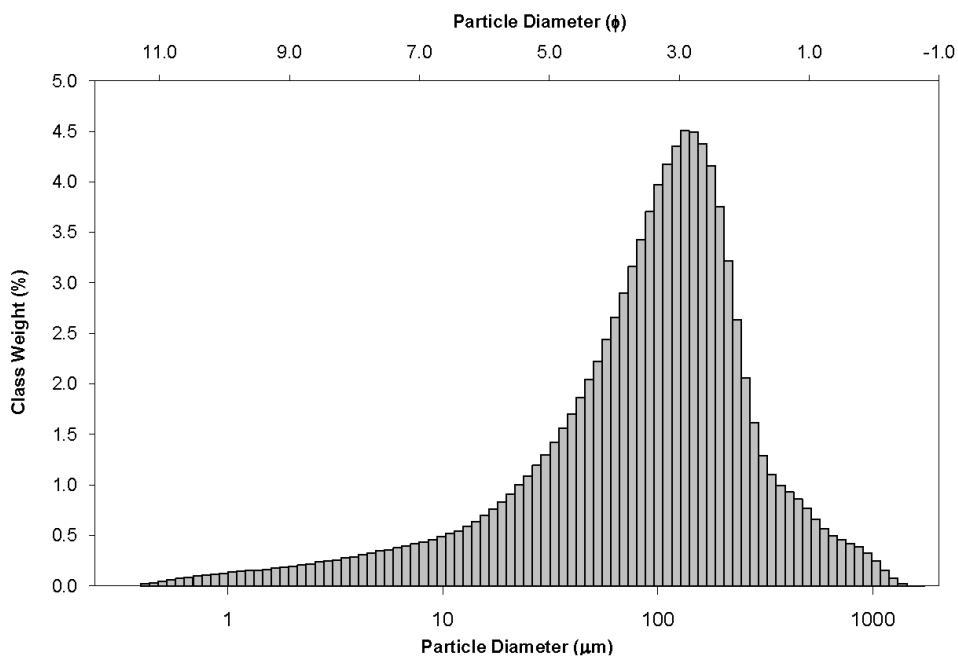
	µm	ϕ
MODE 1:	133.9	2.902
MODE 2:		
MODE 3:		
D_{10}:	14.62	1.775
MEDIAN or D_{50}:	103.6	3.271
D_{90}:	292.3	6.096
(D_{90} / D_{10}):	20.00	3.436
(D_{90} - D_{10}):	277.7	4.322
(D_{75} / D_{25}):	3.787	1.770
(D_{75} - D_{25}):	130.6	1.921

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	3.6%
SAND:	67.9%	MEDIUM SAND:	8.9%
MUD:	32.1%	FINE SAND:	28.5%
		V FINE SAND:	26.4%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	14.3%
COARSE GRAVEL:	0.0%	COARSE SILT:	7.3%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	4.0%
FINE GRAVEL:	0.0%	FINE SILT:	2.7%
V FINE GRAVEL:	0.0%	V FINE SILT:	1.8%
V COARSE SAND:	0.5%	CLAY:	2.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	144.3	80.14	3.641	85.93	3.541	Very Fine Sand
SORTING (σ):	161.6	3.631	1.860	3.302	1.723	Poorly Sorted
SKEWNESS (Sk):	2.969	-1.146	1.146	-0.299	0.299	Fine Skewed
KURTOSIS (K):	14.83	4.852	4.852	1.357	1.357	Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **BLM Tract3 nr Sugarloaf, FL-23** ANALYST & DATE: nnc, 12/7/2010 10:23:00 AM

SAMPLE TYPE: Unimodal, Poorly Sorted TEXTURAL GROUP: Sand

SEDIMENT NAME: Poorly Sorted Medium Sand

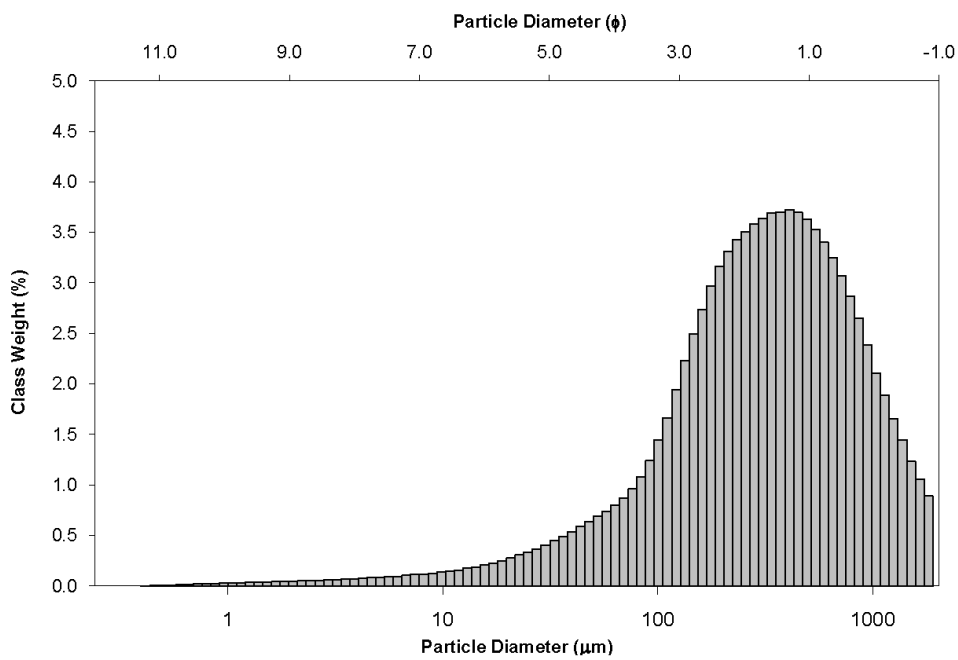
	µm	ϕ
MODE 1:	410.1	1.288
MODE 2:		
MODE 3:		
D_{10}:	65.92	-0.008
MEDIAN or D_{50}:	322.4	1.633
D_{90}:	1005.3	3.923
(D_{90} / D_{10}):	15.25	-517.014
(D_{90} - D_{10}):	939.3	3.931
(D_{75} / D_{25}):	3.854	3.765
(D_{75} - D_{25}):	454.6	1.946

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	22.6%
SAND:	90.5%	MEDIUM SAND:	27.1%
MUD:	9.5%	FINE SAND:	21.4%
		V FINE SAND:	9.3%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	4.5%
COARSE GRAVEL:	0.0%	COARSE SILT:	2.3%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	1.2%
FINE GRAVEL:	0.0%	FINE SILT:	0.7%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.5%
V COARSE SAND:	10.1%	CLAY:	0.5%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	443.1	274.1	1.867	303.8	1.719	Medium Sand
SORTING (σ):	389.3	3.252	1.701	2.912	1.542	Poorly Sorted
SKEWNESS (Sk):	1.385	-1.357	1.357	-0.174	0.174	Fine Skewed
KURTOSIS (K):	4.608	6.204	6.204	1.136	1.136	Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

SAMPLE IDENTITY: **BLM Tract4 at Egmont Key, FL-24** ANALYST & DATE: nnc, 7/23/2010 12:55:00 PM

SAMPLE TYPE: Unimodal, Moderately Well Sorted TEXTURAL GROUP: Sand
SEDIMENT NAME: Moderately Well Sorted Fine Sand

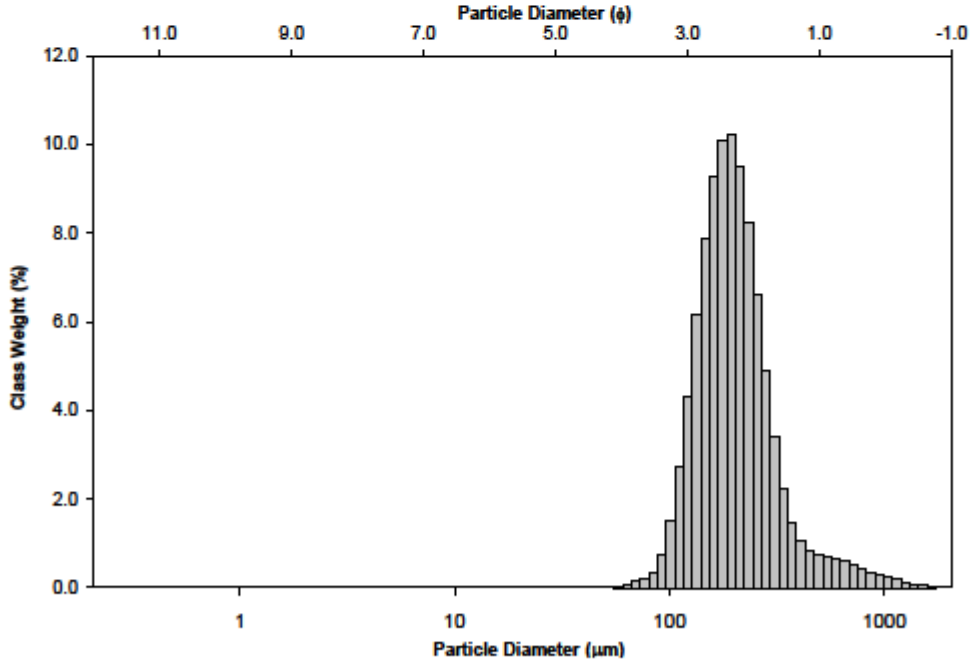
	µm	ϕ
MODE 1:	194.5	2.364
MODE 2:		
MODE 3:		
D_{10}:	126.6	1.568
MEDIAN or D_{50}:	194.0	2.366
D_{90}:	337.3	2.981
(D_{90} / D_{10}):	2.664	1.901
(D_{90} - D_{10}):	210.7	1.413
(D_{75} / D_{25}):	1.621	1.348
(D_{75} - D_{25}):	95.66	0.697

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	4.0%
SAND:	100.0%	MEDIUM SAND:	20.2%
MUD:	0.0%	FINE SAND:	65.7%
		V FINE SAND:	9.3%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.7%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	229.3	204.1	2.292	197.7	2.339	Fine Sand
SORTING (σ):	144.9	1.550	0.632	1.494	0.580	Moderately Well Sorted
SKEWNESS (Sk):	3.725	1.107	-1.107	0.163	-0.163	Coarse Skewed
KURTOSIS (K):	21.93	5.373	5.373	1.230	1.230	Leptokurtic

GRAIN SIZE DISTRIBUTION



SAMPLE STATISTICS

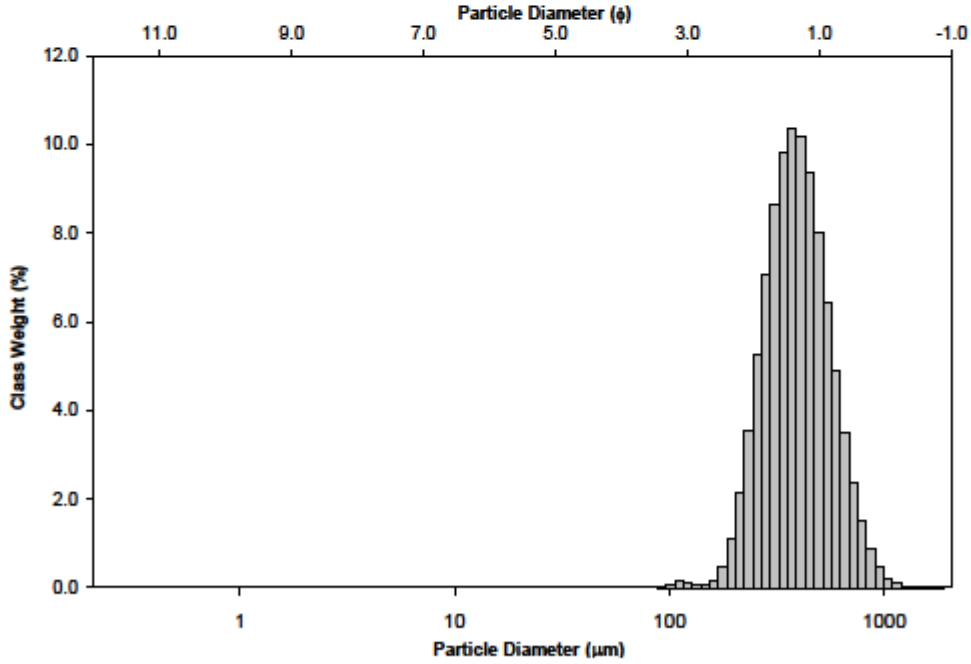
SAMPLE IDENTITY: **BLM Lathrop Bayou nr Panama City, FL-25** ANALYST & DATE: nnc, 7/23/2010 1:36:00 PM

SAMPLE TYPE: Unimodal, Well Sorted TEXTURAL GROUP: Sand
SEDIMENT NAME: Well Sorted Medium Sand

	µm	ϕ
MODE 1:	373.6	1.422
MODE 2:		
MODE 3:		
D_{10}:	252.9	0.699
MEDIAN or D_{50}:	389.0	1.362
D_{90}:	615.9	1.983
(D_{90} / D_{10}):	2.435	2.836
(D_{90} - D_{10}):	363.0	1.284
(D_{75} / D_{25}):	1.603	1.670
(D_{75} - D_{25}):	186.0	0.681

GRAIN SIZE DISTRIBUTION

GRAVEL:	0.0%	COARSE SAND:	23.7%
SAND:	100.0%	MEDIUM SAND:	66.6%
MUD:	0.0%	FINE SAND:	9.0%
		V FINE SAND:	0.3%
V COARSE GRAVEL:	0.0%	V COARSE SILT:	0.0%
COARSE GRAVEL:	0.0%	COARSE SILT:	0.0%
MEDIUM GRAVEL:	0.0%	MEDIUM SILT:	0.0%
FINE GRAVEL:	0.0%	FINE SILT:	0.0%
V FINE GRAVEL:	0.0%	V FINE SILT:	0.0%
V COARSE SAND:	0.4%	CLAY:	0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic µm	Geometric µm	Logarithmic ϕ	Geometric µm	Logarithmic ϕ	Description
MEAN ($\bar{x}$):	416.9	391.7	1.352	391.4	1.353	Medium Sand
SORTING (σ):	151.6	1.418	0.504	1.413	0.498	Well Sorted
SKEWNESS (Sk):	1.238	0.012	-0.012	0.035	-0.035	Symmetrical
KURTOSIS (K):	6.006	3.295	3.295	0.987	0.987	Mesokurtic

GRAIN SIZE DISTRIBUTION