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U.S. Geological Survey Data Series 344

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### Identification\_Information:

#### Citation:

##### Citation\_Information:

*Originator:* Chandra A. Dreher

*Originator:* James G. Flocks

*Originator:* Nicholas Ferina

*Originator:* Mark A. Kulp

*Publication\_Date:* 2008

#### *Title:*

Archive of sediment data collected from Sandy Point to Belle Pass, Louisiana, 1983 through 2000 (Vibracore surveys: 00SCC, CR83, P86, and USACE borehole cores)

#### *Geospatial\_Data\_Presentation\_Form:*

[Vibracore Description Sheets](#) (PDF), [Interpreted \(Digitized\) Core Classification Profiles](#) (PDF / XLS), [Grain Size](#) (XLS / PDF), [Penetrometer](#) (PDF) and [Photographs](#) (JPEG / GIF) sections presented in an interactive HTML format with [Study Area Maps](#) and [USACE EUSTIS](#) borehole core map as JPEG / GIF images. USACE Eustis borehole core profiles and grain-size data (PDF) are accessible in HTML format. Map shapefiles (digital vector data) are available in the [ARC](#) folder of this CD.

#### *Series\_Information:*

*Series\_Name:* U.S. Geological Survey Data Series 344

*Issue\_Identification:* 344

#### *Publication\_Information:*

*Publication\_Place:* St. Petersburg, FL

*Publisher:* U.S. Geological Survey

### *Description:*

#### *Abstract:*

In 2000, the [U.S. Geological Survey](#) (USGS), in cooperation with the [University of New Orleans](#) (UNO) and the [U.S. Army Corps of Engineers](#) (USACE), conducted

geophysical surveys in Barataria Bight from Sandy Point to Belle Pass, LA ([Study Area Map](#)). Sediment cores were collected as part of the USGS Subsidence and Coastal Change (SCC) Project, which included the Barataria Sand-Resource Study (bss) vibracore surveys (Kindinger and others, 2001). This report also contains information from other cruise data sets, including the Cheniere Ronquille, LA, data (CR83) and the Plaquemines, LA, data (P86). The sediment data for these cruises were obtained by the [Louisiana Geological Survey](#) (LGS), the [Louisiana Department of Natural Resources](#) (LDNR) and Alpine Ocean Seismic Survey, Inc., as part of the near shore sand resource inventory of "Louisiana Sand Resource Inventory 1985 Vibracore Services" (Suter and others, 1991; Alpine Ocean Seismic Survey, Inc., 1986). Additionally, this report also includes the [U.S. Army Corps of Engineers](#) EUSTIS borehole cores (B-#). EUSTIS is the type of drill rig used to obtain the borehole cores and is used as name identifier for the USACE borehole cores presented herein. These cores are presented on a separate map with links to the description profiles and grain-size data that can be found by clicking on the [USACE EUSTIS](#) link. This report serves as an archive of vibracore data collected during field activities of Subsidence and Coastal Change (SCC) 00SCC01, 00SCC03, 00SCC05 (collectively noted in the report as 00SCC) by the U.S. Geological Survey, CR83 (Cheniere Ronquille, LA) and P86 (Plaquemines, LA) by the Louisiana Geological Survey and the Louisiana Department of Natural Resources, and borehole data collected in 2000 for the U.S. Army Corps of Engineers (USACE-EUSTIS). Data presented here include the sections [Vibracore Description Sheets](#), [Interpreted Core Classification Profiles](#), [Grain-Size and Penetrometer Data](#), core location [Maps](#) and [Core Data Table](#) of all core data analysis files, and vibracore [Photographs](#). Additional data include Field Activity Collection System (FACS) logs and scanned observer's logbooks ([Field Logs](#)), as well as formal Federal Geographical Data Committee (FGDC) [Metadata](#).

*Purpose:*

The sediment data archived here were collected by the [U.S. Geological Survey](#) (USGS), in cooperation with the [University of New Orleans](#) (UNO) and the [U.S. Army Corps of Engineers](#) (USACE), as part of the USGS Subsidence and Coastal Change (SCC) study. Other project data sets (Cheniere Ronquille (CR) and the Plaquemines (P) data) were obtained from the [Louisiana Geological Survey](#) (LGS) as part of the near shore sand resource inventory (Suter and others, 1991) and the [Louisiana Department of Natural Resources](#) (LDNR) and Alpine Ocean Seismic Survey, Inc., as a part of "Louisiana Sand Resource Inventory 1985 Vibracore Services" (Alpine Ocean Seismic Survey, Inc., 1986).

*Supplemental Information:*

The USGS Florida Integrated Science Center (FISC) - Coastal and Watershed Studies in St. Petersburg, FL, assigns a unique identifier to each cruise or field activity. For example, 00SCC01 tells us the data were collected in 2000 for the Subsidence and Coastal Change (SCC) study and the data were collected during the first field activity for that project in that calendar year. Refer to <http://walrus.wr.usgs.gov/infobank/programs/html/definition/activity.html> for a detailed description of the method used to assign the cruise ID. The naming convention used for the 00SCC core ID during each cruise is as follows: yy\_abc\_###, where yy are the last two digits of the year in which the data were collected, abc is one to three letters of abbreviation for the initial project location (for example, bss for Barataria Sand Study), ### is a two to three digit number representing a specific core (for example, 00bss\_025). In the case of the CR83 and P86 core ID, the data file names are slightly different, with abc\_yy\_### instead. The naming convention is the same (CR for Cheniere Ronquille and P for Plaquemines) as above, only the year and the initial project location have been

switched (P86\_02, and CR83\_23). Additionally, some CR and P cores have run1, run2, run 3 (and so on) appended. Thus, the vibracore was collected until refusal, another barrel was deployed and jetted down to the depth of refusal, and coring was continued. Therefore, the runs were added to the end of the core ID (for example, CR\_83\_02\_run1 and CR\_83\_02\_run2).

The vibracore is a sediment coring system that consists of a vibrating pneumatic head that shakes the core barrel into the sediment. The vibracore head, manufactured by Bradford, is connected to an aluminum pipe 3.5 inches wide and 20 feet in length. A tripod-like quadratic base supports this system. The whole system is lifted from the boat deck and lowered to the seafloor by a hydraulic crane. At the seafloor, the vibrating head is activated. The vibration propagates through the aluminum barrel to the seafloor. This vibration agitates the sediment around the outside of the core barrel, allowing the barrel to slide into the sediment column. Once resistance is reached, the vibration is shut off and the crane pulls the aluminum pipe out of the sediments column and onto the deck of the boat. The barrel is removed from the rig and cut to the level of sediment that has filled the pipe. Both ends are capped and taped to prevent leakage of the sediment out of the pipe. All cores are labeled and stored until processing. Detailed information can be found on the [Methods](#) page.

In the lab, vibracores were cut lengthwise, and in some cases a sonicating knife was used to obtain a clean, undisturbed surface on one-half length of the vibracore. This section was used to describe the core's contents on a Vibracore Description Sheet. Description includes, but is not limited to, sediment grain-size content, color, and characteristics such as bedding types, bioturbation, shells and shell fragments, and any other qualitative descriptions. Most of the cores were photographed. The description sheets are available as PDF files accessible in the directory for vibracore description sheets or through [vibraprofiles.html](#) in this archive. The other half length of the vibracore was used for sampling for various sediment analysis, most commonly sampled for grain-size. Detailed information can be found on the [Methods](#) page.

Grain-size data for 00SCC cruise and 00bss cores were obtained by using the Beckman Coulter LS 32 Laser counter variable-speed fluid module plus. A small amount (less than a teaspoon) of sample was used for analysis of grain size. Laser diffraction is correlated to the standard mesh size of each of the sediment sample grains, the distribution, and the volume of each grain mesh size. The data can be extracted in phi, mesh size, and in statistical formats of mean, standard deviation, kurtosis, cumulative size fractions, and percent. Although other extraction methods of data information are available using this machine, those previously mentioned were the most frequently used for this archive. The grain sizes presented for the P86 cruise were found in Suter and others (1991). The sand percents reported were both observed and analyzed. Grain-size analyses for these cores were conducted randomly. Overall, the percent sand, silt, and clay variations for the cores are presented in the folder [Grain Size](#) and on the [grain.html](#) page of this archive. Detailed information can be found on the [Methods](#) and [Grain-Size and Penetrometer Data](#) pages.

The [Photograph](#) section includes core photographs for a few CR83 and most P86 and 00SCC cores.

The [Study Area Map](#) and the [EUSTIS](#) map were created by GIS software, modified by Adobe Illustrator software, and made available as JPEG or GIF files.

The printable profiles, digitized data, grain-size data, maps, and photographs are provided here as PDF, XLS, and JPEG or GIF images. The [Study Area Map](#) and the [EUSTIS](#) map are interactive maps that allow the user to obtain information about a core from its geographic location. The user navigates through the "sub-maps" to a core, which is linked to a table that contains [Vibracore Description Sheets](#), [Interpreted Core Classification Profiles](#), [Grain-Size and Penetrometer Data](#), and vibracore [Photographs](#).

**Note:** All sediment core data are linked to the cores on the [Study Area Map](#) for all vibracores (00SCC, CR83, and P86) and the cores on the [USACE EUSTIS](#) map for all borehole cores. Clicking on a core or core ID on the [Study Area Map](#) pages will bring forth a [Core Data Table](#) that contains all sediment core data and displays the specific core's information. The back button returns the user to the [Study Area Map](#) section. The [Core Data Table](#) (includes data from all cruises: USACE EUSTIS borehole cores (B-#), 00SCC (bss cores), CR83, and P86) contains core ID and five other columns containing previews and downloadable files for vibracore description sheets, interpreted core classification profiles, grain-size data, penetrometer data, and photographs.

A list of missing data for each cruise is as follows.

- Cruise CR83 missing cores: CR83\_01, CR83\_03, CR83\_04, CR83\_07, CR83\_10, CR83\_13, CR83\_18, CR83\_20, CR83\_21, CR83\_22, CR83\_24, CR83\_25, CR83\_29, CR83\_30, CR83\_32, CR83\_34, and CR83\_36.
- Cruise P86 missing cores: P86\_15 and P86\_17.
- Cruise 00SCC missing cores: bss00\_001 - bss00\_008, bss00\_031, bss00\_107, bss00\_126 - bss00\_127, bss00\_149 - bss00\_154, bss00\_157 - bss00\_159, and bss00\_162.

The digitizing process: A digitizing tablet by [Wacom Co., Ltd.](#), and Golden Software's [Didger 3](#) digitizing programs were used for the physical digitizing process of the vibracore description sheets. A macro program created by James G. Flocks (USGS) was used to process the digitized description sheet profile information into interpreted core classification profiles or spreadsheets of information, accessible as Excel files (XLS). These interpreted core classification profiles are provided in this report and available for individual interpretation of the data. More information about the macro programs created by James G. Flocks (this volume) can be found in the [Software](#) folder and on the page [software.html](#) within this archive.

*Time\_Period\_of\_Content:*

*Time\_Period\_Information:*

*Range\_of\_Dates/Times:*

*Beginning\_Date:* 19832907

*Ending\_Date:* 20002507

*Currentness\_Reference:* Data collection interval

*Status:*

*Progress:* Complete

*Maintenance\_and\_Update\_Frequency:* None planned

*Spatial\_Domain:*

*Bounding\_Coordinates:*

*West\_Bounding\_Coordinate:* -90.211600

*East\_Bounding\_Coordinate:* -89.475880

*North\_Bounding\_Coordinate:* 29.471700

*South\_Bounding\_Coordinate:* 29.189000

*Keywords:*

*Theme:*

*Theme\_Keyword\_Thesaurus:* None

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*Theme\_Keyword:* R/V G.K. Gilbert

*Theme\_Keyword:* Subsidence and Coastal Change (SCC)

*Theme\_Keyword:* Vibracore

*Theme\_Keyword:* G-2-00-LA

*Theme\_Keyword:* 00SCC01

*Theme\_Keyword:* G-3-00-LA

*Theme\_Keyword:* 00SCC03

*Theme\_Keyword:* G-4-00-LA

*Theme\_Keyword:* 00SCC05

*Theme\_Keyword:* Borehole Cores

*Theme\_Keyword:* USACE EUSTIS

*Theme\_Keyword:* Cheniere Ronquille, LA (CR)

*Theme\_Keyword:* Plaquemines, LA (P)

*Theme\_Keyword:* Sediment Data Archive

*Place:*

*Place\_Keyword\_Thesaurus:* None

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*Place\_Keyword:* Gulf of Mexico

*Place\_Keyword:* Barataria Bay

*Place\_Keyword:* Sandy Point

*Place\_Keyword:* Belle Pass

*Place\_Keyword:* Grand Isle

*Access\_Constraints:* None. These data are held in the public domain.

*Use\_Constraints:*

The U.S. Geological Survey and the University of New Orleans request to be acknowledged as originators of this product in future products or in derivative research.

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*Browse\_Graphic:*

*Browse\_Graphic\_File\_Name:* [CD/SEDS/Maps/SEDS\\_Outlined\\_CORES\\_SAM.jpg](#)

*Browse\_Graphic\_File\_Description:*

A Study Area Map showing the location of CR83, P86, and 00SCC vibracore data. Overview of area divided into sections. Map sections are accessible through the links that were then divided into enlarged areas to pinpoint vibracore locations. Click on the core location or core ID to view the [Core Data Table](#) containing

previews and printable [Vibracore Description Sheets](#), [Interpreted Core Classification Profiles](#), [Grain-Size and Penetrometer Data](#), and [vibracore Photographs](#) for most cores on the map.

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*Browse\_Graphic\_File\_Name:* [CD/SEDS/Maps/SEDS\\_SectionA.jpg](#)

*Browse\_Graphic\_File\_Description:*

Location map's Western Section of the location map includes CR83, P86, and 00SCC vibracore data. This graphic is for vibracore data collected in Section A, divided further into two areas (refer to Section A map on the [Study Area Maps](#) page).

*Browse\_Graphic\_File\_Type:* JPEG

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*Browse\_Graphic\_File\_Name:* [CD/SEDS/Maps/SEDS\\_SectionA\\_area1.jpg](#)

*Browse\_Graphic\_File\_Description:*

Location map's Western Section A-Area 1 includes CR83, P86, and 00SCC vibracore data. This graphic is for vibracore data collected in Section A, divided further into Area 1 (refer to Section A-Area 1 map on the [Study Area Maps](#) page).

*Browse\_Graphic\_File\_Type:* JPEG

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*Browse\_Graphic\_File\_Name:* [CD/SEDS/Maps/SEDS\\_SectionA\\_area2.jpg](#)

*Browse\_Graphic\_File\_Description:*

Location map's Western Section A-Area 2 includes CR83, P86, and 00SCC vibracore data. This graphic is for vibracore data collected in Section A, divided further into Area 2 (refer to Section A-Area 2 map on the [Study Area Maps](#) page).

*Browse\_Graphic\_File\_Type:* JPEG

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Location map's West-central Section B includes CR83, P86, and 00SCC vibracore data. This graphic is for vibracore data collected in Section B, divided further into two areas (refer to Section B map on the [Study Area Maps](#) page).

*Browse\_Graphic\_File\_Type:* JPEG

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*Browse\_Graphic\_File\_Name:* [CD/SEDS/Maps/SEDS\\_SectionB\\_area1.jpg](#)

*Browse\_Graphic\_File\_Description:*

Location map's West-central Section B-Area 1 includes CR83, P86, and 00SCC vibracore data. This graphic is for vibracore data collected in Section B, divided further into Area 1 (refer to Section B-Area 1 map on the [Study Area Maps](#) page).

*Browse\_Graphic\_File\_Type:* JPEG

*Browse\_Graphic:*

*Browse\_Graphic\_File\_Name:* [CD/SEDS/Maps/SEDS\\_SectionB\\_area2.jpg](#)

*Browse\_Graphic\_File\_Description:*

Location map's West-central Section B-Area 2 includes CR83, P86, and 00SCC vibracore data. This graphic is for vibracore data collected in Section B, divided further into Area 2 (refer to Section B-Area 2 map on the [Study Area Maps](#) page).

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*Browse\_Graphic:*

*Browse\_Graphic\_File\_Name:* [CD/SEDS/Maps/SEDS\\_SectionC.jpg](#)

*Browse\_Graphic\_File\_Description:*

Location map's Central Section C includes CR83, P86, and 00SCC vibracore data. This graphic is for vibracore data collected in Section C, divided further into six different areas (refer to Section C map on the [Study Area Maps](#) page).

*Browse\_Graphic\_File\_Type:* JPEG

*Browse\_Graphic:*

*Browse\_Graphic\_File\_Name:* [CD/SEDS/Maps/SEDS\\_SectionC\\_area1.jpg](#)

*Browse\_Graphic\_File\_Description:*

Location map's Central Section C-Area 1 includes CR83, P86, and 00SCC vibracore data. This graphic is for vibracore data collected in Section C, divided further into Area 1 (refer to Section C-Area 1 map on the [Study Area Maps](#) page).

*Browse\_Graphic\_File\_Type:* JPEG

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*Browse\_Graphic\_File\_Description:*

Location map's Central Section C-Area 2 includes CR83, P86, and 00SCC vibracore data. This graphic is for vibracore data collected in Section C, divided further into Area 2 (refer to Section C-Area 2 map on the [Study Area Maps](#) page).

*Browse\_Graphic\_File\_Type:* JPEG

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*Browse\_Graphic\_File\_Name:* [CD/SEDS/Maps/SEDS\\_SectionC\\_area3.jpg](#)

*Browse\_Graphic\_File\_Description:*

Location map's Central Section C-Area 3 includes CR83, P86, and 00SCC vibracore data. This graphic is for vibracore data collected in Section C, divided further into Area 3 and Area 3A (refer to Section C-Area 3 map on the [Study Area Maps](#) page).

*Browse\_Graphic\_File\_Type:* JPEG

*Browse\_Graphic:*

*Browse\_Graphic\_File\_Name:* [CD/SEDS/Maps/SEDS\\_SectionC\\_area3A.jpg](#)

*Browse\_Graphic\_File\_Description:*

Location map's Central Section C-Area 3A includes CR83, P86, and 00SCC vibracore data. This graphic is for vibracore data collected in Section C and Section C-Area 3, divided further into Area 3A (refer to Section C-Area 3A map on the [Study Area Maps](#) page).

*Browse\_Graphic\_File\_Type:* JPEG

*Browse\_Graphic:*

*Browse\_Graphic\_File\_Name:* [CD/SEDS/Maps/SEDS\\_SectionC\\_area4.jpg](#)

*Browse\_Graphic\_File\_Description:*

Location map's Central Section C-Area 4 includes CR83, P86, and 00SCC vibracore data. This graphic is for vibracore data collected in Section C, divided further into Area 4 (refer to Section C-Area 4 map on the [Study Area Maps](#) page).

*Browse\_Graphic\_File\_Type:* JPEG

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*Browse\_Graphic\_File\_Name:* [CD/SEDS/Maps/SEDS\\_SectionC\\_area5.jpg](#)

*Browse\_Graphic\_File\_Description:*

Location map's Central Section C-Area 5 includes CR83, P86, and 00SCC vibracore data. This graphic is for vibracore data collected in Section C, divided further into Area 5 (refer to Section C-Area 5 map on the [Study Area Maps](#) page).

*Browse\_Graphic\_File\_Type:* JPEG

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*Browse\_Graphic\_File\_Name:* [CD/SEDS/Maps/SEDS\\_SectionC\\_area6.jpg](#)

*Browse\_Graphic\_File\_Description:*

Location map's Central Section C-Area 6 includes CR83, P86, and 00SCC vibracore data. This graphic is for vibracore data collected in Section C, divided further into Area 6 (refer to Section C-Area 6 map on the [Study Area Maps](#) page).

*Browse\_Graphic\_File\_Type:* JPEG

*Browse\_Graphic:*

*Browse\_Graphic\_File\_Name:* [CD/SEDS/Maps/SEDS\\_SectionD.jpg](#)

*Browse\_Graphic\_File\_Description:*

Location map's Eastern Section D includes CR83, P86, and 00SCC vibracore data. This graphic is for vibracore data collected in Section D, divided further into three different areas (refer to Section D map on the [Study Area Maps](#) page).

*Browse\_Graphic\_File\_Type:* JPEG

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*Browse\_Graphic\_File\_Name:* [CD/SEDS/Maps/SEDS\\_SectionD\\_area1.jpg](#)

*Browse\_Graphic\_File\_Description:*

Location map's Eastern Section D-Area 1 includes CR83, P86, and 00SCC vibracore data. This graphic is for vibracore data collected in Section D, divided further into Area 1 (refer to Section D-Area 1 map on the [Study Area Maps](#) page).

*Browse\_Graphic\_File\_Type:* JPEG

*Browse\_Graphic:*

*Browse\_Graphic\_File\_Name:* [CD/SEDS/Maps/SEDS\\_SectionD\\_area2.jpg](#)

*Browse\_Graphic\_File\_Description:*

Location map's Eastern Section D-Area 2 includes CR83, P86, and 00SCC vibracore data. This graphic is for vibracore data collected in Section D, divided further into Area 2 (refer to Section D-Area 2 map on the [Study Area Maps](#) page).

*Browse\_Graphic\_File\_Type:* JPEG

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*Browse\_Graphic\_File\_Description:*

Location map's Eastern Section D-Area 3 includes CR83, P86, and 00SCC vibracore data. This graphic is for vibracore data collected in Section D, divided further into Area 3 (refer to Section D-Area 3 map on the [Study Area Maps](#) page).

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*Browse\_Graphic\_File\_Name:* [CD/SEDS/EUSTIS/BoreHoleCoreMAP/LASEDS\\_Eustis\\_boringsmap1q.jpg](#)

*Browse\_Graphic\_File\_Description:*

A study area map showing the location of [USACE EUSTIS](#) borehole core data. Clicking on the core location or core ID brings forth the [Core Data Table](#) containing previews of printable Core Description Sheets and Grain-Size Data for most borehole cores on the map.

*Browse\_Graphic\_File\_Type:* JPEG

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*Browse\_Graphic\_File\_Name:* [CD/SEDS/Software/ARC/ bss-shapefiles.zip](#)

*Browse\_Graphic\_File\_Description:*

The [bss-shapefiles.zip](#) volume contains digital vector files for the study area maps included in this archive. These shapefiles and accompanying ESRI ArcView files are denoted as 00SCC (file name: [bss-vcores.shp](#)), CR83 and P86 cores (file name: [CR-P-86cores.shp](#)), and [USACE EUSTIS](#) (file name: [Eustis\\_borings.shp](#)) in the zip file.

*Browse\_Graphic\_File\_Type:* digital vector files; shapefiles (.shp)

*Data\_Set\_Credit:*

The USGS Coastal and Marine Geology Program and the University of New Orleans provided funding and (or) support for this study. The [U.S. Army Corps of Engineers](#) (USACE), the [Louisiana Geological Survey](#) (LGS), the [Louisiana Department of Natural Resources](#) (LDNR), and Alpine Ocean Seismic Survey, Inc., for conducted geophysical surveys, sediment data, and publication of these cruises archived in this report. We thank R/V G.K. Gilbert captains Dave Bennett of Eckerd College and Rich Young of the USGS in St. Petersburg, FL, for their assistance in data collection. This document was improved by the reviews of Shawn Dadisman



*Data\_Quality\_Information:*

*Attribute\_Accuracy:*

*Attribute\_Accuracy\_Report:*

The validity or accuracy of vibracore description sheets and digitized profiles is highly qualitative and depends on describer's discretion and interpretations, and physical variables such as software and operating conditions for the digitizing equipment. Visual inspection of the processed digitized profile images rendered from the handwritten description sheets did not show any major anomalies. Grain-size data for P86 and 00SCC cruises rendered a quantitative and fairly accurate account of the grain-size distribution throughout the cores. The P86 cruise grain-size data were obtained from Suter and others (1991). The sand percents reported for 00SCC cruises were both observed and analyzed. Grain-size analysis for these cores was random. The UTM accuracy of mapped core locations is based on coordinates and GPS noted in handwritten logbooks in the field. These field notes can be found as FACS logs or in the logbook on the [Field Logs](#) page and within the [FACS](#) folder. The map data sets include CR83, P86, 00SCC, and USACE EUSTIS cruises and display vibracore and borehole core locations. The spatial data sets include these cruises in three files (CR\_P\_86, BSS-cores, and Eustis\_borings). These data sets are in the [ARC folder](#), located in the Software folder, as [bss-shapefiles.zip](#). These files were created using ESRI ArcView software and are considered to be accurate to the geographic coordinates in decimal degree to the nearest 0.000000. Note: The maps presented here are **NOT** for navigational purposes.

*Logical\_Consistency\_Report:*

This data set derives from several cruises with consistent instrument calibrations. However, acquisitions of core sites during each cruise were acquired using differential GPS.

*Completeness\_Report:*

These data were collected from multiple sources aboard multiple cruises and are therefore inherently incomplete. However, care was taken to make this a comprehensive archive combining the geologic details of each sediment core collected for the CR83, P86, and 00SCC cruises. No core data were collected for the following cruises: Cruise CR83, missing cores are CR83\_01, CR83\_03, CR83\_04, CR83\_07, CR83\_10, CR83\_13, CR83\_18, CR83\_20, CR83\_21, CR83\_22, CR83\_24, CR83\_25, CR83\_29, CR83\_30, CR83\_32, CR83\_34, and CR83\_36. For cruise P86, missing cores are P86\_15 and P86\_17. Missing cores for Cruise 00SCC are 00bss\_001 - 00bss\_008, 00bss\_031, 00bss\_107, 00bss\_126 - 00bss\_127, 00bss\_149 - 00bss\_154, 00bss\_157 - 00bss\_159, and 00bss\_162.

*Positional\_Accuracy:*

*Horizontal\_Positional\_Accuracy:*

*Horizontal\_Positional\_Accuracy\_Report:*

Positions of the cores were recorded and written in the field logbooks. For each core of the 00SCC (00SCC01, 00SCC03, and 00SCC05) cruises in Zone 15, UTM coordinates were obtained by differential GPS. For positional accuracy for CR83, P86, and EUSTIS cores please refer to the publications cited in Suter and others (1991) and Alpine Ocean Seismic Survey, Inc. (1986). For all GIS shapefiles, horizontal positions are specified in geographic coordinates, that is, latitude and longitude. Latitudes and longitudes are given to the nearest 0.000000. Latitude and longitude values are specified in decimal degrees.

*Vertical\_Positional\_Accuracy:*

*Vertical\_Positional\_Accuracy\_Report:*

These data are not to be used for bathymetry. Vibracore data are relative to sea level. However, varying recorded static shifts of the data have been known to occur. The core and water depths are located on the vibracore description profiles and are recorded in the 00SCC (00SCC01, 00SCC03, and 00SCC05) logbooks. These water depths were recorded by a depth finder on the *R/V G.K. Gilbert*. The depth of the vibracore may have penetrometer data that tell the depth of core penetration. However, the penetrometer data are not always available, and depth of core could be based on core recovery length. The recovery length of the core and (or) penetrometer data are recorded in the logbook for most cores of each cruise. To view vertical positional accuracy for CR83, P86, and EUSTIS cores, please refer to the publications cited in Suter and others (1991) and Alpine Ocean Seismic Survey, Inc. (1986).

*Lineage:*

*Source\_Information:*

*Source\_Citation:*

*Citation\_Information:*

*Originator:* Alpine Ocean Seismic Survey, Inc.

*Publication\_Date:* June 1986

*Title:*

Final Report: Louisiana Sand Resource Inventory 1985 Vibracore Services, for Department of Natural Resources State of Louisiana, Contract No. 21940-86-01, ORC Contract No. 431-6006, Amendment ORC Contract No. 431-6006A.

*Series\_Information:*

*Series\_Name:* Contract No. 21940-86-01,

*Issue\_Identification:* ORC Contract No. 431-6006, Amendment ORC Contract No. 431-6006A.

*Publication\_Information:*

*Publication\_Place:* Norwood, NJ USA

*Publisher:* Alpine Ocean Seismic Survey, Inc.

*Other\_Citation\_Details:*

*Type\_of\_Source\_Media:* Paper

*Source\_Time\_Period\_of\_Content:*

*Time\_Period\_Information:*

*Single\_Date/Time:*

*Calendar\_Date:* June 1986

*Source\_Currentness\_Reference:* Publication Date

*Source\_Citation\_Abbreviation:* Alpine Ocean Seismic Survey, Inc., 1986

*Source\_Contribution:*

Contributed vibracore information for most of the CR83 or Cheniere Ronquille cores and all of the P86 cruise or Plaquemines cores. This includes, but is not limited to, logbook information files, vibracore profiles, grain size data, penetrometer data, and core location geographic coordinates.

*Source\_Information:*

*Source\_Citation:*

*Citation\_Information:*

*Originator:* Suter, J.R.

*Originator:* Penland, S.

*Originator:* Ramsey, K.E.

*Publication\_Date:* 1991

*Title:*

Nearshore Sand Resources of the Mississippi River Delta Plain: Marsh Island to Sandy Point, Coastal Geology Technical Report No. 8

*Series\_Information:*

*Series\_Name:* Coastal Geology Technical Report

*Issue\_Identification:* No. 8

*Publication\_Information:*

*Publication\_Place:* Baton Rouge, LA USA

*Publisher:* Louisiana Geological Survey

*Other\_Citation\_Details:* Appendix B, p. 119-120

*Type\_of\_Source\_Media:* Paper

*Source\_Time\_Period\_of\_Content:*

*Time\_Period\_Information:*

*Single\_Date/Time:* 1991

*Source\_Currentness\_Reference:* Publication Date

*Source\_Citation\_Abbreviation:* Suter, and others, 1991

*Source\_Contribution:*

Contributed vibrocore information for the CR83 or Cheniere Ronquille cores. This includes, but is not limited to, logbook information files, vibrocore profiles, grain-size data, penetrometer data, photographs, and core location geographic coordinates.

*Source\_Information:*

*Source\_Citation:*

*Citation\_Information:*

*Originator:* Kindinger, J.

*Originator:* Flocks, J.

*Originator:* Kulp, M.

*Originator:* Penland, S.

*Publication\_Date:* 2001

*Title:*

Sand resources, regional geology, and coastal processes for the restoration of the Barataria Barrier Shoreline

*Series\_Information:*

*Series\_Name:* U.S. Geological Survey Open-File Report

*Issue\_Identification:* U.S. Geological Survey Open-File Report 01-384

*Publication\_Information:*

*Publication\_Place:* St. Petersburg, FL USA

*Publisher:* U.S. Geological Survey

*Other\_Citation\_Details:*

*Type\_of\_Source\_Media:* Paper

*Source\_Time\_Period\_of\_Content:*

*Time\_Period\_Information:*

*Single\_Date/Time:* 2001

*Source\_Currentness\_Reference:* Publication Date

*Source\_Citation\_Abbreviation:* Kindinger and others, 2001

*Source\_Contribution:*

Contributed vibrocore information for the 00SCC cruises (00SCC01; 00SCC03; 00SCC05) or bss for Barataria Sand Study cores. This includes, but is not limited to, logbook information, FACS files, vibrocore profiles, grain-size data, penetrometer data, photographs, and core location geographic coordinates.

*Source\_Information:*

*Source\_Citation:*

*Citation\_Information:*

*Originator:* Flocks, J.

*Publication\_Date:* 2004

*Title:*

Directions for converting analog sediment core description sheets to digital, spreadsheet format: Excel Macro Digitizing Program.

*Geospatial\_Data\_Presentation\_Form:* Excel Macro Digitizing Program

*Publication\_Information:*

*Publication\_Place:* St. Petersburg, FL USA

*Publisher:* U.S. Geological Survey

*Type\_of\_Source\_Media:* Paper document and Microsoft Excel © macro processing program file, included herein

*Source\_Time\_Period\_of\_Content:*

*Time\_Period\_Information:*

*Single\_Date/Time:*

*Calendar\_Date:* 2004

*Source\_Currentness\_Reference:* Publication Date

*Source\_Citation\_Abbreviation:* Flocks, 2004

*Source\_Contribution:*

Contributed (1) a document describing how to operate the digitizing and processing systems and (2) an Excel Macro Digitizing Program file that converts the digitized hard-copy sediment core description sheets to a spreadsheet format.

*Process\_Step:*

*Process\_Description:*

Vibracore location map creation: The vibracore location maps provided in this archive were created using ESRI ArcView 3.3 and ArcGIS 8.3 software, exported to Adobe Illustrator for further editing, and saved in JPEG format. The maps are unprojected (geographic coordinates, NAD83). The coordinates for the cores were obtained from the publication sources listed below and from the logbooks for each cruise. The USGS is the originator of all layers used.

*Source\_Used\_Citation\_Abbreviation:* Alpine Ocean Seismic Survey, Inc., 1986

*Source\_Used\_Citation\_Abbreviation:* Suter and others, 1991

*Source\_Used\_Citation\_Abbreviation:* Kindinger and others, 2001

*Process\_Date:* 2006

*Process\_Step:*

*Process\_Description:*

Data Series preparation: In addition to the process steps described above, the following steps were taken to produce this Data Series report: the handwritten logs were scanned and saved as PDF files, digital FACS logs were created using the handwritten logs and personal accounts of the crew members and saved as PDF files, and an HTML-based format was used to present the various parts of this archive.

*Source\_Used\_Citation\_Abbreviation:* Alpine Ocean Seismic Survey, Inc., 1986

*Source\_Used\_Citation\_Abbreviation:* Suter and others, 1991

*Source\_Used\_Citation\_Abbreviation:* Kindinger and others, 2001

*Process\_Date:* 2006

*Process\_Step:*

*Process\_Description:*

Digitizing vibracore profiles or [Interpreted Core Classification Profiles](#): Required hand digitizing a paper copy of the core description sheets using a digitizing tablet; data were converted to an electronic spreadsheet format (Microsoft Excel, XLS) using a Visual Basic macro program. This macro program produced a

spreadsheet-style output of the description sheet as XLS files that were saved as PDF and JPEG files for the HTML-based format used to present these data in the various parts of this archive. Information on the digitizing process can be found in Flocks (this volume) (see [Methods](#) or [Software](#) page). For step-by-step instructions on the process please contact James Flocks ([jflocks@usgs.gov](mailto:jflocks@usgs.gov)) for more information.

*Source\_Used\_Citation\_Abbreviation:* Flocks, 2004

*Source\_Used\_Citation\_Abbreviation:* Alpine Ocean Seismic Survey, Inc., 1986

*Source\_Used\_Citation\_Abbreviation:* Suter and others, 1991

*Source\_Used\_Citation\_Abbreviation:* Kindinger and others, 2001

*Process\_Date:* 2006

---

*Spatial\_Reference\_Information:*

*Horizontal\_Coordinate\_System\_Definition:*

*Geographic:*

*Latitude\_Resolution:* Latitude coordinates are given to the nearest 0.000000.

*Longitude\_Resolution:* Longitude coordinates are given to the nearest 0.000000.

*Geographic\_Coordinate\_Units:* Decimal degrees

*Geodetic\_Model:*

*Horizontal\_Datum\_Name:* North American Datum of 1983

*Ellipsoid\_Name:* Clarke 1866

*Semi-major\_Axis:* 6378206.400000

*Denominator\_of\_Flattening\_Ratio:* 1/294.978698

---

*Spatial\_Data\_Organization\_Information:*

*Indirect\_Spatial\_Reference:*

Horizontal x and y locations (latitude and longitude and UTM coordinates) for each core location are provided in logbook or description sheet profiles, along with the date and time of the vibracoring process. The first file `bss-vcores.shp` is a shapefile that contains point data relevant to vibracores collected for the Baratavia Sand Survey in the summer of 2000 (combined cruises: 00SCC01, 00SCC03, 00SCC05). The second file `CR-P-86cores.shp` is a shapefile that contains point data relevant to vibracores collected by the Louisiana Geological Survey. The third file `Eustis_borings.shp` is a shapefile that contains point data relevant to sediment borings collected by USACE.

*Direct\_Spatial\_Reference\_Method:* Vector

*Point\_and\_Vector\_Object\_Information:*

*SDTS\_Terms\_Description:*

*SDTS\_Point\_and\_Vector\_Object\_Type:* Entity point

*Point\_and\_Vector\_Object\_Count:* 217

*SDTS\_Terms\_Description:*

*SDTS\_Point\_and\_Vector\_Object\_Type:* Entity point

*Point\_and\_Vector\_Object\_Count:* 41

*SDTS\_Terms\_Description:*

*SDTS\_Point\_and\_Vector\_Object\_Type:* Entity point

*Point\_and\_Vector\_Object\_Count:* 38

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*Entity\_and\_Attribute\_Information:*

*Overview\_Description:*

*Entity\_and\_Attribute\_Overview:*

Downloadable files: HTML preview images are available as GIF or JPEG images.

Interactive data are available on HTML pages with accompanying GIF or JPEG

images. The HTML navigation study area [Maps](#) are JPEG images. The vibracore study area maps contain links to the [Vibracore Description Sheets](#), [Interpreted Core Classification Profiles](#), [Grain-Size and Penetrometer Data](#), and [Photographs](#) all in one table on the [Core Data Table](#) page with previews and original documents available for download as PDF, XLS, or JPEG files. Map shapefile data were created using ESRI software. Please refer to [Contents](#) page for the locations of downloadable files.

*Entity\_and\_Attribute\_Detail\_Citation:*

All files were created and (or) modified from the original by the originators of this archive.

*Entity\_and\_Attribute\_Detail\_Citation:*

[Alpine Ocean Seismic Survey, Inc., 1986, Final Report](#): Louisiana Sand Resource Inventory 1985 Vibracore Services, report prepared for Department of Natural Resources State of Louisiana, Contract No. 21940-86-01, ORC Contract No. 431-6006, amendment ORC Contract No. 431-6006A: Norwood, NJ, 11 p.

*Entity\_and\_Attribute\_Detail\_Citation:*

[Flocks](#), J.G., this volume, Directions for converting analog sediment core description sheets to digital spreadsheet format, text accompanying (available in [Programs Data](#) directory): Excel macro digitizing program, 16 p.

*Entity\_and\_Attribute\_Detail\_Citation:*

[Flocks](#), J., 2004, Converting analog interpretative data to digital formats for use in database and GIS applications: USGS Open File Report, 2004-1070.

*Entity\_and\_Attribute\_Detail\_Citation:*

Folk, R.L., 1968, Petrology of sedimentary rocks: Austin, TX, University of Texas Press, 167 p.

*Entity\_and\_Attribute\_Detail\_Citation:*

Hobson, R.D., 1979, Definition and use of the phi grade scale: U.S. Army Corp of Engineers Coastal Engineering Research Center, Coastal Engineering Technical Aid No. 79-7 18 p.

*Entity\_and\_Attribute\_Detail\_Citation:*

Inman, D.L., 1952, Measures for describing the size distribution of sediments: Journal of Sedimentary Petrology, v. 22, No. 3, p. 175-188.

*Entity\_and\_Attribute\_Detail\_Citation:*

Kindinger, Jack, [Flocks](#), J.G., Kulp, Mark, and Penland, Shea, 2001, Sand resources, regional geology, and coastal processes for the restoration of the Barataria Barrier shoreline: U.S. Geological Survey Open-File Report 01-384, 69 p.

*Entity\_and\_Attribute\_Detail\_Citation:*

Krumbein, W.C., 1938, Size frequency distribution of sediments and the phi normal curve: Journal of Sedimentary Petrology, v. 18, p.84-90.

*Entity\_and\_Attribute\_Detail\_Citation:*

Suter, J.R., Penland, Shea, and Ramsey, K.E., 1991, Nearshore sand resources of the Mississippi River Delta Plain: Marsh Island to Sandy Point: Coastal Geology Technical Report No. 8, Louisiana Geological Survey, Baton Rouge, LA, Appendix B. p.119-120.

*Entity\_and\_Attribute\_Detail\_Citation:*

Wentworth, C.K., 1922, A scale of grade and class terms for clastic sediments: Journal of Geology, v. 30, p. 377-392.

*Entity\_and\_Attribute\_Detail\_Citation:*

USACE, 1977, Shore protection manual (3rd edition): Vicksburg, MS, U.S. Army Corp of Engineers, Coastal Engineering Research Center, v. II, p.1-59.

*Entity\_and\_Attribute\_Overview:*

Detailed FACS log metadata information for the USGS 00SCC and related cruises in the Louisiana gulf coast area are published on the [USGS CMG Regions](#) (Louisiana)

Data and Metadata Infobank Web site.

*Entity\_and\_Attribute\_Detail\_Citation:*

[http://walrus.wr.usgs.gov/infobank/programs/html/regions2idshtml/la\\_ids.html](http://walrus.wr.usgs.gov/infobank/programs/html/regions2idshtml/la_ids.html)

*Entity\_and\_Attribute\_Detail\_Citation:*

Metadata Cruise Report: <http://walrus.wr.usgs.gov/infobank/q/q200la/html/q-2-00-la.meta.html>

*Entity\_and\_Attribute\_Detail\_Citation:*

Metadata Cruise Report: <http://walrus.wr.usgs.gov/infobank/q/q300la/html/q-3-00-la.meta.html>

*Entity\_and\_Attribute\_Detail\_Citation:*

Metadata Cruise Report: <http://walrus.wr.usgs.gov/infobank/q/q400la/html/q-4-00-la.meta.html>

*Entity\_and\_Attribute\_Overview:*

GIS file: The GIS project used to create the vibracore maps is provided as a .zip file composed of ESRI map documents, shapefiles, and metadata.

*Entity\_and\_Attribute\_Overview:*

Graphic image files: Printable maps of core locations are available as JPEG images. Interactive maps of core locations are available as HTML pages with accompanying JPEG images. The maps contain links to the Core Data Table providing description sheets, profiles, grain-size analysis, penetrometer data, and photographs.

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*Distribution\_Information:*

*Distributor:*

*Contact\_Information:*

*Contact\_Person\_Primary:*

*Contact\_Person:* Flocks, James

*Contact\_Organization:* U.S. Geological Survey

*Contact\_Organization\_Primary:*

*Contact\_Organization:* U.S. Geological Survey

*Contact\_Person:* Flocks, James

*Contact\_Position:* Geologist

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*Address\_Type:* mailing and physical

*Address:* 600 4th Street South

*City:* St. Petersburg

*State\_or\_Province:* FL

*Postal\_Code:* 33701

*Country:* USA

*Contact\_Voice\_Telephone:* (727) 803-8747, ext. 3012

*Contact\_Electronic\_Mail\_Address:* jflocks@usgs.gov

*Contact\_Instructions:*

All of this report is available on-line.

*Resource\_Description:* U.S. Geological Survey Data Series 344

*Distribution\_Liability:*

This DVD publication was prepared by an agency of the United States Government. Although these data have been processed successfully on a computer system at the U.S. Geological Survey, no warranty expressed or implied is made regarding the display or utility of the data on any other system, nor shall the act of distribution imply any such warranty. The U.S. Geological Survey shall not be held liable for improper or incorrect use of the data described and (or) contained herein. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not constitute or imply its

endorsement, recommendation, or favoring by the United States Government or any agency thereof.

*Standard\_Order\_Process:*

*Digital\_Form:*

*Digital\_Transfer\_Information:*

*Format\_Name:* CD / HTML

*Format\_Specification:* Archive of sediment data collected from Sandy Point to Belle Pass, Louisiana, 1983 through 2000 (Vibracore surveys: 00SCC, CR83, P86, and USACE borehole cores)

*Format\_Information\_Content:*

HTML pages link to documents (JPEG, PDF, XLS, DOC) and directories, which contain downloadable files.

*File-Decompression\_Technique:* None

*Transfer\_Size:* 360.4 MB

*Digital\_Transfer\_Option:*

*Online\_Option:*

*Computer\_Contact\_Information:*

*Network\_Address:*

*Network\_Resource\_Name:* DVD/HTML  
[/Data\\_Table.html](#)

*Offline\_Option:*

*Offline\_Media:* CD

*Recording\_Format:* ISO 9660

*Compatibility\_Information:* UNIX, Linux, DOS, Macintosh

*Digital\_Form:*

*Digital\_Transfer\_Information:*

*Format\_Version\_Date:* 2006

*Format\_Name:* map document, shapefile, metadata

*Format\_Specification:* ESRI Software

*Format\_Information\_Content:*

Map shapefiles: The GIS project used to create the maps is composed of map documents, shapefiles, and metadata. Map documents were created with ESRI ArcGIS 8.3 software. The shapefiles provided may also be viewed using other versions of ArcGIS, ArcView, or the public domain software ArcExplorer (<http://www.esri.com/software/arcexplorer/index.html>).

*File-Decompression\_Technique:* unzip: CD/SEDS/Software/ARC/  
[bss-shapefiles.zip](#)

*Transfer\_Size:* 24 KB zipped; 140 KB unzipped

*Digital\_Transfer\_Option:*

*Offline\_Option:*

*Offline\_Media:* CD

*Recording\_Format:* ISO 9660

*Compatibility\_Information:* UNIX, Linux, DOS, Macintosh

*Fees:*

Prices vary.

*Ordering\_Instructions:*

Publications are available from USGS Information Services, Box 25286, Federal Center, Denver, CO 80225-0046 (telephone: 1-888-ASK-USGS, email: [infoservices@usgs.gov](mailto:infoservices@usgs.gov)).

---

*Metadata\_Reference\_Information:*



Metadata\_Date: 20072405

Metadata\_Contact:

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person: Chandra A. Dreher

Contact\_Organization: Jacobs

Contact\_Organization\_Primary:

Contact\_Organization: U.S. Geological Survey

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Postal\_Code: 33701

Country: USA

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Contact\_Electronic\_Mail\_Address: cdreher@usgs.gov

Metadata\_Standard\_Name: Content Standard for Digital Geospatial Metadata

Metadata\_Standard\_Version: FGDC-STD-001-1998

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[Home](#) | [Acronyms](#) | [Contents](#) | [Methods](#) | [Maps](#) | [Core Data Table](#) | [Vibcore Description Sheets](#) | [Interpreted Core Classification Profiles](#) | [Grain-Size and Penetrometer Data](#) | [Photographs](#) | [USACE EUSTIS](#) | [Field Logs](#) | [Metadata](#) | [Software](#) |