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Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters

Introduction

Nutrient overenrichment of estuaries and nearshore coastal waters from human-based causes is now recognized as a national problem on the basis of the Clean Water Act 305b reports from coastal States that list waters whose use or uses are impaired. The National Oceanic and Atmospheric Administration's (NOAA) National Estuarine Eutrophication Assessment indicated that about 60% of the estuaries out of 138 surveyed exhibited moderate to serious overenrichment conditions. The Environmental Protection Agency (EPA) has published recommendations of water quality criteria for nutrients under section 304(a) of the Clean Water Act (66 FR 1671). States should develop water quality standards for nutrients by 2006. The EPA has proposed criteria with the intention that they serve as starting points for states to develop more refined nutrient criteria, as appropriate. States, then, have the option to develop nutrient criteria that fully reflect localized conditions and protect specific designated uses with scientifically defensible approaches as supported by EPA technical guidance manuals. To that end, the Mississippi Department of Environmental Quality (MDEQ) has incorporated an aggressive monitoring and data gathering initiative into existing programs in order to provide nutrient data to support nutrient criteria development. While much has been accomplished through leveraging resources and funding from existing monitoring programs, there are still many data gaps remaining. Mississippi's estuaries are perhaps the most vulnerable and valuable of the state's waters and it is crucial that we address water quality issues in a timely and thorough manner. Mississippi's coastal ecosystems form a cornerstone of the state's economy by providing a variety of valuable resources and services. Gulf of Mexico fisheries yield more finfish, shrimp, and shellfish than the South and Mid-Atlantic, Chesapeake Bay, and Great Lakes combined. Water quality and wetlands health are vital to the maintenance of fisheries production and to the other water-dependent activities that operate within the coastal zone.

Nutrient overenrichment is a common thread that ties together a diverse suite of coastal problems including harmful algal blooms (red tides), fish kills, marine mammal deaths, shellfish poisonings, loss of seagrass and bottom shellfish habitats, and hypoxia/anoxia. The "dead zone," an area in the west-central Gulf characterized by seasonal anoxic bottom conditions, grows in size each year and is related to nutrient run-off from the Mississippi River. Thorough assessment of coastal waters and the development of clear numerical criteria will allow discernment of natural nutrient concentrations from heightened anthropogenic concentrations and are critical to the evaluation and management of Mississippi's estuaries. This project provided data on diel and tidal variations in nutrient concentrations and other important water quality parameters. Dissolved oxygen (DO) was monitored because adequate levels are a fundamental requirement for maintenance of populations of benthos, fish, shellfish, and other estuarine biota. Levels of dissolved oxygen are affected by environmental stresses, such as point and nonpoint discharges of nutrients or oxygen-demanding materials. In addition, stresses that occur in conjunction with low DO concentrations may be even more detrimental to biota (e.g., exposure to hydrogen sulfide, decreased resistance to disease and contaminants). Dissolved oxygen levels are highly variable over time, fluctuating widely due to tidal action, wind stress, and biological activity. One of the objectives of this study was to collect data to best represent the DO conditions in the estuaries of the Mississippi Coast. In a pilot study to evaluate the best sampling strategy for DO in Gulf estuaries, continuous meters that measured DO, percent DO saturation, salinity, temperature, water depth, and pH were deployed at eight locations over a 4-month period. Monte Carlo analysis of the eight 4-month records showed that tidal influences during summer months were small and that day-night differences accounted for most of the observed variability with wind stress accounting for most event-oriented phenomena. These analyses revealed that 1, 2, or 3 random instantaneous measures of DO were likely to mis-classify a station with unacceptable DO conditions (*i.e.*, DO <2 ppm for > 20% of time period) as acceptable at a rate of 60-

70%. Furthermore, short-term continuous measures of 24, 48, and 72 hours also tended to mis-classify unacceptable sites although not as often as instantaneous DO measures (i.e., 50%). This project provided information on nutrients and associated water column parameters during high-flow/low-flow periods. Monitoring included: total Kjeldahl nitrogen, ammonia nitrogen, nitrite + nitrate, total phosphate, chl *a*, total suspended solids, and field parameters such as dissolved oxygen, water temperature, turbidity, transparency, salinity, pH, and depth. Activities were focused primarily on the water column using protocols established by MDEQ in sampling activities supporting USEPA's National Coastal Assessment (NCA) Program. Samples were analyzed according to an approved QAPP and defined QA/QC procedures. Following field work in Year 1, personnel worked closely with the State's Estuarine Nutrient Taskforce and the MDEQ to evaluate historical data, integrate current data into the database, statistically analyze the data, and propose reference conditions for Mississippi's coastal waters.

Approach

Project tasks included water quality monitoring, laboratory analyses, database development and analyses, and development of reference conditions for coastal waters. Specific objectives included:

- 1) collect high flow (spring) and low flow (summer) water samples over a 24 hour tidal cycle at nine sites; one shore and two deep water sites in each of the three coastal counties
- 2) analyze water samples for nitrite-nitrate, ammonia, Kjeldahl nitrogen, total phosphorus, suspended solids, and chlorophyll *a*
- 3) take hydrographic profiles of the water column at collection sites to include temperature, salinity, dissolved oxygen, and pH (turbidity and Secchi disc readings will also be taken)
- 4) evaluate historical or legacy data and integrate these data with current data in concert with the Estuarine Nutrient Taskforce and the MDEQ
- 5) establish numeric nutrient criteria for coastal waters

Field and laboratory work were carried out by personnel of the Gulf Coast Research Laboratory (GCRL) and MDEQ in accordance with approved EPA/MDEQ methodologies and protocols. A Quality Assurance Project Plan (QAPP) for those field and analytical procedures undertaken during the proposed project is in place at the GCRL. Synoptic samples were taken every 6 hours at nine sites over a 24 hour tidal cycle period during the spring (May 2004) and fall (2005). A shore station and two deepwater stations were selected in each of the three coastal counties from a list of sites with impaired water quality prepared by the Mississippi Estuarine Nutrient Taskforce. Analytical procedures were carried out by the Water Quality Laboratory at the GCRL and by the MDEQ laboratory. An overview of field and laboratory procedures follows.

Field Water Quality Data Collection

A global positioning system was used to locate the sampling sites. The Hydrolab DataSonde 4 water quality probe and the YSI multi-parameter 6920 and 600 XLM datasondes were used to measure pH, temperature, salinity, and dissolved oxygen during each sampling event. Detailed standard operating procedures for water column profiling are outlined in the GCRL Quality Assurance Project Plan for Monitoring to Establish Reference Conditions for Nutrients in Estuarine Waterbodies. Site water from target depths was collected with a horizontal 3-liter Van Dorn sampler. Two liters of water (one liter preserved with 5 ml concentrated sulfuric acid and one un-preserved) were iced in the field and returned to the laboratory for nutrient analyses. The remaining liter of water was used for chlorophyll samples and turbidity. Turbidity was determined with a LaMotte 2020 Turbidimeter.

Samples for water quality analysis were placed and maintained on wet ice in the field. Dissolved nutrient samples were maintained at or below 4°C until transported to the GCRL. Samples were refrigerated upon arrival at the laboratory. Field duplicate and field blank samples were collected at 10%

of the sites to measure any variability associated with sample collection procedures. Sites for duplication were randomly chosen.

Samples for chlorophyll *a* (chl *a*) were filtered through Whatman® GF/F glass fiber filters (0.70 μm nominal pore size) at the same time dissolved nutrients are collected. Sampling for chl *a* was conducted in the shade. Syringes and forceps were rinsed with deionized water. Site water was placed in a container and the syringe rinsed with this water. The syringe was filled with 60 cc of site water and the sample filtered. This step was repeated 3 more times until 4 filters had been used (30 cc is filtered through 8 filters when the suspended solid load is too high). The filters were placed in a petri dish and the total water filtered was equal to 240 cc. The volume filtered and number of filters used were written on both the petri dish and a protective foil storage bag. The petri dish was placed in the storage bag, sealed, and put in a cooler with dry ice making sure the storage bag was touching the dry ice. Samples for chl *a* were maintained at -50°C until analysis at GCRL. Analytical procedures provided performance criteria equivalent to those of the EPA's EMAP Program and the National Coastal Assessment QAPP, including those for analyses of blanks and standard reference materials. Information was reported on recovery of spiked blanks, analytical precision with standard reference materials, duplicate analyses and blanks. A database was developed to manage sample tracking and laboratory results for the duration of the project.

Sample Handling, Custody Requirements, and Holding Times

Upon arrival at the GCRL, field samples were relinquished to the Water Quality Laboratory where they were logged in by laboratory personnel. The time and date received and the water temperature (temperature check bottle) were recorded on a Chain of Custody Sample Receipt Form. Samples were refrigerated and sample information was recorded on a Sample Login Form for each refrigerator. Station ID, date sampled, and analysis due date were recorded on a master Sample Check List Form. Samples were kept at 4°C but are not frozen. During sample storage the air temperature of the refrigerator was recorded daily on a Refrigerator Temperature Record Form. Samples were removed from the refrigerator only when aliquots of the sample were taken for analysis. They were placed back in refrigeration as soon as possible in order to minimize temperature change of samples. Samples to be analyzed by the MDEQ Laboratory, Pearl, MS were transported in coolers on ice at 4°C by GCRL or MDEQ personnel. The samples were transferred to the MDEQ Laboratory along with the appropriate Chain of Custody and Sample Request Forms, as per GCRL and MDEQ protocols. Samples sent to the MDEQ Laboratory were transported as soon as possible. Holding times for chemical analyses are listed in Table a.

Table a. Chemical methods.

Analyte	Analysis Methods	Sample Volume	Holding Times	Method Quantitation Limit
Total Suspended Solids (0.1 mg/L)	EPA Method 160.2 Residue, Non-Filterable (Gravimetric, Dried at 103-105 °C)	100 L	7 days	4.0 mg/L
Total Ammonia (mg/L)	EPA Method 350.3 Nitrogen, Ammonia (Potentiometric, Ion Selective Electrode)	50 mL	28 days	0.1 mg/L
Total Nitrite + Nitrate (mg/L)	EPA Method 353.3 Nitrogen, Nitrate-Nitrite (Cadmium Reduction Method)	25 mL	28 days	0.02 mg/L
Total Kjeldahl Nitrogen (mg/L)	EPA Method 350.3 Nitrogen, Ammonia (Potentiometric, Ion Selective Electrode)	50 mL	28 days	0.1 mg/L
Total Phosphate (mg/L)	EPA Method 365.2 Phosphorus, All Forms (Colorimetric, Ascorbic Acid Method)	50 mL	28 days	0.01 mg/L

General Laboratory Procedures

Water used to prepare standards and reagents was of the highest purity ($18 \text{ M}\Omega\text{-cm}$). Tap water was passed through odor and sediment filters and distilled in a Corning Megapure Distillation Unit. The distilled water was stored in a Corning Collection System. Distilled water was passed through a Barnstead Deionizer and then polished using a Simplicity Water Purification System. Reagents used in nutrient analyses are analytical grade chemicals meeting ASC specifications. Reagent forms were kept with each analysis. Stock solutions of known concentrations were purchased for use as calibration standards and as reference samples. Glassware was cleaned in a hydrochloric acid solution. Acid-washed glassware was rinsed three times with distilled water.

Instrumentation and Equipment/Data Quality

Instruments and equipment, operation guidelines, and calibration testing procedure for the Genesys 10 Spectrophotometer followed manufacturer's guidelines. Instructions for instrument checkout, calibration, and maintenance were filed in the Laboratory. Analytical balances were calibrated annually, and a low range performance procedure was carried out each time a balance was used. Instrument checkout procedures were performed before each analysis, and calibrations were performed on a periodic basis. Record logs of maintenance, calibration, and performance were kept for instruments used in instrumental analysis of nutrients and solids. All data were recorded on data forms kept in a designated file within the Water Quality Laboratory. Data were recorded in Excel format. These data were checked against original data forms by the analyst, analytical QC leader, and the project manager. Data quality for total suspended solids analyses was evaluated through the use of determinations of total suspended solids on quality control samples. These included laboratory blanks (distilled, deionized water samples), field blanks, laboratory duplicate samples (randomly selected by the analyst), field duplicate samples, and reference (QC) samples. Laboratory duplicate samples were evaluated using percent difference between the duplicates and the mean value. Reference samples were evaluated using percent recovery and/or the manufacturers recommended procedures. The overall number of determinations for each quality control sample type was equivalent to a number equal to 10% of the total number of regular field samples taken.

For nutrient samples, data quality was evaluated by analyzing concentrations of quality control samples. Total ammonia, total phosphate, nitrate-nitrite, and Kjeldahl nitrogen were measured in samples of known concentration. Quality control samples included laboratory blanks (distilled, deionized water samples), laboratory spiked blanks, field blanks, laboratory duplicate and spiked samples (randomly selected by the analyst), field duplicate and spiked samples, and reference (QC) samples. Percent recovery of the analyte was determined on laboratory-spiked blanks, laboratory spiked samples, field spiked samples, and reference samples. Problems and concerns relating to instrument performance and analytical results were brought to the attention of the QA/QC Officer for corrective action. Results of each analysis were reviewed to determine if the analysis met the performance criteria of the analytical method.

Chemical Analysis/Total Suspended Solids

Total suspended solids (mg/L) were determined on 100 ml of sample using EPA Method 160.2 (Residue, Non-filterable; Gravimetric, Dried at 103-105C). Gelman Type A/E glass fiber filters and Gelman filter assemblies were used in sample filtration. The vacuum assembly consisted of a Gast (Model G588DX) vacuum pump and glass manifolds (Houston Glass Co.). Filters and residues were dried in a Precision Economy Oven (Model 51220131). Dried filters were kept in a Sanplatec DryKeeper desiccator or glass desiccator. An OHAUS Voyager Model V1RR80 analytical balance was used to weigh filters and residues to 0.1 mg/L. All data were recorded on a Total Solids Data Form.

Chemical Analysis/Total Ammonia

Total ammonia nitrogen ($\text{NH}_4\text{-NH}_3\text{-N}$, mg/L) was determined on 50 ml of sample using EPA Method 350.3 (Potentiometric, Ion Selective electrode). An Orion Model EATM 940 Expandable Ionanalyzer with a Corning Ammonia Electrode (Model 476130) or an Orion Ammonia Electrode (Model

95-12) was used to measure total ammonia concentration of samples. The manufacturer's instruction manuals were followed for instrument check out prior to analysis, for instrument standardization, and for direct measurement of samples. Stock solutions of ammonia were purchased from suppliers and were certified as to concentration. A series of low concentration standards were prepared within the concentration range of 0.00 to 1.00 mg/L. The pH of samples and standards was adjusted immediately prior to analysis by the addition of 1 ml of 10 N sodium hydroxide. A linear regression procedure utilizing five standards was used for instrument calibration. The slope, intercept, and coefficient of determination (r^2) of the regression line was determined. If r^2 is < 0.95, new standard solutions were prepared and the instrument was recalibrated. Measurements were recorded on Ammonia Data Forms.

Chemical Analysis/Total Phosphate

After conversion to orthophosphate by the sulfuric acid-nitric acid digestion procedure (Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998), total phosphate ($t\text{PO}_4\text{-P}$, mg/L) was determined colorimetrically using the Ascorbic Acid Method (EPA Method 365.2). Fifty milliliters of the water sampled were digested and 25 ml of the digested sample was used for analysis. A ThermoSpectronic Genesys™ 10 Spectrophotometer with a Sipper System (Model 355982) and 1 cm flow-through cell was used to measure total phosphate concentration. Absorbance was read at 880nm. The manufacturer's instruction manual was followed for instrument check out prior to analysis, for instrument standardization, and for direct measurement of samples. Stock solutions of phosphate were purchased from suppliers and were certified as to concentration. A linear regression procedure (absorbance vs. concentration) utilizing a minimum of five standards was used to standardize the spectrophotometer. The slope, intercept, and coefficient of determination (r^2) of the regression line were determined. If r^2 is < 0.98, new standard solutions were prepared and the instrument was recalibrated. Measurements were recorded on Phosphate Data Forms.

Chemical Analysis/Nitrite-Nitrate

Nitrite-nitrate concentration ($\text{NO}_2\text{-NO}_3\text{-N}$, mg/L) was determined by EPA Method 353.3 (Cadmium Reduction Method). Twenty-five milliliters of the water sampled were passed through a reduction column to convert nitrate to nitrite. Nitrite ($\text{NO}_2\text{-N}$, mg/L) was measured using a ThermoSpectronic Genesys™ 10 Spectrophotometer with a Sipper System (Model 355982) and 1 cm flow-through cell. Absorbance of standards was read at 543 nm. A linear regression procedure (absorbance vs. concentration) utilizing a minimum of five standards was used to standardize the spectrophotometer. The slope, intercept, and coefficient of determination (r^2) of the regression line were determined. If r^2 is < 0.98, new standard solutions were prepared, and the instrument was recalibrated. Measurements were recorded on Nitrate-Nitrate Data Forms.

Chemical Analysis/Total Kjeldahl Nitrogen

Total Kjeldahl nitrogen was measured using EPA Method 351.4 (Potentiometric, Ion Selective Electrode). Samples (20 ml) were digested on a RapiDigester block digester with fume extraction system (Econolab, Inc.) according to the manufacturer's instruction manual. Previously, the catalyst of choice for digestion has been mercury, however, due to health risks and disposal problems, copper was used as an alternative (Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998). Following digestion, Kjeldahl nitrogen was measured following procedures for total ammonia nitrogen (EPA Method 350.3). Measurements were recorded on Total Kjeldahl Data Forms.

Chemical Analysis/Chlorophyll a

Surface, mid-water and bottom chlorophyll *a* concentrations were determined for each site from known volumes of water filtered. Measurements were made by using 90% acetone to extract chlorophyll from GF/F filters collected at each site. Standard Method 445.0 and a Turner Designs fluorometer unit were used to determine chlorophyll *a* concentrations (this method has been approved by MDEQ and EPA). A spectrophotometer was used to validate chlorophyll standards. Instrument detection limit (IDL)

was $\pm 0.005 \mu\text{g/l}$ chl *a*; method detection limit using the present fluorometer was estimated to be $\pm 0.005 \mu\text{g/l}$ chl *a*; method detection limit was machine dependent. Chlorophyll was extracted from the filters without grinding. Only values for chlorophyll *a* were calculated and reported.

Quality assurance and control measures for each set of samples included reagent blanks, duplicate reference samples, and calibration standards. Throughout the time frame of the project, all checks of standard reference material were within 5% of the calculated value. Duplicate field samples, provided by the GCRL field crew, had values within 10% of the original duplicate replicate samples. Quality control information included a QC check sample every 10 samples (90 to 110% recovery) and a calibration curve for the start and end of each sample run (minimum 3 point curve and a regression coefficient).

Synopsis of Data

Samples were collected every six hours over a 24-hour period on May 19 and 20, 2004. Hydrographic data for this period (high-flow) is found in Table 1. Water temperature, pH, salinity, and dissolved oxygen are listed for the May sampling period. Table 2 contains the nutrient data by station. Wet weather conditions precluded collection of low-flow samples during the summers of 2004 and 2005. Drought conditions followed Hurricane Katrina, however, the catastrophic destruction of coastal infrastructure, including facilities of the GCRL and MDEQ, prevented sampling until November of 2005. Tables 3 and 4 contain the hydrographic and nutrient data for low-flow time period, respectively. A power failure at the Pearl Laboratory resulted in the loss of the chlorophyll *a* samples.

Project Integration with Existing and Past Research

Data collected during this project will integrate with numerous ongoing and past studies including: 1) a nutrient survey of coastal waters conducted quarterly by the GCRL at selected sites in coastal bays and Mississippi Sound, 2) an ongoing study by MDEQ of Bayou Casotte in Jackson County, a heavily industrialized waterbody characterized by periodic elevations of some nutrients, 3) the EPA National Coastal Assessment Study which provides for the collection of water quality samples from stations in Mississippi Sound and adjacent waters during July of each year, 4) the MDEQ ambient monitoring program that is proposed to be reinstated in 2004, and 5) ongoing MDEQ studies in inland lakes and large rivers and historic data from wadeable streams. The low flow/high flow diel sampling, when integrated into the current quarterly nutrient sampling program, will provide data on a critical water quality component and will ensure that criteria developed for Mississippi's estuarine waters are defensible and based on the best available data.

Table 1. Hydrology Data (May 19-20, 2004) for the WRRI Project " " Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									Depth (m)	Temperature (C)	pH (units)	Salinity (ppt)	DO (%)	DO (mg/L)
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	13:30	0.80	3.70	0.5	28.40	8.23	20.62	129.5	8.97
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	13:30	0.80	3.70	1.0	28.19	8.20	20.73	124.3	8.61
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	13:30	0.80	3.70	1.5	27.78	8.15	21.31	107.2	7.47
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	13:30	0.80	3.70	2.0	27.69	8.13	21.64	102.2	7.12
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	13:30	0.80	3.70	2.5	27.12	8.05	23.07	80.8	5.60
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	13:30	0.80	3.70	3.0	26.50	7.99	24.75	64.9	4.54
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	13:30	0.80	3.70	3.5	26.35	7.97	25.35	58.9	4.07
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	16:06	0.60	3.50	0.5	30.08	8.48	20.53	193.0	13.05
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	16:06	0.60	3.50	1.0	28.69	8.34	20.95	149.5	10.19
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	16:06	0.60	3.50	1.5	27.96	8.18	21.45	109.7	7.63
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	16:06	0.60	3.50	2.0	27.61	8.12	22.25	97.0	6.75
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	16:06	0.60	3.50	2.5	27.49	8.08	22.76	80.5	6.28
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	16:06	0.60	3.50	3.0	27.29	8.06	23.74	84.4	5.88
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	23:50	NA	2.70	0.5	27.22	8.08	17.56	93.8	6.76
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	23:50	NA	2.70	1.0	27.37	8.17	18.54	99.9	7.13
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	23:50	NA	2.70	1.5	27.77	8.04	20.07	113.7	7.99
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	23:50	NA	2.70	2.0	28.00	8.27	20.73	119.8	8.38
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/20/2004	5:50	NA	2.70	0.5	27.28	8.12	20.55	88.6	6.30
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/20/2004	5:50	NA	2.70	1.0	27.35	8.15	20.83	92.6	6.54
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/20/2004	5:50	NA	2.70	1.5	27.54	8.17	20.74	96.2	6.76
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/20/2004	5:50	NA	2.70	2.0	27.24	8.13	22.31	85.9	6.01
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/20/2004	5:50	NA	2.70	2.5	27.21	8.11	22.68	83.1	5.81
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/20/2004	10:00	0.85	3.00	0.5	26.97	8.11	18.47	92.2	6.62
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/20/2004	10:00	0.85	3.00	1.0	27.40	8.10	21.08	89.5	6.29
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/20/2004	10:00	0.85	3.00	1.5	27.26	8.08	22.03	84.0	5.88
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/20/2004	10:00	0.85	3.00	2.0	26.99	8.06	23.20	78.1	5.47
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/20/2004	10:00	0.85	3.00	2.5	26.86	8.03	23.67	71.9	5.03
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/19/2004	10:22	1.60	2.36	0.5	27.73	8.06	19.37	106.4	7.51
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/19/2004	10:22	1.60	2.36	1.0	27.42	8.09	21.05	104.6	7.35
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/19/2004	10:22	1.60	2.36	1.5	27.37	8.07	21.64	95.8	6.72
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/19/2004	10:22	1.60	2.36	2.0	27.40	8.08	21.63	96.4	6.76
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/19/2004	19:00	1.25	1.90	0.5	27.54	8.09	11.35	93.7	6.91
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/19/2004	19:00	1.25	1.90	1.0	28.81	8.17	16.29	107.3	7.59

Table 1. Hydrology Data (May 19-20, 2004) for the WRRI Project " " Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									Depth (m)	Temperature (C)	pH (units)	Salinity (ppt)	DO (%)	DO (mg/L)
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/19/2004	19:00	1.25	1.90	1.5	28.70	8.16	19.59	105.7	7.35
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/19/2004	22:40	NA	1.80	0.5	26.76	7.30	10.48	73.6	5.60
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/19/2004	22:40	NA	1.80	1.0	27.07	7.87	16.39	74.8	5.46
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/19/2004	22:40	NA	1.80	1.5	27.67	7.90	21.07	70.7	4.90
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/20/2004	4:15	NA	2.20	0.5	27.42	7.87	18.70	68.1	4.84
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/20/2004	4:15	NA	2.20	1.0	28.03	8.06	21.29	83.7	5.81
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/20/2004	4:15	NA	2.20	1.5	27.95	8.08	21.54	83.4	5.80
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/20/2004	4:15	NA	2.20	2.0	27.64	8.02	22.10	71.8	4.95
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/20/2004	11:10	1.55	2.40	0.5	28.06	8.05	17.14	94.1	6.70
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/20/2004	11:10	1.55	2.40	1.0	28.09	8.09	21.87	96.9	6.71
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/20/2004	11:10	1.55	2.40	1.5	28.00	8.09	22.24	96.0	6.63
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/20/2004	11:10	1.55	2.40	2.0	27.95	8.10	22.40	95.8	6.62
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	0.5	25.84	6.50	0.07	79.9	6.50
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	1.0	25.58	6.36	0.07	78.8	6.43
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	1.5	25.70	6.30	0.07	78.8	6.44
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	2.0	24.84	6.16	0.07	76.0	6.29
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	3.0	24.82	6.13	0.07	75.7	6.28
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	4.0	24.77	6.12	0.07	75.6	6.27
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	5.0	24.69	6.11	0.07	75.3	6.25
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	6.0	24.66	6.09	0.07	75.1	6.24
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	7.0	24.55	6.07	0.07	74.6	6.21
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	8.0	24.55	6.07	0.07	74.4	6.20
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	9.0	24.53	6.06	0.07	74.2	6.18
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	0.5	26.35	6.24	0.07	79.2	6.36
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	1.0	25.15	6.13	0.07	79.7	6.55
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	1.5	25.30	6.04	0.06	81.8	6.70
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	2.0	25.12	5.97	0.06	82.1	6.76
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	3.0	24.87	5.92	0.05	82.4	6.84
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	4.0	25.04	5.92	0.05	81.9	6.77
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	5.0	25.01	5.89	0.05	82.2	6.79
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	6.0	25.00	5.91	0.05	82.4	6.82
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	7.0	24.02	5.75	0.04	82.3	6.93
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	8.0	23.97	5.72	0.04	82.3	6.93

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Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									Depth (m)	Temperature (C)	pH (units)	Salinity (ppt)	DO (%)	DO (mg/L)
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	9.0	24.07	5.76	0.04	82.4	6.93
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	22:00	NA	8.03	0.5	26.28	6.45	0.09	68.5	5.55
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	22:00	NA	8.03	1.0	25.70	6.32	0.08	73.3	5.98
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	22:00	NA	8.03	1.5	25.49	6.28	0.07	74.2	6.07
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	22:00	NA	8.03	2.0	25.38	6.22	0.07	74.7	6.10
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	22:00	NA	8.03	3.0	25.18	6.10	0.06	78.5	6.46
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	22:00	NA	8.03	4.0	25.18	6.03	0.06	79.4	6.54
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	22:00	NA	8.03	5.0	25.25	6.00	0.06	78.1	6.47
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	22:00	NA	8.03	6.0	25.04	5.93	0.06	80.6	6.62
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	22:00	NA	8.03	7.0	24.66	5.85	0.05	82.8	6.87
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	22:00	NA	8.03	8.0	24.61	5.76	0.05	82.7	6.87
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	0.5	25.14	6.23	0.07	76.4	6.30
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	1.0	25.13	6.16	0.07	76.3	6.28
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	1.5	25.13	6.13	0.07	76.1	6.27
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	2.0	25.13	6.11	0.07	76.2	6.28
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	3.0	25.13	6.09	0.07	76.1	6.27
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	4.0	25.13	6.08	0.07	76.0	6.26
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	5.0	25.13	6.06	0.07	76.0	6.26
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	6.0	25.13	6.05	0.07	76.0	6.26
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	7.0	25.13	6.04	0.07	75.9	6.26
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	8.0	25.13	6.04	0.07	75.9	6.26
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	9.0	25.13	6.04	0.07	75.8	6.25
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	0.5	25.55	6.27	0.07	78.3	6.39
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	1.0	25.42	6.15	0.07	77.4	6.35
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	1.5	25.19	6.08	0.07	76.3	6.28
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	2.0	25.14	6.03	0.07	75.9	6.25
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	3.0	25.11	6.01	0.07	75.7	6.24
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	4.0	25.04	5.98	0.07	75.0	6.19
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	5.0	25.05	5.98	0.07	75.0	6.19
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	6.0	25.02	5.98	0.07	74.8	6.18
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	7.0	25.00	5.98	0.07	74.6	6.16
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	8.0	24.96	5.98	0.07	74.3	6.14
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	9.0	24.96	5.98	0.07	74.2	6.13

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									Depth (m)	Temperature (C)	pH (units)	Salinity (ppt)	DO (%)	DO (mg/L)
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	9.5	24.95	6.00	0.07	73.9	6.11
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	12:35	0.85	5.02	0.5	26.68	6.33	0.09	81.1	
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	12:35	0.85	5.02	1.0	26.10	6.30	0.09	77.7	6.27
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	12:35	0.85	5.02	1.5	25.92	6.27	0.09	76.8	6.24
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	12:35	0.85	5.02	2.0	25.86	6.25	0.09	76.6	6.22
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	12:35	0.85	5.02	3.0	25.84	6.23	0.09	76.1	6.19
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	12:35	0.85	5.02	4.0	24.67	6.21	0.08	69.1	5.73
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	12:35	0.85	5.02	5.0	24.52	6.19	0.08	65.7	5.47
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	18:00	0.60	4.23	0.5	28.32	6.40	0.12	90.1	7.04
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	18:00	0.60	4.23	1.0	27.52	6.40	0.10	80.8	6.38
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	18:00	0.60	4.23	1.5	25.50	6.41	0.06	63.3	5.15
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	18:00	0.60	4.23	2.0	25.41	6.35	0.05	61.4	5.03
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	18:00	0.60	4.23	3.0	25.35	6.31	0.05	60.8	5.00
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	18:00	0.60	4.23	4.0	25.28	6.34	0.05	59.1	4.88
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	23:05	NA	4.03	0.5	26.63	6.21	0.07	74.4	5.96
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	23:05	NA	4.03	1.0	26.26	6.26	0.07	72.1	5.82
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	23:05	NA	4.03	1.5	25.25	6.31	0.05	63.4	5.22
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	23:05	NA	4.03	2.0	25.05	6.31	0.05	61.7	5.10
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	23:05	NA	4.03	3.0	24.85	6.30	0.04	60.2	4.99
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	23:05	NA	4.03	4.0	24.81	6.24	0.05	58.6	4.85
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	5:25	NA	4.33	0.5	26.16	6.25	0.08	70.1	5.69
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	5:25	NA	4.33	1.0	25.72	6.25	0.08	69.0	5.62
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	5:25	NA	4.33	1.5	25.52	6.26	0.08	68.7	5.62
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	5:25	NA	4.33	2.0	25.40	6.26	0.08	69.8	5.71
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	5:25	NA	4.33	3.0	25.20	6.25	0.08	71.8	5.91
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	5:25	NA	4.33	4.0	24.90	6.16	0.06	76.2	6.31
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	11:05	0.80	4.48	0.5	28.43	6.28	0.08	79.0	6.13
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	11:05	0.80	4.48	1.0	28.14	6.25	0.08	79.4	6.21
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	11:05	0.80	4.48	1.5	26.03	6.24	0.08	74.5	6.06
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	11:05	0.80	4.48	2.0	25.08	6.21	0.07	73.6	6.06
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	11:05	0.80	4.48	3.0	24.99	6.13	0.07	72.8	6.01
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	11:05	0.80	4.48	3.5	24.94	6.12	0.07	72.1	5.97
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	11:05	0.80	4.48	4.0	24.94	6.14	0.07	71.6	5.92

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									Depth (m)	Temperature (C)	pH (units)	Salinity (ppt)	DO (%)	DO (mg/L)
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	12:00	0.50	3.57	0.5	26.91	7.26	6.49	99.6	8.00
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	12:00	0.50	3.57	1.0	26.90	7.24	6.50	97.3	7.82
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	12:00	0.50	3.57	1.5	26.85	7.22	6.48	94.7	7.61
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	12:00	0.50	3.57	2.0	26.80	7.21	6.48	94.1	7.58
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	12:00	0.50	3.57	3.0	26.82	7.21	6.49	94.0	7.56
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	16:00	0.40	3.92	0.5	27.68	7.69	6.36	105.3	8.35
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	16:00	0.40	3.92	1.0	27.63	7.64	6.42	106.7	8.46
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	16:00	0.40	3.92	1.5	27.49	7.57	6.44	103.6	8.24
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	16:00	0.40	3.92	2.0	27.42	7.54	6.43	100.9	8.03
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	16:00	0.40	3.92	3.0	27.35	7.51	6.45	101.1	8.05
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	16:00	0.40	3.92	3.5	27.32	7.49	6.48	100.2	7.99
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	23:10	NA	3.43	0.5	28.18	6.78	5.38	50.3	3.92
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	23:10	NA	3.43	1.0	28.19	6.80	5.37	47.4	3.72
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	23:10	NA	3.43	1.5	28.19	6.79	5.38	46.8	3.66
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	23:10	NA	3.43	2.0	28.19	6.78	5.38	46.3	3.63
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	23:10	NA	3.43	3.0	28.19	6.77	5.38	45.6	3.58
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/20/2004	4:00	NA	3.05	0.5	27.40	7.13	5.46	56.8	4.46
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/20/2004	4:00	NA	3.05	1.0	27.28	7.07	5.85	62.2	4.90
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/20/2004	4:00	NA	3.05	1.5	27.03	7.06	6.23	75.8	6.11
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/20/2004	4:00	NA	3.05	2.0	27.02	7.07	6.24	75.7	6.07
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/20/2004	10:45	0.85	3.00	0.5	27.52	7.31	4.77	105.1	8.34
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/20/2004	10:45	0.85	3.00	1.0	27.46	7.35	4.88	103.7	8.24
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/20/2004	10:45	0.85	3.00	1.5	27.49	7.37	4.92	102.3	8.23
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/20/2004	10:45	0.85	3.00	2.0	27.42	7.38	4.90	101.7	8.09
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/20/2004	10:45	0.85	3.00	2.5	27.43	7.37	4.94	100.6	8.01
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	10:00	0.30	7.36	0.5	22.07	7.81	0.01	71.6	6.29
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	10:00	0.30	7.36	1.0	22.09	7.45	0.01	71.1	6.25
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	10:00	0.30	7.36	1.5	22.04	7.31	0.01	70.5	6.20
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	10:00	0.30	7.36	2.0	22.03	7.18	0.01	69.7	6.13
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	10:00	0.30	7.36	3.0	22.03	6.91	0.01	69.9	6.14
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	10:00	0.30	7.36	4.0	22.03	6.88	0.01	69.3	6.10
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	10:00	0.30	7.36	5.0	22.03	6.85	0.01	68.7	6.04
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	10:00	0.30	7.36	6.0	22.04	6.83	0.01	68.3	6.01

Table 1. Hydrology Data (May 19-20, 2004) for the WRRI Project " " Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									Depth (m)	Temperature (C)	pH (units)	Salinity (ppt)	DO (%)	DO (mg/L)
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	10:00	0.30	7.36	7.0	22.04	6.77	0.01	67.8	5.97
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	17:00	0.25	7.97	0.5	22.52	8.39	0.01	72.0	6.28
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	17:00	0.25	7.97	1.0	22.50	8.14	0.01	71.5	6.24
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	17:00	0.25	7.97	1.5	22.50	8.07	0.01	71.5	6.23
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	17:00	0.25	7.97	2.0	22.50	8.01	0.01	71.3	6.21
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	17:00	0.25	7.97	3.0	22.53	7.88	0.01	71.0	6.19
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	17:00	0.25	7.97	4.0	22.50	7.80	0.01	71.2	6.19
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	17:00	0.25	7.97	5.0	22.49	7.72	0.01	70.9	6.18
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	17:00	0.25	7.97	6.0	22.50	7.55	0.01	70.6	6.15
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	17:00	0.25	7.97	7.0	22.50	7.52	0.01	70.5	6.15
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	17:00	0.25	7.97	7.5	22.50	7.55	0.01	70.4	6.13
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	22:00	NA	7.86	0.5	22.89	8.13	0.01	72.3	6.26
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	22:00	NA	7.86	1.0	22.89	7.61	0.01	71.8	6.22
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	22:00	NA	7.86	1.5	22.88	7.47	0.01	71.8	6.21
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	22:00	NA	7.86	2.0	22.88	7.36	0.01	71.4	6.18
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	22:00	NA	7.86	3.0	22.89	7.25	0.01	71.2	6.15
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	22:00	NA	7.86	4.0	22.89	7.24	0.01	70.9	6.14
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	22:00	NA	7.86	5.0	22.89	7.16	0.01	70.7	6.12
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	22:00	NA	7.86	6.0	22.89	7.12	0.01	70.6	6.11
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	22:00	NA	7.86	7.0	22.89	7.05	0.01	70.4	6.09
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	22:00	NA	7.86	7.5	22.89	7.04	0.01	70.2	6.08
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	5:30	0.35	7.68	0.5	22.70	7.88	0.01	67.6	5.85
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	5:30	0.35	7.68	1.0	22.70	7.65	0.01	67.9	5.90
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	5:30	0.35	7.68	1.5	22.70	7.57	0.01	67.3	5.83
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	5:30	0.35	7.68	2.0	22.70	7.46	0.01	66.9	5.81
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	5:30	0.35	7.68	3.0	22.71	7.37	0.01	66.9	5.81
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	5:30	0.35	7.68	4.0	22.70	7.37	0.01	67.0	5.81
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	5:30	0.35	7.68	5.0	22.71	7.32	0.01	66.6	5.77
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	5:30	0.35	7.68	6.0	22.71	7.27	0.01	66.5	5.78
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	5:30	0.35	7.68	7.0	22.71	7.22	0.01	66.2	5.75
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	5:30	0.35	7.68	7.5	22.70	7.20	0.01	65.8	5.71
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	10:00	0.30	8.45	0.5	22.65	8.02	0.01	71.2	6.19
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	10:00	0.30	8.45	1.0	22.61	7.35	0.01	68.8	5.98

Table 1. Hydrology Data (May 19-20, 2004) for the WRRI Project " " Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									Depth (m)	Temperature (C)	pH (units)	Salinity (ppt)	DO (%)	DO (mg/L)
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	10:00	0.30	8.45	1.5	22.61	7.12	0.01	68.3	5.94
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	10:00	0.30	8.45	2.0	22.61	6.98	0.01	67.9	5.91
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	10:00	0.30	8.45	3.0	22.61	6.88	0.01	67.8	5.89
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	10:00	0.30	8.45	4.0	22.60	6.79	0.01	67.4	5.86
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	10:00	0.30	8.45	5.0	22.61	6.77	0.01	67.2	5.85
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	10:00	0.30	8.45	6.0	22.61	6.69	0.01	67.2	5.85
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	10:00	0.30	8.45	7.0	22.61	6.69	0.01	66.8	5.81
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	10:00	0.30	8.45	8.0	22.60	6.67	0.01	66.4	5.77
DAB23	Davis Bayou	Beach at Holcomb Blvd	30 23' 37.8"	88 48' 37.2"	5/19/2004	10:50	0.60	1.00	0.5	27.86	6.89	7.00	103.1	8.02
DAB23	Davis Bayou	Beach at Holcomb Blvd	30 23' 37.8"	88 48' 37.2"	5/19/2004	16:45	0.45	1.00	0.5	29.55	6.78	6.00	126.0	9.57
DAB23	Davis Bayou	Beach at Holcomb Blvd	30 23' 37.8"	88 48' 37.2"	5/19/2004	22:50	NA	1.00	0.5	26.70	6.85	6.00	81.9	6.52
DAB23	Davis Bayou	Beach at Holcomb Blvd	30 23' 37.8"	88 48' 37.2"	5/20/2004	4:58	NA	1.00	0.5	25.32	7.58	4.00	72.1	5.97
DAB23	Davis Bayou	Beach at Holcomb Blvd	30 23' 37.8"	88 48' 37.2"	5/20/2004	11:03	1.00	1.00	0.5	31.75	7.20	5.00	87.2	6.38
WAV27	Waveland Beach	Beach at St. Claire Church	30 16' 37.1"	89 22' 25.2"	5/19/2004	10:00	0.21	1.00	0.5	26.41	7.40	4.96	109.4	8.55
WAV27	Waveland Beach	Beach at St. Claire Church	30 16' 37.1"	89 22' 25.2"	5/19/2004	16:00	0.17	1.00	0.5	29.24	7.83	4.98	110.4	8.22
WAV27	Waveland Beach	Beach at St. Claire Church	30 16' 37.1"	89 22' 25.2"	5/19/2004	22:00	NA	1.00	0.5	27.18	7.45	5.10	84.6	6.50
WAV27	Waveland Beach	Beach at St. Claire Church	30 16' 37.1"	89 22' 25.2"	5/20/2004	4:00	NA	1.00	0.5	26.14	7.27	5.50	60.7	4.79
WAV27	Waveland Beach	Beach at St. Claire Church	30 16' 37.1"	89 22' 25.2"	5/20/2004	10:00	0.20	1.00	0.5	27.33	7.02	2.22	94.3	7.38
ROA28	Rodenberg Ave.	Beach at Rodenberg Ave.	30 23' 32.6"	88 56' 17.5"	5/19/2004	10:00	1.00	1.00	0.5	26.80	7.00	10.00	136.0	10.44
ROA28	Rodenberg Ave.	Beach at Rodenberg Ave.	30 23' 32.6"	88 56' 17.5"	5/19/2004	16:00	0.50	1.00	0.5	34.35	7.59	15.00	125.6	8.91
ROA28	Rodenberg Ave.	Beach at Rodenberg Ave.	30 23' 32.6"	88 56' 17.5"	5/19/2004	22:00	NA	1.00	0.5	25.99	8.19	10.00	107.8	8.76
ROA28	Rodenberg Ave.	Beach at Rodenberg Ave.	30 23' 32.6"	88 56' 17.5"	5/20/2004	4:00	NA	1.00	0.5	25.60	7.36	6.00	75.5	6.19
ROA28	Rodenberg Ave.	Beach at Rodenberg Ave.	30 23' 32.6"	88 56' 17.5"	5/20/2004	10:00	1.00	1.00	0.5	28.10	7.86	12.00	117.8	9.24

Table 2. Nutrient data (May 19-20, 2004) for WRRI project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Station Code	Level	Sample Location	Latitude (°')	Longitude (°')	Date	Time	Sample Depth (m)	Turbidity (NTU)	Chlorophyll a (ug/L)	Pheo-a (ug/L)	Total Ammonia (mg/L-N)	Total Kjeldahl Nitrogen (mg/L-N)	Total Nitrite (mg/L-N)	Total Phosphate (mg/L-P)	Total Suspended Solids (mg/L)	County
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	13:30	0.5	9.0	29.58	10.84	0.16	0.72	0.09	0.94	74	Jackson
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	13:30	0.5		25.25	9.80	0.16	0.66	0.10	0.91	86	Jackson
BCA03	Middle	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	13:30	1.8	17.0	14.70	11.27	0.35	0.85	0.07	1.37	101	Jackson
BCA03	Middle	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	13:30	1.8		14.55	11.75	0.44	0.90	0.08	1.34	110	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	13:30	3.2	16.0	4.28	3.07	0.24	0.59	0.03	0.51	114	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	13:30	3.2		5.31	3.94	0.23	0.58	0.03	0.50	112	Jackson
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	16:06	0.5	12.0	51.28	8.28	0.06	0.64	0.12	1.69	94	Jackson
BCA03	Middle	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	16:06	1.8	14.0	23.60	9.40	0.25	0.65	0.09	1.32	91	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	16:06	3.0	13.0	14.24	10.61	0.20	0.56	0.06	0.90	104	Jackson
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	23:50	0.5	9.0	10.27	8.31	0.05	0.40	0.05	0.35	75	Jackson
BCA03	Middle	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	23:50	1.4	8.0	12.96	10.58	0.06	0.40	0.06	0.51	80	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	23:50	2.2	17.0	28.46	9.02	0.11	0.60	0.07	1.38	98	Jackson
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	05/20/04	5:50	0.5	8.0	15.02	10.06	0.07	0.44	0.06	0.70	85	Jackson
BCA03	Middle	Bayou Casotte	30 21 20.5	88 30 23.3	05/20/04	5:50	1.4	10.0	16.18	7.91	0.10	0.49	0.06	0.97	75	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	05/20/04	5:50	2.2	10.0	16.17	7.67	0.11	0.44	0.06	0.89	90	Jackson
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	05/20/04	10:00	0.5	9.0	13.26	9.98	0.07	0.52	0.06	0.74	68	Jackson
BCA03	Middle	Bayou Casotte	30 21 20.5	88 30 23.3	05/20/04	10:00	1.5	9.0	13.11	7.66	0.11	0.51	0.06	0.75	79	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	05/20/04	10:00	2.5	14.0	10.77	6.54	0.14	0.45	0.05	0.74	93	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	05/19/04	10:22	0.5	5.0	3.52	1.20	0.04	0.37	<0.02	0.03	61	Jackson
ROI06	Middle	Round Island	30 18 36.9	88 32 41.1	05/19/04	10:22	1.2	7.0	3.61	1.71	0.04	0.29	0.02	0.03	68	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	05/19/04	10:22	1.9	8.0	2.82	1.91	0.04	0.28	0.02	0.03	70	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	05/19/04	19:00	0.5	7.0	4.57	2.06	0.04	0.30	0.06	0.03	33	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	05/19/04	19:00	1.5	0.0	5.86	2.93	0.03	0.23	0.02	0.03	68	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	05/19/04	22:40	0.5	8.0	2.57	1.50	0.05	0.28	0.08	0.03	42	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	05/19/04	22:40	1.3	8.0	3.18	2.17	0.07	0.22	0.06	0.04	64	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	05/20/04	4:15	0.5	7.0	3.30	1.99	0.03	0.30	0.05	0.04	55	Jackson
ROI06	Middle	Round Island	30 18 36.9	88 32 41.1	05/20/04	4:15	1.1	7.0	3.66	2.50	0.03	0.26	0.05	0.03	61	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	05/20/04	4:15	1.7	8.0	2.32	1.44	<0.02	0.24	0.03	0.03	75	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	05/20/04	11:10	0.5	0.0	5.61	2.96	0.05	0.25	0.03	0.03	66	Jackson
ROI06	Middle	Round Island	30 18 36.9	88 32 41.1	05/20/04	11:10	1.2	0.0	3.87	1.62	0.05	0.23	0.02	<0.02	69	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	05/20/04	11:10	1.9	0.0	4.41	2.31	0.03	0.24	0.02	0.03	85	Jackson
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	05/19/04	10:50	0.5	16.0	3.38	2.89	0.12	0.41	0.08	0.03	38	Jackson
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	05/19/04	16:45	0.5	28.0	10.74	4.99	0.09	0.55	0.07	0.03	46	Jackson
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	05/19/04	22:50	0.5	18.0	5.99	4.22	0.08	0.54	0.07	0.03	31	Jackson
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	05/19/04	22:50	0.5		5.68	3.45	0.08	0.54	0.06	0.03	27	Jackson
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	05/20/04	4:58	0.5	18.0	5.55	3.55	0.14	0.49	0.08	0.04	33	Jackson
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	05/20/04	11:03	0.5	14.0	4.81	2.19	0.11	0.45	0.08	0.03	26	Jackson
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	10:22	0.5	13.0	1.26	0.81	0.08	0.49	0.04	0.05	<4	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	10:22	4.6	13.0	0.85	0.41	0.08	0.37	0.04	0.04	5	Harrison
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	10:22	8.7	69.0	1.65	0.98	0.08	0.36	0.05	0.07	77	Harrison
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	16:00	0.5	15.0	1.16	0.77	0.06	0.38	0.04	0.04	8	Harrison

Table 2. Nutrient data (May 19-20, 2004) for WRRI project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Station Code	Level	Sample Location	Latitude (°')	Longitude (°')	Date	Time	Sample Depth (m)	Turbidity (NTU)	Chlorophyll a (ug/L)	Pheo-a (ug/L)	Total Ammonia (mg/L-N)	Total Kjeldahl Nitrogen (mg/L-N)	Total Nitrite (mg/L-N)	Total Phosphate (mg/L-P)	Total Suspended Solids (mg/L)	County
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	16:00	0.5		1.17	0.63	0.06	0.36	0.03	0.03	11	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	16:00	4.6	15.0	1.11	0.69	0.06	0.39	0.03	0.04	8	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	16:00	4.6		1.43	0.74	0.06	0.39	0.03	0.03	6	Harrison
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	16:00	8.7	86.0	1.71	0.89	0.05	0.35	<0.02	0.06	56	Harrison
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	16:00	8.7		1.04	0.60	0.04	0.36	<0.02	0.06	83	Harrison
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	22:00	0.5	26.0	1.72	1.31	0.07	0.61	0.09	0.09	20	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	22:00	4.0	22.0	1.60	1.04	0.05	0.59	0.04	0.05	19	Harrison
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	22:00	7.5	22.0	1.41	0.91	0.03	0.61	<0.02	0.03	19	Harrison
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	05/20/04	4:00	0.5	15.0	1.14	0.97	0.05	0.50	0.04	0.04	10	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	05/20/04	4:00	4.8	14.0	1.15	0.71	0.05	0.58	0.05	0.04	5	Harrison
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	05/20/04	4:00	9.1	15.0	1.09	0.66	0.04	0.56	0.04	0.04	6	Harrison
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	05/20/04	10:00	0.5	13.0	2.07	1.18	0.04	0.66	0.05	0.04	<4	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	05/20/04	10:00	4.8	14.0	1.02	0.68	0.04	0.54	0.04	0.04	4	Harrison
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	05/20/04	10:00	9.1	13.0	1.04	0.59	0.06	0.63	0.05	0.04	7	Harrison
BBI14	Surface	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/19/04	12:35	0.5	14.0	1.31	0.66	0.05	0.44	0.07	0.05	7	Harrison
BBI14	Middle	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/19/04	12:35	2.5	14.0	1.39	0.69	0.05	0.43	0.07	0.05	5	Harrison
BBI14	Bottom	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/19/04	12:35	4.5	19.0	0.94	0.54	0.05	0.39	0.07	0.06	15	Harrison
BBI14	Surface	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/19/04	18:00	0.5	16.0	2.85	1.42	0.03	0.43	0.09	0.07	9	Harrison
BBI14	Middle	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/19/04	18:00	2.1	20.0	1.24	0.75	0.05	0.46	0.15	0.08	13	Harrison
BBI14	Bottom	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/19/04	18:00	3.7	22.0	0.88	0.52	0.05	0.42	0.18	0.08	14	Harrison
BBI14	Surface	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/19/04	23:05	0.5	19.0	0.67	0.47	0.04	0.40	0.09	0.04	12	Harrison
BBI14	Middle	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/19/04	23:05	2.0	26.0	0.72	0.52	0.07	0.47	0.21	0.09	18	Harrison
BBI14	Bottom	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/19/04	23:05	3.5	29.0	0.75	0.54	0.07	0.47	0.22	0.09	22	Harrison
BBI14	Surface	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/20/04	5:25	0.5	17.0	1.64	0.99	0.07	0.45	0.11	0.06	9	Harrison
BBI14	Middle	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/20/04	5:25	2.2	18.0	1.62	0.92	0.05	0.39	0.10	0.06	12	Harrison
BBI14	Bottom	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/20/04	5:25	3.8	17.0	1.47	0.86	0.05	0.46	0.06	0.04	10	Harrison
BBI14	Surface	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/20/04	11:05	0.5	12.0	4.66	2.13	0.04	0.45	0.09	0.05	6	Harrison
BBI14	Middle	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/20/04	11:05	2.3	13.0	3.09	1.61	0.04	0.59	0.07	0.05	10	Harrison
BBI14	Bottom	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/20/04	11:05	4.0	19.0	1.10	0.65	0.05	0.72	0.07	0.06	14	Harrison
ROA28	Surface	Rodenberg Avenue	30 23 32.6	88 56 17.5	05/19/04	10:00	0.5	14.0	7.20	4.15	0.03	0.60	0.04	0.04	50	Harrison
ROA28	Surface	Rodenberg Avenue	30 23 32.6	88 56 17.5	05/19/04	16:00	0.5	33.0	6.84	4.44	<0.02	0.54	<0.02	0.03	91	Harrison
ROA28	Surface	Rodenberg Avenue	30 23 32.6	88 56 17.5	05/19/04	22:00	0.5	11.0	6.70	4.25	<0.02	0.50	0.04	0.03	42	Harrison
ROA28	Surface	Rodenberg Avenue	30 23 32.6	88 56 17.5	05/20/04	4:00	0.5	9.0	5.33	3.16	<0.02	0.54	0.06	0.04	27	Harrison
ROA28	Surface	Rodenberg Avenue	30 23 32.6	88 56 17.5	05/20/04	10:00	0.5	11.0	8.79	5.32	<0.02	0.43	<0.02	0.04	40	Harrison
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	12:00	0.5	22.0	7.23	3.32	<0.10	1.01	<0.02	0.05	32	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	12:00	0.5		7.75	3.16	<0.10	1.00	<0.02	0.07	41	Hancock
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	12:00	1.8	21.0	6.81	3.23	<0.10	0.51	<0.02	0.05	38	Hancock
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	12:00	1.8		8.10	3.86	<0.10	0.77	<0.02	0.05	38	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	12:00	3.1	22.0	8.66	4.10	<0.10	0.93	<0.02	0.06	44	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	12:00	3.1		8.12	3.90	<0.10	0.88	<0.02	0.06	38	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	16:00	0.5	16.0	8.92	4.07	<0.10	0.89	<0.02	0.05	42	Hancock

Table 2. Nutrient data (May 19-20, 2004) for WRRI project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Station Code	Level	Sample Location	Latitude (°')	Longitude (°')	Date	Time	Sample Depth (m)	Turbidity (NTU)	Chlorophyll a (ug/L)	Pheo-a (ug/L)	Total Ammonia (mg/L-N)	Total Kjeldahl Nitrogen (mg/L-N)	Total Nitrite (mg/L-N)	Total Phosphate (mg/L-P)	Total Suspended Solids (mg/L)	County
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	16:00	2.0	17.0	8.02	3.33	<0.10	0.94	<0.02	0.07	42	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	16:00	3.5	21.0	7.24	2.87	<0.10	0.88	<0.02	0.07	45	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	23:10	0.5	22.0	2.34	0.97	<0.10	0.89	<0.02	0.06	43	Hancock
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	23:10	1.7	28.0	2.36	0.95	<0.10	0.84	<0.02	0.08	50	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	23:10	2.9	31.0	2.23	0.94	<0.10	0.95	<0.02	0.06	62	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	05/20/04	4:00	0.5	11.0	2.94	1.21	<0.10	0.83	<0.02	0.08	28	Hancock
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	05/20/04	4:00	1.5	19.0	5.09	2.29	<0.10	0.40	<0.02	0.05	40	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	05/20/04	4:00	2.5	20.0	5.07	2.19	<0.10	0.84	<0.02	0.08	39	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	05/20/04	10:45	0.5	12.0	7.37	3.57	<0.10	0.81	<0.02	0.05	24	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	05/20/04	10:45	0.5		6.74	3.16	<0.10	0.86	<0.02	0.04	27	Hancock
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	05/20/04	10:45	1.5	12.0	7.09	3.53	<0.10	1.03	<0.02	0.06	29	Hancock
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	05/20/04	10:45	1.5		7.16	3.39	<0.10	0.88	<0.02	0.05	33	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	05/20/04	10:45	2.5	17.0	6.97	3.28	<0.10	0.75	<0.02	0.10	19	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	05/20/04	10:45	2.5		7.31	3.67	<0.10	0.48	<0.02	0.04	27	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	05/19/04	10:00	0.5	36.0	1.59	0.77	<0.10	1.08	0.12	0.10	29	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	05/19/04	10:00	0.5		0.91	0.48	<0.10	0.97	0.12	0.10	24	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	05/19/04	10:00	3.7	45.0	2.30	1.28	<0.10	0.98	0.12	0.12	25	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	05/19/04	10:00	3.7		1.99	0.98	<0.10	1.05	0.12	0.08	22	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	05/19/04	10:00	6.9	50.0	2.00	1.14	<0.10	0.88	0.12	0.08	32	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	05/19/04	10:00	6.9		2.07	1.11	<0.10	0.88	0.12	0.07	42	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	05/19/04	17:00	0.5	35.0	2.02	0.97	<0.10	1.01	0.13	0.10	21	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	05/19/04	17:00	4.0	34.0	2.10	1.07	<0.10	0.96	0.13	0.09	21	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	05/19/04	17:00	7.5	38.0	2.15	1.23	<0.10	0.91	0.13	0.07	22	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	05/19/04	22:00	0.5	34.0	1.72	1.23	<0.10	0.96	0.13	0.07	25	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	05/19/04	22:00	3.9	39.0	1.96	1.10	<0.10	0.92	0.12	0.11	24	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	05/19/04	22:00	7.4	40.0	1.97	1.12	<0.10	0.84	0.13	0.07	22	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	05/20/04	5:30	0.5	40.0	1.60	1.05	<0.10	0.92	0.13	0.07	24	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	05/20/04	5:30	3.8	55.0	1.75	1.24	<0.10	0.95	0.13	0.07	26	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	05/20/04	5:30	7.2	40.0	1.79	1.19	<0.10	0.98	0.13	0.08	25	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	05/20/04	10:00	0.5	37.0	1.72	1.23	<0.10	0.91	0.13	0.08	21	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	05/20/04	10:00	4.3	40.0	1.12	0.62	<0.10	0.97	0.13	0.08	22	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	05/20/04	10:00	8.0	37.0	1.77	1.09	<0.10	1.03	0.13	0.07	27	Hancock
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	05/19/04	10:00	0.5	18.0	7.83	3.67	<0.10	0.80	<0.02	0.07	63	Hancock
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	05/19/04	16:00	0.5	40.0	6.44	3.60	<0.10	0.82	<0.02	0.08	67	Hancock
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	05/19/04	16:00	0.5		7.19	4.30	<0.10	0.86	0.00	0.10	83	Hancock
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	05/19/04	22:00	0.5	46.0	4.35	3.56	<0.10	0.71	0.02	0.09	95	Hancock
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	05/20/04	4:00	0.5	16.0	2.84	2.46	<0.10	0.69	<0.02	0.05	35	Hancock
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	05/20/04	10:00	0.5	16.0	4.58	1.86	<0.10	0.68	<0.02	0.04	22	Hancock

Table 3. Hydrology Data (Nov. 2-3, 2005) for the WRRI Project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									Depth (m)	Temperature (C)	pH (units)	Salinity (ppt)	DO (%)	DO (mg/L)
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/2/2005	14:48	0.50	2.30	0.5	20.4	8.14	28.64	99.7	7.54
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/2/2005	14:48	0.50	2.30	1.0	20.36	8.14	28.85	95.4	7.27
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/2/2005	14:48	0.50	2.30	1.5	20.36	8.14	59.74	95.1	7.17
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/2/2005	14:48	0.50	2.30	2.0	20.35	8.15	30.36	95.0	7.13
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/2/2005	20:05	NA	2.70	0.5	20.09	8.21	31.58	93.8	7.07
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/2/2005	20:05	NA	2.70	1.0	20.12	8.21	31.62	93.7	7.06
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/2/2005	20:05	NA	2.70	1.5	20.13	8.21	31.63	32.8	6.98
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/2/2005	20:05	NA	2.70	2.0	20.13	8.2	31.62	92.9	6.99
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/2/2005	20:05	NA	2.70	2.5	20.12	8.21	31.66	92.8	6.98
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/3/2005	2:36	NA	1.90	0.5	18.33	8.22	30.96	91.6	7.1
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/3/2005	2:36	NA	1.90	1.0	18.65	8.22	30.94	92.0	7.14
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/3/2005	2:36	NA	1.90	1.5	18.69	8.22	30.95	91.7	7.12
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/3/2005	8:00	1.00	1.51	0.5	19.24	8.2	21.17	92.8	7.12
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/3/2005	8:00	1.00	1.51	1.0	19.09	8.21	31.1	92.3	7.1
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/3/2005	8:00	1.00	1.51	1.5	19.34	8.21	31.28	91.3	6.98
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/3/2005	14:00	1.00	1.79	0.5	20.22	8.15	30.94	100.3	7.55
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/3/2005	14:00	1.00	1.79	1.0	20.26	8.14	31.37	98.2	7.38
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/3/2005	14:00	1.00	1.79	1.5	20.11	8.14	31.37	96.1	7.24
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/2/2005	17:26	2.13	2.13	0.5	19.08	8.21	30.47	109.9	8.49
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/2/2005	17:26	2.13	2.13	1.0	19.07	8.21	30.47	110.5	8.54
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/2/2005	17:26	2.13	2.13	1.5	19.05	8.21	30.46	111.9	8.66
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/2/2005	17:26	2.13	2.13	2.0	19.03	8.21	30.45	112.6	8.71
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/2/2005	21:25	NA	2.24	0.5	18.78	8.22	30.55	103.5	8.04
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/2/2005	21:25	NA	2.24	1.0	18.78	8.22	30.54	103.9	8.07
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/2/2005	21:25	NA	2.24	1.5	18.78	8.23	30.54	104.1	8.09
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/2/2005	21:25	NA	2.24	2.0	18.78	8.23	30.53	104.2	8.09
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/3/2005	3:50	NA	1.76	0.5	17.78	8.25	30.16	101.0	8.01
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/3/2005	3:50	NA	1.76	1.0	17.78	8.25	30.15	101.4	8.05
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/3/2005	3:50	NA	1.76	1.5	17.79	8.25	30.15	101.3	8.04
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/3/2005	9:10	void	1.70	0.5	18.59	8.2	29.6	107.3	8.4
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/3/2005	9:10	void	1.70	1.0	18.54	8.2	29.75	105.2	8.24
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/3/2005	9:10	void	1.70	1.5	18.51	8.2	29.78	104.3	8.17
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/3/2005	14:50	1.94	1.94	0.5	19.12	8.2	30.01	116.4	9.02

Table 3. Hydrology Data (Nov. 2-3, 2005) for the WRRI Project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									(m)	(C)	(units)	(ppt)	(%)	(mg/L)
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/3/2005	14:50	1.94	1.94	1.0	19.09	8.21	30.43	117.1	9.05
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/3/2005	14:50	1.94	1.94	1.5	19.17	8.22	30.52	117.8	9.08
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	15:50	void	7.00	0.5	19.2	7.9	13.08	112.2	9.6
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	15:50	NA	7.00	1.0	19	7.89	13.31	109.5	9.38
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	15:50	NA	7.00	1.5	18.91	7.88	13.43	108.6	9.32
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	15:50	NA	7.00	2.0	18.9	7.89	13.5	108.7	9.33
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	15:50	NA	7.00	3.0	18.71	7.86	13.79	103.9	8.95
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	15:50	NA	7.00	4.0	18.33	7.77	14.41	97.1	8.36
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	15:50	NA	7.00	5.0	18.23	7.74	14.54	92.2	7.96
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	15:50	NA	7.00	6.0	18.22	7.73	14.57	91.1	7.87
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	15:50	NA	7.00	6.5	18.21	7.72	14.58	90.7	7.84
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	21:20	NA	7.50	0.5	18.14	7.91	12.45	102.9	9.01
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	21:20	NA	7.50	1.0	18.37	7.83	13.56	99.2	8.56
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	21:20	NA	7.50	1.5	18.35	7.85	14.68	98.5	8.48
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	21:20	NA	7.50	2.0	18.3	7.85	15.13	96.2	8.25
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	21:20	NA	7.50	3.0	18.27	7.85	15.61	94.2	8.09
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	21:20	NA	7.50	4.0	18.25	7.86	15.76	93.7	8.04
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	21:20	NA	7.50	5.0	18.24	7.87	16.05	93.2	7.97
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	21:20	NA	7.50	6.0	18.24	7.87	16.07	93.1	7.97
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	21:20	NA	7.50	6.5	18.24	7.87	16.15	92.6	7.92
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	3:30	NA	7.00	0.5	19.04	7.7	10.98	136.4	11.75
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	3:30	NA	7.00	1.0	18.71	7.65	12.2	130.1	11.33
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	3:30	NA	7.00	1.5	18.62	7.63	11.49	127.8	11.15
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	3:30	NA	7.00	2.0	18.48	7.62	12.39	126.7	11.04
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	3:30	NA	7.00	3.0	18.33	7.6	11.92	126.0	11.03
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	3:30	NA	7.00	4.0	18.25	7.6	12.27	127.7	11.16
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	3:30	NA	7.00	5.0	18.32	7.61	12.68	126.6	11.03
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	3:30	NA	7.00	6.0	18.27	7.65	13.01	129.0	11.25
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	3:30	NA	7.00	6.5	18.25	7.66	13.17	130.9	11.42
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	10:20	void	7.00	0.5	18.68	7.66	10.64	183.5	16.79
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	10:20	void	7.00	1.0	18.42	7.57	10.88	188.3	16.96
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	10:20	void	7.00	1.5	18.42	7.56	10.97	186.1	16.02
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	10:20	void	7.00	2.0	18.47	7.57	11	171.6	16.31

Table 3. Hydrology Data (Nov. 2-3, 2005) for the WRRI Project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									(m)	(C)	(units)	(ppt)	(%)	(mg/L)
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	10:20	void	7.00	3.0	18.25	7.49	11.27	161.6	14.1
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	10:20	void	7.00	4.0	18.2	7.46	11.43	159.1	14
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	10:20	void	7.00	5.0	18.2	7.46	11.67	156.9	13.79
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	10:20	void	7.00	6.0	18.23	7.45	11.96	131.7	12.13
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	10:20	void	7.00	6.5	18.27	7.44	12	121.2	11.25
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	15:25	void	7.00	0.5	19.23	7.76	12.25	107.2	4:19
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	15:25	void	7.00	1.0	18.79	7.68	12.34	96.3	8.31
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	15:25	void	7.00	1.5	18.73	7.64	12.57	89.9	7.77
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	15:25	void	7.00	2.0	18.73	7.64	12.67	87.4	7.54
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	15:25	void	7.00	3.0	18.82	7.68	13.02	85.9	7.36
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	15:25	void	7.00	4.0	18.74	7.71	13.35	84.3	7.25
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	15:25	void	7.00	5.0	18.36	7.66	13.98	77.3	6.64
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	15:25	void	7.00	6.0	18.29	7.64	14.13	73.6	6.36
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	15:25	void	7.00	6.5	18.22	7.63	14.29	71.6	6.19
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	14:00	void	10.00	0.5	20.83	8.22	10.49	126.8	10.81
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	14:00	void	10.00	1.0	20.07	8.2	10.47	129.9	11.07
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	14:00	void	10.00	1.5	19.24	7.22	11.18	102.6	8.88
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	14:00	void	10.00	2.0	18.8	7.51	11.67	86.5	7.53
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	14:00	void	10.00	2.5	18.75	7.49	11.69	86.0	7.51
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	20:00	void	12.00	0.5	20.15	7.89	10.81	112.1	9.55
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	20:00	void	12.00	1.0	19.38	7.77	11.6	103.3	8.89
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	20:00	void	12.00	1.5	18.88	7.73	12.4	99.1	8.85
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	20:00	void	12.00	2.0	18.61	7.67	13.01	93.5	8.07
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	20:00	void	12.00	3.0	18.52	7.69	13.5	93.6	8.08
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	20:00	void	12.00	3.5	18.52	7.69	13.51	92.8	8.03
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	2:15	void	4.00	0.5	18.87	8.02	10.06	108.0	9.48
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	2:15	void	4.00	1.0	18.91	7.78	11.44	96.1	8.21
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	2:15	void	4.00	1.5	18.82	7.63	12.44	86.8	7.48
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	2:15	void	4.00	2.0	18.72	7.61	12.79	83.3	7.2
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	2:15	void	4.00	3.0	18.33	7.66	14.76	83.2	7.17
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	2:15	void	4.00	3.5	18.27	7.73	15.13	82.9	7.12
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	8:05	void	3.00	0.5	18.51	8.13	9.83	207.7	18.35
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	8:05	void	3.00	1.0	18.47	8.04	9.93	201.3	17.78

Table 3. Hydrology Data (Nov. 2-3, 2005) for the WRRI Project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									Depth (m)	Temperature (C)	pH (units)	Salinity (ppt)	DO (%)	DO (mg/L)
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	8:05	void	3.00	1.5	18.68	8.03	9.99	192.5	16.96
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	8:05	void	3.00	2.0	18.59	7.66	10.45	183.3	16.05
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	8:05	void	3.00	2.5	18.94	7.48	11.84	162.4	14
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	14:00	0.35	4.00	0.5	20.08	8.05	10.64	123.6	10.69
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	14:00	0.35	4.00	1.0	19.83	7.94	10.62	117.1	9.93
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	14:00	0.35	4.00	1.5	19.21	7.7	10.97	99.0	8.53
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	14:00	0.35	4.00	2.0	18.88	7.56	11.16	90.3	7.82
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	14:00	0.35	4.00	3.0	18.84	7.53	11.28	85.0	7.37
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	14:00	0.35	4.00	3.5	18.83	7.53	11.38	83.8	7.29
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/2/2005	15:15	1.25	3.30	0.5	18.96	7.97	17.43	109.7	9.09
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/2/2005	15:15	1.25	3.30	1.0	19.02	7.97	17.49	109.0	9.12
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/2/2005	15:15	1.25	3.30	1.5	19.06	7.97	17.48	108.5	9.07
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/2/2005	15:15	1.25	3.30	2.0	19	7.97	17.49	108.5	9.09
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/2/2005	15:15	1.25	3.30	3.0	18.91	7.98	17.53	108.2	9.06
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/2/2005	21:15	NA	3.18	0.5	18.19	8.07	17.54	101.8	8.66
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/2/2005	21:15	NA	3.18	1.0	18.13	8.07	17.55	102.3	8.7
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/2/2005	21:15	NA	3.18	1.5	18.12	8.08	17.55	102.6	8.74
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/2/2005	21:15	NA	3.18	2.0	18.11	8.08	17.55	102.9	8.76
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/2/2005	21:15	NA	3.18	3.0	18.11	8.08	17.55	102.8	8.75
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	2:30	NA	3.68	0.5	17.58	7.94	17.47	96.2	8.26
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	2:30	NA	3.68	1.0	17.59	7.96	17.47	95.4	8.2
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	2:30	NA	3.68	1.5	17.58	7.98	17.48	95.5	8.21
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	2:30	NA	3.68	2.0	17.59	7.98	17.48	95.6	8.22
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	2:30	NA	3.68	3.0	17.58	7.99	17.48	95.6	8.22
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	9:30	0.90	1.96	0.5	15.64	7.44	15.97	79.4	7.05
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	9:30	0.90	1.96	1.0	15.64	7.45	15.97	73.2	6.59
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	9:30	0.90	1.96	1.5	15.71	7.45	15.98	72.5	6.54
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	13:45	0.90	2.14	0.5	16.38	7.53	15.64	85.3	7.54
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	13:45	0.90	2.14	1.0	15.94	7.43	15.74	77.6	6.98
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	13:45	0.90	2.14	1.5	15.93	7.38	15.9	74.4	6.67
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	0.5	19.64	8.15	3.61	118.5	10.64
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	1.0	19.52	7.93	3.69	111.7	10.03
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	1.5	19.37	7.85	3.82	109.5	9.71

Table 3. Hydrology Data (Nov. 2-3, 2005) for the WRRI Project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									Depth (m)	Temperature (C)	pH (units)	Salinity (ppt)	DO (%)	DO (mg/L)
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	2.0	19.3	7.75	3.93	104.3	9.4
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	3.0	18.97	7.57	5.42	95.7	8.66
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	4.0	18.68	7.48	7.02	88.1	7.85
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	5.0	18.6	7.42	8.24	80.9	7.17
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	6.0	18.54	7.41	8.88	78.3	6.96
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	7.0	18.53	7.4	9.24	76.6	6.77
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	8.0	18.55	7.4	9.49	74.8	6.62
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	8.5	18.55	7.4	9.54	73.6	6.51
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	0.5	19.35	7.78	3.71	108.7	9.8
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	1.0	19.32	7.75	3.75	108.5	9.78
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	1.5	19.29	7.71	3.78	107.0	9.65
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	2.0	19.29	7.7	3.84	106.7	9.63
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	3.0	19.09	7.65	4.16	103.6	9.34
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	4.0	18.72	7.52	5.6	92.5	8.3
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	5.0	18.56	7.41	7.92	83.0	7.35
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	6.0	18.52	7.4	9.04	78.0	6.91
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	7.0	18.52	7.41	9.12	86.3	6.77
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	8.0	18.54	7.4	9.34	74.6	6.59
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	8.5	18.56	7.39	9.52	72.4	6.4
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	0.5	18.81	7.78	3.14	98.3	8.98
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	1.0	18.83	7.65	3.15	98.3	8.96
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	1.5	18.96	7.6	3.21	99.0	9.04
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	2.0	19.08	7.58	3.29	99.7	9.05
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	3.0	19.03	7.54	4.33	98.7	8.9
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	4.0	18.33	7.5	7.16	91.9	8.24
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	5.0	18.22	7.52	7.98	87.5	7.85
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	6.0	18.38	7.5	8.98	82.7	7.3
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	7.0	18.44	7.47	8.67	77.6	6.91
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	8.0	18.58	7.4	9.33	67.2	5.95
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	9.0	18.66	7.34	9.63	63.3	5.57
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	0.5	18.58	7.57	3.22	92.3	6.48
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	1.0	18.53	7.47	3.27	88.5	6.13
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	1.5	18.68	7.4	3.5	87.0	7.96

Table 3. Hydrology Data (Nov. 2-3, 2005) for the WRRI Project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									(m)	(C)	(units)	pH	Salinity (ppt)	DO (%)
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	2.0	18.97	7.36	3.85	86.9	7.89
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	3.0	18.66	7.31	5.2	83.4	7.5
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	4.0	18.54	7.29	7.79	76.4	6.83
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	5.0	18.52	7.32	8.42	73.3	6.51
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	6.0	18.51	7.34	8.55	72.8	6.48
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	7.0	18.51	7.35	8.74	72.0	6.4
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	8.0	18.55	7.34	8.95	70.3	6.22
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	8.5	18.59	7.33	9.11	67.4	5.96
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	14:40	0.65	8.07	0.5	19.91	8.02	3.3	125.8	11.32
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	14:40	0.65	8.07	1.0	1917	7.81	3.66	103.9	9.34
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	14:40	0.65	8.07	1.5	19.08	7.44	4.22	84.8	7.65
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	14:40	0.65	8.07	2.0	19	7.34	5.08	79.4	7
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	14:40	0.65	8.07	3.0	18.66	7.24	7.18	75.1	6.73
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	14:40	0.65	8.07	4.0	18.48	7.28	7.68	77.8	6.97
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	14:40	0.65	8.07	5.0	18.36	7.3	8.2	78.2	7
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	14:40	0.65	8.07	6.0	18.25	7.32	8.57	79.2	7.1
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	14:40	0.65	8.07	7.0	18.33	7.33	8.78	77.2	6.88
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	14:40	0.65	8.07	7.5	18.35	7.31	8.91	74.3	6.62
DAB23	Davis Bayou	Beach at Holcomb Blvd.	30 23' 37.8"	88 48' 37.2"	11/2/2005	14:00	0.70	1.00	0.5	18.63	7.85	11.2	111.4	9.74
DAB23	Davis Bayou	Beach at Holcomb Blvd.	30 23' 37.8"	88 48' 37.2"	11/2/2005	21:00	NA	1.00	0.5	17.94	8.14	12.23	96.4	8.49
DAB23	Davis Bayou	Beach at Holcomb Blvd.	30 23' 37.8"	88 48' 37.2"	11/3/2005	2:45	NA	1.00	0.5	17.22	8.04	23.15	94.8	7.93
DAB23	Davis Bayou	Beach at Holcomb Blvd.	30 23' 37.8"	88 48' 37.2"	11/3/2005	9:10	1.00	1.00	0.5	17.05	7.96	22.5	96.7	8.16
DAB23	Davis Bayou	Beach at Holcomb Blvd.	30 23' 37.8"	88 48' 37.2"	11/3/2005	14:45	1.00	1.00	0.5	19.73	8.17	21.35	120.4	9.7
WAV27	Waveland Beach	Beach at St. Claire Church	30 16' 37.1"	89 22' 25.2"	11/2/2005	14:00	0.85	0.85	0.5	21.9	7.7	18.41	107.8	8.98
WAV27	Waveland Beach	Beach at St. Claire Church	30 16' 37.1"	89 22' 25.2"	11/2/2005	20:00	N/A	1	0.5	13.2	7.79	18.73	94.7	7.98
WAV27	Waveland Beach	Beach at St. Claire Church	30 16' 37.1"	89 22' 25.2"	11/3/2005	2:00	N/A	0.88	0.5	18.27	7.84	20.24	99	8.25
WAV27	Waveland Beach	Beach at St. Claire Church	30 16' 37.1"	89 22' 25.2"	11/3/2005	8:00	0.82	0.82	0.5	17.38	7.72	19.29	93.6	7.97
WAV27	Waveland Beach	Beach at St. Claire Church	30 16' 37.1"	89 22' 25.2"	11/3/2005	14:00	0.86	0.86	0.5	19.64	7.86	18.08	109.3	8.99
ROA28	Rodenberg Ave.	Beach at Rodenberg Ave.	30 23' 32.6"	88 56' 17.5"	11/2/2005	14:00	void	void	void	void	void	void	void	void
ROA28	Rodenberg Ave.	Beach at Rodenberg Ave.	30 23' 32.6"	88 56' 17.5"	11/2/2005	20:00	NA	1.00	0.5	18.41	8.21	12.56	115.8	10.09
ROA28	Rodenberg Ave.	Beach at Rodenberg Ave.	30 23' 32.6"	88 56' 17.5"	11/3/2005	2:00	NA	1.00	0.5	16.86	8.2	12.48	106.0	9.6
ROA28	Rodenberg Ave.	Beach at Rodenberg Ave.	30 23' 32.6"	88 56' 17.5"	11/3/2005	8:15	1.00	1.00	0.5	16.11	8.17	25.89	105.5	8.88
ROA28	Rodenberg Ave.	Beach at Rodenberg Ave.	30 23' 32.6"	88 56' 17.5"	11/3/2005	14:00	void	void	void	void	void	void	void	void

Table 4. Nutrient data (Nov. 2-3, 2005) for WRRI project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Station Code	Level	Sample Location	Latitude (°')	Longitude (°')	Date	Time	Sample Depth (m)	Turbidity (NTU)	Chlorophyll a (ug/L)	Pheo-a (ug/L)	Total Ammonia (mg/L-N)	Total Kjeldahl Nitrogen (mg/L-N)	Total Nitrate Nitrite (mg/L-N)	Total Phosphate (mg/L-P)	Total Suspended Solids (mg/L)	County
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	11/02/05	14:48	0.5	9.0	void	void	0.14	1.02	0.03	3.68	21	Jackson
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	11/02/05	14:48	0.5		void	void	0.14	0.64	< 0.02	4.19	20	Jackson
BCA03	Middle	Bayou Casotte	30 21 20.5	88 30 23.3	11/02/05	14:48	1.3	10.0	void	void	0.11	1.14	0.03	4.53	32	Jackson
BCA03	Middle	Bayou Casotte	30 21 20.5	88 30 23.3	11/02/05	14:48	1.3		void	void	0.12	0.91	0.02	3.51	25	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	11/02/05	14:48	2.0	8.0	void	void	< 0.10	0.69	0.02	2.17	49	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	11/02/05	14:48	2.0		void	void	< 0.10	0.97	0.03	2.54	18	Jackson
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	11/02/05	20:05	0.5	4.0	void	void	< 0.10	0.90	0.04	1.82	25	Jackson
BCA03	Middle	Bayou Casotte	30 21 20.5	88 30 23.3	11/02/05	20:05	1.3	4.0	void	void	< 0.10	0.67	0.03	1.41	10	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	11/02/05	20:05	2.0	6.0	void	void	< 0.10	0.61	0.02	1.50	31	Jackson
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	11/03/05	2:36	0.5	5.0	void	void	0.14	1.07	0.02	3.75	31	Jackson
BCA03	Middle	Bayou Casotte	30 21 20.5	88 30 23.3	11/03/05	2:36	1.0	8.0	void	void	0.15	0.83	0.02	3.94	14	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	11/03/05	2:36	1.5	5.0	void	void	0.15	0.72	0.02	3.39	21	Jackson
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	11/03/05	8:00	0.5	8.0	void	void	0.11	0.31	< 0.02	2.36	19	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	11/03/05	8:00	1.0	9.0	void	void	0.10	0.62	0.02	2.75	32	Jackson
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	11/03/05	14:00	0.5	6.0	void	void	0.15	0.70	0.03	2.81	17	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	11/03/05	14:00	1.0	9.0	void	void	0.11	0.42	< 0.02	2.77	23	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	11/02/05	17:26	0.5	3.0	void	void	< 0.10	0.72	0.04	0.06	47	Jackson
ROI06	Middle	Round Island	30 18 36.9	88 32 41.1	11/02/05	17:26	1.0	4.0	void	void	< 0.10	0.41	0.04	0.05	38	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	11/02/05	17:26	1.5	2.0	void	void	< 0.10	0.60	0.04	0.06	22	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	11/02/05	21:25	0.5	2.0	void	void	< 0.10	0.56	0.02	0.06	37	Jackson
ROI06	Middle	Round Island	30 18 36.9	88 32 41.1	11/02/05	21:25	1.0	2.0	void	void	< 0.10	0.55	0.04	0.05	72	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	11/02/05	21:25	1.5	2.0	void	void	< 0.10	0.46	0.03	0.05	35	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	11/03/05	3:50	0.5	2.0	void	void	< 0.10	0.33	0.04	0.04	20	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	11/03/05	3:50	0.5	2.0	void	void	< 0.10	0.31	0.04	0.06	13	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	11/03/05	3:50	1.0	2.0	void	void	< 0.10	0.76	0.04	0.04	9	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	11/03/05	3:50	1.0	2.0	void	void	< 0.10	0.58	0.03	0.10	11	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	11/03/05	9:10	0.5	3.0	void	void	< 0.10	0.48	< 0.02	0.05	5	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	11/03/05	9:10	1.0	3.0	void	void	< 0.10	0.28	0.03	0.04	13	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	11/03/05	14:50	0.5	3.0	void	void	< 0.10	0.43	0.04	0.09	10	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	11/03/05	14:50	1.0	3.0	void	void	< 0.10	0.48	0.02	0.06	22	Jackson
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	11/02/05	15:50	0.5	6.0	void	void	< 0.10	0.60	0.04	0.06	13	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	11/02/05	15:50	3.5	7.0	void	void	< 0.10	0.79	0.03	0.08	14	Harrison
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	11/02/05	15:50	6.5	7.0	void	void	< 0.10	0.76	0.03	0.06	21	Harrison
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	11/02/05	21:20	0.5	6.0	void	void	< 0.10	0.87	0.07	0.13	23	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	11/02/05	21:20	3.5	6.0	void	void	< 0.10	0.87	0.04	0.09	24	Harrison
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	11/02/05	21:20	6.5	7.0	void	void	< 0.10	0.78	< 0.02	0.07	25	Harrison
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	11/03/05	3:30	0.5	9.0	void	void	< 0.10	0.45	0.07	0.06	10	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	11/03/05	3:30	3.5	9.0	void	void	< 0.10	0.58	0.07	0.05	13	Harrison
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	11/03/05	3:30	6.5	9.0	void	void	< 0.10	0.61	0.04	0.04	9	Harrison
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	11/03/05	10:20	0.5	10.0	void	void	< 0.10	0.60	0.08	0.05	11	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	11/03/05	10:20	3.0	8.0	void	void	< 0.10	0.71	0.04	0.05	6	Harrison
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	11/03/05	10:20	6.5	8.0	void	void	< 0.10	0.51	0.05	0.08	11	Harrison
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	11/03/05	15:25	0.5	11.0	void	void	< 0.10	0.61	0.13	0.10	15	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	11/03/05	15:25	3.0	11.0	void	void	< 0.10	0.64	0.05	0.20	18	Harrison

Table 4. Nutrient data (Nov. 2-3, 2005) for WRRI project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

						Sample			Total	Total Kjeldahl	Total Nitrate	Total	Total Suspended			
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	11/03/05	15:25	6.5	11.0	void	void	< 0.10	0.61	0.04	0.06	14	Harrison
BBI14	Surface	Bayou Bernard	30 24 57.3	89 00 13.6	11/02/05	14:00	0.5	15.0	void	void	< 0.10	1.16	0.25	0.09	39	Harrison
BBI14	Middle	Bayou Bernard	30 24 57.3	89 00 13.6	11/02/05	14:00	4.5	13.0	void	void	< 0.10	0.44	0.18	0.10	15	Harrison
BBI14	Bottom	Bayou Bernard	30 24 57.3	89 00 13.6	11/02/05	14:00	9.5	11.0	void	void	< 0.10	0.28	0.11	0.06	19	Harrison
BBI14	Surface	Bayou Bernard	30 24 57.3	89 00 13.6	11/02/05	20:00	0.5	10.0	void	void	< 0.10	0.93	0.04	0.08	19	Harrison
BBI14	Middle	Bayou Bernard	30 24 57.3	89 00 13.6	11/02/05	20:00	5.5	9.0	void	void	< 0.10	0.38	0.05	0.06	17	Harrison
BBI14	Bottom	Bayou Bernard	30 24 57.3	89 00 13.6	11/02/05	20:00	11.5	9.0	void	void	< 0.10	0.66	0.06	0.09	14	Harrison
BBI14	Surface	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	2:15	0.5	11.0	void	void	< 0.10	0.90	0.16	0.11	20	Harrison
BBI14	Middle	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	2:15	2.0	9.0	void	void	< 0.10	0.46	0.06	0.07	15	Harrison
BBI14	Bottom	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	2:15	3.5	9.0	void	void	< 0.10	0.61	0.05	0.07	9	Harrison
BBI14	Surface	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	8:05	0.5	12.0	void	void	< 0.10	0.93	0.08	0.09	22	Harrison
BBI14	Surface	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	8:05	0.5	12.0	void	void	< 0.10	0.85	0.14	0.09	9	Harrison
BBI14	Middle	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	8:05	1.5	12.0	void	void	< 0.10	0.72	0.14	0.08	11	Harrison
BBI14	Middle	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	8:05	1.5	12.0	void	void	< 0.10	0.73	0.08	0.16	17	Harrison
BBI14	Bottom	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	8:05	2.5	20.0	void	void	< 0.10	0.99	0.12	0.14	23	Harrison
BBI14	Bottom	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	8:05	2.5	20.0	void	void	< 0.10	1.18	0.12	0.16	38	Harrison
BBI14	Surface	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	14:00	0.5	16.0	void	void	< 0.10	0.45	0.18	0.10	19	Harrison
BBI14	Middle	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	14:00	2.0	21.0	void	void	< 0.10	1.14	0.13	0.11	13	Harrison
BBI14	Bottom	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	14:00	3.5	25.0	void	void	< 0.10	0.79	0.12	0.09	20	Harrison
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	11/02/05	15:15	0.5	6.0	void	void	< 0.10	0.75	< 0.02	0.12	9	Hancock
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	11/02/05	15:15	1.5	8.5	void	void	< 0.10	0.43	< 0.02	0.12	30	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	11/02/05	15:15	3.0	7.7	void	void	< 0.10	0.69	< 0.02	0.04	18	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	11/02/05	21:15	0.5	4.2	void	void	< 0.10	0.47	< 0.02	0.05	37	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	11/02/05	21:15	0.5		void	void	< 0.10	0.46	< 0.02	0.05	10	Hancock
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	11/02/05	21:15	1.5	4.3	void	void	< 0.10	0.49	< 0.02	0.04	18	Hancock
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	11/02/05	21:15	1.5		void	void	< 0.10	0.51	< 0.02	0.03	26	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	11/02/05	21:15	3.0	6.1	void	void	< 0.10	0.49	< 0.02	0.07	24	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	11/02/05	21:15	3.0		void	void	< 0.10	0.61	< 0.02	0.05	18	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	11/03/05	2:30	0.5	6.2	void	void	< 0.10	0.47	< 0.02	0.04	11	Hancock
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	11/03/05	2:30	1.5	12.4	void	void	< 0.10	0.41	< 0.02	0.08	13	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	11/03/05	2:30	3.0	11.2	void	void	< 0.10	0.33	< 0.02	0.05	19	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	11/03/05	9:30	0.5	7.5	void	void	< 0.10	0.43	< 0.02	0.09	14	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	11/03/05	9:30	1.5	13.6	void	void	< 0.10	0.56	< 0.02	0.09	18	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	11/03/05	13:45	0.5	6.6	void	void	< 0.10	0.91	< 0.02	0.08	16	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	11/03/05	13:45	1.5	8.0	void	void	< 0.10	0.78	< 0.02	0.05	18	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	11/02/05	16:30	0.5	6.4	void	void	< 0.10	0.92	< 0.02	0.06	10	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	11/02/05	16:30	4.5	7.0	void	void	< 0.10	0.66	< 0.02	0.06	9	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	11/02/05	16:30	8.5	9.9	void	void	< 0.10	0.49	< 0.02	0.07	14	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	11/02/05	20:00	0.5	6.0	void	void	< 0.10	0.78	< 0.02	0.04	7	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	11/02/05	20:00	4.5	6.3	void	void	< 0.10	0.88	< 0.02	0.13	10	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	11/02/05	20:00	8.5	9.0	void	void	< 0.10	0.57	< 0.02	0.10	15	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	11/03/05	4:00	0.5	6.5	void	void	< 0.10	0.69	< 0.02	0.07	4	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	11/03/05	4:00	0.5		void	void	< 0.10	0.56	< 0.02	0.05	10	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	11/03/05	4:00	5.0	6.9	void	void	< 0.10	0.40	< 0.02	0.06	6	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	11/03/05	4:00	5.0		void	void	< 0.10	0.85	< 0.02	0.06	10	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	11/03/05	4:00	9.0	8.4	void	void	< 0.10	0.36	< 0.02	0.08	13	Hancock

Table 4. Nutrient data (Nov. 2-3, 2005) for WRRI project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

						Sample			Total	Total Kjeldahl	Total Nitrate	Total	Total Suspended			
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	11/03/05	4:00	9.0	void	void	< 0.10	0.74	< 0.02	0.07	9	Hancock	
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	11/03/05	8:10	0.5	6.9	void	void	< 0.10	0.63	< 0.02	0.04	10	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	11/03/05	8:10	4.5	5.9	void	void	< 0.10	0.55	< 0.02	0.04	13	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	11/03/05	8:10	8.5	11.1	void	void	< 0.10	0.48	< 0.02	0.06	15	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	11/03/05	14:40	0.5	8.8	void	void	< 0.10	1.04	< 0.02	0.08	8	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	11/03/05	14:40	3.5	5.6	void	void	< 0.10	0.71	< 0.02	0.04	6	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	11/03/05	14:40	7.5	8.7	void	void	< 0.10	0.37	< 0.02	0.13	13	Hancock
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	11/02/05	14:40	0.5	10.0	void	void	< 0.10	0.57	0.03	0.10	23	Jackson
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	11/02/05	21:00	0.5	5.0	void	void	< 0.10	0.45	< 0.02	0.04	17	Jackson
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	11/03/05	2:45	0.5	5.0	void	void	< 0.10	0.91	< 0.02	0.05	21	Jackson
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	11/03/05	9:10	0.5	8.0	void	void	< 0.10	0.51	< 0.02	0.10	22	Jackson
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	11/03/05	14:45	0.5	10.0	void	void	< 0.10	0.61	< 0.02	0.05	12	Jackson
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	11/02/05	14:00	0.5	4.0	void	void	< 0.10	0.77	< 0.02	0.08	17	Hancock
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	11/02/05	20:00	0.5	5.0	void	void	< 0.10	0.75	< 0.02	0.05	11	Hancock
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	11/03/05	2:00	0.5	3.0	void	void	< 0.10	0.61	0.02	0.10	11	Hancock
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	11/03/05	8:00	0.5	4.0	void	void	< 0.10	0.51	< 0.02	0.05	6	Hancock
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	11/03/05	14:00	0.5	3.0	void	void	< 0.10	0.27	< 0.02	0.06	8	Hancock
ROA28	Surface	Rodenberg Avenue	30 23 32.6	88 56 17.5	11/02/05	14:00	0.5		void	void	< 0.10	0.65	< 0.02	0.05	60	Harrison
ROA28	Surface	Rodenberg Avenue	30 23 32.6	88 56 17.5	11/02/05	20:00	0.5	3.0	void	void	< 0.10	0.24	< 0.02	0.08	46	Harrison
ROA28	Surface	Rodenberg Avenue	30 23 32.6	88 56 17.5	11/03/05	2:00	0.5	2.0	void	void	< 0.10	0.39	< 0.02	0.05	14	Harrison
ROA28	Surface	Rodenberg Avenue	30 23 32.6	88 56 17.5	11/03/05	8:00	0.5	3.0	void	void	< 0.10	0.29	< 0.02	0.05	8	Harrison
ROA28	Surface	Rodenberg Avenue	30 23 32.6	88 56 17.5	11/03/05	14:00	0.5		void	void	< 0.10	0.67	< 0.02	0.07	5	Harrison

*Chlorophyll a samples were stored in an ultralow freezer that failed. Samples had to be discarded.

Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters

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Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters

Introduction

Nutrient overenrichment of estuaries and nearshore coastal waters from human-based causes is now recognized as a national problem on the basis of the Clean Water Act 305b reports from coastal States that list waters whose use or uses are impaired. The National Oceanic and Atmospheric Administration's (NOAA) National Estuarine Eutrophication Assessment indicated that about 60% of the estuaries out of 138 surveyed exhibited moderate to serious overenrichment conditions. The Environmental Protection Agency (EPA) has published recommendations of water quality criteria for nutrients under section 304(a) of the Clean Water Act (66 FR 1671). States should develop water quality standards for nutrients by 2006. The EPA has proposed criteria with the intention that they serve as starting points for states to develop more refined nutrient criteria, as appropriate. States, then, have the option to develop nutrient criteria that fully reflect localized conditions and protect specific designated uses with scientifically defensible approaches as supported by EPA technical guidance manuals. To that end, the Mississippi Department of Environmental Quality (MDEQ) has incorporated an aggressive monitoring and data gathering initiative into existing programs in order to provide nutrient data to support nutrient criteria development. While much has been accomplished through leveraging resources and funding from existing monitoring programs, there are still many data gaps remaining. Mississippi's estuaries are perhaps the most vulnerable and valuable of the state's waters and it is crucial that we address water quality issues in a timely and thorough manner. Mississippi's coastal ecosystems form a cornerstone of the state's economy by providing a variety of valuable resources and services. Gulf of Mexico fisheries yield more finfish, shrimp, and shellfish than the South and Mid-Atlantic, Chesapeake Bay, and Great Lakes combined. Water quality and wetlands health are vital to the maintenance of fisheries production and to the other water-dependent activities that operate within the coastal zone.

Nutrient overenrichment is a common thread that ties together a diverse suite of coastal problems including harmful algal blooms (red tides), fish kills, marine mammal deaths, shellfish poisonings, loss of seagrass and bottom shellfish habitats, and hypoxia/anoxia. The "dead zone," an area in the west-central Gulf characterized by seasonal anoxic bottom conditions, grows in size each year and is related to nutrient run-off from the Mississippi River. Thorough assessment of coastal waters and the development of clear numerical criteria will allow discernment of natural nutrient concentrations from heightened anthropogenic concentrations and are critical to the evaluation and management of Mississippi's estuaries. This project provided data on diel and tidal variations in nutrient concentrations and other important water quality parameters. Dissolved oxygen (DO) was monitored because adequate levels are a fundamental requirement for maintenance of populations of benthos, fish, shellfish, and other estuarine biota. Levels of dissolved oxygen are affected by environmental stresses, such as point and nonpoint discharges of nutrients or oxygen-demanding materials. In addition, stresses that occur in conjunction with low DO concentrations may be even more detrimental to biota (e.g., exposure to hydrogen sulfide, decreased resistance to disease and contaminants). Dissolved oxygen levels are highly variable over time, fluctuating widely due to tidal action, wind stress, and biological activity. One of the objectives of this study was to collect data to best represent the DO conditions in the estuaries of the Mississippi Coast. In a pilot study to evaluate the best sampling strategy for DO in Gulf estuaries, continuous meters that measured DO, percent DO saturation, salinity, temperature, water depth, and pH were deployed at eight locations over a 4-month period. Monte Carlo analysis of the eight 4-month records showed that tidal influences during summer months were small and that day-night differences accounted for most of the observed variability with wind stress accounting for most event-oriented phenomena. These analyses revealed that 1, 2, or 3 random instantaneous measures of DO were likely to mis-classify a station with unacceptable DO conditions (*i.e.*, DO <2 ppm for > 20% of time period) as acceptable at a rate of 60-

70%. Furthermore, short-term continuous measures of 24, 48, and 72 hours also tended to mis-classify unacceptable sites although not as often as instantaneous DO measures (i.e., 50%). This project provided information on nutrients and associated water column parameters during high-flow/low-flow periods. Monitoring included: total Kjeldahl nitrogen, ammonia nitrogen, nitrite + nitrate, total phosphate, chl *a*, total suspended solids, and field parameters such as dissolved oxygen, water temperature, turbidity, transparency, salinity, pH, and depth. Activities were focused primarily on the water column using protocols established by MDEQ in sampling activities supporting USEPA's National Coastal Assessment (NCA) Program. Samples were analyzed according to an approved QAPP and defined QA/QC procedures. Following field work in Year 1, personnel worked closely with the State's Estuarine Nutrient Taskforce and the MDEQ to evaluate historical data, integrate current data into the database, statistically analyze the data, and propose reference conditions for Mississippi's coastal waters.

Approach

Project tasks included water quality monitoring, laboratory analyses, database development and analyses, and development of reference conditions for coastal waters. Specific objectives included:

- 1) collect high flow (spring) and low flow (summer) water samples over a 24 hour tidal cycle at nine sites; one shore and two deep water sites in each of the three coastal counties
- 2) analyze water samples for nitrite-nitrate, ammonia, Kjeldahl nitrogen, total phosphorus, suspended solids, and chlorophyll *a*
- 3) take hydrographic profiles of the water column at collection sites to include temperature, salinity, dissolved oxygen, and pH (turbidity and Secchi disc readings will also be taken)
- 4) evaluate historical or legacy data and integrate these data with current data in concert with the Estuarine Nutrient Taskforce and the MDEQ
- 5) establish numeric nutrient criteria for coastal waters

Field and laboratory work were carried out by personnel of the Gulf Coast Research Laboratory (GCRL) and MDEQ in accordance with approved EPA/MDEQ methodologies and protocols. A Quality Assurance Project Plan (QAPP) for those field and analytical procedures undertaken during the proposed project is in place at the GCRL. Synoptic samples were taken every 6 hours at nine sites over a 24 hour tidal cycle period during the spring (May 2004) and fall (2005). A shore station and two deepwater stations were selected in each of the three coastal counties from a list of sites with impaired water quality prepared by the Mississippi Estuarine Nutrient Taskforce. Analytical procedures were carried out by the Water Quality Laboratory at the GCRL and by the MDEQ laboratory. An overview of field and laboratory procedures follows.

Field Water Quality Data Collection

A global positioning system was used to locate the sampling sites. The Hydrolab DataSonde 4 water quality probe and the YSI multi-parameter 6920 and 600 XLM datasondes were used to measure pH, temperature, salinity, and dissolved oxygen during each sampling event. Detailed standard operating procedures for water column profiling are outlined in the GCRL Quality Assurance Project Plan for Monitoring to Establish Reference Conditions for Nutrients in Estuarine Waterbodies. Site water from target depths was collected with a horizontal 3-liter Van Dorn sampler. Two liters of water (one liter preserved with 5 ml concentrated sulfuric acid and one un-preserved) were iced in the field and returned to the laboratory for nutrient analyses. The remaining liter of water was used for chlorophyll samples and turbidity. Turbidity was determined with a LaMotte 2020 Turbidimeter.

Samples for water quality analysis were placed and maintained on wet ice in the field. Dissolved nutrient samples were maintained at or below 4°C until transported to the GCRL. Samples were refrigerated upon arrival at the laboratory. Field duplicate and field blank samples were collected at 10%

of the sites to measure any variability associated with sample collection procedures. Sites for duplication were randomly chosen.

Samples for chlorophyll *a* (chl *a*) were filtered through Whatman® GF/F glass fiber filters (0.70 μm nominal pore size) at the same time dissolved nutrients are collected. Sampling for chl *a* was conducted in the shade. Syringes and forceps were rinsed with deionized water. Site water was placed in a container and the syringe rinsed with this water. The syringe was filled with 60 cc of site water and the sample filtered. This step was repeated 3 more times until 4 filters had been used (30 cc is filtered through 8 filters when the suspended solid load is too high). The filters were placed in a petri dish and the total water filtered was equal to 240 cc. The volume filtered and number of filters used were written on both the petri dish and a protective foil storage bag. The petri dish was placed in the storage bag, sealed, and put in a cooler with dry ice making sure the storage bag was touching the dry ice. Samples for chl *a* were maintained at -50°C until analysis at GCRL. Analytical procedures provided performance criteria equivalent to those of the EPA's EMAP Program and the National Coastal Assessment QAPP, including those for analyses of blanks and standard reference materials. Information was reported on recovery of spiked blanks, analytical precision with standard reference materials, duplicate analyses and blanks. A database was developed to manage sample tracking and laboratory results for the duration of the project.

Sample Handling, Custody Requirements, and Holding Times

Upon arrival at the GCRL, field samples were relinquished to the Water Quality Laboratory where they were logged in by laboratory personnel. The time and date received and the water temperature (temperature check bottle) were recorded on a Chain of Custody Sample Receipt Form. Samples were refrigerated and sample information was recorded on a Sample Login Form for each refrigerator. Station ID, date sampled, and analysis due date were recorded on a master Sample Check List Form. Samples were kept at 4°C but are not frozen. During sample storage the air temperature of the refrigerator was recorded daily on a Refrigerator Temperature Record Form. Samples were removed from the refrigerator only when aliquots of the sample were taken for analysis. They were placed back in refrigeration as soon as possible in order to minimize temperature change of samples. Samples to be analyzed by the MDEQ Laboratory, Pearl, MS were transported in coolers on ice at 4°C by GCRL or MDEQ personnel. The samples were transferred to the MDEQ Laboratory along with the appropriate Chain of Custody and Sample Request Forms, as per GCRL and MDEQ protocols. Samples sent to the MDEQ Laboratory were transported as soon as possible. Holding times for chemical analyses are listed in Table a.

Table a. Chemical methods.

Analyte	Analysis Methods	Sample Volume	Holding Times	Method Quantitation Limit
Total Suspended Solids (0.1 mg/L)	EPA Method 160.2 Residue, Non-Filterable (Gravimetric, Dried at 103-105 C)	100 L	7 days	4.0 mg/L
Total Ammonia (mg/L)	EPA Method 350.3 Nitrogen, Ammonia (Potentiometric, Ion Selective Electrode)	50 mL	28 days	0.1 mg/L
Total Nitrite + Nitrate (mg/L)	EPA Method 353.3 Nitrogen, Nitrate-Nitrite (Cadmium Reduction Method)	25 mL	28 days	0.02 mg/L
Total Kjeldahl Nitrogen (mg/L)	EPA Method 350.3 Nitrogen, Ammonia (Potentiometric, Ion Selective Electrode)	50 mL	28 days	0.1 mg/L
Total Phosphate (mg/L)	EPA Method 365.2 Phosphorus, All Forms (Colorimetric, Ascorbic Acid Method)	50 mL	28 days	0.01 mg/L

General Laboratory Procedures

Water used to prepare standards and reagents was of the highest purity ($18 \text{ M}\Omega\text{-cm}$). Tap water was passed through odor and sediment filters and distilled in a Corning Megapure Distillation Unit. The distilled water was stored in a Corning Collection System. Distilled water was passed through a Barnstead Deionizer and then polished using a Simplicity Water Purification System. Reagents used in nutrient analyses are analytical grade chemicals meeting ASC specifications. Reagent forms were kept with each analysis. Stock solutions of known concentrations were purchased for use as calibration standards and as reference samples. Glassware was cleaned in a hydrochloric acid solution. Acid-washed glassware was rinsed three times with distilled water.

Instrumentation and Equipment/Data Quality

Instruments and equipment, operation guidelines, and calibration testing procedure for the Genesys 10 Spectrophotometer followed manufacturer's guidelines. Instructions for instrument checkout, calibration, and maintenance were filed in the Laboratory. Analytical balances were calibrated annually, and a low range performance procedure was carried out each time a balance was used. Instrument checkout procedures were performed before each analysis, and calibrations were performed on a periodic basis. Record logs of maintenance, calibration, and performance were kept for instruments used in instrumental analysis of nutrients and solids. All data were recorded on data forms kept in a designated file within the Water Quality Laboratory. Data were recorded in Excel format. These data were checked against original data forms by the analyst, analytical QC leader, and the project manager. Data quality for total suspended solids analyses was evaluated through the use of determinations of total suspended solids on quality control samples. These included laboratory blanks (distilled, deionized water samples), field blanks, laboratory duplicate samples (randomly selected by the analyst), field duplicate samples, and reference (QC) samples. Laboratory duplicate samples were evaluated using percent difference between the duplicates and the mean value. Reference samples were evaluated using percent recovery and/or the manufacturers recommended procedures. The overall number of determinations for each quality control sample type was equivalent to a number equal to 10% of the total number of regular field samples taken.

For nutrient samples, data quality was evaluated by analyzing concentrations of quality control samples. Total ammonia, total phosphate, nitrate-nitrite, and Kjeldahl nitrogen were measured in samples of known concentration. Quality control samples included laboratory blanks (distilled, deionized water samples), laboratory spiked blanks, field blanks, laboratory duplicate and spiked samples (randomly selected by the analyst), field duplicate and spiked samples, and reference (QC) samples. Percent recovery of the analyte was determined on laboratory-spiked blanks, laboratory spiked samples, field spiked samples, and reference samples. Problems and concerns relating to instrument performance and analytical results were brought to the attention of the QA/QC Officer for corrective action. Results of each analysis were reviewed to determine if the analysis met the performance criteria of the analytical method.

Chemical Analysis/Total Suspended Solids

Total suspended solids (mg/L) were determined on 100 ml of sample using EPA Method 160.2 (Residue, Non-filterable; Gravimetric, Dried at 103-105C). Gelman Type A/E glass fiber filters and Gelman filter assemblies were used in sample filtration. The vacuum assembly consisted of a Gast (Model G588DX) vacuum pump and glass manifolds (Houston Glass Co.). Filters and residues were dried in a Precision Economy Oven (Model 51220131). Dried filters were kept in a Sanplatec DryKeeper desiccator or glass desiccator. An OHAUS Voyager Model V1RR80 analytical balance was used to weigh filters and residues to 0.1 mg/L. All data were recorded on a Total Solids Data Form.

Chemical Analysis/Total Ammonia

Total ammonia nitrogen ($\text{NH}_4\text{-NH}_3\text{-N}$, mg/L) was determined on 50 ml of sample using EPA Method 350.3 (Potentiometric, Ion Selective electrode). An Orion Model EATM 940 Expandable Ionanalyzer with a Corning Ammonia Electrode (Model 476130) or an Orion Ammonia Electrode (Model

95-12) was used to measure total ammonia concentration of samples. The manufacturer's instruction manuals were followed for instrument check out prior to analysis, for instrument standardization, and for direct measurement of samples. Stock solutions of ammonia were purchased from suppliers and were certified as to concentration. A series of low concentration standards were prepared within the concentration range of 0.00 to 1.00 mg/L. The pH of samples and standards was adjusted immediately prior to analysis by the addition of 1 ml of 10 N sodium hydroxide. A linear regression procedure utilizing five standards was used for instrument calibration. The slope, intercept, and coefficient of determination (r^2) of the regression line was determined. If r^2 is < 0.95, new standard solutions were prepared and the instrument was recalibrated. Measurements were recorded on Ammonia Data Forms.

Chemical Analysis/Total Phosphate

After conversion to orthophosphate by the sulfuric acid-nitric acid digestion procedure (Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998), total phosphate ($t\text{PO}_4\text{-P}$, mg/L) was determined colorimetrically using the Ascorbic Acid Method (EPA Method 365.2). Fifty milliliters of the water sampled were digested and 25 ml of the digested sample was used for analysis. A ThermoSpectronic Genesys™ 10 Spectrophotometer with a Sipper System (Model 355982) and 1 cm flow-through cell was used to measure total phosphate concentration. Absorbance was read at 880nm. The manufacturer's instruction manual was followed for instrument check out prior to analysis, for instrument standardization, and for direct measurement of samples. Stock solutions of phosphate were purchased from suppliers and were certified as to concentration. A linear regression procedure (absorbance vs. concentration) utilizing a minimum of five standards was used to standardize the spectrophotometer. The slope, intercept, and coefficient of determination (r^2) of the regression line were determined. If r^2 is < 0.98, new standard solutions were prepared and the instrument was recalibrated. Measurements were recorded on Phosphate Data Forms.

Chemical Analysis/Nitrite-Nitrate

Nitrite-nitrate concentration ($\text{NO}_2\text{-NO}_3\text{-N}$, mg/L) was determined by EPA Method 353.3 (Cadmium Reduction Method). Twenty-five milliliters of the water sampled were passed through a reduction column to convert nitrate to nitrite. Nitrite ($\text{NO}_2\text{-N}$, mg/L) was measured using a ThermoSpectronic Genesys™ 10 Spectrophotometer with a Sipper System (Model 355982) and 1 cm flow-through cell. Absorbance of standards was read at 543 nm. A linear regression procedure (absorbance vs. concentration) utilizing a minimum of five standards was used to standardize the spectrophotometer. The slope, intercept, and coefficient of determination (r^2) of the regression line were determined. If r^2 is < 0.98, new standard solutions were prepared, and the instrument was recalibrated. Measurements were recorded on Nitrate-Nitrate Data Forms.

Chemical Analysis/Total Kjeldahl Nitrogen

Total Kjeldahl nitrogen was measured using EPA Method 351.4 (Potentiometric, Ion Selective Electrode). Samples (20 ml) were digested on a RapiDigester block digester with fume extraction system (Econolab, Inc.) according to the manufacturer's instruction manual. Previously, the catalyst of choice for digestion has been mercury, however, due to health risks and disposal problems, copper was used as an alternative (Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998). Following digestion, Kjeldahl nitrogen was measured following procedures for total ammonia nitrogen (EPA Method 350.3). Measurements were recorded on Total Kjeldahl Data Forms.

Chemical Analysis/Chlorophyll a

Surface, mid-water and bottom chlorophyll *a* concentrations were determined for each site from known volumes of water filtered. Measurements were made by using 90% acetone to extract chlorophyll from GF/F filters collected at each site. Standard Method 445.0 and a Turner Designs fluorometer unit were used to determine chlorophyll *a* concentrations (this method has been approved by MDEQ and EPA). A spectrophotometer was used to validate chlorophyll standards. Instrument detection limit (IDL)

was $\pm 0.005 \mu\text{g/l}$ chl *a*; method detection limit using the present fluorometer was estimated to be $\pm 0.005 \mu\text{g/l}$ chl *a*; method detection limit was machine dependent. Chlorophyll was extracted from the filters without grinding. Only values for chlorophyll *a* were calculated and reported.

Quality assurance and control measures for each set of samples included reagent blanks, duplicate reference samples, and calibration standards. Throughout the time frame of the project, all checks of standard reference material were within 5% of the calculated value. Duplicate field samples, provided by the GCRL field crew, had values within 10% of the original duplicate replicate samples. Quality control information included a QC check sample every 10 samples (90 to 110% recovery) and a calibration curve for the start and end of each sample run (minimum 3 point curve and a regression coefficient).

Synopsis of Data

Samples were collected every six hours over a 24-hour period on May 19 and 20, 2004. Hydrographic data for this period (high-flow) is found in Table 1. Water temperature, pH, salinity, and dissolved oxygen are listed for the May sampling period. Table 2 contains the nutrient data by station. Wet weather conditions precluded collection of low-flow samples during the summers of 2004 and 2005. Drought conditions followed Hurricane Katrina, however, the catastrophic destruction of coastal infrastructure, including facilities of the GCRL and MDEQ, prevented sampling until November of 2005. Tables 3 and 4 contain the hydrographic and nutrient data for low-flow time period, respectively. A power failure at the Pearl Laboratory resulted in the loss of the chlorophyll *a* samples.

Project Integration with Existing and Past Research

Data collected during this project will integrate with numerous ongoing and past studies including: 1) a nutrient survey of coastal waters conducted quarterly by the GCRL at selected sites in coastal bays and Mississippi Sound, 2) an ongoing study by MDEQ of Bayou Casotte in Jackson County, a heavily industrialized waterbody characterized by periodic elevations of some nutrients, 3) the EPA National Coastal Assessment Study which provides for the collection of water quality samples from stations in Mississippi Sound and adjacent waters during July of each year, 4) the MDEQ ambient monitoring program that is proposed to be reinstated in 2004, and 5) ongoing MDEQ studies in inland lakes and large rivers and historic data from wadeable streams. The low flow/high flow diel sampling, when integrated into the current quarterly nutrient sampling program, will provide data on a critical water quality component and will ensure that criteria developed for Mississippi's estuarine waters are defensible and based on the best available data.

Table 1. Hydrology Data (May 19-20, 2004) for the WRRI Project " " Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									Depth (m)	Temperature (C)	pH (units)	Salinity (ppt)	DO (%)	DO (mg/L)
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	13:30	0.80	3.70	0.5	28.40	8.23	20.62	129.5	8.97
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	13:30	0.80	3.70	1.0	28.19	8.20	20.73	124.3	8.61
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	13:30	0.80	3.70	1.5	27.78	8.15	21.31	107.2	7.47
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	13:30	0.80	3.70	2.0	27.69	8.13	21.64	102.2	7.12
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	13:30	0.80	3.70	2.5	27.12	8.05	23.07	80.8	5.60
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	13:30	0.80	3.70	3.0	26.50	7.99	24.75	64.9	4.54
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	13:30	0.80	3.70	3.5	26.35	7.97	25.35	58.9	4.07
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	16:06	0.60	3.50	0.5	30.08	8.48	20.53	193.0	13.05
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	16:06	0.60	3.50	1.0	28.69	8.34	20.95	149.5	10.19
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	16:06	0.60	3.50	1.5	27.96	8.18	21.45	109.7	7.63
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	16:06	0.60	3.50	2.0	27.61	8.12	22.25	97.0	6.75
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	16:06	0.60	3.50	2.5	27.49	8.08	22.76	80.5	6.28
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	16:06	0.60	3.50	3.0	27.29	8.06	23.74	84.4	5.88
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	23:50	NA	2.70	0.5	27.22	8.08	17.56	93.8	6.76
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	23:50	NA	2.70	1.0	27.37	8.17	18.54	99.9	7.13
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	23:50	NA	2.70	1.5	27.77	8.04	20.07	113.7	7.99
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/19/2004	23:50	NA	2.70	2.0	28.00	8.27	20.73	119.8	8.38
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/20/2004	5:50	NA	2.70	0.5	27.28	8.12	20.55	88.6	6.30
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/20/2004	5:50	NA	2.70	1.0	27.35	8.15	20.83	92.6	6.54
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/20/2004	5:50	NA	2.70	1.5	27.54	8.17	20.74	96.2	6.76
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/20/2004	5:50	NA	2.70	2.0	27.24	8.13	22.31	85.9	6.01
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/20/2004	5:50	NA	2.70	2.5	27.21	8.11	22.68	83.1	5.81
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/20/2004	10:00	0.85	3.00	0.5	26.97	8.11	18.47	92.2	6.62
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/20/2004	10:00	0.85	3.00	1.0	27.40	8.10	21.08	89.5	6.29
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/20/2004	10:00	0.85	3.00	1.5	27.26	8.08	22.03	84.0	5.88
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/20/2004	10:00	0.85	3.00	2.0	26.99	8.06	23.20	78.1	5.47
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	5/20/2004	10:00	0.85	3.00	2.5	26.86	8.03	23.67	71.9	5.03
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/19/2004	10:22	1.60	2.36	0.5	27.73	8.06	19.37	106.4	7.51
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/19/2004	10:22	1.60	2.36	1.0	27.42	8.09	21.05	104.6	7.35
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/19/2004	10:22	1.60	2.36	1.5	27.37	8.07	21.64	95.8	6.72
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/19/2004	10:22	1.60	2.36	2.0	27.40	8.08	21.63	96.4	6.76
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/19/2004	19:00	1.25	1.90	0.5	27.54	8.09	11.35	93.7	6.91
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/19/2004	19:00	1.25	1.90	1.0	28.81	8.17	16.29	107.3	7.59

Table 1. Hydrology Data (May 19-20, 2004) for the WRRI Project " " Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									Depth (m)	Temperature (C)	pH (units)	Salinity (ppt)	DO (%)	DO (mg/L)
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/19/2004	19:00	1.25	1.90	1.5	28.70	8.16	19.59	105.7	7.35
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/19/2004	22:40	NA	1.80	0.5	26.76	7.30	10.48	73.6	5.60
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/19/2004	22:40	NA	1.80	1.0	27.07	7.87	16.39	74.8	5.46
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/19/2004	22:40	NA	1.80	1.5	27.67	7.90	21.07	70.7	4.90
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/20/2004	4:15	NA	2.20	0.5	27.42	7.87	18.70	68.1	4.84
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/20/2004	4:15	NA	2.20	1.0	28.03	8.06	21.29	83.7	5.81
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/20/2004	4:15	NA	2.20	1.5	27.95	8.08	21.54	83.4	5.80
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/20/2004	4:15	NA	2.20	2.0	27.64	8.02	22.10	71.8	4.95
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/20/2004	11:10	1.55	2.40	0.5	28.06	8.05	17.14	94.1	6.70
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/20/2004	11:10	1.55	2.40	1.0	28.09	8.09	21.87	96.9	6.71
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/20/2004	11:10	1.55	2.40	1.5	28.00	8.09	22.24	96.0	6.63
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	5/20/2004	11:10	1.55	2.40	2.0	27.95	8.10	22.40	95.8	6.62
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	0.5	25.84	6.50	0.07	79.9	6.50
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	1.0	25.58	6.36	0.07	78.8	6.43
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	1.5	25.70	6.30	0.07	78.8	6.44
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	2.0	24.84	6.16	0.07	76.0	6.29
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	3.0	24.82	6.13	0.07	75.7	6.28
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	4.0	24.77	6.12	0.07	75.6	6.27
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	5.0	24.69	6.11	0.07	75.3	6.25
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	6.0	24.66	6.09	0.07	75.1	6.24
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	7.0	24.55	6.07	0.07	74.6	6.21
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	8.0	24.55	6.07	0.07	74.4	6.20
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	10:22	0.85	9.21	9.0	24.53	6.06	0.07	74.2	6.18
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	0.5	26.35	6.24	0.07	79.2	6.36
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	1.0	25.15	6.13	0.07	79.7	6.55
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	1.5	25.30	6.04	0.06	81.8	6.70
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	2.0	25.12	5.97	0.06	82.1	6.76
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	3.0	24.87	5.92	0.05	82.4	6.84
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	4.0	25.04	5.92	0.05	81.9	6.77
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	5.0	25.01	5.89	0.05	82.2	6.79
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	6.0	25.00	5.91	0.05	82.4	6.82
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	7.0	24.02	5.75	0.04	82.3	6.93
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	8.0	23.97	5.72	0.04	82.3	6.93

Table 1. Hydrology Data (May 19-20, 2004) for the WRRI Project " " Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									Depth (m)	Temperature (C)	pH (units)	Salinity (ppt)	DO (%)	DO (mg/L)
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	16:00	0.60	9.22	9.0	24.07	5.76	0.04	82.4	6.93
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	22:00	NA	8.03	0.5	26.28	6.45	0.09	68.5	5.55
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	22:00	NA	8.03	1.0	25.70	6.32	0.08	73.3	5.98
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	22:00	NA	8.03	1.5	25.49	6.28	0.07	74.2	6.07
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	22:00	NA	8.03	2.0	25.38	6.22	0.07	74.7	6.10
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	22:00	NA	8.03	3.0	25.18	6.10	0.06	78.5	6.46
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	22:00	NA	8.03	4.0	25.18	6.03	0.06	79.4	6.54
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	22:00	NA	8.03	5.0	25.25	6.00	0.06	78.1	6.47
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	22:00	NA	8.03	6.0	25.04	5.93	0.06	80.6	6.62
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	22:00	NA	8.03	7.0	24.66	5.85	0.05	82.8	6.87
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/19/2004	22:00	NA	8.03	8.0	24.61	5.76	0.05	82.7	6.87
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	0.5	25.14	6.23	0.07	76.4	6.30
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	1.0	25.13	6.16	0.07	76.3	6.28
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	1.5	25.13	6.13	0.07	76.1	6.27
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	2.0	25.13	6.11	0.07	76.2	6.28
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	3.0	25.13	6.09	0.07	76.1	6.27
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	4.0	25.13	6.08	0.07	76.0	6.26
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	5.0	25.13	6.06	0.07	76.0	6.26
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	6.0	25.13	6.05	0.07	76.0	6.26
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	7.0	25.13	6.04	0.07	75.9	6.26
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	8.0	25.13	6.04	0.07	75.9	6.26
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	4:00	NA	9.55	9.0	25.13	6.04	0.07	75.8	6.25
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	0.5	25.55	6.27	0.07	78.3	6.39
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	1.0	25.42	6.15	0.07	77.4	6.35
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	1.5	25.19	6.08	0.07	76.3	6.28
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	2.0	25.14	6.03	0.07	75.9	6.25
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	3.0	25.11	6.01	0.07	75.7	6.24
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	4.0	25.04	5.98	0.07	75.0	6.19
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	5.0	25.05	5.98	0.07	75.0	6.19
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	6.0	25.02	5.98	0.07	74.8	6.18
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	7.0	25.00	5.98	0.07	74.6	6.16
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	8.0	24.96	5.98	0.07	74.3	6.14
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	9.0	24.96	5.98	0.07	74.2	6.13

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									Depth (m)	Temperature (C)	pH (units)	Salinity (ppt)	DO (%)	DO (mg/L)
POF08	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	5/20/2004	10:00	0.70	9.61	9.5	24.95	6.00	0.07	73.9	6.11
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	12:35	0.85	5.02	0.5	26.68	6.33	0.09	81.1	
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	12:35	0.85	5.02	1.0	26.10	6.30	0.09	77.7	6.27
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	12:35	0.85	5.02	1.5	25.92	6.27	0.09	76.8	6.24
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	12:35	0.85	5.02	2.0	25.86	6.25	0.09	76.6	6.22
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	12:35	0.85	5.02	3.0	25.84	6.23	0.09	76.1	6.19
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	12:35	0.85	5.02	4.0	24.67	6.21	0.08	69.1	5.73
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	12:35	0.85	5.02	5.0	24.52	6.19	0.08	65.7	5.47
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	18:00	0.60	4.23	0.5	28.32	6.40	0.12	90.1	7.04
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	18:00	0.60	4.23	1.0	27.52	6.40	0.10	80.8	6.38
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	18:00	0.60	4.23	1.5	25.50	6.41	0.06	63.3	5.15
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	18:00	0.60	4.23	2.0	25.41	6.35	0.05	61.4	5.03
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	18:00	0.60	4.23	3.0	25.35	6.31	0.05	60.8	5.00
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	18:00	0.60	4.23	4.0	25.28	6.34	0.05	59.1	4.88
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	23:05	NA	4.03	0.5	26.63	6.21	0.07	74.4	5.96
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	23:05	NA	4.03	1.0	26.26	6.26	0.07	72.1	5.82
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	23:05	NA	4.03	1.5	25.25	6.31	0.05	63.4	5.22
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	23:05	NA	4.03	2.0	25.05	6.31	0.05	61.7	5.10
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	23:05	NA	4.03	3.0	24.85	6.30	0.04	60.2	4.99
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/19/2004	23:05	NA	4.03	4.0	24.81	6.24	0.05	58.6	4.85
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	5:25	NA	4.33	0.5	26.16	6.25	0.08	70.1	5.69
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	5:25	NA	4.33	1.0	25.72	6.25	0.08	69.0	5.62
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	5:25	NA	4.33	1.5	25.52	6.26	0.08	68.7	5.62
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	5:25	NA	4.33	2.0	25.40	6.26	0.08	69.8	5.71
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	5:25	NA	4.33	3.0	25.20	6.25	0.08	71.8	5.91
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	5:25	NA	4.33	4.0	24.90	6.16	0.06	76.2	6.31
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	11:05	0.80	4.48	0.5	28.43	6.28	0.08	79.0	6.13
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	11:05	0.80	4.48	1.0	28.14	6.25	0.08	79.4	6.21
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	11:05	0.80	4.48	1.5	26.03	6.24	0.08	74.5	6.06
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	11:05	0.80	4.48	2.0	25.08	6.21	0.07	73.6	6.06
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	11:05	0.80	4.48	3.0	24.99	6.13	0.07	72.8	6.01
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	11:05	0.80	4.48	3.5	24.94	6.12	0.07	72.1	5.97
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	5/20/2004	11:05	0.80	4.48	4.0	24.94	6.14	0.07	71.6	5.92

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									Depth (m)	Temperature (C)	pH (units)	Salinity (ppt)	DO (%)	DO (mg/L)
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	12:00	0.50	3.57	0.5	26.91	7.26	6.49	99.6	8.00
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	12:00	0.50	3.57	1.0	26.90	7.24	6.50	97.3	7.82
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	12:00	0.50	3.57	1.5	26.85	7.22	6.48	94.7	7.61
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	12:00	0.50	3.57	2.0	26.80	7.21	6.48	94.1	7.58
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	12:00	0.50	3.57	3.0	26.82	7.21	6.49	94.0	7.56
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	16:00	0.40	3.92	0.5	27.68	7.69	6.36	105.3	8.35
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	16:00	0.40	3.92	1.0	27.63	7.64	6.42	106.7	8.46
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	16:00	0.40	3.92	1.5	27.49	7.57	6.44	103.6	8.24
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	16:00	0.40	3.92	2.0	27.42	7.54	6.43	100.9	8.03
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	16:00	0.40	3.92	3.0	27.35	7.51	6.45	101.1	8.05
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	16:00	0.40	3.92	3.5	27.32	7.49	6.48	100.2	7.99
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	23:10	NA	3.43	0.5	28.18	6.78	5.38	50.3	3.92
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	23:10	NA	3.43	1.0	28.19	6.80	5.37	47.4	3.72
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	23:10	NA	3.43	1.5	28.19	6.79	5.38	46.8	3.66
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	23:10	NA	3.43	2.0	28.19	6.78	5.38	46.3	3.63
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/19/2004	23:10	NA	3.43	3.0	28.19	6.77	5.38	45.6	3.58
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/20/2004	4:00	NA	3.05	0.5	27.40	7.13	5.46	56.8	4.46
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/20/2004	4:00	NA	3.05	1.0	27.28	7.07	5.85	62.2	4.90
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/20/2004	4:00	NA	3.05	1.5	27.03	7.06	6.23	75.8	6.11
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/20/2004	4:00	NA	3.05	2.0	27.02	7.07	6.24	75.7	6.07
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/20/2004	10:45	0.85	3.00	0.5	27.52	7.31	4.77	105.1	8.34
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/20/2004	10:45	0.85	3.00	1.0	27.46	7.35	4.88	103.7	8.24
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/20/2004	10:45	0.85	3.00	1.5	27.49	7.37	4.92	102.3	8.23
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/20/2004	10:45	0.85	3.00	2.0	27.42	7.38	4.90	101.7	8.09
BAC19	Bayou Caddy	O.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	5/20/2004	10:45	0.85	3.00	2.5	27.43	7.37	4.94	100.6	8.01
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	10:00	0.30	7.36	0.5	22.07	7.81	0.01	71.6	6.29
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	10:00	0.30	7.36	1.0	22.09	7.45	0.01	71.1	6.25
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	10:00	0.30	7.36	1.5	22.04	7.31	0.01	70.5	6.20
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	10:00	0.30	7.36	2.0	22.03	7.18	0.01	69.7	6.13
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	10:00	0.30	7.36	3.0	22.03	6.91	0.01	69.9	6.14
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	10:00	0.30	7.36	4.0	22.03	6.88	0.01	69.3	6.10
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	10:00	0.30	7.36	5.0	22.03	6.85	0.01	68.7	6.04
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	10:00	0.30	7.36	6.0	22.04	6.83	0.01	68.3	6.01

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Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									Depth (m)	Temperature (C)	pH (units)	Salinity (ppt)	DO (%)	DO (mg/L)
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	10:00	0.30	7.36	7.0	22.04	6.77	0.01	67.8	5.97
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	17:00	0.25	7.97	0.5	22.52	8.39	0.01	72.0	6.28
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	17:00	0.25	7.97	1.0	22.50	8.14	0.01	71.5	6.24
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	17:00	0.25	7.97	1.5	22.50	8.07	0.01	71.5	6.23
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	17:00	0.25	7.97	2.0	22.50	8.01	0.01	71.3	6.21
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	17:00	0.25	7.97	3.0	22.53	7.88	0.01	71.0	6.19
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	17:00	0.25	7.97	4.0	22.50	7.80	0.01	71.2	6.19
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	17:00	0.25	7.97	5.0	22.49	7.72	0.01	70.9	6.18
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	17:00	0.25	7.97	6.0	22.50	7.55	0.01	70.6	6.15
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	17:00	0.25	7.97	7.0	22.50	7.52	0.01	70.5	6.15
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	17:00	0.25	7.97	7.5	22.50	7.55	0.01	70.4	6.13
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	22:00	NA	7.86	0.5	22.89	8.13	0.01	72.3	6.26
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	22:00	NA	7.86	1.0	22.89	7.61	0.01	71.8	6.22
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	22:00	NA	7.86	1.5	22.88	7.47	0.01	71.8	6.21
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	22:00	NA	7.86	2.0	22.88	7.36	0.01	71.4	6.18
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	22:00	NA	7.86	3.0	22.89	7.25	0.01	71.2	6.15
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	22:00	NA	7.86	4.0	22.89	7.24	0.01	70.9	6.14
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	22:00	NA	7.86	5.0	22.89	7.16	0.01	70.7	6.12
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	22:00	NA	7.86	6.0	22.89	7.12	0.01	70.6	6.11
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	22:00	NA	7.86	7.0	22.89	7.05	0.01	70.4	6.09
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/19/2004	22:00	NA	7.86	7.5	22.89	7.04	0.01	70.2	6.08
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	5:30	0.35	7.68	0.5	22.70	7.88	0.01	67.6	5.85
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	5:30	0.35	7.68	1.0	22.70	7.65	0.01	67.9	5.90
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	5:30	0.35	7.68	1.5	22.70	7.57	0.01	67.3	5.83
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	5:30	0.35	7.68	2.0	22.70	7.46	0.01	66.9	5.81
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	5:30	0.35	7.68	3.0	22.71	7.37	0.01	66.9	5.81
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	5:30	0.35	7.68	4.0	22.70	7.37	0.01	67.0	5.81
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	5:30	0.35	7.68	5.0	22.71	7.32	0.01	66.6	5.77
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	5:30	0.35	7.68	6.0	22.71	7.27	0.01	66.5	5.78
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	5:30	0.35	7.68	7.0	22.71	7.22	0.01	66.2	5.75
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	5:30	0.35	7.68	7.5	22.70	7.20	0.01	65.8	5.71
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	10:00	0.30	8.45	0.5	22.65	8.02	0.01	71.2	6.19
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	10:00	0.30	8.45	1.0	22.61	7.35	0.01	68.8	5.98

Table 1. Hydrology Data (May 19-20, 2004) for the WRRI Project " " Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									Depth (m)	Temperature (C)	pH (units)	Salinity (ppt)	DO (%)	DO (mg/L)
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	10:00	0.30	8.45	1.5	22.61	7.12	0.01	68.3	5.94
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	10:00	0.30	8.45	2.0	22.61	6.98	0.01	67.9	5.91
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	10:00	0.30	8.45	3.0	22.61	6.88	0.01	67.8	5.89
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	10:00	0.30	8.45	4.0	22.60	6.79	0.01	67.4	5.86
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	10:00	0.30	8.45	5.0	22.61	6.77	0.01	67.2	5.85
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	10:00	0.30	8.45	6.0	22.61	6.69	0.01	67.2	5.85
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	10:00	0.30	8.45	7.0	22.61	6.69	0.01	66.8	5.81
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	5/20/2004	10:00	0.30	8.45	8.0	22.60	6.67	0.01	66.4	5.77
DAB23	Davis Bayou	Beach at Holcomb Blvd	30 23' 37.8"	88 48' 37.2"	5/19/2004	10:50	0.60	1.00	0.5	27.86	6.89	7.00	103.1	8.02
DAB23	Davis Bayou	Beach at Holcomb Blvd	30 23' 37.8"	88 48' 37.2"	5/19/2004	16:45	0.45	1.00	0.5	29.55	6.78	6.00	126.0	9.57
DAB23	Davis Bayou	Beach at Holcomb Blvd	30 23' 37.8"	88 48' 37.2"	5/19/2004	22:50	NA	1.00	0.5	26.70	6.85	6.00	81.9	6.52
DAB23	Davis Bayou	Beach at Holcomb Blvd	30 23' 37.8"	88 48' 37.2"	5/20/2004	4:58	NA	1.00	0.5	25.32	7.58	4.00	72.1	5.97
DAB23	Davis Bayou	Beach at Holcomb Blvd	30 23' 37.8"	88 48' 37.2"	5/20/2004	11:03	1.00	1.00	0.5	31.75	7.20	5.00	87.2	6.38
WAV27	Waveland Beach	Beach at St. Claire Church	30 16' 37.1"	89 22' 25.2"	5/19/2004	10:00	0.21	1.00	0.5	26.41	7.40	4.96	109.4	8.55
WAV27	Waveland Beach	Beach at St. Claire Church	30 16' 37.1"	89 22' 25.2"	5/19/2004	16:00	0.17	1.00	0.5	29.24	7.83	4.98	110.4	8.22
WAV27	Waveland Beach	Beach at St. Claire Church	30 16' 37.1"	89 22' 25.2"	5/19/2004	22:00	NA	1.00	0.5	27.18	7.45	5.10	84.6	6.50
WAV27	Waveland Beach	Beach at St. Claire Church	30 16' 37.1"	89 22' 25.2"	5/20/2004	4:00	NA	1.00	0.5	26.14	7.27	5.50	60.7	4.79
WAV27	Waveland Beach	Beach at St. Claire Church	30 16' 37.1"	89 22' 25.2"	5/20/2004	10:00	0.20	1.00	0.5	27.33	7.02	2.22	94.3	7.38
ROA28	Rodenberg Ave.	Beach at Rodenberg Ave.	30 23' 32.6"	88 56' 17.5"	5/19/2004	10:00	1.00	1.00	0.5	26.80	7.00	10.00	136.0	10.44
ROA28	Rodenberg Ave.	Beach at Rodenberg Ave.	30 23' 32.6"	88 56' 17.5"	5/19/2004	16:00	0.50	1.00	0.5	34.35	7.59	15.00	125.6	8.91
ROA28	Rodenberg Ave.	Beach at Rodenberg Ave.	30 23' 32.6"	88 56' 17.5"	5/19/2004	22:00	NA	1.00	0.5	25.99	8.19	10.00	107.8	8.76
ROA28	Rodenberg Ave.	Beach at Rodenberg Ave.	30 23' 32.6"	88 56' 17.5"	5/20/2004	4:00	NA	1.00	0.5	25.60	7.36	6.00	75.5	6.19
ROA28	Rodenberg Ave.	Beach at Rodenberg Ave.	30 23' 32.6"	88 56' 17.5"	5/20/2004	10:00	1.00	1.00	0.5	28.10	7.86	12.00	117.8	9.24

Table 2. Nutrient data (May 19-20, 2004) for WRRI project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Station Code	Level	Sample Location	Latitude (°')	Longitude (°')	Date	Time	Sample Depth (m)	Turbidity (NTU)	Chlorophyll a (ug/L)	Pheo-a (ug/L)	Total Ammonia (mg/L-N)	Total Kjeldahl Nitrogen (mg/L-N)	Total Nitrite (mg/L-N)	Total Phosphate (mg/L-P)	Total Suspended Solids (mg/L)	County
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	13:30	0.5	9.0	29.58	10.84	0.16	0.72	0.09	0.94	74	Jackson
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	13:30	0.5		25.25	9.80	0.16	0.66	0.10	0.91	86	Jackson
BCA03	Middle	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	13:30	1.8	17.0	14.70	11.27	0.35	0.85	0.07	1.37	101	Jackson
BCA03	Middle	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	13:30	1.8		14.55	11.75	0.44	0.90	0.08	1.34	110	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	13:30	3.2	16.0	4.28	3.07	0.24	0.59	0.03	0.51	114	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	13:30	3.2		5.31	3.94	0.23	0.58	0.03	0.50	112	Jackson
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	16:06	0.5	12.0	51.28	8.28	0.06	0.64	0.12	1.69	94	Jackson
BCA03	Middle	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	16:06	1.8	14.0	23.60	9.40	0.25	0.65	0.09	1.32	91	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	16:06	3.0	13.0	14.24	10.61	0.20	0.56	0.06	0.90	104	Jackson
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	23:50	0.5	9.0	10.27	8.31	0.05	0.40	0.05	0.35	75	Jackson
BCA03	Middle	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	23:50	1.4	8.0	12.96	10.58	0.06	0.40	0.06	0.51	80	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	05/19/04	23:50	2.2	17.0	28.46	9.02	0.11	0.60	0.07	1.38	98	Jackson
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	05/20/04	5:50	0.5	8.0	15.02	10.06	0.07	0.44	0.06	0.70	85	Jackson
BCA03	Middle	Bayou Casotte	30 21 20.5	88 30 23.3	05/20/04	5:50	1.4	10.0	16.18	7.91	0.10	0.49	0.06	0.97	75	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	05/20/04	5:50	2.2	10.0	16.17	7.67	0.11	0.44	0.06	0.89	90	Jackson
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	05/20/04	10:00	0.5	9.0	13.26	9.98	0.07	0.52	0.06	0.74	68	Jackson
BCA03	Middle	Bayou Casotte	30 21 20.5	88 30 23.3	05/20/04	10:00	1.5	9.0	13.11	7.66	0.11	0.51	0.06	0.75	79	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	05/20/04	10:00	2.5	14.0	10.77	6.54	0.14	0.45	0.05	0.74	93	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	05/19/04	10:22	0.5	5.0	3.52	1.20	0.04	0.37	<0.02	0.03	61	Jackson
ROI06	Middle	Round Island	30 18 36.9	88 32 41.1	05/19/04	10:22	1.2	7.0	3.61	1.71	0.04	0.29	0.02	0.03	68	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	05/19/04	10:22	1.9	8.0	2.82	1.91	0.04	0.28	0.02	0.03	70	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	05/19/04	19:00	0.5	7.0	4.57	2.06	0.04	0.30	0.06	0.03	33	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	05/19/04	19:00	1.5	0.0	5.86	2.93	0.03	0.23	0.02	0.03	68	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	05/19/04	22:40	0.5	8.0	2.57	1.50	0.05	0.28	0.08	0.03	42	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	05/19/04	22:40	1.3	8.0	3.18	2.17	0.07	0.22	0.06	0.04	64	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	05/20/04	4:15	0.5	7.0	3.30	1.99	0.03	0.30	0.05	0.04	55	Jackson
ROI06	Middle	Round Island	30 18 36.9	88 32 41.1	05/20/04	4:15	1.1	7.0	3.66	2.50	0.03	0.26	0.05	0.03	61	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	05/20/04	4:15	1.7	8.0	2.32	1.44	<0.02	0.24	0.03	0.03	75	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	05/20/04	11:10	0.5	0.0	5.61	2.96	0.05	0.25	0.03	0.03	66	Jackson
ROI06	Middle	Round Island	30 18 36.9	88 32 41.1	05/20/04	11:10	1.2	0.0	3.87	1.62	0.05	0.23	0.02	<0.02	69	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	05/20/04	11:10	1.9	0.0	4.41	2.31	0.03	0.24	0.02	0.03	85	Jackson
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	05/19/04	10:50	0.5	16.0	3.38	2.89	0.12	0.41	0.08	0.03	38	Jackson
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	05/19/04	16:45	0.5	28.0	10.74	4.99	0.09	0.55	0.07	0.03	46	Jackson
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	05/19/04	22:50	0.5	18.0	5.99	4.22	0.08	0.54	0.07	0.03	31	Jackson
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	05/19/04	22:50	0.5		5.68	3.45	0.08	0.54	0.06	0.03	27	Jackson
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	05/20/04	4:58	0.5	18.0	5.55	3.55	0.14	0.49	0.08	0.04	33	Jackson
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	05/20/04	11:03	0.5	14.0	4.81	2.19	0.11	0.45	0.08	0.03	26	Jackson
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	10:22	0.5	13.0	1.26	0.81	0.08	0.49	0.04	0.05	<4	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	10:22	4.6	13.0	0.85	0.41	0.08	0.37	0.04	0.04	5	Harrison
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	10:22	8.7	69.0	1.65	0.98	0.08	0.36	0.05	0.07	77	Harrison
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	16:00	0.5	15.0	1.16	0.77	0.06	0.38	0.04	0.04	8	Harrison

Table 2. Nutrient data (May 19-20, 2004) for WRRI project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Station Code	Level	Sample Location	Latitude (°')	Longitude (°')	Date	Time	Sample Depth (m)	Turbidity (NTU)	Chlorophyll a (ug/L)	Pheo-a (ug/L)	Total Ammonia (mg/L-N)	Total Kjeldahl Nitrogen (mg/L-N)	Total Nitrite (mg/L-N)	Total Phosphate (mg/L-P)	Total Suspended Solids (mg/L)	County
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	16:00	0.5		1.17	0.63	0.06	0.36	0.03	0.03	11	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	16:00	4.6	15.0	1.11	0.69	0.06	0.39	0.03	0.04	8	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	16:00	4.6		1.43	0.74	0.06	0.39	0.03	0.03	6	Harrison
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	16:00	8.7	86.0	1.71	0.89	0.05	0.35	<0.02	0.06	56	Harrison
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	16:00	8.7		1.04	0.60	0.04	0.36	<0.02	0.06	83	Harrison
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	22:00	0.5	26.0	1.72	1.31	0.07	0.61	0.09	0.09	20	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	22:00	4.0	22.0	1.60	1.04	0.05	0.59	0.04	0.05	19	Harrison
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	05/19/04	22:00	7.5	22.0	1.41	0.91	0.03	0.61	<0.02	0.03	19	Harrison
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	05/20/04	4:00	0.5	15.0	1.14	0.97	0.05	0.50	0.04	0.04	10	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	05/20/04	4:00	4.8	14.0	1.15	0.71	0.05	0.58	0.05	0.04	5	Harrison
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	05/20/04	4:00	9.1	15.0	1.09	0.66	0.04	0.56	0.04	0.04	6	Harrison
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	05/20/04	10:00	0.5	13.0	2.07	1.18	0.04	0.66	0.05	0.04	<4	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	05/20/04	10:00	4.8	14.0	1.02	0.68	0.04	0.54	0.04	0.04	4	Harrison
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	05/20/04	10:00	9.1	13.0	1.04	0.59	0.06	0.63	0.05	0.04	7	Harrison
BBI14	Surface	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/19/04	12:35	0.5	14.0	1.31	0.66	0.05	0.44	0.07	0.05	7	Harrison
BBI14	Middle	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/19/04	12:35	2.5	14.0	1.39	0.69	0.05	0.43	0.07	0.05	5	Harrison
BBI14	Bottom	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/19/04	12:35	4.5	19.0	0.94	0.54	0.05	0.39	0.07	0.06	15	Harrison
BBI14	Surface	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/19/04	18:00	0.5	16.0	2.85	1.42	0.03	0.43	0.09	0.07	9	Harrison
BBI14	Middle	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/19/04	18:00	2.1	20.0	1.24	0.75	0.05	0.46	0.15	0.08	13	Harrison
BBI14	Bottom	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/19/04	18:00	3.7	22.0	0.88	0.52	0.05	0.42	0.18	0.08	14	Harrison
BBI14	Surface	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/19/04	23:05	0.5	19.0	0.67	0.47	0.04	0.40	0.09	0.04	12	Harrison
BBI14	Middle	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/19/04	23:05	2.0	26.0	0.72	0.52	0.07	0.47	0.21	0.09	18	Harrison
BBI14	Bottom	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/19/04	23:05	3.5	29.0	0.75	0.54	0.07	0.47	0.22	0.09	22	Harrison
BBI14	Surface	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/20/04	5:25	0.5	17.0	1.64	0.99	0.07	0.45	0.11	0.06	9	Harrison
BBI14	Middle	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/20/04	5:25	2.2	18.0	1.62	0.92	0.05	0.39	0.10	0.06	12	Harrison
BBI14	Bottom	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/20/04	5:25	3.8	17.0	1.47	0.86	0.05	0.46	0.06	0.04	10	Harrison
BBI14	Surface	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/20/04	11:05	0.5	12.0	4.66	2.13	0.04	0.45	0.09	0.05	6	Harrison
BBI14	Middle	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/20/04	11:05	2.3	13.0	3.09	1.61	0.04	0.59	0.07	0.05	10	Harrison
BBI14	Bottom	Bayou Bernard/Indu	30 24 57.3	89 00 13.6	05/20/04	11:05	4.0	19.0	1.10	0.65	0.05	0.72	0.07	0.06	14	Harrison
ROA28	Surface	Rodenberg Avenue	30 23 32.6	88 56 17.5	05/19/04	10:00	0.5	14.0	7.20	4.15	0.03	0.60	0.04	0.04	50	Harrison
ROA28	Surface	Rodenberg Avenue	30 23 32.6	88 56 17.5	05/19/04	16:00	0.5	33.0	6.84	4.44	<0.02	0.54	<0.02	0.03	91	Harrison
ROA28	Surface	Rodenberg Avenue	30 23 32.6	88 56 17.5	05/19/04	22:00	0.5	11.0	6.70	4.25	<0.02	0.50	0.04	0.03	42	Harrison
ROA28	Surface	Rodenberg Avenue	30 23 32.6	88 56 17.5	05/20/04	4:00	0.5	9.0	5.33	3.16	<0.02	0.54	0.06	0.04	27	Harrison
ROA28	Surface	Rodenberg Avenue	30 23 32.6	88 56 17.5	05/20/04	10:00	0.5	11.0	8.79	5.32	<0.02	0.43	<0.02	0.04	40	Harrison
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	12:00	0.5	22.0	7.23	3.32	<0.10	1.01	<0.02	0.05	32	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	12:00	0.5		7.75	3.16	<0.10	1.00	<0.02	0.07	41	Hancock
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	12:00	1.8	21.0	6.81	3.23	<0.10	0.51	<0.02	0.05	38	Hancock
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	12:00	1.8		8.10	3.86	<0.10	0.77	<0.02	0.05	38	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	12:00	3.1	22.0	8.66	4.10	<0.10	0.93	<0.02	0.06	44	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	12:00	3.1		8.12	3.90	<0.10	0.88	<0.02	0.06	38	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	16:00	0.5	16.0	8.92	4.07	<0.10	0.89	<0.02	0.05	42	Hancock

Table 2. Nutrient data (May 19-20, 2004) for WRRI project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Station Code	Level	Sample Location	Latitude (°')	Longitude (°')	Date	Time	Sample Depth (m)	Turbidity (NTU)	Chlorophyll a (ug/L)	Pheo-a (ug/L)	Total Ammonia (mg/L-N)	Total Kjeldahl Nitrogen (mg/L-N)	Total Nitrite (mg/L-N)	Total Phosphate (mg/L-P)	Total Suspended Solids (mg/L)	County
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	16:00	2.0	17.0	8.02	3.33	<0.10	0.94	<0.02	0.07	42	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	16:00	3.5	21.0	7.24	2.87	<0.10	0.88	<0.02	0.07	45	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	23:10	0.5	22.0	2.34	0.97	<0.10	0.89	<0.02	0.06	43	Hancock
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	23:10	1.7	28.0	2.36	0.95	<0.10	0.84	<0.02	0.08	50	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	05/19/04	23:10	2.9	31.0	2.23	0.94	<0.10	0.95	<0.02	0.06	62	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	05/20/04	4:00	0.5	11.0	2.94	1.21	<0.10	0.83	<0.02	0.08	28	Hancock
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	05/20/04	4:00	1.5	19.0	5.09	2.29	<0.10	0.40	<0.02	0.05	40	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	05/20/04	4:00	2.5	20.0	5.07	2.19	<0.10	0.84	<0.02	0.08	39	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	05/20/04	10:45	0.5	12.0	7.37	3.57	<0.10	0.81	<0.02	0.05	24	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	05/20/04	10:45	0.5		6.74	3.16	<0.10	0.86	<0.02	0.04	27	Hancock
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	05/20/04	10:45	1.5	12.0	7.09	3.53	<0.10	1.03	<0.02	0.06	29	Hancock
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	05/20/04	10:45	1.5		7.16	3.39	<0.10	0.88	<0.02	0.05	33	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	05/20/04	10:45	2.5	17.0	6.97	3.28	<0.10	0.75	<0.02	0.10	19	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	05/20/04	10:45	2.5		7.31	3.67	<0.10	0.48	<0.02	0.04	27	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	05/19/04	10:00	0.5	36.0	1.59	0.77	<0.10	1.08	0.12	0.10	29	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	05/19/04	10:00	0.5		0.91	0.48	<0.10	0.97	0.12	0.10	24	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	05/19/04	10:00	3.7	45.0	2.30	1.28	<0.10	0.98	0.12	0.12	25	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	05/19/04	10:00	3.7		1.99	0.98	<0.10	1.05	0.12	0.08	22	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	05/19/04	10:00	6.9	50.0	2.00	1.14	<0.10	0.88	0.12	0.08	32	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	05/19/04	10:00	6.9		2.07	1.11	<0.10	0.88	0.12	0.07	42	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	05/19/04	17:00	0.5	35.0	2.02	0.97	<0.10	1.01	0.13	0.10	21	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	05/19/04	17:00	4.0	34.0	2.10	1.07	<0.10	0.96	0.13	0.09	21	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	05/19/04	17:00	7.5	38.0	2.15	1.23	<0.10	0.91	0.13	0.07	22	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	05/19/04	22:00	0.5	34.0	1.72	1.23	<0.10	0.96	0.13	0.07	25	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	05/19/04	22:00	3.9	39.0	1.96	1.10	<0.10	0.92	0.12	0.11	24	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	05/19/04	22:00	7.4	40.0	1.97	1.12	<0.10	0.84	0.13	0.07	22	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	05/20/04	5:30	0.5	40.0	1.60	1.05	<0.10	0.92	0.13	0.07	24	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	05/20/04	5:30	3.8	55.0	1.75	1.24	<0.10	0.95	0.13	0.07	26	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	05/20/04	5:30	7.2	40.0	1.79	1.19	<0.10	0.98	0.13	0.08	25	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	05/20/04	10:00	0.5	37.0	1.72	1.23	<0.10	0.91	0.13	0.08	21	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	05/20/04	10:00	4.3	40.0	1.12	0.62	<0.10	0.97	0.13	0.08	22	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	05/20/04	10:00	8.0	37.0	1.77	1.09	<0.10	1.03	0.13	0.07	27	Hancock
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	05/19/04	10:00	0.5	18.0	7.83	3.67	<0.10	0.80	<0.02	0.07	63	Hancock
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	05/19/04	16:00	0.5	40.0	6.44	3.60	<0.10	0.82	<0.02	0.08	67	Hancock
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	05/19/04	16:00	0.5		7.19	4.30	<0.10	0.86	0.00	0.10	83	Hancock
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	05/19/04	22:00	0.5	46.0	4.35	3.56	<0.10	0.71	0.02	0.09	95	Hancock
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	05/20/04	4:00	0.5	16.0	2.84	2.46	<0.10	0.69	<0.02	0.05	35	Hancock
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	05/20/04	10:00	0.5	16.0	4.58	1.86	<0.10	0.68	<0.02	0.04	22	Hancock

Table 3. Hydrology Data (Nov. 2-3, 2005) for the WRRI Project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									Depth (m)	Temperature (C)	pH (units)	Salinity (ppt)	DO (%)	DO (mg/L)
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/2/2005	14:48	0.50	2.30	0.5	20.4	8.14	28.64	99.7	7.54
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/2/2005	14:48	0.50	2.30	1.0	20.36	8.14	28.85	95.4	7.27
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/2/2005	14:48	0.50	2.30	1.5	20.36	8.14	59.74	95.1	7.17
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/2/2005	14:48	0.50	2.30	2.0	20.35	8.15	30.36	95.0	7.13
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/2/2005	20:05	NA	2.70	0.5	20.09	8.21	31.58	93.8	7.07
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/2/2005	20:05	NA	2.70	1.0	20.12	8.21	31.62	93.7	7.06
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/2/2005	20:05	NA	2.70	1.5	20.13	8.21	31.63	32.8	6.98
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/2/2005	20:05	NA	2.70	2.0	20.13	8.2	31.62	92.9	6.99
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/2/2005	20:05	NA	2.70	2.5	20.12	8.21	31.66	92.8	6.98
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/3/2005	2:36	NA	1.90	0.5	18.33	8.22	30.96	91.6	7.1
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/3/2005	2:36	NA	1.90	1.0	18.65	8.22	30.94	92.0	7.14
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/3/2005	2:36	NA	1.90	1.5	18.69	8.22	30.95	91.7	7.12
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/3/2005	8:00	1.00	1.51	0.5	19.24	8.2	21.17	92.8	7.12
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/3/2005	8:00	1.00	1.51	1.0	19.09	8.21	31.1	92.3	7.1
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/3/2005	8:00	1.00	1.51	1.5	19.34	8.21	31.28	91.3	6.98
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/3/2005	14:00	1.00	1.79	0.5	20.22	8.15	30.94	100.3	7.55
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/3/2005	14:00	1.00	1.79	1.0	20.26	8.14	31.37	98.2	7.38
BCA03	Bayou Casotte	North of Launch	30 21' 20.5"	88 30' 23.3"	11/3/2005	14:00	1.00	1.79	1.5	20.11	8.14	31.37	96.1	7.24
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/2/2005	17:26	2.13	2.13	0.5	19.08	8.21	30.47	109.9	8.49
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/2/2005	17:26	2.13	2.13	1.0	19.07	8.21	30.47	110.5	8.54
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/2/2005	17:26	2.13	2.13	1.5	19.05	8.21	30.46	111.9	8.66
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/2/2005	17:26	2.13	2.13	2.0	19.03	8.21	30.45	112.6	8.71
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/2/2005	21:25	NA	2.24	0.5	18.78	8.22	30.55	103.5	8.04
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/2/2005	21:25	NA	2.24	1.0	18.78	8.22	30.54	103.9	8.07
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/2/2005	21:25	NA	2.24	1.5	18.78	8.23	30.54	104.1	8.09
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/2/2005	21:25	NA	2.24	2.0	18.78	8.23	30.53	104.2	8.09
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/3/2005	3:50	NA	1.76	0.5	17.78	8.25	30.16	101.0	8.01
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/3/2005	3:50	NA	1.76	1.0	17.78	8.25	30.15	101.4	8.05
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/3/2005	3:50	NA	1.76	1.5	17.79	8.25	30.15	101.3	8.04
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/3/2005	9:10	void	1.70	0.5	18.59	8.2	29.6	107.3	8.4
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/3/2005	9:10	void	1.70	1.0	18.54	8.2	29.75	105.2	8.24
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/3/2005	9:10	void	1.70	1.5	18.51	8.2	29.78	104.3	8.17
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/3/2005	14:50	1.94	1.94	0.5	19.12	8.2	30.01	116.4	9.02

Table 3. Hydrology Data (Nov. 2-3, 2005) for the WRRI Project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									(m)	(C)	(units)	(ppt)	(%)	(mg/L)
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/3/2005	14:50	1.94	1.94	1.0	19.09	8.21	30.43	117.1	9.05
ROI06	Round Island	Marker 3	30 18' 36.9"	88 32' 41.1"	11/3/2005	14:50	1.94	1.94	1.5	19.17	8.22	30.52	117.8	9.08
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	15:50	void	7.00	0.5	19.2	7.9	13.08	112.2	9.6
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	15:50	NA	7.00	1.0	19	7.89	13.31	109.5	9.38
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	15:50	NA	7.00	1.5	18.91	7.88	13.43	108.6	9.32
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	15:50	NA	7.00	2.0	18.9	7.89	13.5	108.7	9.33
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	15:50	NA	7.00	3.0	18.71	7.86	13.79	103.9	8.95
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	15:50	NA	7.00	4.0	18.33	7.77	14.41	97.1	8.36
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	15:50	NA	7.00	5.0	18.23	7.74	14.54	92.2	7.96
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	15:50	NA	7.00	6.0	18.22	7.73	14.57	91.1	7.87
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	15:50	NA	7.00	6.5	18.21	7.72	14.58	90.7	7.84
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	21:20	NA	7.50	0.5	18.14	7.91	12.45	102.9	9.01
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	21:20	NA	7.50	1.0	18.37	7.83	13.56	99.2	8.56
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	21:20	NA	7.50	1.5	18.35	7.85	14.68	98.5	8.48
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	21:20	NA	7.50	2.0	18.3	7.85	15.13	96.2	8.25
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	21:20	NA	7.50	3.0	18.27	7.85	15.61	94.2	8.09
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	21:20	NA	7.50	4.0	18.25	7.86	15.76	93.7	8.04
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	21:20	NA	7.50	5.0	18.24	7.87	16.05	93.2	7.97
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	21:20	NA	7.50	6.0	18.24	7.87	16.07	93.1	7.97
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/2/2005	21:20	NA	7.50	6.5	18.24	7.87	16.15	92.6	7.92
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	3:30	NA	7.00	0.5	19.04	7.7	10.98	136.4	11.75
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	3:30	NA	7.00	1.0	18.71	7.65	12.2	130.1	11.33
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	3:30	NA	7.00	1.5	18.62	7.63	11.49	127.8	11.15
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	3:30	NA	7.00	2.0	18.48	7.62	12.39	126.7	11.04
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	3:30	NA	7.00	3.0	18.33	7.6	11.92	126.0	11.03
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	3:30	NA	7.00	4.0	18.25	7.6	12.27	127.7	11.16
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	3:30	NA	7.00	5.0	18.32	7.61	12.68	126.6	11.03
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	3:30	NA	7.00	6.0	18.27	7.65	13.01	129.0	11.25
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	3:30	NA	7.00	6.5	18.25	7.66	13.17	130.9	11.42
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	10:20	void	7.00	0.5	18.68	7.66	10.64	183.5	16.79
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	10:20	void	7.00	1.0	18.42	7.57	10.88	188.3	16.96
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	10:20	void	7.00	1.5	18.42	7.56	10.97	186.1	16.02
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	10:20	void	7.00	2.0	18.47	7.57	11	171.6	16.31

Table 3. Hydrology Data (Nov. 2-3, 2005) for the WRRI Project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									(m)	(C)	(units)	(ppt)	(%)	(mg/L)
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	10:20	void	7.00	3.0	18.25	7.49	11.27	161.6	14.1
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	10:20	void	7.00	4.0	18.2	7.46	11.43	159.1	14
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	10:20	void	7.00	5.0	18.2	7.46	11.67	156.9	13.79
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	10:20	void	7.00	6.0	18.23	7.45	11.96	131.7	12.13
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	10:20	void	7.00	6.5	18.27	7.44	12	121.2	11.25
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	15:25	void	7.00	0.5	19.23	7.76	12.25	107.2	4:19
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	15:25	void	7.00	1.0	18.79	7.68	12.34	96.3	8.31
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	15:25	void	7.00	1.5	18.73	7.64	12.57	89.9	7.77
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	15:25	void	7.00	2.0	18.73	7.64	12.67	87.4	7.54
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	15:25	void	7.00	3.0	18.82	7.68	13.02	85.9	7.36
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	15:25	void	7.00	4.0	18.74	7.71	13.35	84.3	7.25
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	15:25	void	7.00	5.0	18.36	7.66	13.98	77.3	6.64
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	15:25	void	7.00	6.0	18.29	7.64	14.13	73.6	6.36
PODO8	Popp's Ferry	Mouth of Big Lake	30 24' 57.3"	88 58' 40.6"	11/3/2005	15:25	void	7.00	6.5	18.22	7.63	14.29	71.6	6.19
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	14:00	void	10.00	0.5	20.83	8.22	10.49	126.8	10.81
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	14:00	void	10.00	1.0	20.07	8.2	10.47	129.9	11.07
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	14:00	void	10.00	1.5	19.24	7.22	11.18	102.6	8.88
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	14:00	void	10.00	2.0	18.8	7.51	11.67	86.5	7.53
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	14:00	void	10.00	2.5	18.75	7.49	11.69	86.0	7.51
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	20:00	void	12.00	0.5	20.15	7.89	10.81	112.1	9.55
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	20:00	void	12.00	1.0	19.38	7.77	11.6	103.3	8.89
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	20:00	void	12.00	1.5	18.88	7.73	12.4	99.1	8.85
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	20:00	void	12.00	2.0	18.61	7.67	13.01	93.5	8.07
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	20:00	void	12.00	3.0	18.52	7.69	13.5	93.6	8.08
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/2/2005	20:00	void	12.00	3.5	18.52	7.69	13.51	92.8	8.03
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	2:15	void	4.00	0.5	18.87	8.02	10.06	108.0	9.48
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	2:15	void	4.00	1.0	18.91	7.78	11.44	96.1	8.21
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	2:15	void	4.00	1.5	18.82	7.63	12.44	86.8	7.48
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	2:15	void	4.00	2.0	18.72	7.61	12.79	83.3	7.2
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	2:15	void	4.00	3.0	18.33	7.66	14.76	83.2	7.17
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	2:15	void	4.00	3.5	18.27	7.73	15.13	82.9	7.12
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	8:05	void	3.00	0.5	18.51	8.13	9.83	207.7	18.35
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	8:05	void	3.00	1.0	18.47	8.04	9.93	201.3	17.78

Table 3. Hydrology Data (Nov. 2-3, 2005) for the WRRI Project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									Depth (m)	Temperature (C)	pH (units)	Salinity (ppt)	DO (%)	DO (mg/L)
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	8:05	void	3.00	1.5	18.68	8.03	9.99	192.5	16.96
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	8:05	void	3.00	2.0	18.59	7.66	10.45	183.3	16.05
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	8:05	void	3.00	2.5	18.94	7.48	11.84	162.4	14
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	14:00	0.35	4.00	0.5	20.08	8.05	10.64	123.6	10.69
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	14:00	0.35	4.00	1.0	19.83	7.94	10.62	117.1	9.93
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	14:00	0.35	4.00	1.5	19.21	7.7	10.97	99.0	8.53
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	14:00	0.35	4.00	2.0	18.88	7.56	11.16	90.3	7.82
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	14:00	0.35	4.00	3.0	18.84	7.53	11.28	85.0	7.37
BBI14	Bayou Bernard	Industrial Seaway Mouth	30 24' 57.3"	89 00' 13.6"	11/3/2005	14:00	0.35	4.00	3.5	18.83	7.53	11.38	83.8	7.29
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/2/2005	15:15	1.25	3.30	0.5	18.96	7.97	17.43	109.7	9.09
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/2/2005	15:15	1.25	3.30	1.0	19.02	7.97	17.49	109.0	9.12
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/2/2005	15:15	1.25	3.30	1.5	19.06	7.97	17.48	108.5	9.07
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/2/2005	15:15	1.25	3.30	2.0	19	7.97	17.49	108.5	9.09
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/2/2005	15:15	1.25	3.30	3.0	18.91	7.98	17.53	108.2	9.06
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/2/2005	21:15	NA	3.18	0.5	18.19	8.07	17.54	101.8	8.66
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/2/2005	21:15	NA	3.18	1.0	18.13	8.07	17.55	102.3	8.7
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/2/2005	21:15	NA	3.18	1.5	18.12	8.08	17.55	102.6	8.74
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/2/2005	21:15	NA	3.18	2.0	18.11	8.08	17.55	102.9	8.76
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/2/2005	21:15	NA	3.18	3.0	18.11	8.08	17.55	102.8	8.75
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	2:30	NA	3.68	0.5	17.58	7.94	17.47	96.2	8.26
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	2:30	NA	3.68	1.0	17.59	7.96	17.47	95.4	8.2
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	2:30	NA	3.68	1.5	17.58	7.98	17.48	95.5	8.21
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	2:30	NA	3.68	2.0	17.59	7.98	17.48	95.6	8.22
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	2:30	NA	3.68	3.0	17.58	7.99	17.48	95.6	8.22
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	9:30	0.90	1.96	0.5	15.64	7.44	15.97	79.4	7.05
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	9:30	0.90	1.96	1.0	15.64	7.45	15.97	73.2	6.59
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	9:30	0.90	1.96	1.5	15.71	7.45	15.98	72.5	6.54
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	13:45	0.90	2.14	0.5	16.38	7.53	15.64	85.3	7.54
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	13:45	0.90	2.14	1.0	15.94	7.43	15.74	77.6	6.98
BAC19	Bayou Caddy	0.2 mi up Bayou from Mouth	30 14' 16.5"	89 25' 41.1"	11/3/2005	13:45	0.90	2.14	1.5	15.93	7.38	15.9	74.4	6.67
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	0.5	19.64	8.15	3.61	118.5	10.64
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	1.0	19.52	7.93	3.69	111.7	10.03
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	1.5	19.37	7.85	3.82	109.5	9.71

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Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									Depth (m)	Temperature (C)	pH (units)	Salinity (ppt)	DO (%)	DO (mg/L)
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	2.0	19.3	7.75	3.93	104.3	9.4
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	3.0	18.97	7.57	5.42	95.7	8.66
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	4.0	18.68	7.48	7.02	88.1	7.85
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	5.0	18.6	7.42	8.24	80.9	7.17
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	6.0	18.54	7.41	8.88	78.3	6.96
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	7.0	18.53	7.4	9.24	76.6	6.77
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	8.0	18.55	7.4	9.49	74.8	6.62
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	16:30	0.70	9.00	8.5	18.55	7.4	9.54	73.6	6.51
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	0.5	19.35	7.78	3.71	108.7	9.8
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	1.0	19.32	7.75	3.75	108.5	9.78
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	1.5	19.29	7.71	3.78	107.0	9.65
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	2.0	19.29	7.7	3.84	106.7	9.63
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	3.0	19.09	7.65	4.16	103.6	9.34
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	4.0	18.72	7.52	5.6	92.5	8.3
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	5.0	18.56	7.41	7.92	83.0	7.35
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	6.0	18.52	7.4	9.04	78.0	6.91
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	7.0	18.52	7.41	9.12	86.3	6.77
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	8.0	18.54	7.4	9.34	74.6	6.59
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/2/2005	20:00	NA	8.79	8.5	18.56	7.39	9.52	72.4	6.4
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	0.5	18.81	7.78	3.14	98.3	8.98
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	1.0	18.83	7.65	3.15	98.3	8.96
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	1.5	18.96	7.6	3.21	99.0	9.04
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	2.0	19.08	7.58	3.29	99.7	9.05
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	3.0	19.03	7.54	4.33	98.7	8.9
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	4.0	18.33	7.5	7.16	91.9	8.24
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	5.0	18.22	7.52	7.98	87.5	7.85
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	6.0	18.38	7.5	8.98	82.7	7.3
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	7.0	18.44	7.47	8.67	77.6	6.91
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	8.0	18.58	7.4	9.33	67.2	5.95
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	4:00	NA	9.55	9.0	18.66	7.34	9.63	63.3	5.57
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	0.5	18.58	7.57	3.22	92.3	6.48
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	1.0	18.53	7.47	3.27	88.5	6.13
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	1.5	18.68	7.4	3.5	87.0	7.96

Table 3. Hydrology Data (Nov. 2-3, 2005) for the WRRI Project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Site #	Name	Description	Latitude	Longitude	Date Collected	Time Collected	Secchi Disk (m)	Total Depth (m)	Hydrographic profiling					
									(m)	(C)	(units)	pH	Salinity (ppt)	DO (%)
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	2.0	18.97	7.36	3.85	86.9	7.89
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	3.0	18.66	7.31	5.2	83.4	7.5
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	4.0	18.54	7.29	7.79	76.4	6.83
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	5.0	18.52	7.32	8.42	73.3	6.51
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	6.0	18.51	7.34	8.55	72.8	6.48
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	7.0	18.51	7.35	8.74	72.0	6.4
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	8.0	18.55	7.34	8.95	70.3	6.22
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	8:10	0.70	9.05	8.5	18.59	7.33	9.11	67.4	5.96
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	14:40	0.65	8.07	0.5	19.91	8.02	3.3	125.8	11.32
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	14:40	0.65	8.07	1.0	1917	7.81	3.66	103.9	9.34
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	14:40	0.65	8.07	1.5	19.08	7.44	4.22	84.8	7.65
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	14:40	0.65	8.07	2.0	19	7.34	5.08	79.4	7
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	14:40	0.65	8.07	3.0	18.66	7.24	7.18	75.1	6.73
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	14:40	0.65	8.07	4.0	18.48	7.28	7.68	77.8	6.97
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	14:40	0.65	8.07	5.0	18.36	7.3	8.2	78.2	7
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	14:40	0.65	8.07	6.0	18.25	7.32	8.57	79.2	7.1
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	14:40	0.65	8.07	7.0	18.33	7.33	8.78	77.2	6.88
PER20	Pearl River	North of Hw 90 Bridge	30 14' 24.7"	89 36' 52.1"	11/3/2005	14:40	0.65	8.07	7.5	18.35	7.31	8.91	74.3	6.62
DAB23	Davis Bayou	Beach at Holcomb Blvd.	30 23' 37.8"	88 48' 37.2"	11/2/2005	14:00	0.70	1.00	0.5	18.63	7.85	11.2	111.4	9.74
DAB23	Davis Bayou	Beach at Holcomb Blvd.	30 23' 37.8"	88 48' 37.2"	11/2/2005	21:00	NA	1.00	0.5	17.94	8.14	12.23	96.4	8.49
DAB23	Davis Bayou	Beach at Holcomb Blvd.	30 23' 37.8"	88 48' 37.2"	11/3/2005	2:45	NA	1.00	0.5	17.22	8.04	23.15	94.8	7.93
DAB23	Davis Bayou	Beach at Holcomb Blvd.	30 23' 37.8"	88 48' 37.2"	11/3/2005	9:10	1.00	1.00	0.5	17.05	7.96	22.5	96.7	8.16
DAB23	Davis Bayou	Beach at Holcomb Blvd.	30 23' 37.8"	88 48' 37.2"	11/3/2005	14:45	1.00	1.00	0.5	19.73	8.17	21.35	120.4	9.7
WAV27	Waveland Beach	Beach at St. Claire Church	30 16' 37.1"	89 22' 25.2"	11/2/2005	14:00	0.85	0.85	0.5	21.9	7.7	18.41	107.8	8.98
WAV27	Waveland Beach	Beach at St. Claire Church	30 16' 37.1"	89 22' 25.2"	11/2/2005	20:00	N/A	1	0.5	13.2	7.79	18.73	94.7	7.98
WAV27	Waveland Beach	Beach at St. Claire Church	30 16' 37.1"	89 22' 25.2"	11/3/2005	2:00	N/A	0.88	0.5	18.27	7.84	20.24	99	8.25
WAV27	Waveland Beach	Beach at St. Claire Church	30 16' 37.1"	89 22' 25.2"	11/3/2005	8:00	0.82	0.82	0.5	17.38	7.72	19.29	93.6	7.97
WAV27	Waveland Beach	Beach at St. Claire Church	30 16' 37.1"	89 22' 25.2"	11/3/2005	14:00	0.86	0.86	0.5	19.64	7.86	18.08	109.3	8.99
ROA28	Rodenberg Ave.	Beach at Rodenberg Ave.	30 23' 32.6"	88 56' 17.5"	11/2/2005	14:00	void	void	void	void	void	void	void	void
ROA28	Rodenberg Ave.	Beach at Rodenberg Ave.	30 23' 32.6"	88 56' 17.5"	11/2/2005	20:00	NA	1.00	0.5	18.41	8.21	12.56	115.8	10.09
ROA28	Rodenberg Ave.	Beach at Rodenberg Ave.	30 23' 32.6"	88 56' 17.5"	11/3/2005	2:00	NA	1.00	0.5	16.86	8.2	12.48	106.0	9.6
ROA28	Rodenberg Ave.	Beach at Rodenberg Ave.	30 23' 32.6"	88 56' 17.5"	11/3/2005	8:15	1.00	1.00	0.5	16.11	8.17	25.89	105.5	8.88
ROA28	Rodenberg Ave.	Beach at Rodenberg Ave.	30 23' 32.6"	88 56' 17.5"	11/3/2005	14:00	void	void	void	void	void	void	void	void

Table 4. Nutrient data (Nov. 2-3, 2005) for WRRI project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

Station Code	Level	Sample Location	Latitude (°')	Longitude (°')	Date	Time	Sample Depth (m)	Turbidity (NTU)	Chlorophyll a (ug/L)	Pheo-a (ug/L)	Total Ammonia (mg/L-N)	Total Kjeldahl Nitrogen (mg/L-N)	Total Nitrate Nitrite (mg/L-N)	Total Phosphate (mg/L-P)	Total Suspended Solids (mg/L)	County
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	11/02/05	14:48	0.5	9.0	void	void	0.14	1.02	0.03	3.68	21	Jackson
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	11/02/05	14:48	0.5		void	void	0.14	0.64	< 0.02	4.19	20	Jackson
BCA03	Middle	Bayou Casotte	30 21 20.5	88 30 23.3	11/02/05	14:48	1.3	10.0	void	void	0.11	1.14	0.03	4.53	32	Jackson
BCA03	Middle	Bayou Casotte	30 21 20.5	88 30 23.3	11/02/05	14:48	1.3		void	void	0.12	0.91	0.02	3.51	25	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	11/02/05	14:48	2.0	8.0	void	void	< 0.10	0.69	0.02	2.17	49	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	11/02/05	14:48	2.0		void	void	< 0.10	0.97	0.03	2.54	18	Jackson
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	11/02/05	20:05	0.5	4.0	void	void	< 0.10	0.90	0.04	1.82	25	Jackson
BCA03	Middle	Bayou Casotte	30 21 20.5	88 30 23.3	11/02/05	20:05	1.3	4.0	void	void	< 0.10	0.67	0.03	1.41	10	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	11/02/05	20:05	2.0	6.0	void	void	< 0.10	0.61	0.02	1.50	31	Jackson
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	11/03/05	2:36	0.5	5.0	void	void	0.14	1.07	0.02	3.75	31	Jackson
BCA03	Middle	Bayou Casotte	30 21 20.5	88 30 23.3	11/03/05	2:36	1.0	8.0	void	void	0.15	0.83	0.02	3.94	14	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	11/03/05	2:36	1.5	5.0	void	void	0.15	0.72	0.02	3.39	21	Jackson
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	11/03/05	8:00	0.5	8.0	void	void	0.11	0.31	< 0.02	2.36	19	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	11/03/05	8:00	1.0	9.0	void	void	0.10	0.62	0.02	2.75	32	Jackson
BCA03	Surface	Bayou Casotte	30 21 20.5	88 30 23.3	11/03/05	14:00	0.5	6.0	void	void	0.15	0.70	0.03	2.81	17	Jackson
BCA03	Bottom	Bayou Casotte	30 21 20.5	88 30 23.3	11/03/05	14:00	1.0	9.0	void	void	0.11	0.42	< 0.02	2.77	23	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	11/02/05	17:26	0.5	3.0	void	void	< 0.10	0.72	0.04	0.06	47	Jackson
ROI06	Middle	Round Island	30 18 36.9	88 32 41.1	11/02/05	17:26	1.0	4.0	void	void	< 0.10	0.41	0.04	0.05	38	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	11/02/05	17:26	1.5	2.0	void	void	< 0.10	0.60	0.04	0.06	22	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	11/02/05	21:25	0.5	2.0	void	void	< 0.10	0.56	0.02	0.06	37	Jackson
ROI06	Middle	Round Island	30 18 36.9	88 32 41.1	11/02/05	21:25	1.0	2.0	void	void	< 0.10	0.55	0.04	0.05	72	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	11/02/05	21:25	1.5	2.0	void	void	< 0.10	0.46	0.03	0.05	35	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	11/03/05	3:50	0.5	2.0	void	void	< 0.10	0.33	0.04	0.04	20	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	11/03/05	3:50	0.5	2.0	void	void	< 0.10	0.31	0.04	0.06	13	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	11/03/05	3:50	1.0	2.0	void	void	< 0.10	0.76	0.04	0.04	9	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	11/03/05	3:50	1.0	2.0	void	void	< 0.10	0.58	0.03	0.10	11	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	11/03/05	9:10	0.5	3.0	void	void	< 0.10	0.48	< 0.02	0.05	5	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	11/03/05	9:10	1.0	3.0	void	void	< 0.10	0.28	0.03	0.04	13	Jackson
ROI06	Surface	Round Island	30 18 36.9	88 32 41.1	11/03/05	14:50	0.5	3.0	void	void	< 0.10	0.43	0.04	0.09	10	Jackson
ROI06	Bottom	Round Island	30 18 36.9	88 32 41.1	11/03/05	14:50	1.0	3.0	void	void	< 0.10	0.48	0.02	0.06	22	Jackson
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	11/02/05	15:50	0.5	6.0	void	void	< 0.10	0.60	0.04	0.06	13	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	11/02/05	15:50	3.5	7.0	void	void	< 0.10	0.79	0.03	0.08	14	Harrison
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	11/02/05	15:50	6.5	7.0	void	void	< 0.10	0.76	0.03	0.06	21	Harrison
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	11/02/05	21:20	0.5	6.0	void	void	< 0.10	0.87	0.07	0.13	23	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	11/02/05	21:20	3.5	6.0	void	void	< 0.10	0.87	0.04	0.09	24	Harrison
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	11/02/05	21:20	6.5	7.0	void	void	< 0.10	0.78	< 0.02	0.07	25	Harrison
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	11/03/05	3:30	0.5	9.0	void	void	< 0.10	0.45	0.07	0.06	10	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	11/03/05	3:30	3.5	9.0	void	void	< 0.10	0.58	0.07	0.05	13	Harrison
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	11/03/05	3:30	6.5	9.0	void	void	< 0.10	0.61	0.04	0.04	9	Harrison
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	11/03/05	10:20	0.5	10.0	void	void	< 0.10	0.60	0.08	0.05	11	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	11/03/05	10:20	3.0	8.0	void	void	< 0.10	0.71	0.04	0.05	6	Harrison
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	11/03/05	10:20	6.5	8.0	void	void	< 0.10	0.51	0.05	0.08	11	Harrison
POF08	Surface	Popp's Ferry	30 24 57.3	88 58 40.6	11/03/05	15:25	0.5	11.0	void	void	< 0.10	0.61	0.13	0.10	15	Harrison
POF08	Middle	Popp's Ferry	30 24 57.3	88 58 40.6	11/03/05	15:25	3.0	11.0	void	void	< 0.10	0.64	0.05	0.20	18	Harrison

Table 4. Nutrient data (Nov. 2-3, 2005) for WRRI project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

						Sample			Total	Total Kjeldahl	Total Nitrate	Total	Total Suspended			
POF08	Bottom	Popp's Ferry	30 24 57.3	88 58 40.6	11/03/05	15:25	6.5	11.0	void	void	< 0.10	0.61	0.04	0.06	14	Harrison
BBI14	Surface	Bayou Bernard	30 24 57.3	89 00 13.6	11/02/05	14:00	0.5	15.0	void	void	< 0.10	1.16	0.25	0.09	39	Harrison
BBI14	Middle	Bayou Bernard	30 24 57.3	89 00 13.6	11/02/05	14:00	4.5	13.0	void	void	< 0.10	0.44	0.18	0.10	15	Harrison
BBI14	Bottom	Bayou Bernard	30 24 57.3	89 00 13.6	11/02/05	14:00	9.5	11.0	void	void	< 0.10	0.28	0.11	0.06	19	Harrison
BBI14	Surface	Bayou Bernard	30 24 57.3	89 00 13.6	11/02/05	20:00	0.5	10.0	void	void	< 0.10	0.93	0.04	0.08	19	Harrison
BBI14	Middle	Bayou Bernard	30 24 57.3	89 00 13.6	11/02/05	20:00	5.5	9.0	void	void	< 0.10	0.38	0.05	0.06	17	Harrison
BBI14	Bottom	Bayou Bernard	30 24 57.3	89 00 13.6	11/02/05	20:00	11.5	9.0	void	void	< 0.10	0.66	0.06	0.09	14	Harrison
BBI14	Surface	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	2:15	0.5	11.0	void	void	< 0.10	0.90	0.16	0.11	20	Harrison
BBI14	Middle	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	2:15	2.0	9.0	void	void	< 0.10	0.46	0.06	0.07	15	Harrison
BBI14	Bottom	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	2:15	3.5	9.0	void	void	< 0.10	0.61	0.05	0.07	9	Harrison
BBI14	Surface	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	8:05	0.5	12.0	void	void	< 0.10	0.93	0.08	0.09	22	Harrison
BBI14	Surface	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	8:05	0.5	12.0	void	void	< 0.10	0.85	0.14	0.09	9	Harrison
BBI14	Middle	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	8:05	1.5	12.0	void	void	< 0.10	0.72	0.14	0.08	11	Harrison
BBI14	Middle	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	8:05	1.5	12.0	void	void	< 0.10	0.73	0.08	0.16	17	Harrison
BBI14	Bottom	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	8:05	2.5	20.0	void	void	< 0.10	0.99	0.12	0.14	23	Harrison
BBI14	Bottom	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	8:05	2.5	20.0	void	void	< 0.10	1.18	0.12	0.16	38	Harrison
BBI14	Surface	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	14:00	0.5	16.0	void	void	< 0.10	0.45	0.18	0.10	19	Harrison
BBI14	Middle	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	14:00	2.0	21.0	void	void	< 0.10	1.14	0.13	0.11	13	Harrison
BBI14	Bottom	Bayou Bernard	30 24 57.3	89 00 13.6	11/03/05	14:00	3.5	25.0	void	void	< 0.10	0.79	0.12	0.09	20	Harrison
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	11/02/05	15:15	0.5	6.0	void	void	< 0.10	0.75	< 0.02	0.12	9	Hancock
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	11/02/05	15:15	1.5	8.5	void	void	< 0.10	0.43	< 0.02	0.12	30	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	11/02/05	15:15	3.0	7.7	void	void	< 0.10	0.69	< 0.02	0.04	18	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	11/02/05	21:15	0.5	4.2	void	void	< 0.10	0.47	< 0.02	0.05	37	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	11/02/05	21:15	0.5		void	void	< 0.10	0.46	< 0.02	0.05	10	Hancock
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	11/02/05	21:15	1.5	4.3	void	void	< 0.10	0.49	< 0.02	0.04	18	Hancock
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	11/02/05	21:15	1.5		void	void	< 0.10	0.51	< 0.02	0.03	26	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	11/02/05	21:15	3.0	6.1	void	void	< 0.10	0.49	< 0.02	0.07	24	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	11/02/05	21:15	3.0		void	void	< 0.10	0.61	< 0.02	0.05	18	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	11/03/05	2:30	0.5	6.2	void	void	< 0.10	0.47	< 0.02	0.04	11	Hancock
BAC19	Middle	Bayou Caddy	30 14 16.5	89 25 41.1	11/03/05	2:30	1.5	12.4	void	void	< 0.10	0.41	< 0.02	0.08	13	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	11/03/05	2:30	3.0	11.2	void	void	< 0.10	0.33	< 0.02	0.05	19	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	11/03/05	9:30	0.5	7.5	void	void	< 0.10	0.43	< 0.02	0.09	14	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	11/03/05	9:30	1.5	13.6	void	void	< 0.10	0.56	< 0.02	0.09	18	Hancock
BAC19	Surface	Bayou Caddy	30 14 16.5	89 25 41.1	11/03/05	13:45	0.5	6.6	void	void	< 0.10	0.91	< 0.02	0.08	16	Hancock
BAC19	Bottom	Bayou Caddy	30 14 16.5	89 25 41.1	11/03/05	13:45	1.5	8.0	void	void	< 0.10	0.78	< 0.02	0.05	18	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	11/02/05	16:30	0.5	6.4	void	void	< 0.10	0.92	< 0.02	0.06	10	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	11/02/05	16:30	4.5	7.0	void	void	< 0.10	0.66	< 0.02	0.06	9	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	11/02/05	16:30	8.5	9.9	void	void	< 0.10	0.49	< 0.02	0.07	14	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	11/02/05	20:00	0.5	6.0	void	void	< 0.10	0.78	< 0.02	0.04	7	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	11/02/05	20:00	4.5	6.3	void	void	< 0.10	0.88	< 0.02	0.13	10	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	11/02/05	20:00	8.5	9.0	void	void	< 0.10	0.57	< 0.02	0.10	15	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	11/03/05	4:00	0.5	6.5	void	void	< 0.10	0.69	< 0.02	0.07	4	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	11/03/05	4:00	0.5		void	void	< 0.10	0.56	< 0.02	0.05	10	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	11/03/05	4:00	5.0	6.9	void	void	< 0.10	0.40	< 0.02	0.06	6	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	11/03/05	4:00	5.0		void	void	< 0.10	0.85	< 0.02	0.06	10	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	11/03/05	4:00	9.0	8.4	void	void	< 0.10	0.36	< 0.02	0.08	13	Hancock

Table 4. Nutrient data (Nov. 2-3, 2005) for WRRI project "Water Quality Standards: Establishing Nutrient Criteria for Mississippi's Coastal Waters"

						Sample			Total	Total Kjeldahl	Total Nitrate	Total	Total Suspended			
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	11/03/05	4:00	9.0	void	void	< 0.10	0.74	< 0.02	0.07	9	Hancock	
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	11/03/05	8:10	0.5	6.9	void	void	< 0.10	0.63	< 0.02	0.04	10	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	11/03/05	8:10	4.5	5.9	void	void	< 0.10	0.55	< 0.02	0.04	13	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	11/03/05	8:10	8.5	11.1	void	void	< 0.10	0.48	< 0.02	0.06	15	Hancock
PER20	Surface	Pearl River	30 14 24.7	89 36 52.1	11/03/05	14:40	0.5	8.8	void	void	< 0.10	1.04	< 0.02	0.08	8	Hancock
PER20	Middle	Pearl River	30 14 24.7	89 36 52.1	11/03/05	14:40	3.5	5.6	void	void	< 0.10	0.71	< 0.02	0.04	6	Hancock
PER20	Bottom	Pearl River	30 14 24.7	89 36 52.1	11/03/05	14:40	7.5	8.7	void	void	< 0.10	0.37	< 0.02	0.13	13	Hancock
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	11/02/05	14:40	0.5	10.0	void	void	< 0.10	0.57	0.03	0.10	23	Jackson
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	11/02/05	21:00	0.5	5.0	void	void	< 0.10	0.45	< 0.02	0.04	17	Jackson
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	11/03/05	2:45	0.5	5.0	void	void	< 0.10	0.91	< 0.02	0.05	21	Jackson
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	11/03/05	9:10	0.5	8.0	void	void	< 0.10	0.51	< 0.02	0.10	22	Jackson
DAB23	Surface	Davis Bayou	30 23 37.8	88 48 37.2	11/03/05	14:45	0.5	10.0	void	void	< 0.10	0.61	< 0.02	0.05	12	Jackson
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	11/02/05	14:00	0.5	4.0	void	void	< 0.10	0.77	< 0.02	0.08	17	Hancock
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	11/02/05	20:00	0.5	5.0	void	void	< 0.10	0.75	< 0.02	0.05	11	Hancock
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	11/03/05	2:00	0.5	3.0	void	void	< 0.10	0.61	0.02	0.10	11	Hancock
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	11/03/05	8:00	0.5	4.0	void	void	< 0.10	0.51	< 0.02	0.05	6	Hancock
WAV27	Surface	Waveland Beach	30 16 37.1	89 22 25.2	11/03/05	14:00	0.5	3.0	void	void	< 0.10	0.27	< 0.02	0.06	8	Hancock
ROA28	Surface	Rodenberg Avenue	30 23 32.6	88 56 17.5	11/02/05	14:00	0.5		void	void	< 0.10	0.65	< 0.02	0.05	60	Harrison
ROA28	Surface	Rodenberg Avenue	30 23 32.6	88 56 17.5	11/02/05	20:00	0.5	3.0	void	void	< 0.10	0.24	< 0.02	0.08	46	Harrison
ROA28	Surface	Rodenberg Avenue	30 23 32.6	88 56 17.5	11/03/05	2:00	0.5	2.0	void	void	< 0.10	0.39	< 0.02	0.05	14	Harrison
ROA28	Surface	Rodenberg Avenue	30 23 32.6	88 56 17.5	11/03/05	8:00	0.5	3.0	void	void	< 0.10	0.29	< 0.02	0.05	8	Harrison
ROA28	Surface	Rodenberg Avenue	30 23 32.6	88 56 17.5	11/03/05	14:00	0.5		void	void	< 0.10	0.67	< 0.02	0.07	5	Harrison

*Chlorophyll a samples were stored in an ultralow freezer that failed. Samples had to be discarded.