

GRAND BAYOU WATERSHED TMDL FOR
BIOCHEMICAL OXYGEN-DEMANDING SUBSTANCES

Subsegment 120206

SURVEYED June 22-28, 2004

TMDL REPORT

By:

Water Quality Modeling / TMDL Section
Water Permits Division
Office of Environmental Services
Louisiana Department of Environmental Quality

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FTN Associates, Ltd.

EXECUTIVE SUMMARY

This report presents the results of a watershed based, calibrated modeling analysis of Grand Bayou. The modeling was conducted to establish a TMDL for biochemical oxygen-demanding pollutants for this watershed, which is located in south-eastern Louisiana and is part of the Terrebonne Basin. The area of the subsegment is sparsely populated and land use is dominated by agriculture and wetland forest.

The TMDL in this report was originally developed by LDEQ during 2007-2008 based on the DO criterion that was effective at that time (5.0 mg/L year round). The final report was dated March 31, 2008 and was approved by EPA. Since that time, the DO criterion for this subsegment has been revised to 2.3 mg/L for March through November and 5.0 mg/L for December through February. During 2010, this TMDL has been revised by FTN Associates, LTD to reflect the new DO criteria. This revision also incorporated changes in the inventory of point source dischargers since the 2008 report. Once the inventory of dischargers was revised, the calibrated model (unchanged from 2008) was rerun to simulate the impact from both point and nonpoint sources of oxygen demand on the level of DO under critical conditions for summer and winter. TMDLs for oxygen-demanding substances were recalculated based upon the new model results.

The model for Grand Bayou, Water Quality Subsegment 120206, begins at the confluence of Grand Bayou and Bayou Sigur south of the town of White Castle, LA. The watershed is 406.37 square kilometers (156.9 square miles) in area. Grand Bayou includes the following tributaries: Bayou Sigur, Muddy Bayou, Bayou Bijou, Bayou Crouix, Bayou Choupique, Bayou Corne, Bayou Alcide, Little Bayou Long, and several unnamed tributaries. Little Grand Bayou is a distributary of Grand Bayou and includes the following tributaries: Westfield Canal, Whitmel Canal, and a few unnamed tributaries.

Fifteen permitted facilities were addressed in the TMDL effort. Twelve of these discharge into the Grand Bayou system and three discharge into the Little Grand Bayou system. Only two, Gator Super Stop and Chevron Pipe Line Company, is a direct input included in the model. Cora-Texas sugar mill and Westfield sugar mill do not discharge during the critical times of the year nor did they discharge during the survey period. The residual impacts of the sugar mills are accounted for as nonpoint loading during calibration. The remaining eleven dischargers were either too small or too far away to have an impact and are also accounted for as nonpoint loading through the calibration process. They fall under one of several state or regional policies that govern permit limitations.

Input data for the calibration model was developed from data collected during the June, 2004 intensive survey of Grand Bayou; data collected by LDEQ and USGS at monitoring stations in the watershed; the LDEQ Reference Stream Study; permits and permit applications for each of the point source dischargers; USGS drainage area and low flow publications; and data garnered from several previous LDEQ studies on non-point source loadings. A satisfactory calibration was achieved for both Grand Bayou and Little Grand Bayou. For the projection models, data was taken from the current municipal discharge permits, current applications and ambient temperature records. The Louisiana TMDL Technical Procedures manual (dated 05/26/2010) has been followed in this study.

The various spreadsheets that were used in conjunction with the modeling program may be found in the appendices. Projections are adjusted to meet the dissolved oxygen criteria by reducing total

nonpoint source loads. Modeling was limited to low flow scenarios for the calibration and the projections since the constituent of concern was dissolved oxygen and the available data was limited to low flow conditions. The model used was LAQUAL, a modified version of QUAL-TX, which has been adapted to address specific needs of Louisiana waters.

Grand Bayou, Subsegment 120206, appeared on the 2002 and 2004 303(d) lists. It was found to be “not supporting” its designated uses of primary contact recreation, secondary contact recreation, and fish and wildlife propagation. The subsegment was subsequently scheduled for TMDL development with other listed waters in the Terrebonne Basin. The suspected causes of impairment were low dissolved oxygen (DO), total fecal coliform, and total suspended solids (TSS). This TMDL addresses the low dissolved oxygen (DO) impairment.

This TMDL establishes load limitations for oxygen-demanding substances and goals for reduction of those pollutants. LDEQ’s position is that when oxygen-demanding loads from point and nonpoint sources are reduced in order to ensure that the dissolved oxygen criterion is supported, nutrients are also reduced. The implementation of this TMDL through wastewater discharge permits and implementation of best management practices to control and reduce runoff of soil and oxygen-demanding pollutants from nonpoint sources in the watershed will also reduce the nutrient loading from those sources.

Louisiana does not have numeric nutrient criteria at the present time. LDEQ is developing numeric nutrient criteria for waterbody types based on ecoregions in accordance with LDEQ’s plan “Developing Nutrient Criteria for Louisiana 2006” which can be found at:

<http://www.deq.louisiana.gov/portal/Portals/0/planning/LA%20Nutrient%20Strategy%20Plan%20Final%20FOR%20WEB.pdf>

Water body types for nutrient criteria development in Louisiana are 1) inland rivers and streams; 2) freshwater wetlands; 3) freshwater lakes and reservoirs; 4) big rivers and floodplains/boundary rivers and associated water bodies; and 5) estuarine and coastal waters (including up to Louisiana's three mile boundary in the Gulf of Mexico). Proposed approaches for nutrient criteria development are currently under review by LDEQ and EPA. Nutrient criteria can be implemented upon state promulgation and EPA approval as per 40 CFR 131.21.

LDEQ recommends that all facilities discharging to impaired waterbodies take a proactive approach and prepare to receive nutrient limitations in the near future. Such a proactive approach should include nutrient monitoring and documentation through facility Discharge Monitoring Reports (DMRs) in order to assess their nutrient loads and the need to modify their treatment processes for nutrient removal.

The results of projection modeling for Grand Bayou show that the water quality standard for dissolved oxygen of 5.0 mg/L from December through February and 2.3 mg/L from March through November will require man made nonpoint sources to be reduced by 92% in the winter projection and 89% in the summer projection. This results in a minimum DO of 6.73 mg/L for the winter projection and a minimum DO of 3.56 mg/L for the summer projection.

Table 1. Total Maximum Daily Load (Sum of UBOD and SOD) for Grand Bayou

ALLOCATION	SUMMER (Mar. – Nov.)		WINTER (Dec. – Feb.)	
	% Reduction Required	Load (lbs/day)	% Reduction Required	Load (lbs/day)
Point Source WLA	0	5,689	0	5,689
Point Source Reserve MOS = 20%		1,422		1,422
Natural Nonpoint Source LA	0	6,370	0	4,450
Manmade Nonpoint Source LA	89	1,446	92	811
Manmade Nonpoint Source Reserve MOS Summer = 20% Winter = 20%		362		203
TMDL		15,289		12,575

***Note 1: UBOD as stated in this allocation is Ultimate BOD.
 UBOD to BOD₅ ratio = 2.3 for all treatment levels
 Permit allocations are generally based on BOD₅***

Summertime projection modeling for Little Grand Bayou also show that the water quality standard for dissolved oxygen of 5.0 mg/L from December through February and 2.3 mg/L from March through November will require man made sources to be reduced by 92% in the winter projection and 89% in the summer projection. This results in a minimum DO of 5.26 mg/L for the winter projection and a minimum DO of 2.51 mg/L for the summer projection.

Table 2. Total Maximum Daily Load (Sum of UBOD and SOD) for Little Grand Bayou

ALLOCATION	SUMMER (Mar. – Nov.)		WINTER (Dec. – Feb.)	
	% Reduction Required	Load (lbs/day)	% Reduction Required	Load (lbs/day)
Point Source WLA	0	1,669	0	1,669
Point Source Reserve MOS = 20%		417		417
Natural Nonpoint Source LA	0	1,001	0	900
Manmade Nonpoint Source LA	89	1,153	92	783
Manmade Nonpoint Source Reserve MOS Summer = 20% Winter = 20%		289		196
TMDL		4,529		3,965

***Note 1: UBOD as stated in this allocation is Ultimate BOD.
 UBOD to BOD₅ ratio = 2.3 for all treatment levels
 Permit allocations are generally based on BOD₅***

LDEQ will work with other agencies such as local Soil Conservation Districts to implement agricultural best management practices in the watershed through the 319 programs. LDEQ will also continue to monitor the waters to determine whether standards are being attained.

In accordance with Section 106 of the federal Clean Water Act and under the authority of the Louisiana Environmental Quality Act, the LDEQ has established a comprehensive program for monitoring the quality of the state's surface waters. The LDEQ Surveillance Section collects surface water samples at various locations, utilizing appropriate sampling methods and procedures for ensuring the quality of the data collected. The objectives of the surface water monitoring program are to determine the quality of the state's surface waters, to develop a long-term data base for water quality trend analysis, and to monitor the effectiveness of pollution controls. The data obtained through the surface water monitoring program is used to develop the state's biennial 305(b) report (*Water Quality Inventory*) and the 303 (d) list of impaired waters. This information is also utilized in establishing priorities for the LDEQ nonpoint source program.

The LDEQ is continuing to implement a watershed approach to surface water quality monitoring. In 2004 a four year sampling cycle replaced the previous five year cycle. Approximately one quarter of the states watersheds will be sampled in each year so that all of the states watersheds will be sampled within the four year cycle. This will allow the LDEQ to determine whether there has been any improvement in water quality following implementation of the TMDLs. As the monitoring results are evaluated at the end of each year, waterbodies may be added to or removed from the 303(d) list.

Table 3. Point Source TMDL Summary for Subsegment 120206, Grand Bayou

FACILITY	AI No / PERMIT No	PERMIT EXPIRATION DATE	Out-fall No.	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS*		MODELING COMMENTS
				GPD	BOD5 / CBOD5, mg/L	NH3-N, mg/L	GPD	GPD	BOD5 / CBOD5, mg/L	NH3-N, mg/L	
Super Stop Enterprises – Gator Super Stop Truck Stop	93668 / LAG541081	07/01/2013	001	7,760	30		9,700	1,940	30		Included in Grand Bayou model
Chevron Pipe Line Co - Napoleonville Storage Facility	27281 / LAG531936	12/01/2012	001	245	45		306	61	45		Included in Grand Bayou model
Texas Eastern Transmission Corp – White Castle Compressor Station	7359 / LA0107212	11/01/2010	002	10	45 (Daily Max)		13	3	45 (Daily Max)		No impact – Not modeled but included in TMDL
Southern Natural Gas Co. – White Castle Compressor Station	4197 / LAG480530	08/01/2006	002	140	45		175	35	45		No impact – Not modeled but included in TMDL
Gulf South Pipeline Co. – Rodrigue Compressor Station	98149 / LAG531262	12/01/2012	001	120	45		150	30	45		No impact – Not modeled but included in TMDL
Assumption Parish Police Jury – Belle Rose Lane Sewerage District	98165 / LAG540954	07/01/2013	001	14,300	30		17,875	3,575	30		No impact – Not modeled but included in TMDL
Bayou Corne Sewer Co. Inc. – Sportsman’s Paradise Subdivision	41241 / LAG540036	08/28/2002	001	15,200	30		19,000	3,800	30		No impact – Not modeled but included in TMDL

*NOTE: No permit limits need to be modified as a result of this TMDL.

Table 3 Continued. Point Source TMDL Summary for Subsegment 120206, Grand Bayou

FACILITY	AI No / PERMIT No	PERMIT EXPIRATION DATE	Out-fall No.	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS*		MODELING COMMENTS
				GPD	BOD5 / CBOD5, mg/L	NH3-N, mg/L	GPD	GPD	BOD5 / CBOD5, mg/L	NH3-N, mg/L	
No Problem Raceway Park	86479 / LAG541191	07/01/2013	001	23,860	30		29,825	5,965	30		No impact – Not modeled but included in TMDL
St. Elizabeth School	87130 / LAG531143	12/01/2012	001	4,050	30		5,063	1,013	30		No impact – Not modeled but included in TMDL
Lowery Elementary School	154685 / LAG541616	07/01/2013	001	9,000	30		11,250	2,250	30		No impact – Not modeled but included in TMDL
Lula Westfield LLC – Westfield Raw Sugar Factory	42344 / LA0000485	05/01/2015	001	4,430,000	10		5,537,500	1,107,500	10		Not discharging at time of survey or during critical conditions – Not modeled but included in TMDL
Lula Westfield LLC – Lula Raw Sugar Factory	4182 / LA0007382	05/01/2015	001 & 002	6,460,000 (combined)	10		8,075,000	1,615,000	10		Discharges into a tributary that had no measureable flow during survey – Not modeled but included in TMDL
Cora-Texas Manufacturing Co.	1306 / LA0001295	09/01/2015	002	13,000,000	10		16,250,000	3,250,000	10		Not discharging at time of survey or during critical conditions – Not modeled but included in TMDL
Acadian Gas Storage Facility	25004 / LAG531692	12/01/2012	001	60	45		75	15	45		No impact – Not modeled but included in TMDL
Grant Loop Community Sewer System	116873 / LAG541277	07/01/2013	001	17,200	30		21,500	4,300	30		No impact – Not modeled but included in TMDL

*NOTE: No permit limits need to be modified as a result of this TMDL.

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1. Introduction

The TMDL in this report was originally developed by LDEQ during 2007-2008 based on the DO criterion that was effective at that time (5.0 mg/L year round). The final report was dated March 31, 2008 and was approved by EPA. Since that time, the DO criterion for this subsegment has been revised to 2.3 mg/L for March through November and 5.0 mg/L for December through February. During 2010, this TMDL has been revised by FTN Associates, LTD to reflect the new DO criteria. This revision also incorporated changes in the inventory of point source dischargers since the 2008 report. Once the inventory of dischargers was revised, the calibrated model (unchanged from 2008) was rerun to simulate the impact from both point and nonpoint sources of oxygen demand on the level of DO under critical conditions for summer and winter. TMDLs for oxygen-demanding substances were recalculated based upon the new model results

Grand Bayou appeared on the 2002 and 2004 303(d) lists. Grand Bayou, Subsegment 120206, was found to be “not supporting” its designated uses of primary contact recreation, secondary contact recreation, and fish and wildlife propagation. The subsegment was subsequently scheduled for TMDL development with other listed waters in the Terrebonne Basin. The suspected causes of impairment were low dissolved oxygen (DO), total fecal coliform, and total suspended solids (TSS). This TMDL addresses the low DO impairment.

A calibrated water quality model was developed for the watershed, which includes a separate model of Little Grand Bayou as a distributary of Grand Bayou. Summer and winter projections of Grand Bayou and Little Grand Bayou were modeled to quantify the point source and non-point source waste load reductions necessary in order for the bayous to comply with established water quality standards and criteria. This report presents the results of those analyses. The modeling is consistent with the Louisiana TMDL Technical Procedures Manual (the “LTP”) (LDEQ 2010a).

2. Study Area Description

2.1 General Information

The Terrebonne Basin covers an area extending approximately 120 miles from the Mississippi River on the north to the Gulf of Mexico on the south. It varies in width from 18 miles to 70 miles. This basin is bounded on the west by the Atchafalaya River Basin and on the east by the Mississippi River and Bayou LaFourche. The topography of the entire basin is lowland, and all the land is subject to flooding except the natural levees along major waterways. The coastal portion of the basin is prone to tidal flooding and consists of marshes ranging from fresh to saline. (LDEQ, 1994)

Louisiana water quality subsegment 120206, Grand Bayou, is in the central part of the Terrebonne Basin. The subsegment has a drainage area of 406.37 square kilometers (156.9 square miles). It is bounded on the north by the Mississippi River, on the east by Bayou Lafourche, on the west by the Lower Grand and Belle Rivers and on the south by Lake Verret. Grand Bayou begins south of the town of White Castle, LA and flows southward until reaching Lake Verret. Little Grand Bayou is a distributary of Grand Bayou and splits nearly 9 kilometers before Grand Bayou reaches Lake Verret. Beyond this point, Grand Bayou flows in a southwest direction while Little Grand Bayou flows southeast to Lake Verret.

This TMDL addresses Grand Bayou and Little Grand Bayou located in the Terrebonne Basin from the headwaters to Lake Verret. This area is typical of the basin and is primarily agriculture/cropland/grassland and wetland forest deciduous as documented in Table 8.

A detailed land cover map of Subsegment 120206 is also included in Appendix H2. Average annual precipitation in the segment, based on the nearest Louisiana Climatic Station, is 64 inches based on a 30-year period of record (LSU, 1999). There is a Louisiana average annual precipitation map located in Appendix H3.

Table 4. Land Uses in Subsegment 120206, Grand Bayou

LAND USE	SQUARE KILOMETERS	PERCENT
Agriculture/Cropland/Grassland	194.96	47.98
Wetland Forest Deciduous	162.22	39.92
Water	24.85	6.11
Vegetated Urban	14.14	3.48
Fresh Marsh	3.84	0.94
Upland Forest Mixed	3.11	0.77
Wetland S/S Deciduous	2.29	0.56
Non-Vegetated Urban	0.55	0.14
Upland S/S Mixed	0.21	0.05
Upland Forest Deciduous	0.08	0.02
Upland Barren	0.05	0.01
Wetland Barren	0.03	0.01
Upland S/S Deciduous	0.02	0.01
Upland Forest Evergreen	0.02	0.00
Upland S/S Evergreen	0.00	0.00
Total	406.37	100%

Figure 1. Vector Diagram for Grand Bayou

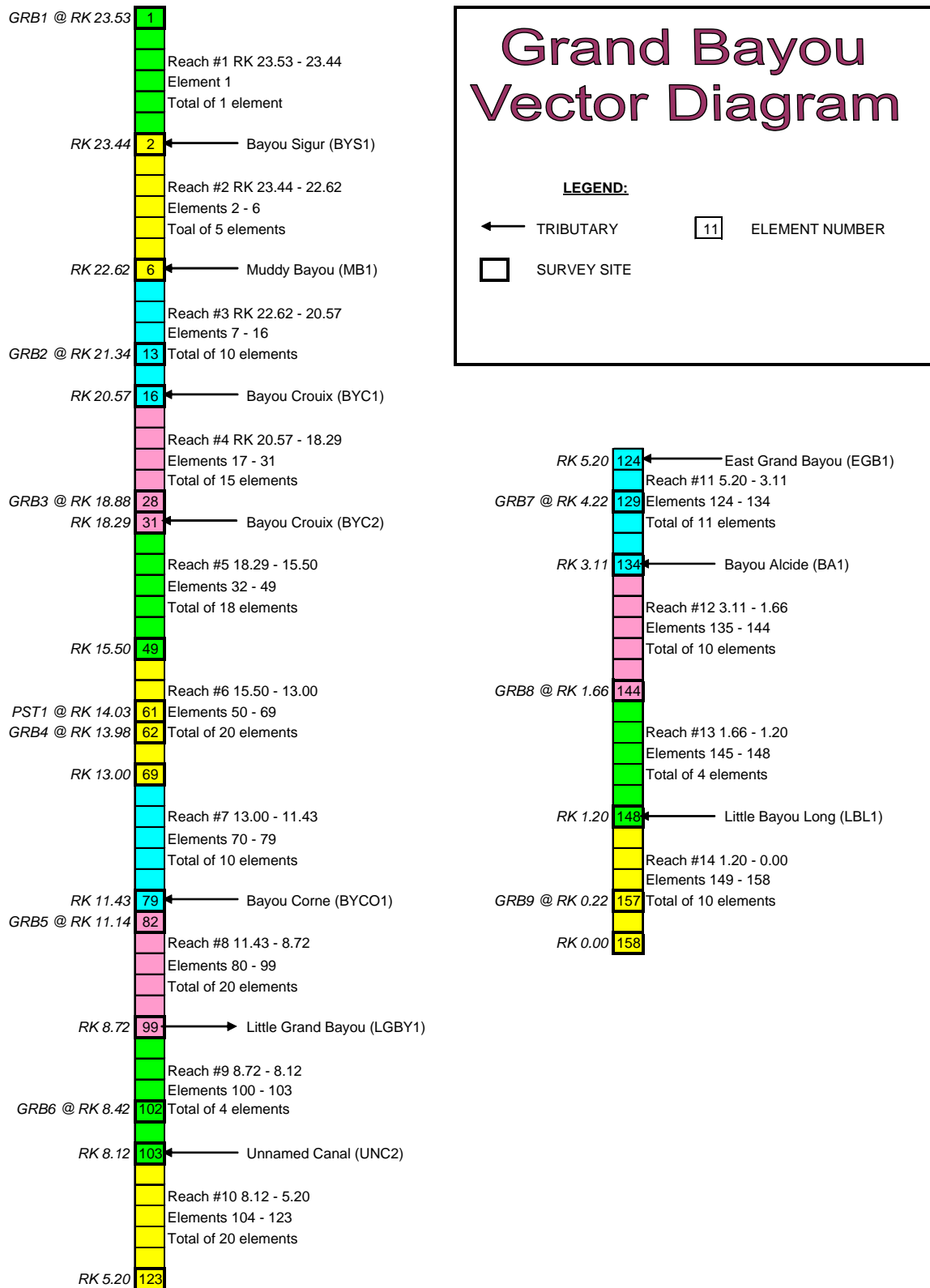


Figure 2. Vector Diagram for Little Grand Bayou

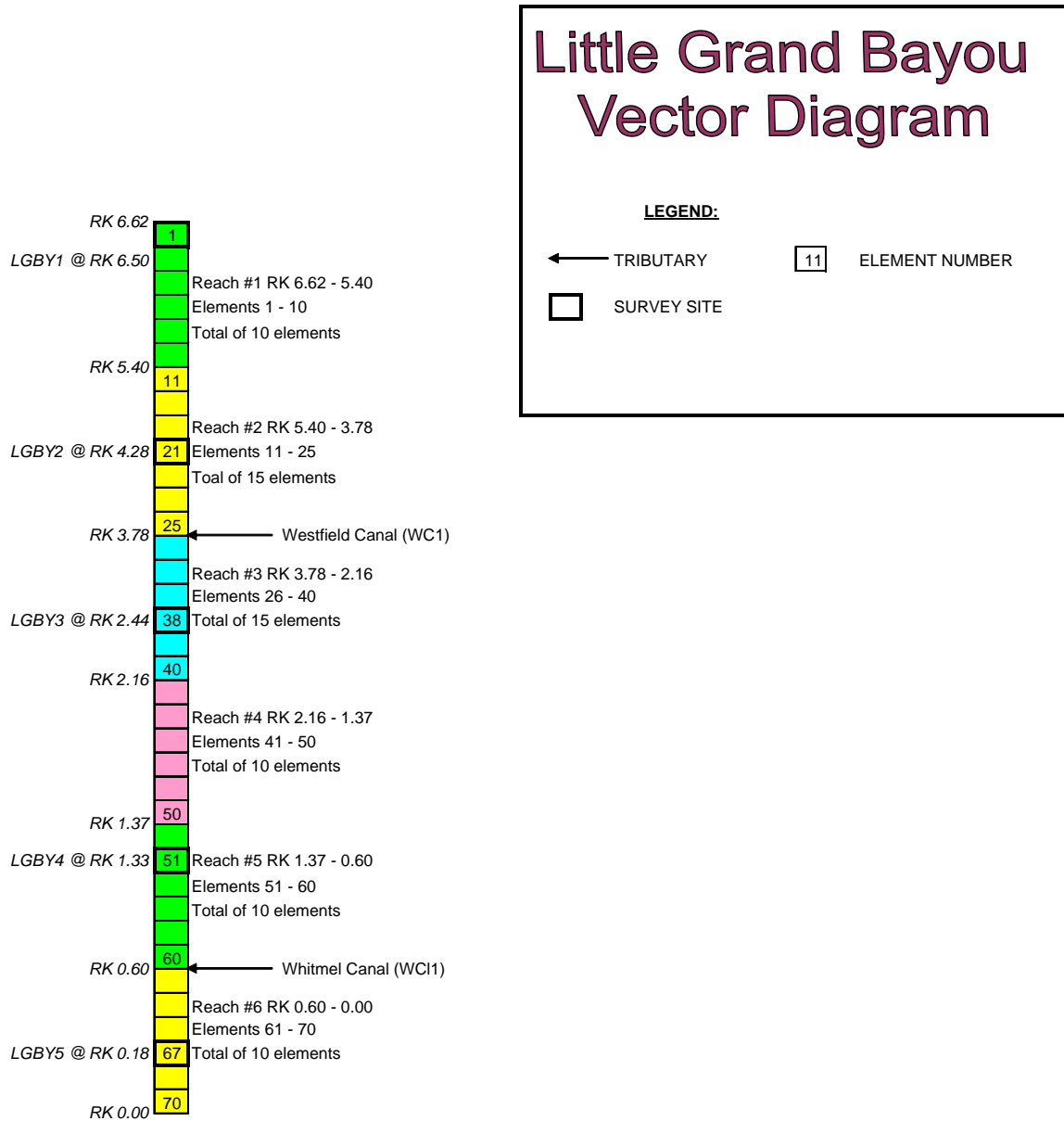


Figure 3. Map of Upper Grand Bayou Study Area

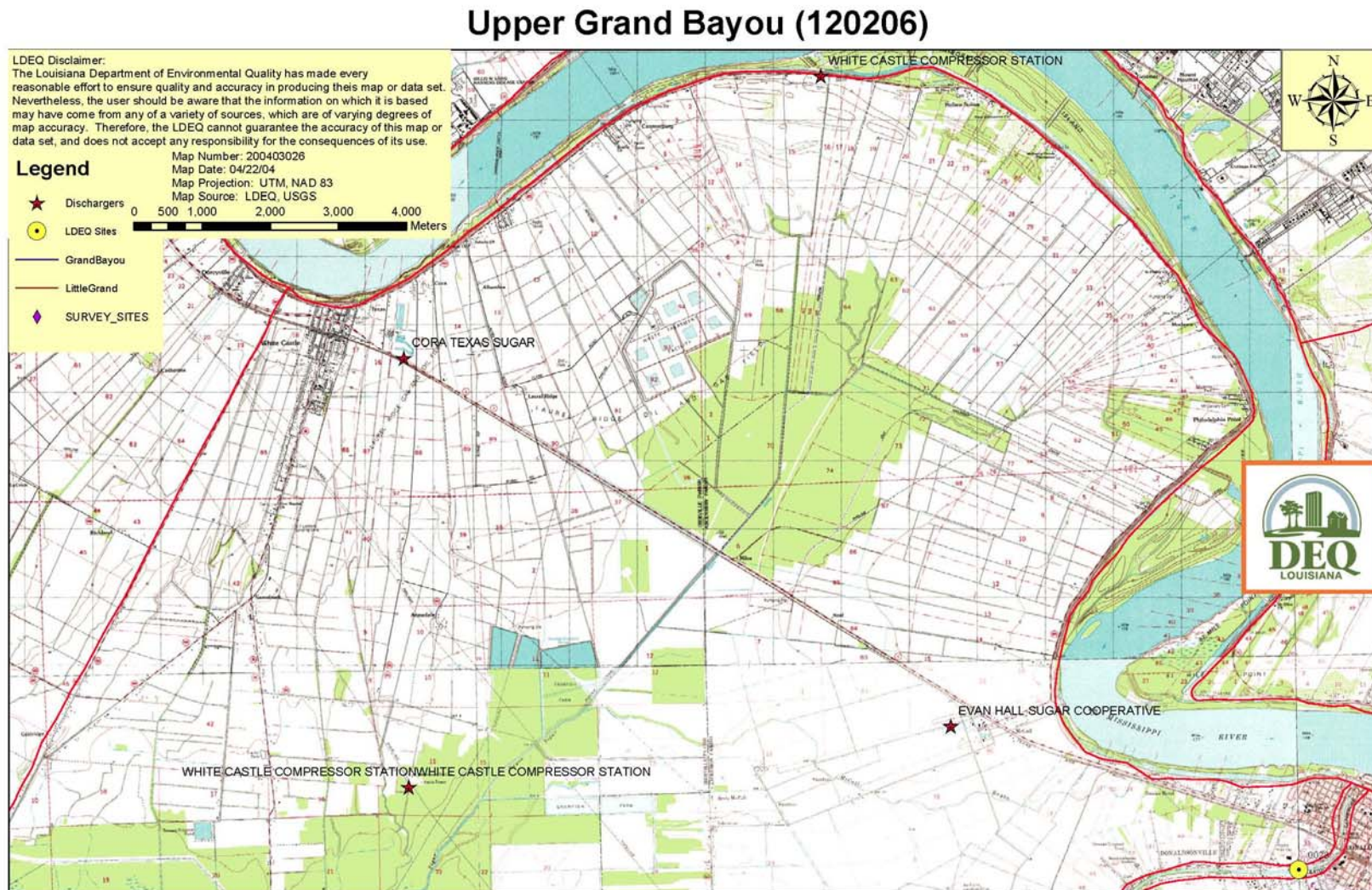


Figure 4. Map of Middle Grand Bayou Study Area

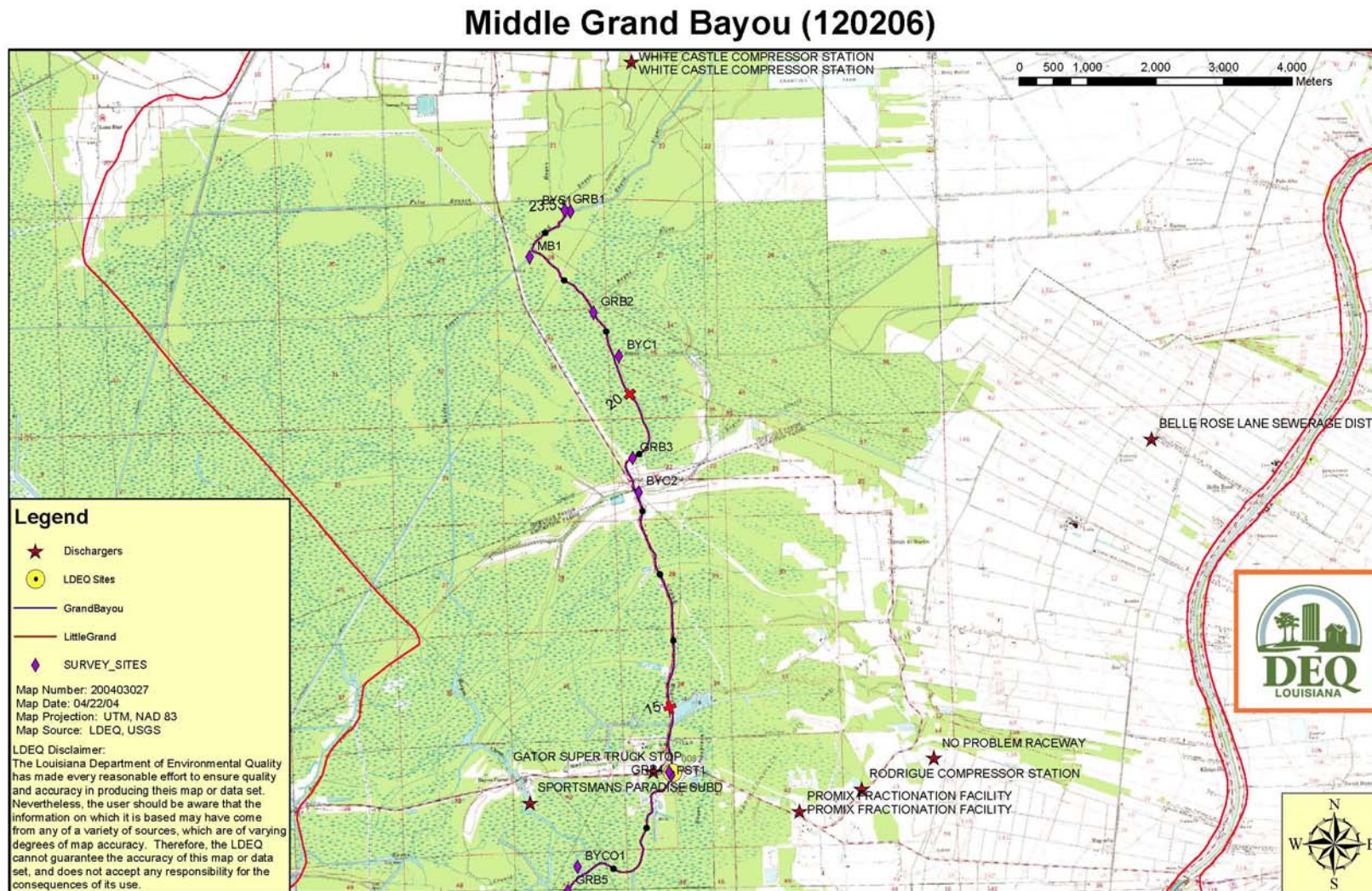


Figure 5. Map of Lower Grand Bayou Study Area

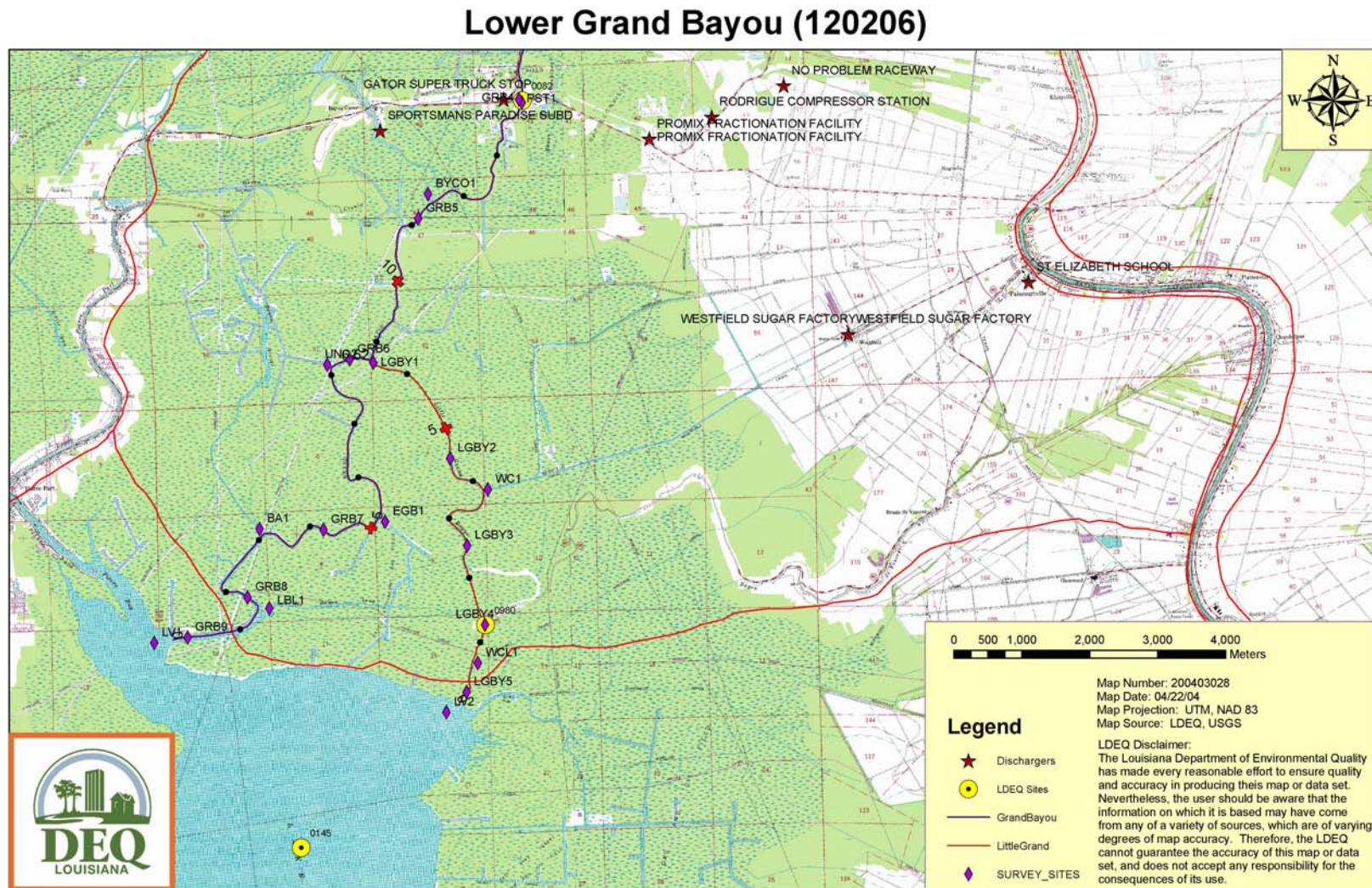
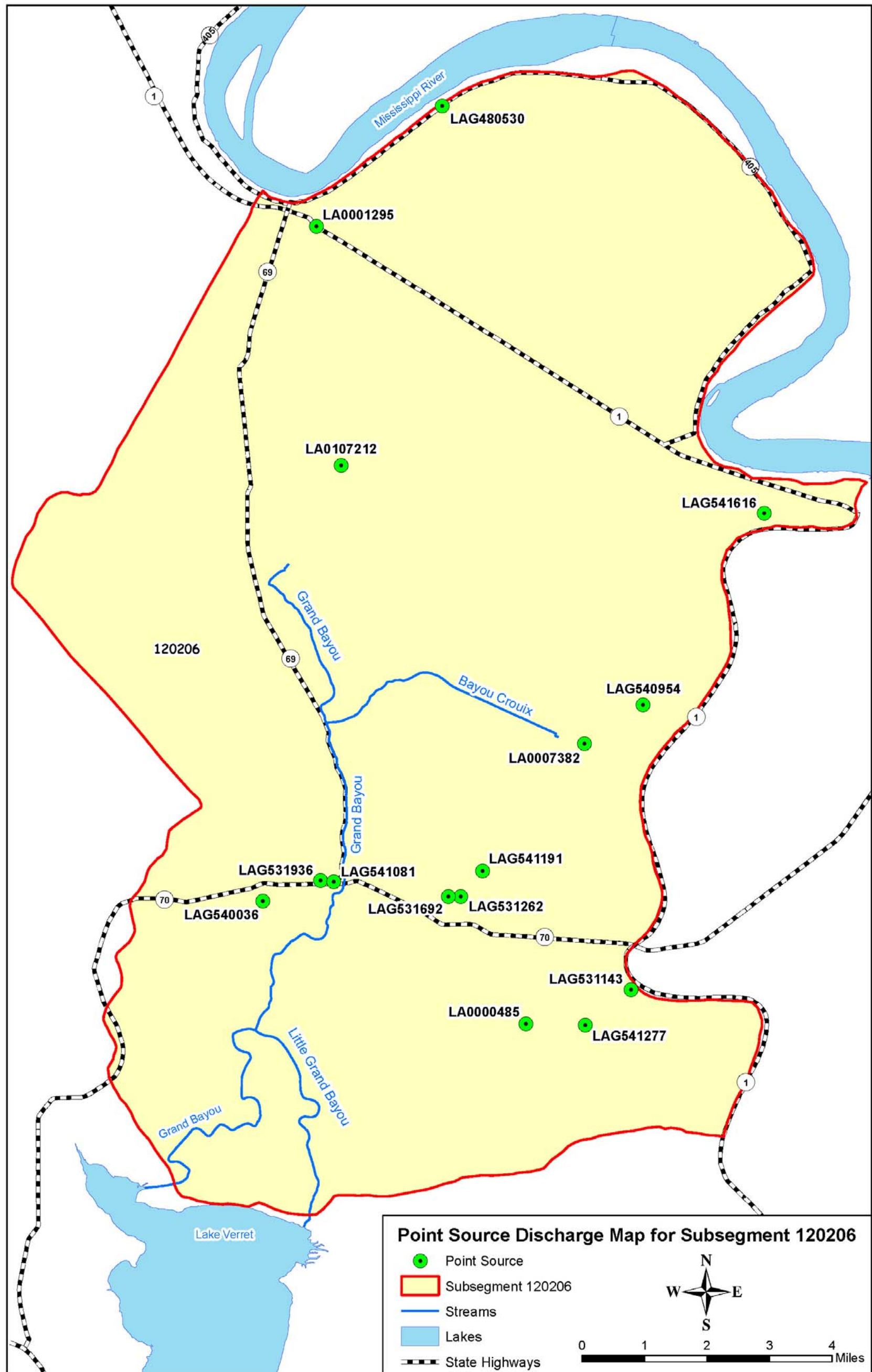


Figure 6. Point Source Discharge Map



2.2 Water Quality Standards

The Water Quality criteria and designated uses for the Grand Bayou watershed are shown in Table 5.

Table 5. Water Quality Numeric Criteria and Designated Uses (LDEQ 2010b).

Subsegment	120206
Stream Description	Grand Bayou and Little Grand Bayou—Headwaters to Lake Verret
Designated Uses	A, B, C
Criteria:	
C1	60 mg/L
SO ₄	40 mg/L
DO	5.0 mg/L Dec. – Feb. ; 2.3 mg/L Mar. – Nov.
pH	6.0-8.5 su
Bacteria	Note 1
Temp.	32 °C
TDS	300 mg/L

USES: A – primary contact recreation; B - secondary contact recreation; C – propagation of fish and wildlife; D – drinking water supply; E – oyster propagation; F – agriculture; G – outstanding natural resource water; L – limited aquatic life and wildlife use.

Note 1 – 200 colonies/100mL maximum log mean and no more than 25% of samples exceeding 400 colonies/100mL for the period May through October; 1,000 colonies/100mL maximum log mean and no more than 25% of samples exceeding 2,000 colonies/100mL for the period November through April.

2.3 Wastewater Discharges

A review of the inventory for Grand Bayou showed a total of 15 permitted facilities. The facilities were evaluated based on the volume and type of discharge, location relative to the listed waterbody, and best professional judgment. Cora Texas Manufacturing, Lula Raw Sugar Factory, Westfield Raw Sugar Factory, Texas Eastern Transmission, Southern Natural Gas, Acadian Gas Storage Facility, Sportmans Paradise Subdivision, Assumption Parish Police Jury, No Problem Raceway Park, Lowery Elementary School, Grant Loop Community Sewer System, Rodrigue Compressor Station, and St. Elizabeth School were judged to have no impact because of their size and the distance traveled before reaching Grand Bayou or Little Grand Bayou. Neither Cora-Texas Manufacturing nor Westfield Sugar Mill were discharging at the time of the survey and neither discharge during the most critical months of the summer or winter seasons. These dischargers are accounted for as nonpoint loading through the process of calibration. They fall within one of several state or regional policies that govern permit limitations. Gator Super Stop and Napoleonville Storage Facility are the only facilities to discharge directly into Grand Bayou and were included in the model. Current permit information was reviewed for all dischargers. A list of facilities is shown below in Table 6.

Table 6. Discharger Inventory for Subsegment 120206, Grand Bayou

FACILITY	AI No / PERMIT No	PERMIT EXPIRATION DATE	Out-fall No.	OUTFALL DESCRIPTION	FACILITY TYPE	RECEIVING WATER	EXPECTED FLOW GPD	MONTHLY AVERAGE CONCENTRATION LIMITS*		MODELING COMMENTS
								BOD5 / CBOD5, mg/L	NH ₃ -N, mg/L	
Super Stop Enterprises – Gator Super Stop Truck Stop	93668 / LAG541081	07/01/2013	001	Sanitary sewage	Truck stop	Grand Bayou	7,760	30		Included in Grand Bayou model
Chevron Pipe Line Co - Napoleonville Storage Facility	27281 / LAG531936	12/01/2012	001	Sanitary sewage	Natural gas storage	Grand Bayou	245	45		Included in Grand Bayou model
Texas Eastern Transmission Corp – White Castle Compressor Station	7359 / LA0107212	11/01/2010	002	Sanitary sewage	Natural gas compressor station	Ditch – Bayou Sigur – Grand Bayou	10	45 (Daily Max)		No impact – Not modeled but included in TMDL
Southern Natural Gas Co. – White Castle Compressor Station	4197 / LAG480530	08/01/2006	002	Sanitary sewage	Natural gas compressor station	Rocky Canal – Bayou Sigur – Grand Bayou	140	45		No impact – Not modeled but included in TMDL
Gulf South Pipeline Co. – Rodrigue Compressor Station	98149 / LAG531262	12/01/2012	001	Sanitary sewage	Natural gas compressor station	Bayou Des Olivier – Grand Bayou	120	45		No impact – Not modeled but included in TMDL
Assumption Parish Police Jury – Belle Rose Lane Sewerage District	98165 / LAG540954	07/01/2013	001	Sanitary sewage	Residential STP	Grand Bayou	14,300	30		No impact – Not modeled but included in TMDL
Bayou Corne Sewer Co. Inc. – Sportsman’s Paradise Subdivision	41241 / LAG540036	08/28/2002	001	Sanitary sewage	Residential STP	Bayou Corne – Grand Bayou	15,200	30		No impact – Not modeled but included in TMDL

*NOTE: No permit limits need to be modified as a result of this TMDL.

Table 6 Continued. Discharger Inventory for Subsegment 120206, Grand Bayou

FACILITY	AI No / PERMIT No	PERMIT EXPIRATION DATE	Out-fall No.	OUTFALL DESCRIPTION	FACILITY TYPE	RECEIVING WATER	EXPECTED FLOW GPD	MONTHLY AVERAGE CONCENTRATION LIMITS*		MODELING COMMENTS
								BOD5 / CBOD5, mg/L	NH ₃ -N, mg/L	
No Problem Raceway Park	86479 / LAG541191	07/01/2013	001	Sanitary sewage	Racetrack	Grand Bayou	23,860	30		No impact – Not modeled but included in TMDL
St. Elizabeth School	87130 / LAG531143	12/01/2012	001	Sanitary sewage	School	Whitmel Canal – Little Grand Bayou	4,050	30		No impact – Not modeled but included in TMDL
Lowery Elementary School	154685 / LAG541616	07/01/2013	001	Sanitary sewage	School	McCall Bayou – Bayou Sigur – Grand Bayou	9,000	30		No impact – Not modeled but included in TMDL
Lula Westfield LLC – Westfield Raw Sugar Factory	42344 / LA0000485	05/01/2015	001	Process wastewater	Sugar mill	Armeline Canal – Westfield Canal – Little Grand Bayou	4,430,000	10		Not discharging at time of survey or during critical conditions – Not modeled but included in TMDL
Lula Westfield LLC – Lula Raw Sugar Factory	4182 / LA0007382	05/01/2015	001 / 002	Process Wastewater	Sugar mill	Lula Canal – Bayou Crouix – Grand Bayou	6,460,000	10		Discharges into a tributary that had no measureable flow during survey – Not modeled but included in TMDL
Cora-Texas Manufacturing	1306 / LA0001295	09/01/2015	002	Process wastewater	Sugar mill	Ditch – Bayou Sigur – Grand Bayou	13,000,000	10		Not discharging at time of survey or during critical conditions – Not modeled but included in TMDL
Acadian Gas Storage Facility	25004 / LAG531692	12/01/2012	001	Sanitary sewage	Natural gas storage	Bayou Oliver – Grand Bayou	60	45		No impact – Not modeled but included in TMDL
Grant Loop Community Sewer System	116873 / LAG541277	07/01/2013	001	Sanitary sewage	Residential STP	Whitmel Canal – Little Grand Bayou	17,200	30		No impact – Not modeled but included in TMDL

*NOTE: No permit limits need to be modified as a result of this TMDL.

2.4 Water Quality Conditions/Assessment

Subsegment 120206, Grand Bayou, is not supporting its designated use of fish and wildlife propagation. It is fully supporting its designated uses of primary and secondary contact recreation. The impairment is believed to be caused by organic enrichment/low DO. Grand Bayou appears on the 2002 and 2004 303(d) lists and was scheduled for TMDL development with other listed waterbodies in the Terrebonne Basin.

2.5 Prior Studies

There have been no prior TMDL studies on the Grand Bayou system.

3. Documentation Calibration Model

3.1 Program Description

“Simulation models are used extensively in water quality planning and pollution control. Models are applied to answer a variety of questions, support watershed planning and analysis and develop total maximum daily loads (TMDLs). . . . Receiving water models simulate the movement and transformation of pollutants through lakes, streams, rivers, estuaries, or near shore ocean areas. . . . Receiving water models are used to examine the interactions between loadings and response, evaluate loading capacities (LCs), and test various loading scenarios. . . . A fundamental concept for the analysis of receiving waterbody response to point and nonpoint source inputs is the principle of mass balance (or continuity). Receiving water models typically develop a mass balance for one or more constituents, taking into account three factors: transport through the system, reactions within the system, and inputs into the system.” (EPA841-b-97-006, pp. 1-30)

The model used for this TMDL was LA-QUAL, a steady-state one-dimensional water quality model. LA-QUAL has the mechanisms for incorporating dams and weirs in the analysis and was particularly suitable for use in modeling the Bayou Portage, Bayou Fordoche and Grand Bayou systems. LA-QUAL history dates back to the QUAL-I model developed by the Texas Water Development Board with Frank D. Masch & Associates in 1970 and 1971. William A. White wrote the original code.

In June, 1972, the United States Environmental Protection Agency awarded Water Resources Engineers, Inc. (now Camp Dresser & McKee) a contract to modify QUAL-I for application to the Chattahoochee-Flint River, the Upper Mississippi River, the Iowa-Cedar River, and the Santee River. The modified version of QUAL-I was known as QUAL-II.

Over the next three years, several versions of the model evolved in response to specific client needs. In March, 1976, the Southeast Michigan Council of Governments (SEMCOG) contracted with Water Resources Engineers, Inc. to make further modifications and to combine the best features of the existing versions of QUAL-II into a single model. That became known as the QUAL-II/ SEMCOG version.

Between 1978 and 1984, Bruce L. Wiland with the Texas Department of Water Resources modified QUAL-II for application to the Houston Ship Channel estuarine system. Numerous modifications were made to enable modeling this very large and complex system including the addition of tidal dispersion, lower boundary conditions, nitrification inhibition, sensitivity analysis capability,

branching tributaries, and various input/output changes. This model became known as QUAL-TX and was subsequently applied to streams throughout the State of Texas.

In 1999, the Louisiana Department of Environmental Quality and Wiland Consulting, Inc. developed LA-QUAL based on QUAL-TX Version 3.4. The program was converted from a DOS-based program to a Windows-based program with a graphical interface and enhanced graphic output. Other program modifications specific to the needs of Louisiana and the Louisiana DEQ were also made. LA-QUAL is a user-oriented model and is intended to provide the basis for evaluating total maximum daily loads in the State of Louisiana.

The development of a TMDL for dissolved oxygen generally occurs in 3 stages. Stage 1 encompasses the data collection activities. These activities may include gathering such information as stream cross-sections, stream flow, stream water chemistry, stream temperature and dissolved oxygen at various locations on the stream, location of the stream centerline and the boundaries of the watershed which drains into the stream, and other physical and chemical factors which are associated with the stream. Additional data gathering activities include gathering all available information on each facility which discharges pollutants into the stream, gathering all available stream water quality chemistry and flow data from other agencies and groups, gathering population statistics for the watershed to assist in developing projections of future loadings to the water body, land use and crop rotation data where available, and any other information which may have some bearing on the quality of the waters within the watershed. During Stage 1, any data available from reference or least impacted streams which can be used to gauge the relative health of the watershed is also collected.

Stage 2 involves organizing all of this data into one or more useable forms from which the input data required by the model can be obtained or derived. Water quality samples, field measurements, and historical data must be analyzed and statistically evaluated in order to determine a set of conditions which have actually been measured in the watershed. The findings are then input to the model. Best professional judgment is used to determine initial estimates for parameters which were not or could not be measured in the field. These estimated variables are adjusted in sequential runs of the model until the model reproduces the field conditions which were measured. In other words, the model produces a value of dissolved oxygen, temperature, or other parameter which matches the measured value within an acceptable margin of error at the locations along the stream where the measurements were actually made. When this happens, the model is said to be calibrated to the actual stream conditions. At this point, the model should confirm that there is an impairment and give some indications of the causes of the impairment. If a second set of measurements is available for slightly different conditions, the calibrated model is run with these conditions to see if the calibration holds for both sets of data. When this happens, the model is said to be verified.

Stage 3 covers the projection modeling which results in the TMDL. The critical conditions of flow and temperature are determined for the waterbody and the maximum pollutant discharge conditions from the point sources are determined. These conditions are then substituted into the model along with any related condition changes which are required to perform worst case scenario predictions. At this point, the loadings from the point and nonpoint sources (increased by an acceptable margin of safety) are run at various levels and distributions until the model output shows that dissolved oxygen criteria are achieved. It is critical that a balanced distribution of the point and nonpoint source loads be made in order to predict any success in future achievement of water quality standards. At the end of Stage 3, a TMDL is produced which shows the point source permit limits and the amount of reduction in man-made nonpoint source pollution which must be achieved to attain water quality

standards. The man-made portion of the NPS pollution is estimated from the difference between the calibration loads and the loads observed on reference or least impacted streams.

3.2 Input Data Documentation

Data collected during an intensive survey from June 22-28, 2004 was used to establish the input for the Grand Bayou and Little Grand Bayou model calibrations. This data is presented in Appendix F. The flow in each reach, headwater, and unmodeled tributary was determined based on the survey discharge measurements, the flow balance at selected sampling stations, the drainage area associated with each flow, and a determination of appropriate incremental nonpoint source flow rates in terms of cms/mile. Best professional judgment was used to determine where similar streams concepts could be used. Flow determinations are presented in Appendix F2.

Field and laboratory water quality data from the Grand Bayou intensive survey were entered in a spreadsheet for analysis. The Louisiana BOD program was applied to the BOD data in a separate spreadsheet and values were computed and compiled for ultimate CBOD, CBOD decay rate, CBOD lag, ultimate NBOD, NBOD decay rate, and NBOD lag.

This data was the primary source for the model input data for initial conditions; decay rates; incremental temperature, DO, and BOD; headwater temperature and DO; and wasteload data. Two other sources of data also figured prominently in developing the input data set: reference stream data and previous determinations of nonpoint source loadings for several heavily impacted streams. As shown in Figure 7, the DO during the time of the survey was below 5 mg/L in Grand Bayou.

3.2.1 Model Schematics and Maps

Vector diagrams of the modeled areas are presented in Figures 1 and 2. The vector diagrams show the locations of survey stations, the reach/element design, and the locations of the tributaries contributing flow but not modeled. ARCVIEW maps of the stream and subsegment showing river kilometers, survey stations, drainage area boundaries and other points of interest are presented in Figures 3, 4, 5, and 6.

3.2.2 Model Options, Data Type 2

For the Grand Bayou calibration process, six constituents were modeled. These were salinity, chlorides, sulfates, dissolved oxygen, CBOD, and NBOD. Chlorophyll A and temperature were not modeled but were input into the initial conditions. This allowed the effects of temperature and chlorophyll A to reflect in the model without running a thermal or full nutrient model.

3.2.3 Program Constants, Data Type 3

Some changes were made to the default program constants defined in data type 3. The Dispersion Equation was set to option 3 and Tide Height was set to a value of 0.07 meters. Effective BOD Due to Algae was set to a value of 0.10. The K_2 Maximum was set to 25, which is the EPA policy in the absence of a measured value.

Inhibition control value was changed from the default of option 4 to option 3. This sets all decay rates except for sediment oxygen demand (SOD) to be inhibited based on dissolved oxygen levels. This change is a result of recent discussion within the modeling group and consultation with outside modelers on whether SOD should be inhibited by low dissolved oxygen levels.

The hydraulic calculation method was set to option 2 or “widths and depths.” This was done because the low slopes in these waterbodies cause a substantial amount of water to be present in some reaches during critical flow. Settling Rate Units were set to option 2 (1/day) so that values are independent of depth in slow and/or non-moving waters.

3.2.4 Temperature Correction of Kinetics, Data Type 4

The temperature values computed are used to correct the rate coefficients in the source/sink terms for the other water quality variables. These coefficients are input at 20 °C and are then corrected to temperature using the following equation:

$$X_T = X_{20} * \text{Theta}^{(T-20)}$$

Where:

X_T = the value of the coefficient at the local temperature T in degrees Celsius

X_{20} = the value of the coefficient at the standard temperature at 20 degrees Celsius

Theta = an empirical constant for each reaction coefficient

In the absence of specified values for data type 4, the model uses default values. A complete listing of these values can be found in the LA-QUAL for Windows User’s Manual (LDEQ, 2003).

3.2.5 Reach Identification Data, Data Type 8

The reach and element breakdown was determined using physical data from the survey, aerial photography and USGS quad maps. The calibration for the Grand Bayou system consisted of one headwater, eight wasteloads from unmodeled tributaries, two distributaries, one point source wasteload, and fourteen reaches consisting of one hundred fifty-eight elements. The other listed permitted facilities were not included in the calibration because of their distance from the main stem. They were instead included as part of the NonPoint loading.

The Little Grand Bayou system consisted of one headwater, two wasteloads from unmodeled tributaries, and six reaches consisting of seventy elements. The listed permitted facilities were not included in the calibration due to their distance from the main stem and were instead accounted for as part of the NonPoint loading.

3.2.6 Advective Hydraulic Coefficients, Data Type 9

Widths and depths were entered as constants due to the low slopes within the modeled subsegments. Information came from cross-section measurements at survey sites. For reaches between survey

sites, interpolation was used to estimate width and depth values. Hydraulic determinations are presented in Appendix F2.

3.2.7 Dispersive Hydraulic Coefficients, Data Type 10

Dispersion values were estimated based on two dye studies conducted on the Grand Bayou system. The Kd values were estimated to be 0.505 between reaches 5 and 6, and a Kd value of 2.01 in reach 11. Using $b=5/6$, $c=0$, and $d=1$ will take into account both advective and tidal transport in the manner of Tracor and QUAL2E equations. The value for coefficient “a” was calibrated to give the best fit to both Kd values at their respective locations. All documentation can be found in Appendix F7.

3.2.8 Initial Conditions, Data Type 11

The initial conditions are used to reduce the number of iterations required by the model and to set values for constituents not directly modeled. Values needed for the Grand Bayou and Little Grand Bayou models were DO, temperature and chlorophyll A by reach. The input values and sources are found in Appendix F1 and Appendix F5.

3.2.9 Reaeration Rates, Sediment Oxygen Demand and CBOD Coefficients, Data Type 12

The applicability of the various reaeration equations was examined. The Owens-Edwards-Gibbs equation was determined to be the best fit for both the Grand Bayou model and the Little Grand Bayou model. The SOD values were achieved through calibration of the model. The decay rates used for Grand Bayou and Little Grand Bayou were based on the bottle rates from the June, 2004 survey. The SOD, decay rates and settling rates used for each reach are shown in Appendix B.

3.2.10 Nitrogenous BOD Decay and Settling Rates, Data Type 13

These rates are labeled NBOD Decay and Settling in the model. The decay rates used were based on the bottle rates from the survey. The decay and settling rates used for each reach are presented in Appendix B.

3.2.11 Incremental Conditions, Data Types 16, 17, and 18

Incremental conditions were used in the calibration to represent nonpoint source loads associated with flows. These flows represent a combination of surface runoff, small tributaries that were not surveyed, and local drainage. The data for each reach are presented in Appendix B.

3.2.12 Nonpoint Sources, Data Type 19

Nonpoint source loads which are not associated with a flow are input into this part of the model. These can be most easily understood as resuspended load from the bottom sediments and are modeled as SOD, CBOD and NBOD loads. Over the years LDEQ has collected data on heavily impacted streams in Louisiana. These data were reviewed and summarized by Smythe and Waldon. LDEQ also determined these types of loading as part of the Reference Stream work and these loads have also been used to determine some of the input data. In general the total NPS load exceeds the reference stream load. The manmade portion of the NPS loading is the difference between the

calibration load and the reference stream load where the calibration load is higher. The data are presented in Appendix B.

3.2.13 Headwaters, Data Types 20, 21, and 22

Values for the headwaters of Grand Bayou came from site GRB1 during the June, 2004 survey. There was no measureable flow during the survey, so a minimal flow of 0.001 cms was used. The data are presented in Appendix B.

3.2.14 Wasteloads, Data Types 24, 25, and 26

A discharger inventory listed fifteen permitted facilities flowing into the Grand Bayou system. Gator Super Stop and Napoleonville Storage Facility are the only facilities with a direct discharge into Grand Bayou. Cora-Texas sugar mill and Westfield sugar mill were not discharging at the time of the survey and do not discharge during the critical months of the year. They were not included in the models for this reason and were accounted for as part of the NonPoint loading through calibration. All other dischargers were determined to be fully recovered by the point they reach Grand Bayou or Little Grand Bayou and were also accounted for as part of the NonPoint loading. The Grand Bayou calibration model had eight tributaries and two distributaries. Little Grand Bayou had two tributaries. The data are presented in Appendix B.

3.2.15 Boundary Conditions, Data Type 27

The lower boundary conditions for Grand Bayou and Little Grand Bayou were assumed to be equivalent to the measurements taken at survey stations LV1 and LV2 respectively.

3.3 Model Discussion and Results

Input and output from the calibration models are presented in Appendix B. The overlay plotting option was used to determine if calibration had been achieved. Plots of the dissolved oxygen concentration versus river kilometer are presented in Figures 7 and 8.

Grand Bayou and Little Grand Bayou had good calibrations to DO, effective BOD, and NBOD. Output from the calibration models show that the DO standard of 2.3 from March through November was not being met in portions of the Grand Bayou and Little Grand Bayou.

Figure 7. Calibration Model Dissolved Oxygen versus River Kilometer, Grand Bayou

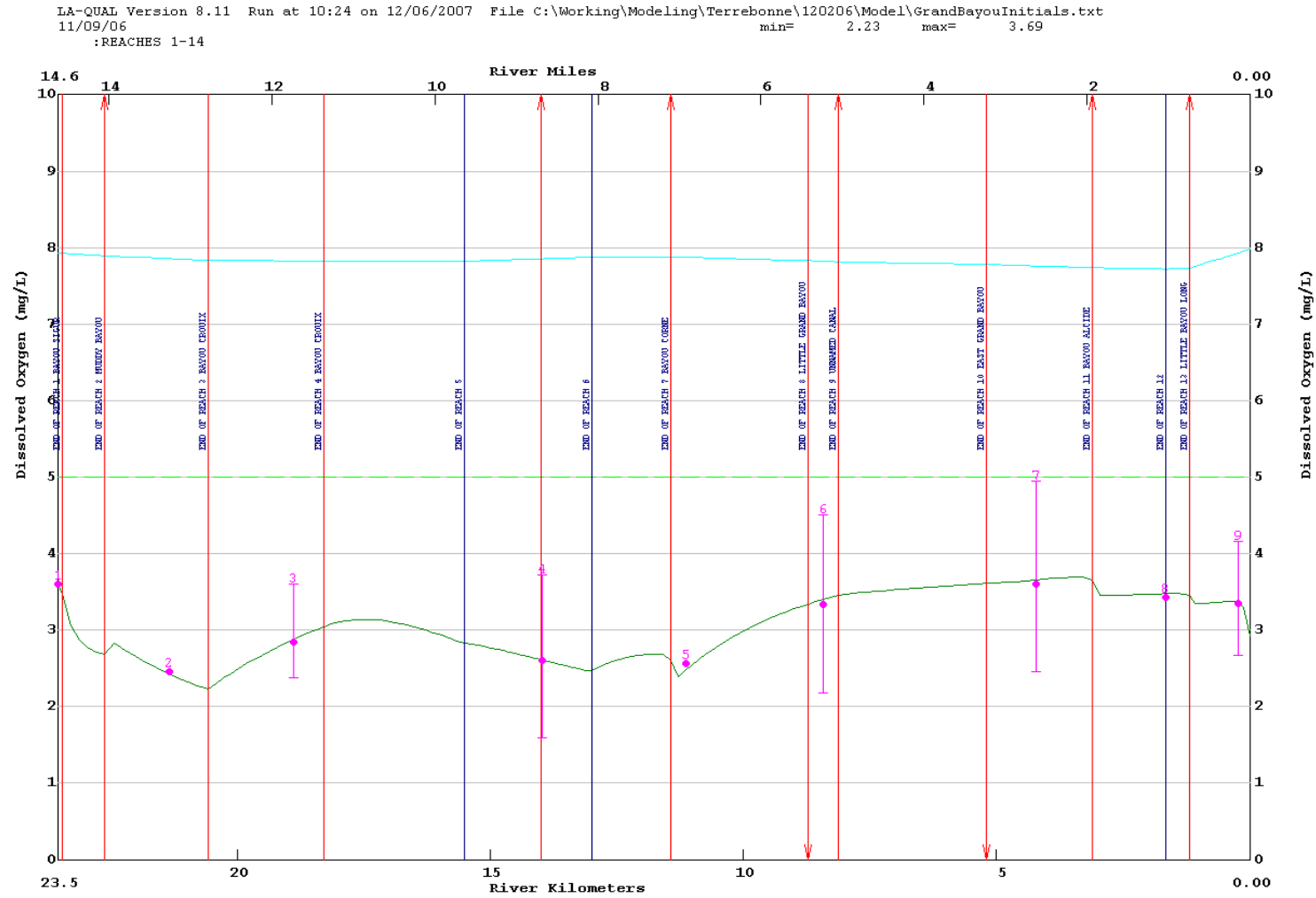
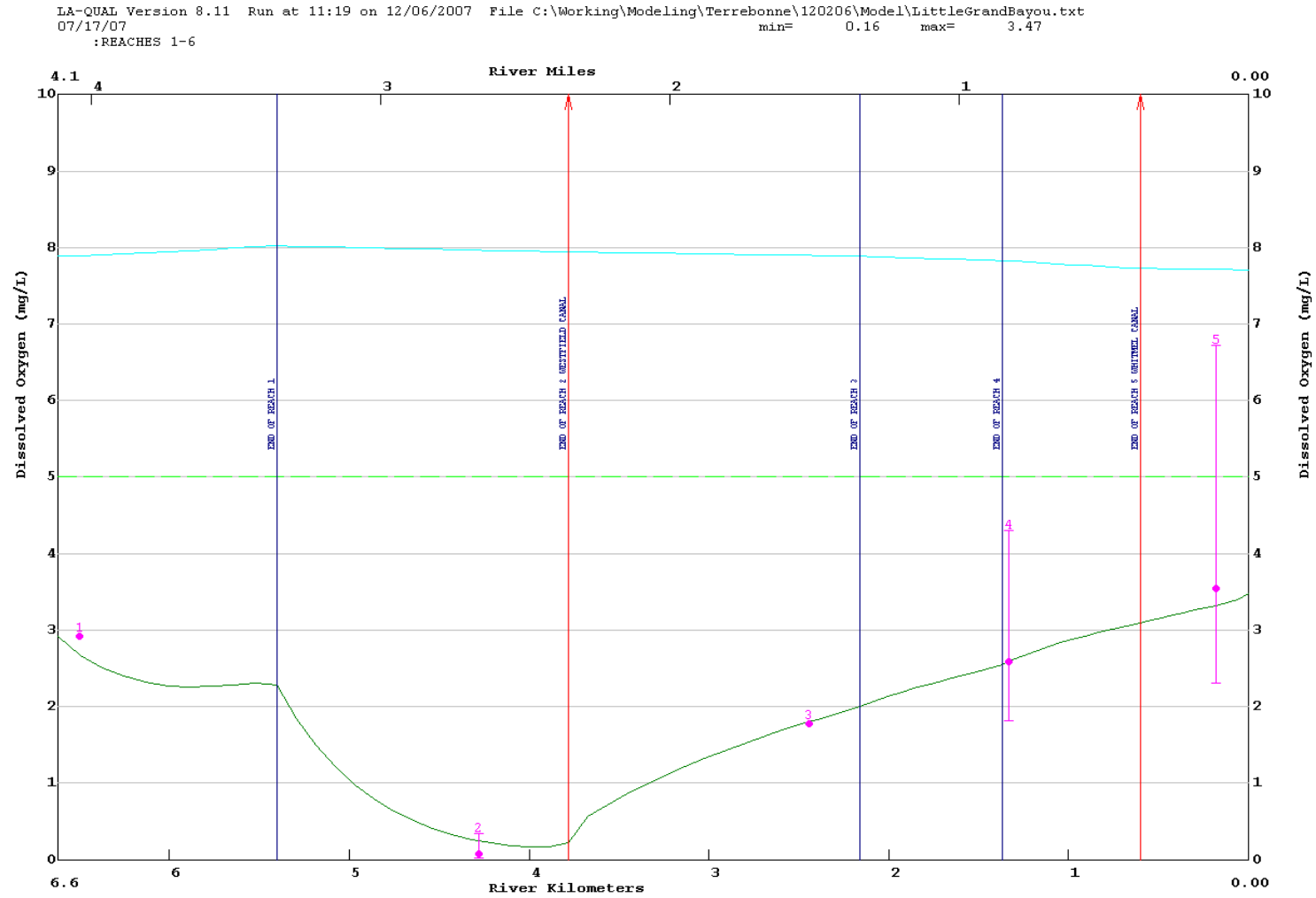


Figure 8. Calibration Model Dissolved Oxygen versus River Kilometer, Little Grand Bayou



4. Water Quality Projections

4.1 Critical Conditions, Seasonality and Margin of Safety

The Clean Water Act requires the consideration of seasonal variation of conditions affecting the constituent of concern, and the inclusion of a margin of safety (MOS) in the development of a TMDL. For the TMDL covering Grand Bayou, an analysis of LDEQ ambient data has been employed to determine critical seasonal conditions and an appropriate margin of safety.

Critical conditions for dissolved oxygen were determined for Grand Bayou using water quality data from the bayou on the LDEQ Ambient Monitoring Network. The 90th percentile temperature for each season and the corresponding 90% of saturation DO was determined for the bayou. Ambient temperature data, critical temperature and DO saturation determinations are shown in Appendix E5. Graphical and regression analysis techniques have been used by LDEQ historically to evaluate the temperature and dissolved oxygen data from the Ambient Monitoring Network and run-off determinations from the Louisiana Office of Climatology water budget. Since nonpoint loading is conveyed by run-off, this was a reasonable correlation to use. Temperature is strongly inversely proportional to dissolved oxygen and moderately inversely proportional to run-off. Dissolved oxygen and run-off are also moderately directly proportional. The analysis concluded that the critical conditions for stream dissolved oxygen concentrations were those of negligible nonpoint run-off and low stream flow combined with high stream temperature.

When the rainfall run-off (and non-point loading) and stream flow are high, turbulence is higher due to the higher flow and the temperature is lowered by the run-off. In addition, run-off coefficients are higher in cooler weather due to reduced evaporation and evapotranspiration, so that the high flow periods of the year tend to be the cooler periods. Reaeration rates and DO saturation are, of course, much higher when water temperatures are cooler, but BOD decay rates are much lower. For these reasons, periods of high loading are periods of higher reaeration and dissolved oxygen but not necessarily periods of high BOD decay.

This phenomenon is interpreted in TMDL modeling by assuming that nonpoint loading associated with flows into the stream are responsible for the benthic blanket which accumulates on the stream bottom and that the accumulated benthic blanket of the stream, expressed as SOD and/or resuspended BOD in the calibration model, has reached steady state or normal conditions over the long term and that short term additions to the blanket are off set by short term losses. This accumulated loading has its greatest impact on the stream during periods of higher temperature and lower flow. The manmade portion of the NPS loading is the difference between the calibration load and the reference stream load where the calibration load is higher. The only mechanism for changing this normal benthic blanket condition is to implement best management practices and reduce the amount of nonpoint source loading entering the stream and feeding the benthic blanket.

Critical season conditions were simulated in the dissolved oxygen TMDL projection modeling by using the default flows from the Louisiana Technical Procedures Manual, and the 90th percentile temperature for the modeled waterbody. Incremental flow was assumed to be zero; model loading was from perennial tributaries, sediment oxygen demand, and resuspension of sediments.

In reality, the highest temperatures occur in July-August, the lowest stream flows occur in October-November, and the maximum point source discharge occurs following a significant rainfall, i.e.,

high-flow conditions. The summer projection model is established as if all these conditions happened at the same time. The winter projection model accounts for the seasonal differences in flows and BMP efficiencies. Other conservative assumptions regarding rates and loadings are also made during the modeling process. In addition to the conservative measures, an explicit MOS of 20% was used for all loads to account for future growth, safety, model uncertainty and data inadequacies.

4.2 Input Data Documentation

The flow in Grand Bayou headwaters and each unmodeled tributary was set at 0.1 cfs = 0.00283 cms for summer critical conditions and at 1.0 cfs = 0.0283 cms for winter critical conditions in accordance with the LTP. Headwater flow for Little Grand Bayou was set to match the outflow in the model for Grand Bayou, as Little Grand Bayou is a distributary.

4.2.1 Model Options, Data Type 2

Six constituents were modeled during the projection process. These were salinity, chlorides, conductivity, DO, CBOD and NBOD.

4.2.2 Temperature Correction of Kinetics, Data Type 4

The temperature correction factors specified in the LTP are entered in the model.

4.2.3 Reach Identification Data, Data Type 8

The reach-element design from the calibration was used in the projection modeling.

4.2.4 Advective Hydraulic Coefficients, Data Type 9

The stream width and depth values from the calibration were used in the projection modeling.

4.2.5 Initial Conditions, Data Type 11

The initial conditions were set to the 90th percentile critical season temperature in accordance with the LTP. The dissolved oxygen values for the initial conditions were set to criteria. Chlorophyll A concentrations were set at 10 micrograms per liter in the projections to represent an estimate of algae presence when stream conditions are closer to meeting criteria.

4.2.6 Reaeration Rates and BOD Decay and Settling Rates, Data Type 12

The reaeration rate equations, BOD decay and settling rates, and the fractions converting settled BOD to SOD were not changed from the calibration.

4.2.7 Incremental Conditions, Data Types 16, 17, and 18

The incremental conditions were used in the calibration to represent nonpoint source loads associated with flows. For the projection runs, the incremental flows were set to zero to emulate the critical conditions for dissolved oxygen.

4.2.8 Sediment Oxygen Demand, Nonpoint Sources, Headwaters, Wasteloads, Data Type 12, 19, 20, 21, 22, 24, 25, and 26

The NPS values were calculated for each projection scenario using a load equivalent spreadsheet. An analysis was made of the calibration NPS and SOD loads in terms of total loading in units of gm-O₂/m²/day and compared to the reference stream loads in the same terms (which accounted for the width differences between the reference and the modeled streams). Calibration values were used where they were smaller than the reference stream values. The same spreadsheet also calculated load reductions for the headwaters and wasteloads. The values and sources of the input data and the load analyses are presented in Appendix D for each of the projection runs.

LDEQ has collected and measured the CBOD and NBOD oxygen demand loading components for a number of years. These loads have been found in all streams including the non-impacted reference streams. It is LDEQ's opinion that much of this loading is attributable to run-off loads which are flushed into the stream during run-off events, and subsequently settle to the bottom in our slow moving streams. These benthic loads decay and breakdown during the year, becoming easily resuspended into the water column during the low flow/high temperature season. This season has historically been identified as the critical dissolved oxygen season.

LDEQ simulates part of the non-point source oxygen demand loading as resuspended benthic load and SOD. The calibrated non-point loads, UCBOB, UNBOD and SOD, are summed to produce the total calibrated benthic load. The total calibrated benthic load is then reduced by the total background benthic load (determined from LDEQ's reference stream research) to determine the total manmade benthic loading. The manmade portion is then reduced incrementally on a percentage basis to determine the necessary percentage reduction of manmade loading required to meet the water body's dissolved oxygen criteria. These reductions are applied uniformly to all reaches sharing similar hydrology and land uses.

Following the same protocol as the point source discharges, the total reduced manmade benthic load is adjusted for the margin of safety by dividing the value by one minus the margin of safety. This adjusted load is added back to the total background benthic value to obtain the total projection model benthic load. This total projection benthic load is then broken out into its components of SOD, resuspended CBOD and resuspended NBOD by multiplying the total projection benthic load by the ratio of each calibrated component to the total calibrated benthic load.

LDEQ has found variations in the breakdown of the individual CBOD and NBOD components. While the total BOD is reliable, the carbonaceous and nitrogenous component allocation is subject to the type of test method. In the past, LDEQ used a method which suppressed the nitrogenous component to obtain the carbonaceous component value, which was then subtracted from the total measured BOD to determine the nitrogenous value. The suppressant in this method was only reliable for twenty days thus leading to the assumption that the majority of the carbonaceous loading was depleted within that period of time. The test results supported this assumption. A new method was

found in Standard Methods for testing long term BODs and was implemented in 2000. This new method was necessary because the nitrogen suppressant started failing around day seven and the manufacturer of the suppressant will only guarantee its potency for a five day period. LDEQ felt a five day test would not adequately depict the water quality of streams.

This method is a sixty day test which measures the incremental total BOD of the sample while at the same time measuring the increase in nitrite/nitrate in the sample. This increase in nitrite/nitrate allows LDEQ to calculate the incremental nitrogenous portion by multiplying the increase by 4.57 to determine the NBOD daily readings. These NBOD daily readings are then subtracted from the daily reading for total BOD to determine the CBOD daily values. A curve fit algorithm is then applied to the daily component readings to obtain the estimated ultimate values of each component as well as the decay rate and lag times of the first order equations.

LDEQ has implemented the new test method over the last several survey seasons. The results obtained using the new method showed that a portion of the CBOD first order equation does begin to level off prior to the twentieth day, however a secondary CBOD component begins to use dissolved oxygen sometime between day ten and day twenty-five. This secondary CBOD component was not being assessed as CBOD using the previous method but was being included in the NBOD load. Thus the CBOD and NBOD component loading used in the reference stream studies is not consistent with the results using the new proposed 60 day method and the individual values should not be used to determine background values for samples processed using the new test methods. However, the sum of CBOD and NBOD should be about the same for both new and old test methods. For this reason LDEQ decided to use the sum of reference stream benthic loads as background values.

4.2.9 Boundary Conditions, Data Type 27

The lower boundary conditions were set at the 90th percentile critical season temperature and the dissolved oxygen criteria, and the UCBOD and UNBOD were set the calibrated model's value. Chlorophyll A values were set to 10 micrograms per liter to represent an estimate of algae presence when stream conditions are closer to meeting criteria.

4.3 Model Discussion and Results

The projection model input and output data sets are presented in Appendix D.

4.3.1 Summer Projection

A summer critical season projection was run against the DO standard from March through November of 2.3 mg/L for Grand Bayou. In order to meet the summer DO criterion, the model required a 89% reduction of manmade nonpoint sources and no background reductions. This yields a model output minimum predicted DO of 3.56 mg/L. Applying the same 89% reduction to Little Grand Bayou yields an output minimum predicted DO of 2.51 mg/L. Graphs of the dissolved oxygen concentration versus river kilometer for the summer projections are presented in Figures 9 and 10.

4.3.2 Winter Projection

A projection for the winter critical season was also run against the DO standard from December through February of 5.0 mg/L for Grand Bayou. Applying a 92% reduction to man-made loading in the winter season results in a minimum predicted DO of 6.73 mg/L. A 92% reduction to man-made loading in Little Grand Bayou predicted a minimum predicted DO of 5.26 mg/L. Graphs of the dissolved oxygen concentration versus river kilometer for the winter projections are presented in Figures 11 and 12.

Figure 9. Grand Bayou Summer Projection at 89% Removal of Man-Made NPS Loads

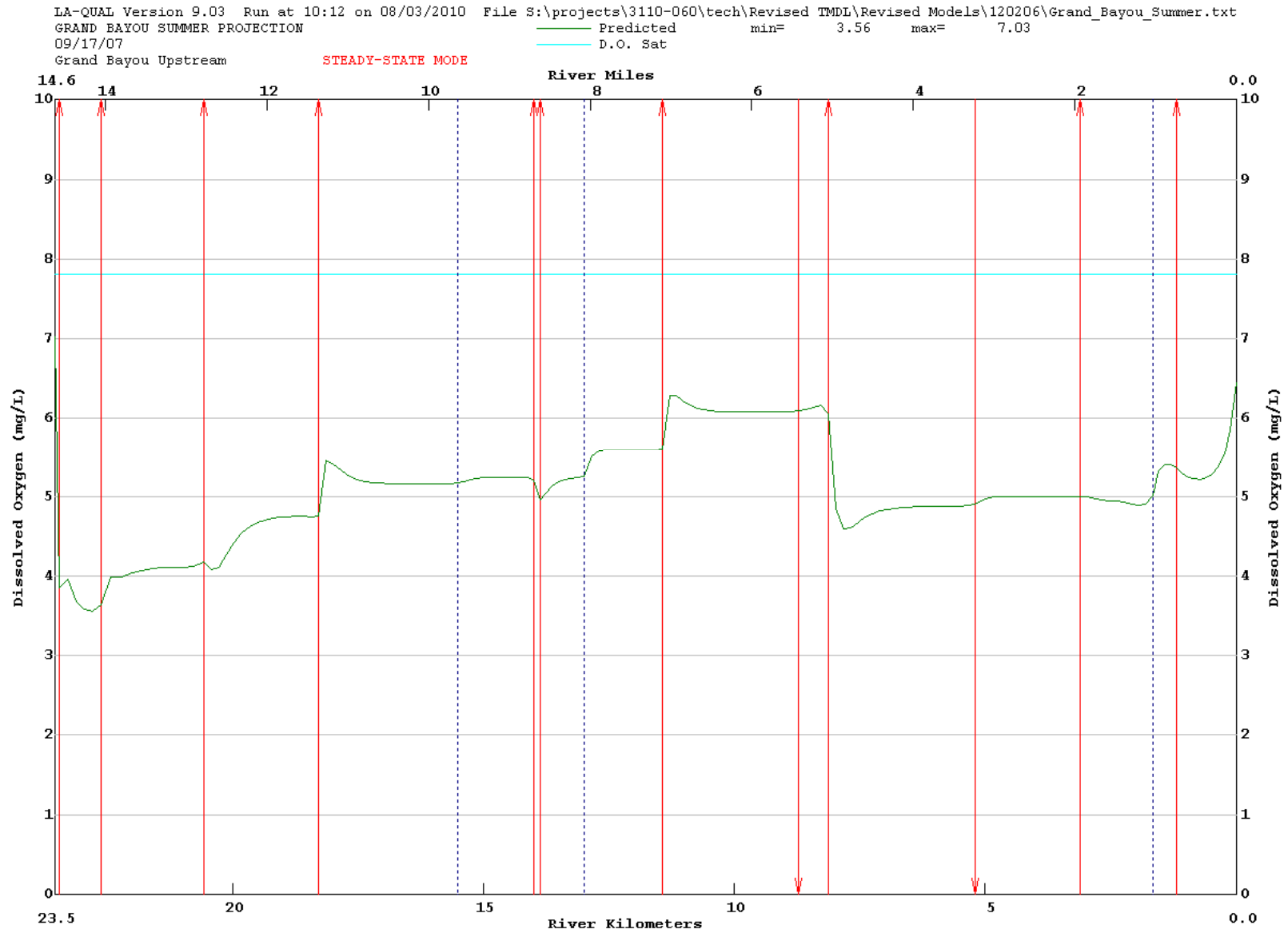


Figure 10. Little Grand Bayou Summer Projection at 89% Removal of Man-Made NPS Loads

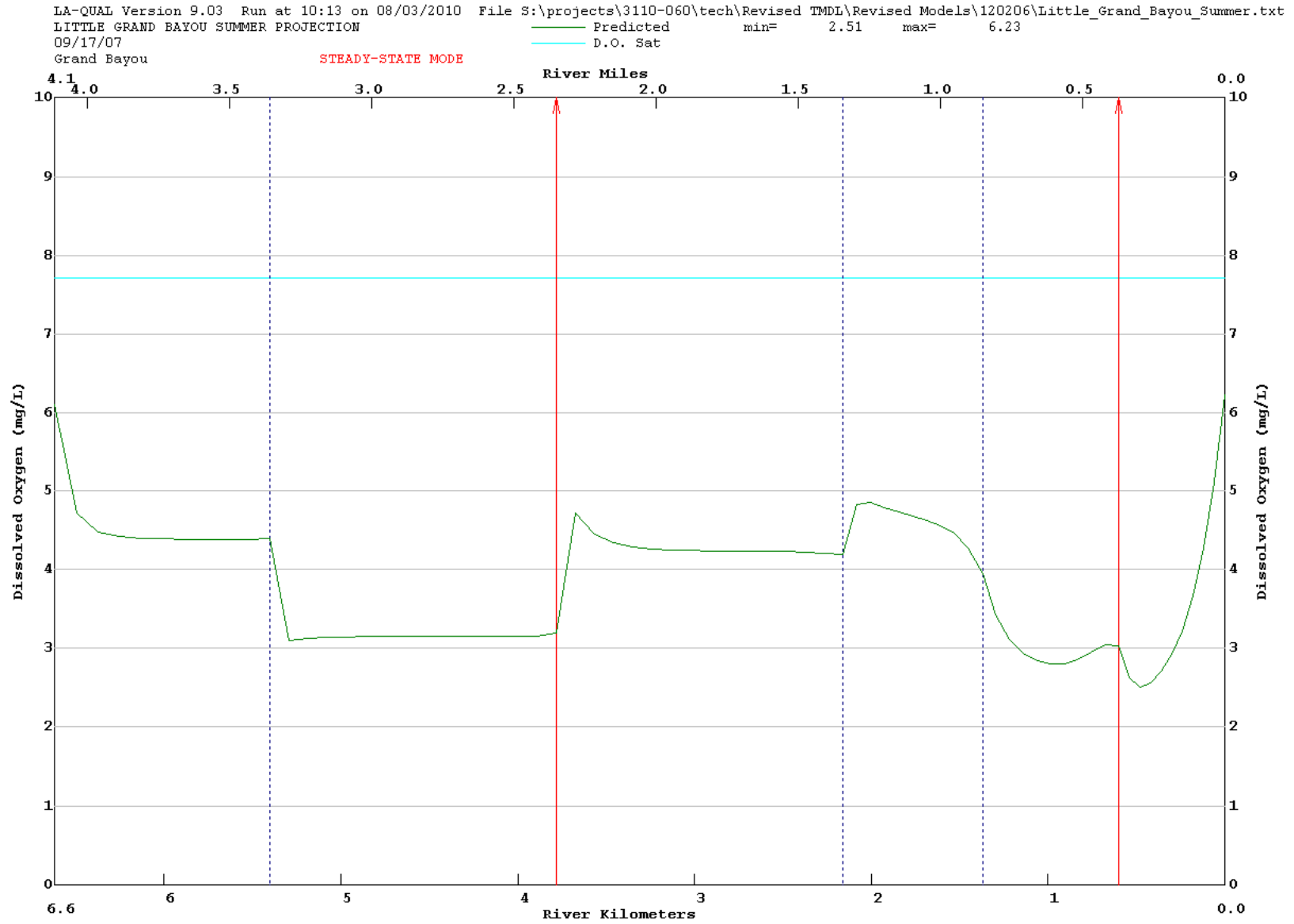


Figure 11. Grand Bayou Winter Projection at 92% Removal of Man-Made NPS Loads

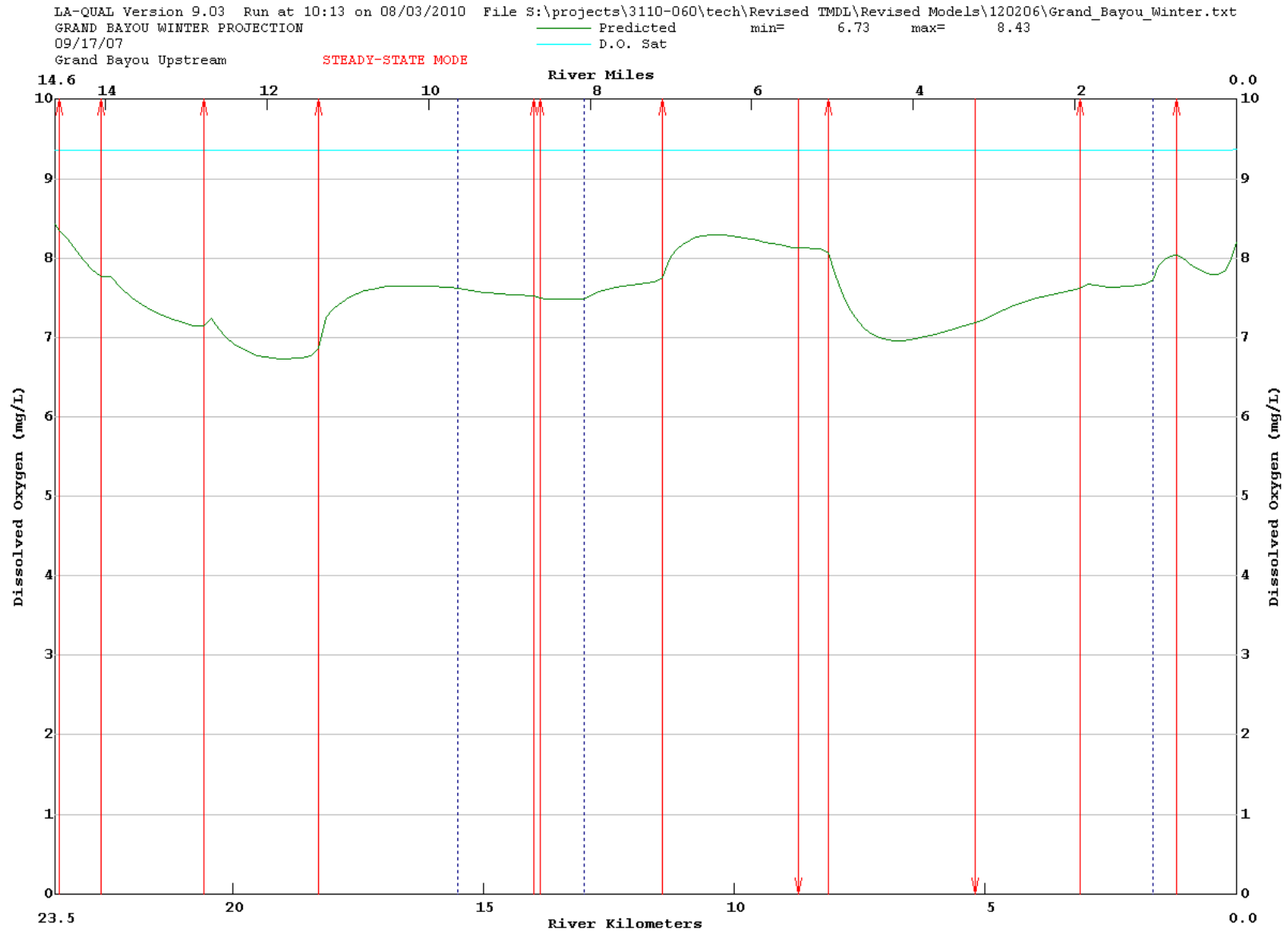
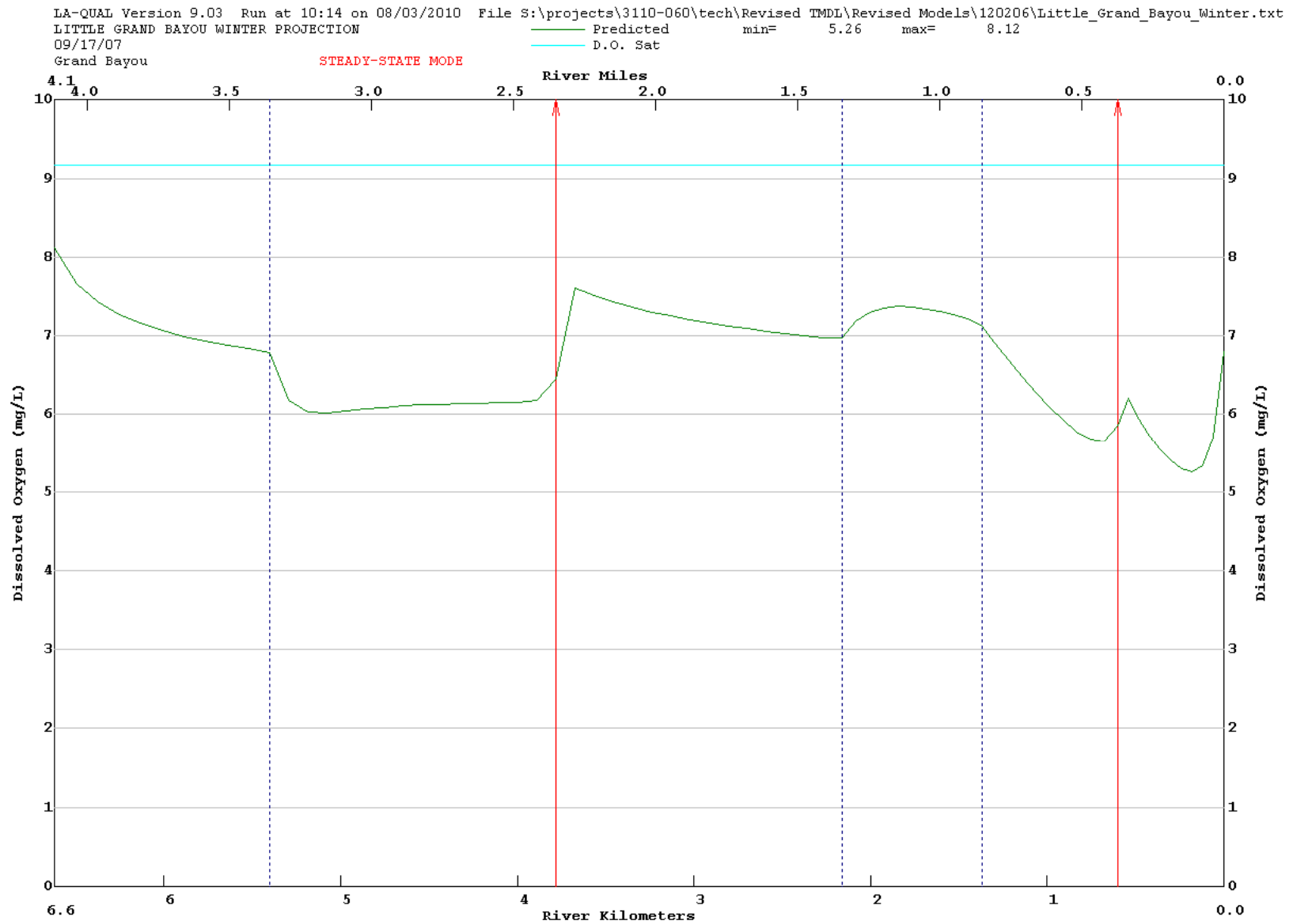


Figure 12. Little Grand Bayou Winter Projection at 92% Removal of Man-Made NPS Loads



4.4 Calculated TMDL, WLAs and LAs

4.4.1 Outline of TMDL Calculations

An outline of the TMDL calculations is provided to assist in understanding the calculations in the Appendices. Slight variances may occur based on individual cases.

4.4.1.1 The natural background benthic loading was estimated from reference stream resuspension (nonpoint CBOD and NBOD), and SOD load data.

4.4.1.2 The calibration man-made benthic loading was determined as follows:

- Calibration resuspension and SOD loads were summed for each reach as $\text{gm O}_2/\text{m}^2\text{-day}$ to get the calibration benthic loading.
- The natural background benthic loading was subtracted from the calibration benthic loading to obtain the man-made calibration benthic loading.

4.4.1.3 Projection benthic loads are determined by trial and error during the modeling process using a uniform percent reduction for resuspension and SOD. Point sources are reduced as necessary to subsequently more stringent levels of treatment consistent with the size of the treatment facility as much as possible. Point source design flows are increased to obtain an explicit MOS of 20%. Headwater and tributary concentrations of BOD and DO range from reference stream levels to calibration levels based on the character of the headwater. Where headwaters and tributaries exhibit man-made pollutant loads in excess of reference stream values, the loadings are reduced by the same uniform percent reduction as the benthic loads.

- The projection benthic loading at 20 °C is calculated as the sum of the projection resuspension and SOD components expressed as $\text{gm O}_2/\text{m}^2\text{-day}$.
- The natural background benthic load is subtracted from the projection benthic load to obtain the man-made projection benthic load for each reach.
- The percent reduction of man-made loads for each reach is determined from the difference between the projected man-made non-point load and the man-made non-point load found during calibration.
- The projection loads are also computed in units of lb/d and kg/d for each kind.

4.4.1.4 The total stream loading capacity at critical water temperature is calculated as the sum of:

- Headwater and tributary BOD loading in lb/d and kg/d.
- The natural and man-made projection benthic loading for all reaches of the stream is converted to the loading at critical temperature and summed in lb/d and kg/d.
- Point source BOD loading in lb/d and kg/d.

- The margin of safety in lb/d and kg/d.

4.4.2 Grand Bayou TMDL, Subsegment 120206

The TMDLs for the biochemical oxygen demanding constituents (CBOD, NBOD and SOD), have been calculated for the summer and winter critical seasons. They are presented in Appendix A. Summaries of the loads are presented in Tables 7 and 8.

Table 7. Total Maximum Daily Load (Sum of UBOD and SOD) for Grand Bayou

ALLOCATION	SUMMER		WINTER	
	% Reduction Required	(MAY-OCT) (lbs/day)	% Reduction Required	(NOV-APR) (lbs/day)
Point Source WLA	0	5,689	0	5,689
Point Source Reserve MOS = 20%		1,422		1,422
Natural Nonpoint Source LA	0	6,370	0	4,450
Manmade Nonpoint Source LA	89	1,446	92	811
Manmade Nonpoint Source Reserve MOS Summer = 20% Winter = 20%		362		203
TMDL		15,289		12,575

***Note 1: UBOD as stated in this allocation is Ultimate BOD.
 UBOD to BOD₅ ratio = 2.3 for all treatment levels
 Permit allocations are generally based on BOD₅***

Table 8. Total Maximum Daily Load (Sum of UBOD and SOD) for Little Grand

ALLOCATION	SUMMER		WINTER	
	% Reduction Required	(MAY-OCT) (lbs/day)	% Reduction Required	(NOV-APR) (lbs/day)
Point Source WLA	0	1,669	0	1,669
Point Source Reserve MOS = 20%		417		417
Natural Nonpoint Source LA	0	1,001	0	900
Manmade Nonpoint Source LA	89	1,153	92	783
Manmade Nonpoint Source Reserve MOS Summer = 20% Winter = 20%		289		196
TMDL		4,529		3,965

***Note 1: UBOD as stated in this allocation is Ultimate BOD.
 UBOD to BOD₅ ratio = 2.3 for all treatment levels
 Permit allocations are generally based on BOD₅***

Table 9. Point Source TMDL Summary for Grand Bayou, Subsegment 120206

FACILITY	AI No / PERMIT No	PERMIT EXPIRATION DATE	Out-fall No.	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS*		MODELING COMMENTS
				GPD	BOD5 / CBOD5, mg/L	NH3-N, mg/L	GPD	GPD	BOD5 / CBOD5, mg/L	NH3-N, mg/L	
Super Stop Enterprises – Gator Super Stop Truck Stop	93668 / LAG541081	07/01/2013	001	7,760	30		9,700	1,940	30		Included in Grand Bayou model
Chevron Pipe Line Co - Napoleonville Storage Facility	27281 / LAG531936	12/01/2012	001	245	45		306	61	45		Included in Grand Bayou model
Texas Eastern Transmission Corp – White Castle Compressor Station	7359 / LA0107212	11/01/2010	002	10	45 (Daily Max)		13	3	45 (Daily Max)		No impact – Not modeled but included in TMDL
Southern Natural Gas Co. – White Castle Compressor Station	4197 / LAG480530	08/01/2006	002	140	45		175	35	45		No impact – Not modeled but included in TMDL
Gulf South Pipeline Co. – Rodrigue Compressor Station	98149 / LAG531262	12/01/2012	001	120	45		150	30	45		No impact – Not modeled but included in TMDL
Assumption Parish Police Jury – Belle Rose Lane Sewerage District	98165 / LAG540954	07/01/2013	001	14,300	30		17,875	3,575	30		No impact – Not modeled but included in TMDL
Bayou Corne Sewer Co. Inc. – Sportsman’s Paradise Subdivision	41241 / LAG540036	08/28/2002	001	15,200	30		19,000	3,800	30		No impact – Not modeled but included in TMDL

*NOTE: No permit limits need to be modified as a result of this TMDL.

Table 9 Continued. Point Source TMDL Summary for Grand Bayou, Subsegment 120206

FACILITY	AI No / PERMIT No	PERMIT EXPIRATION DATE	Out-fall No.	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS*		MODELING COMMENTS
				GPD	BOD5 / CBOD5, mg/L	NH3-N, mg/L	GPD	GPD	BOD5 / CBOD5, mg/L	NH3-N, mg/L	
No Problem Raceway Park	86479 / LAG541191	07/01/2013	001	23,860	30		29,825	5,965	30		No impact – Not modeled but included in TMDL
St. Elizabeth School	87130 / LAG531143	12/01/2012	001	4,050	30		5,063	1,013	30		No impact – Not modeled but included in TMDL
Lowery Elementary School	154685 / LAG541616	07/01/2013	001	9,000	30		11,250	2,250	30		No impact – Not modeled but included in TMDL
Lula Westfield LLC – Westfield Raw Sugar Factory	42344 / LA0000485	05/01/2015	001	4,430,000	10		5,537,500	1,107,500	10		Not discharging at time of survey or during critical conditions – Not modeled but included in TMDL
Lula Westfield LLC – Lula Raw Sugar Factory	4182 / LA0007382	05/01/2015	001 & 002	6,460,000 (combined)	10		8,075,000	1,615,000	10		Discharges into a tributary that had no measureable flow during survey – Not modeled but included in TMDL
Cora-Texas Manufacturing Co.	1306 / LA0001295	09/01/2015	002	13,000,000	10		16,250,000	3,250,000	10		Not discharging at time of survey or during critical conditions – Not modeled but included in TMDL
Acadian Gas Storage Facility	25004 / LAG531692	12/01/2012	001	60	45		75	15	45		No impact –Not modeled but included in TMDL
Grant Loop Community Sewer System	116873 / LAG541277	07/01/2013	001	17,200	30		21,500	4,300	30		No impact – Not modeled but included in TMDL

*NOTE: No permit limits need to be modified as a result of this TMDL.

5. Sensitivity Analysis

All modeling studies necessarily involve uncertainty and some degree of approximation. It is therefore of value to consider the sensitivity of the model output to changes in model coefficients, and in the hypothesized relationships among the parameters of the model. The LAQUAL model allows multiple parameters to be varied with a single run. The model adjusts each parameter up or down by the percentage given in the input set. The rest of the parameters listed in the sensitivity section are held at their original projection value. Thus the sensitivity of each parameter is reviewed separately. A sensitivity analysis was performed on the calibration and summer projection model runs of Grand Bayou. The sensitivity of the model's minimum DO projections to these parameters is presented in Appendix I. Parameters were varied by +/- 30%, except temperature, which was adjusted +/- 2 degrees Centigrade.

Table 10 shows that Grand Bayou is most sensitive to benthic demand and stream reaeration. Initial temperature, stream depth, incremental DO, incremental inflow, stream Baseflow, and wasteload DO are the other parameters creating significant variations in the minimum DO values. The model is slightly to not sensitive to the remaining parameters.

Table 10. Summary of Calibration Model Sensitivity Analysis for Grand Bayou

Parameter	Positive Changes in Parameter			Negative Changes in parameter		
	% change	Minimum DO (mg/L)	Percentage Difference	% change	Minimum DO (mg/L)	Percentage Difference
Benthic Demand	30	1.12	-49.7	-30	2.93	31.6
Stream Reaeration	30	2.75	23.3	-30	1.44	-35.5
Initial Temperature	2	1.80	-19.0	-2	2.58	15.7
Stream Depth	30	2.63	18.0	-30	1.88	-15.6
Incremental DO	30	2.42	8.6	-30	1.86	-16.5
Incremental Inflow	30	2.38	6.9	-30	1.96	-11.8
Stream Baseflow	30	2.38	6.9	-30	1.96	-11.8
Non-Point Source CBOD	30	2.12	-4.8	-30	2.30	3.4
Wasteload DO	30	2.31	3.6	-30	1.97	-11.6
Stream Velocity	30	2.30	3.2	-30	2.09	-6.0
CBOD Aerobic Decay Rate	30	2.16	-3.2	-30	2.30	3.3
Wasteload Flow	30	2.28	2.3	-30	2.17	-2.5
Non-Point Source NBOD	30	2.17	-2.3	-30	2.28	2.3
NBOD Decay Rate	30	2.18	-2.1	-30	2.28	2.2
Stream Dispersion	30	2.23	0.2	-30	2.22	-0.2
CBOD Settling Rate	30	2.23	0.1	-30	2.22	-0.1
NBOD Settling Rate	30	2.23	0.1	-30	2.23	-0.1

Table 11 shows that Little Grand Bayou is most sensitive to stream depth, benthal demand, stream reaeration, stream Baseflow, stream velocity, initial temperature, incremental inflow, headwater flow, and incremental DO. Headwater DO and CBOD aerobic decay rate are the other parameters creating significant variations in the minimum DO values. The model is slightly to not sensitive to the remaining parameters.

Table 11. Summary of Calibration Model Sensitivity Analysis for Little Grand Bayou

Parameter	Positive Changes in Parameter			Negative Changes in parameter		
	% change	Minimum DO (mg/L)	Percentage Difference	% change	Minimum DO (mg/L)	Percentage Difference
Stream Depth	30	0.00	-100.0	-30	2.01	1148.9
Benthal Demand	30	0.00	-100.0	-30	1.51	839.5
Stream Reaeration	30	1.09	575.8	-30	0.00	-100.0
Stream Baseflow	30	0.89	454.2	-30	0.00	-100.0
Stream Velocity	30	0.88	446.4	-30	0.00	-100.0
Initial Temperature	2	0.00	-100.0	-2	0.70	336.6
Incremental Inflow	30	0.68	324.6	-30	0.00	-100.0
Headwater Flow	30	0.44	172.4	-30	0.00	-100.0
Incremental DO	30	0.27	68.2	-30	0.05	-69.1
Headwater DO	30	0.20	25.4	-30	0.12	-25.1
CBOD Aerobic Decay Rate	30	0.15	-9.7	-30	0.18	10.3
Non-Point Source CBOD	30	0.15	-5.9	-30	0.17	6.1
Stream Dispersion	30	0.17	4.8	-30	0.15	-4.8
Headwater CBOD	30	0.15	-4.2	-30	0.17	4.3
NBOD Decay Rate	30	0.16	-2.6	-30	0.17	2.7
Non-Point Source NBOD	30	0.16	-1.5	-30	0.16	1.5
Headwater NBOD	30	0.16	-1.3	-30	0.16	1.3
Wasteload DO	30	0.16	1.1	-30	0.16	-1.1
Wasteload Flow	30	0.16	1.0	-30	0.16	-1.1
CBOD Settling Rate	30	0.16	0.2	-30	0.16	-0.2

6. Conclusions

The TMDL requires manmade nonpoint source loads to be reduced by 89% during summer and 92% during winter, with no reduction in natural background loads. The existing point sources have no impact on the main stem of Grand Bayou and require no changes to their permitted discharges.

The modeling which has been conducted for this TMDL is very conservative and based on limited information. Future studies may show that this TMDL is smaller than that which can actually be accommodated by the watershed.

LDEQ has developed this TMDL to be consistent with the state antidegradation policy (LAC 33:IX.1109.A).

LDEQ will work with other agencies such as local Soil Conservation Districts to implement agricultural best management practices in the watershed through the 319 programs. LDEQ will also continue to monitor the waters to determine whether standards are being attained.

In accordance with Section 106 of the federal Clean Water Act and under the authority of the Louisiana Environmental Quality Act, the LDEQ has established a comprehensive program for monitoring the quality of the state's surface waters. The LDEQ Surveillance Section collects surface water samples at various locations, utilizing appropriate sampling methods and procedures for ensuring the quality of the data collected. The objectives of the surface water monitoring program are to determine the quality of the state's surface waters, to develop a long-term database for water quality trend analysis, and to monitor the effectiveness of pollution controls. The data obtained through the surface water monitoring program is used to develop the state's biennial 305(b) report (Water Quality Inventory) and the 303(d) list of impaired waters. This information is also utilized in establishing priorities for the LDEQ nonpoint source program.

This TMDL establishes load limitations for oxygen-demanding substances and goals for reduction of those pollutants. LDEQ's position is that when oxygen-demanding loads from point and nonpoint sources are reduced in order to ensure that the dissolved oxygen criterion is supported, nutrients are also reduced. The implementation of this TMDL through wastewater discharge permits and implementation of best management practices to control and reduce runoff of soil and oxygen-demanding pollutants from nonpoint sources in the watershed will also reduce the nutrient loading from those sources.

Louisiana does not have numeric nutrient criteria at the present time. LDEQ is developing numeric nutrient criteria for waterbody types based on ecoregions in accordance with LDEQ's plan "Developing Nutrient Criteria for Louisiana 2006" which can be found at:

<http://www.deq.louisiana.gov/portal/Portals/0/planning/LA%20Nutrient%20Strategy%20Plan%20Final%20FOR%20WEB.pdf>

Water body types for nutrient criteria development in Louisiana are 1) inland rivers and streams; 2) freshwater wetlands; 3) freshwater lakes and reservoirs; 4) big rivers and floodplains/boundary rivers and associated water bodies; and 5) estuarine and coastal waters (including up to Louisiana's three mile boundary in the Gulf of Mexico). Proposed approaches for nutrient criteria development are

currently under review by LDEQ and EPA. Nutrient criteria can be implemented upon state promulgation and EPA approval as per 40 CFR 131.21.

LDEQ recommends that all facilities discharging to impaired waterbodies take a proactive approach and prepare to receive nutrient limitations in the near future. Such a proactive approach should include nutrient monitoring and documentation through facility Discharge Monitoring Reports (DMRs) in order to assess their nutrient loads and the need to modify their treatment processes for nutrient removal.

The LDEQ is continuing to implement a watershed approach to surface water quality monitoring. In 2004 a four year sampling cycle replaces the previous five year cycle. Approximately one quarter of the states watersheds will be sampled each year so that all of the states watersheds will be sampled within the four year cycle. This will allow LDEQ to determine whether there has been any improvement in water quality following implementation of the TMDLs. As the monitoring results are evaluated at the end of each year, waterbodies may be added to or removed from the 303(d) list.

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8. Appendices

Appendix A – Detailed TMDL Analysis

Summer TMDL Summary:

GRAND BAYOU (SUBSEGMENT 120206)

Calculation of the TMDL - Kilograms per day						
Load description	WLA (kg O ₂ /day)	CBOD1 LA (kg O ₂ /day)	NBOD LA (kg O ₂ /day)	SOD LA (kg O ₂ /day)	LA (kg O ₂ /day)	MOS Load (kg O ₂ /day)
Point Source loads	2,580					645
Headwater / Tributatory loads		4	4		8	0
Benthic loads		731	375	2,429	3,535	164
Incremental Loads		0	0		0	0
SUB-TOTAL	2,580	735	379	2,429	3,543	809
TMDL = WLA + LA + MOS					6,932 kg/day	

Notes:
 (1) - Load(lbs/day) = Load(kg/day) x 2.205

Calculation of the TMDL - Pounds per day						
Load description	WLA (lbs O ₂ /day)	CBOD1 LA (lbs O ₂ /day)	NBOD LA (lbs O ₂ /day)	SOD LA (lbs O ₂ /day)	LA (lbs O ₂ /day)	MOS Load (lbs O ₂ /day)
Point Source loads	5,689					1,422
Headwater / Tributatory loads		9	9		18	0
Benthic loads		1,612	827	5,356	7,795	362
Incremental Loads		0	0		0	0
SUB-TOTAL	5,689	1,621	836	5,356	7,812	1,784
TMDL = WLA + LA + MOS					15,285 lbs/day	

Notes:
 (1) - Load(lbs/day) = Load(kg/day) x 2.205

Calculation of the TMDL - Kilograms per day						
Load description	WLA (kg O ₂ /day)	CBOD1 LA (kg O ₂ /day)	NBOD LA (kg O ₂ /day)	SOD LA (kg O ₂ /day)	LA (kg O ₂ /day)	MOS Load (kg O ₂ /day)
Point Source loads	2,580					645
Natural Nonpoint Loads		526	285	2,078	2,889	
Manmade Nonpoint Loads		211	94	351	656	164
SUB-TOTAL	2,580	737	379	2,429	3,545	809
TMDL = WLA + LA + MOS					6,934 kg/day	

Calculation of the TMDL - Pounds per day						
Load description	WLA (lbs O ₂ /day)	CBOD1 LA (lbs O ₂ /day)	NBOD LA (lbs O ₂ /day)	SOD LA (lbs O ₂ /day)	LA (lbs O ₂ /day)	MOS Load (lbs O ₂ /day)
Point Source loads	5,689					1,422
Natural Nonpoint Loads		1,160	628	4,582	6,370	
Manmade Nonpoint Loads		465	207	774	1,446	362
SUB-TOTAL	5,689	1,625	835	5,356	7,816	1,784
TMDL = WLA + LA + MOS					15,289 lbs/day	

Winter TMDL Summary:

GRAND BAYOU (SUBSEGMENT 120206)

Calculation of the TMDL - Kilograms per day						
Load description	WLA (kg O ₂ /day)	CBOD1 LA (kg O ₂ /day)	NBOD LA (kg O ₂ /day)	SOD LA (kg O ₂ /day)	LA (kg O ₂ /day)	MOS Load (kg O ₂ /day)
Point Source loads	2,580					645
Headwater / Tributatory loads		54	37		91	2
Benthic loads		521	349	1,272	2,142	90
Incremental Loads		0	0		0	0
SUB-TOTAL	2,580	575	386	1,272	2,233	737
TMDL = WLA + LA + MOS					5,550 kg/day	

Notes:
 (1) - Load(lbs/day) = Load(kg/day) x 2.205

Calculation of the TMDL - Pounds per day						
Load description	WLA (lbs O ₂ /day)	CBOD1 LA (lbs O ₂ /day)	NBOD LA (lbs O ₂ /day)	SOD LA (lbs O ₂ /day)	LA (lbs O ₂ /day)	MOS Load (lbs O ₂ /day)
Point Source loads	5,689					1,422
Headwater / Tributatory loads		119	82		201	4
Benthic loads		1,149	770	2,805	4,723	198
Incremental Loads		0	0		0	0
SUB-TOTAL	5,689	1,268	852	2,805	4,924	1,624
TMDL = WLA + LA + MOS					12,237 lbs/day	

Notes:
 (1) - Load(lbs/day) = Load(kg/day) x 2.205

Calculation of the TMDL - Kilograms per day						
Load description	WLA (kg O ₂ /day)	CBOD1 LA (kg O ₂ /day)	NBOD LA (kg O ₂ /day)	SOD LA (kg O ₂ /day)	LA (kg O ₂ /day)	MOS Load (kg O ₂ /day)
Point Source loads	2,580					645
Natural Nonpoint Loads		567	318	1,133	2,018	
Manmade Nonpoint Loads		161	68	139	368	92
SUB-TOTAL	2,580	728	386	1,272	2,386	737
TMDL = WLA + LA + MOS					5,703 kg/day	

Calculation of the TMDL - Pounds per day						
Load description	WLA (lbs O ₂ /day)	CBOD1 LA (lbs O ₂ /day)	NBOD LA (lbs O ₂ /day)	SOD LA (lbs O ₂ /day)	LA (lbs O ₂ /day)	MOS Load (lbs O ₂ /day)
Point Source loads	5,689					1,422
Natural Nonpoint Loads		1,250	701	2,498	4,450	
Manmade Nonpoint Loads		355	150	306	811	203
SUB-TOTAL	5,689	1,605	851	2,804	5,261	1,625
TMDL = WLA + LA + MOS					12,575 lbs/day	

Summer TMDL Summary:

LITTLE GRAND BAYOU (SUBSEGMENT 120206)

Calculation of the TMDL - Kilograms per day						
Load description	WLA (kg O ₂ /day)	CBOD1 LA (kg O ₂ /day)	NBOD LA (kg O ₂ /day)	SOD LA (kg O ₂ /day)	LA (kg O ₂ /day)	MOS Load (kg O ₂ /day)
Point Source loads	757					189
Headwater / Tributatory loads		2	1		3	0
Benthic loads		543	188	243	974	131
Incremental Loads		0	0		0	0
SUB-TOTAL	757	545	189	243	977	320
TMDL = WLA + LA + MOS					2,054 kg/day	

Notes:

(1) - Load(lbs/day) = Load(kg/day) x 2.205

Calculation of the TMDL - Pounds per day						
Load description	WLA (lbs O ₂ /day)	CBOD1 LA (lbs O ₂ /day)	NBOD LA (lbs O ₂ /day)	SOD LA (lbs O ₂ /day)	LA (lbs O ₂ /day)	MOS Load (lbs O ₂ /day)
Point Source loads	1,669					417
Headwater / Tributatory loads		4	2		7	0
Benthic loads		1,197	415	536	2,148	289
Incremental Loads		0	0		0	0
SUB-TOTAL	1,669	1,201	417	536	2,155	706
TMDL = WLA + LA + MOS					4,530 lbs/day	

Notes:

(1) - Load(lbs/day) = Load(kg/day) x 2.205

Calculation of the TMDL - Kilograms per day						
Load description	WLA (kg O ₂ /day)	CBOD1 LA (kg O ₂ /day)	NBOD LA (kg O ₂ /day)	SOD LA (kg O ₂ /day)	LA (kg O ₂ /day)	MOS Load (kg O ₂ /day)
Point Source loads	757					189
Natural Nonpoint Loads		222	77	155	454	
Manmade Nonpoint Loads		323	112	88	523	131
SUB-TOTAL	757	545	189	243	977	320
TMDL = WLA + LA + MOS					2,054 kg/day	

Calculation of the TMDL - Pounds per day						
Load description	WLA (lbs O ₂ /day)	CBOD1 LA (lbs O ₂ /day)	NBOD LA (lbs O ₂ /day)	SOD LA (lbs O ₂ /day)	LA (lbs O ₂ /day)	MOS Load (lbs O ₂ /day)
Point Source loads	1,669					417
Natural Nonpoint Loads		490	170	342	1,001	
Manmade Nonpoint Loads		712	247	194	1,153	289
SUB-TOTAL	1,669	1,202	417	536	2,154	706
TMDL = WLA + LA + MOS					4,529 lbs/day	

Winter TMDL Summary:

LITTLE GRAND BAYOU (SUBSEGMENT 120206)

Calculation of the TMDL - Kilograms per day						
Load description	WLA (kg O ₂ /day)	CBOD1 LA (kg O ₂ /day)	NBOD LA (kg O ₂ /day)	SOD LA (kg O ₂ /day)	LA (kg O ₂ /day)	MOS Load (kg O ₂ /day)
Point Source loads	757					189
Headwater / Tributatory loads		15	13		28	1
Benthic loads		455	75	122	652	88
Incremental Loads		0	0		0	0
SUB-TOTAL	757	470	88	122	680	278
TMDL = WLA + LA + MOS					1,715 kg/day	

Notes:

(1) - Load(lbs/day) = Load(kg/day) x 2.205

Calculation of the TMDL - Pounds per day						
Load description	WLA (lbs O ₂ /day)	CBOD1 LA (lbs O ₂ /day)	NBOD LA (lbs O ₂ /day)	SOD LA (lbs O ₂ /day)	LA (lbs O ₂ /day)	MOS Load (lbs O ₂ /day)
Point Source loads	1,669					417
Headwater / Tributatory loads		33	29		62	2
Benthic loads		1,003	165	269	1,438	194
Incremental Loads		0	0		0	0
SUB-TOTAL	1,669	1,036	194	269	1,500	613
TMDL = WLA + LA + MOS					3,782 lbs/day	

Notes:

(1) - Load(lbs/day) = Load(kg/day) x 2.205

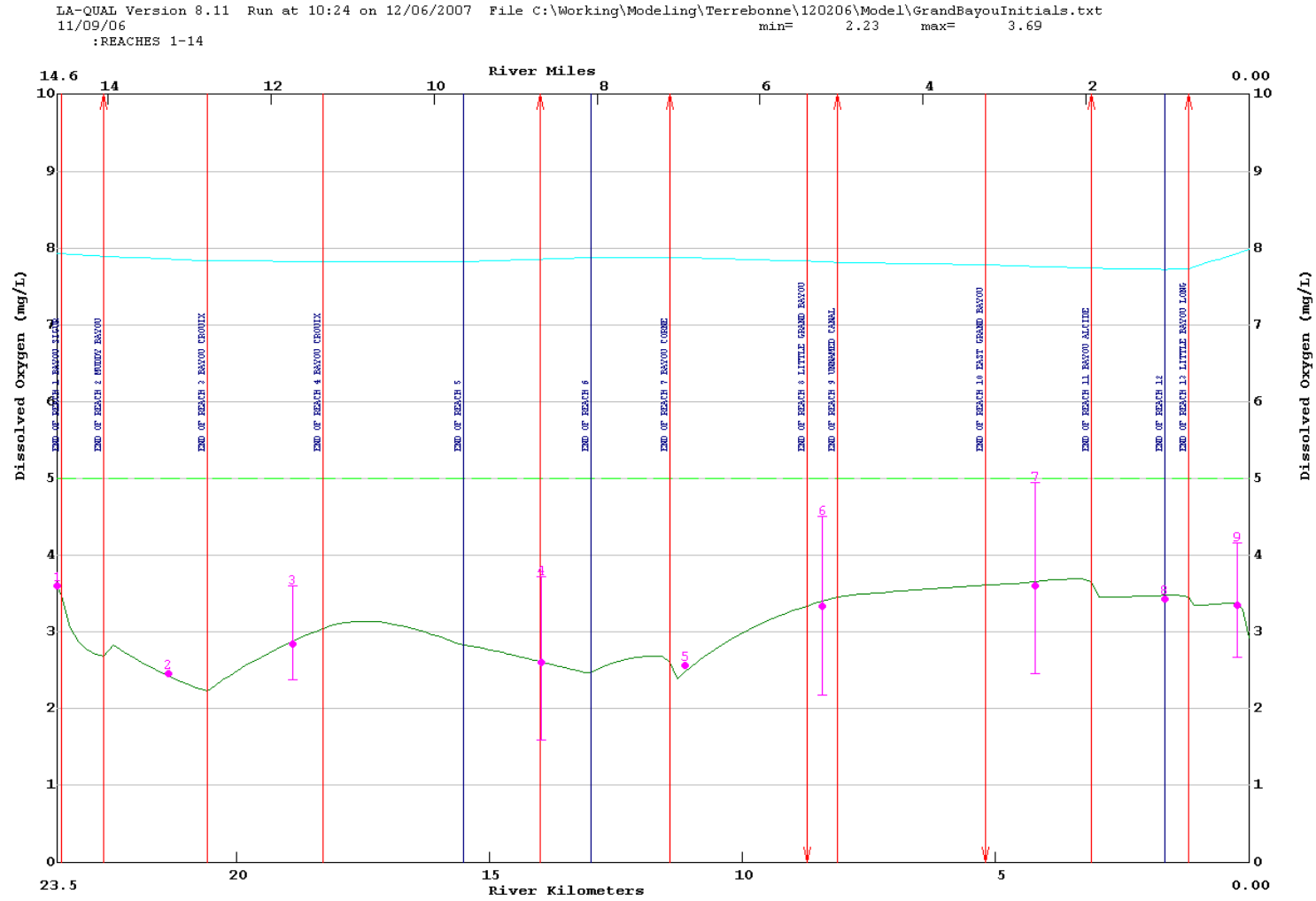
Calculation of the TMDL - Kilograms per day						
Load description	WLA (kg O ₂ /day)	CBOD1 LA (kg O ₂ /day)	NBOD LA (kg O ₂ /day)	SOD LA (kg O ₂ /day)	LA (kg O ₂ /day)	MOS Load (kg O ₂ /day)
Point Source loads	757					189
Natural Nonpoint Loads		234	88	86	408	
Manmade Nonpoint Loads		237	82	36	355	89
SUB-TOTAL	757	471	170	122	763	278
TMDL = WLA + LA + MOS					1,798 kg/day	

Calculation of the TMDL - Pounds per day						
Load description	WLA (lbs O ₂ /day)	CBOD1 LA (lbs O ₂ /day)	NBOD LA (lbs O ₂ /day)	SOD LA (lbs O ₂ /day)	LA (lbs O ₂ /day)	MOS Load (lbs O ₂ /day)
Point Source loads	1,669					417
Natural Nonpoint Loads		516	194	190	900	
Manmade Nonpoint Loads		523	181	79	783	196
SUB-TOTAL	1,669	1,039	375	269	1,683	613
TMDL = WLA + LA + MOS					3,965 lbs/day	

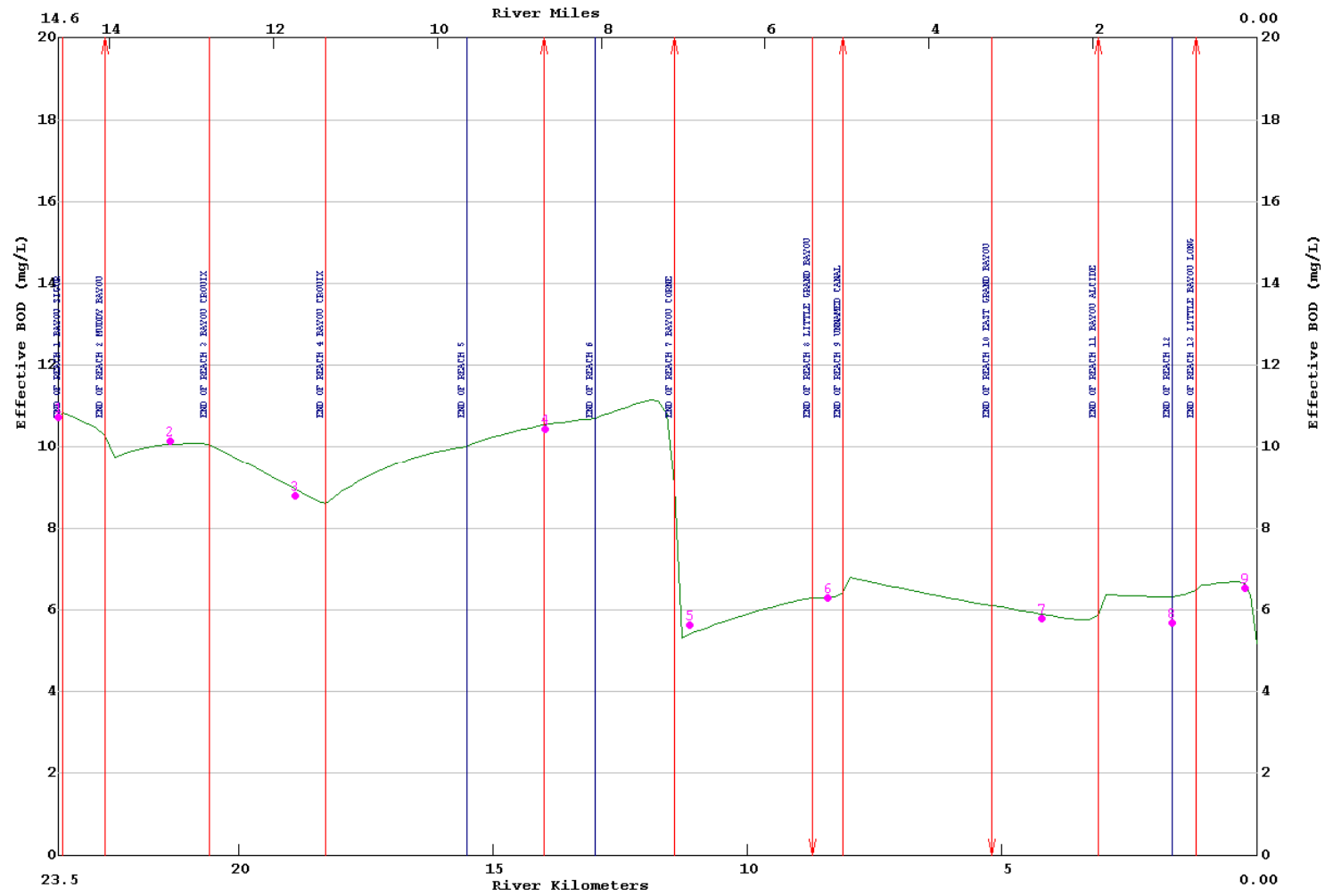
Appendix B – Calibration Model Input and Output Data Sets

Appendix B1 – Grand Bayou Calibration Model

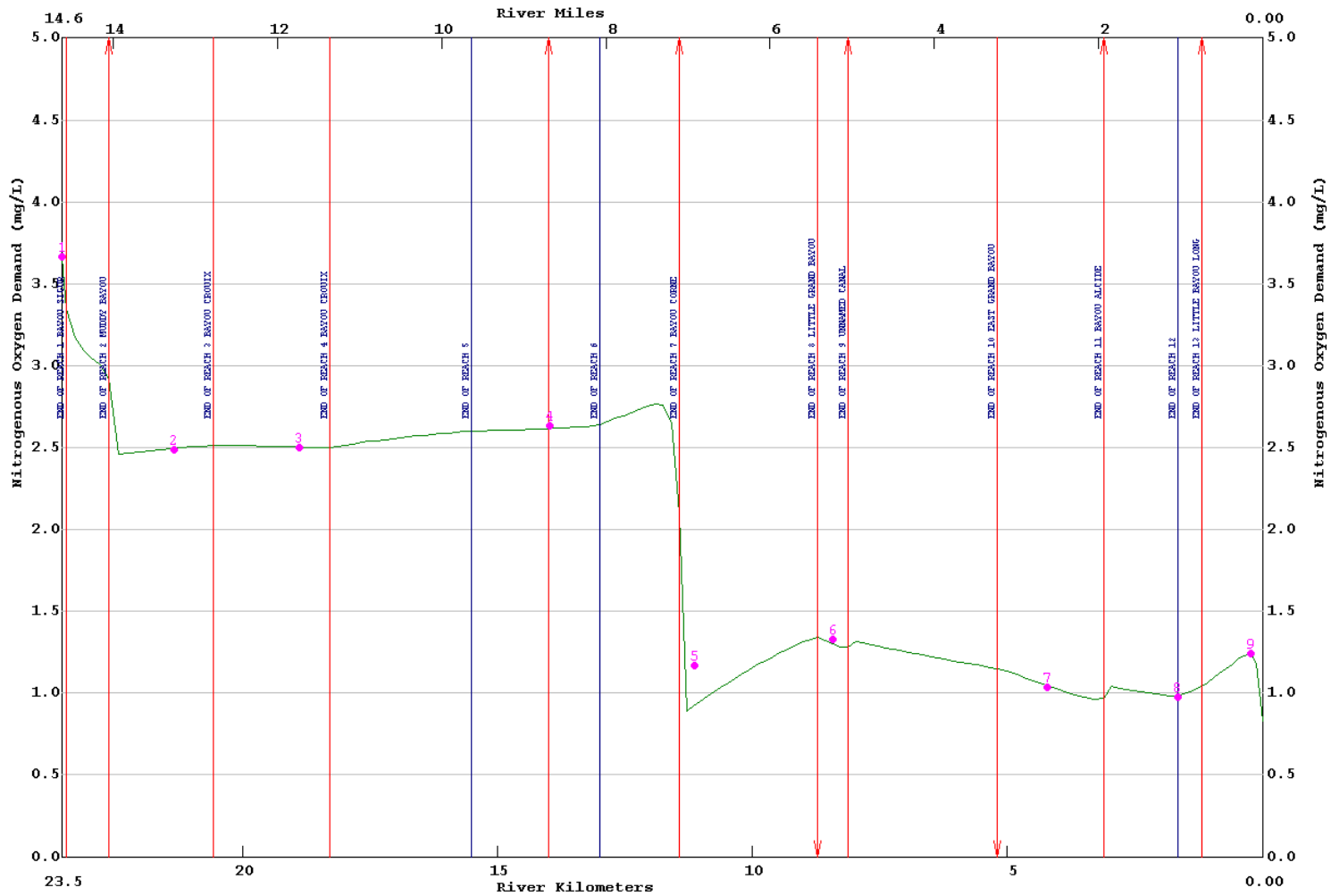
Graphs



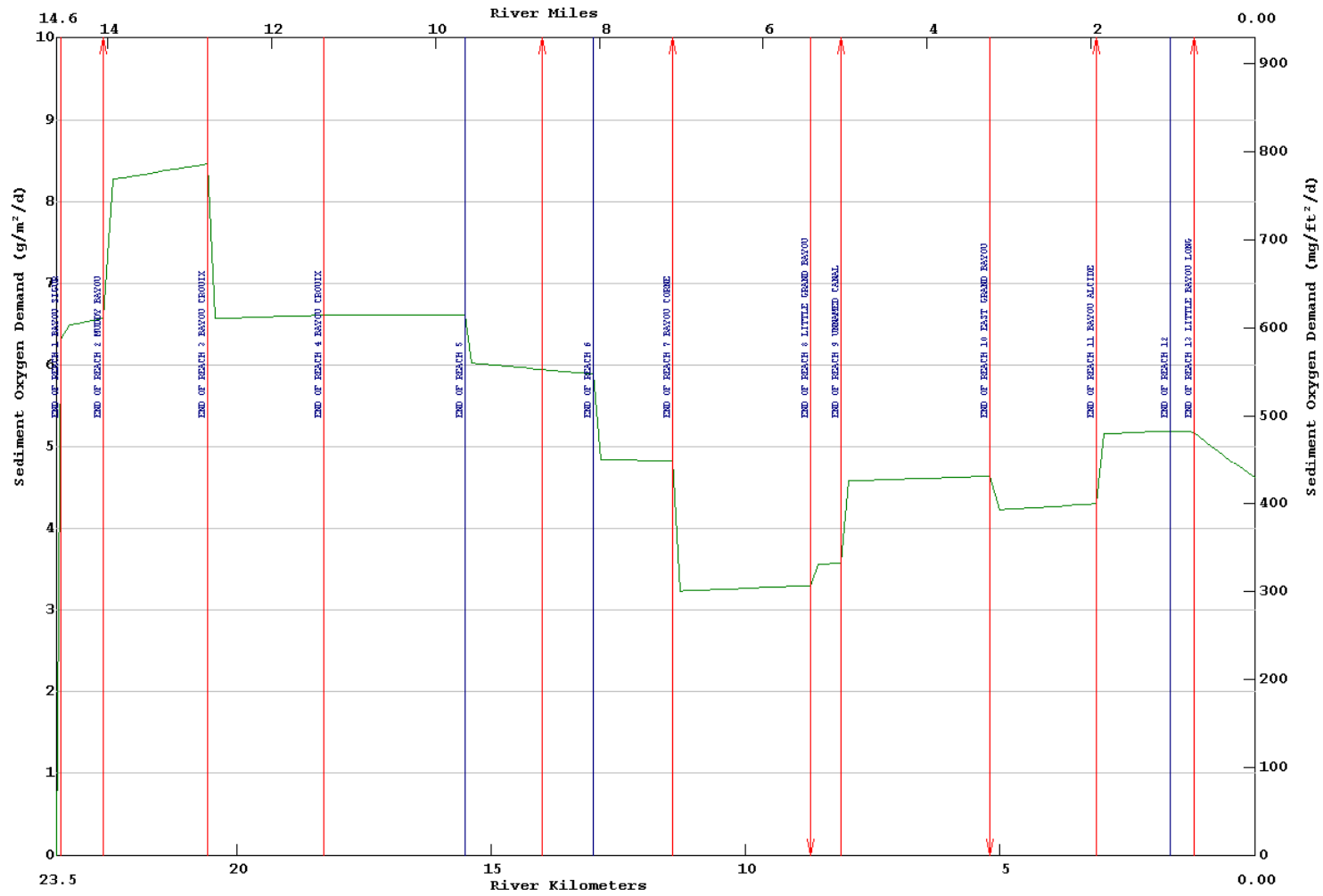
LA-QUAL Version 8.11 Run at 10:24 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06 min= 5.18 max= 11.15
 :REACHES 1-14



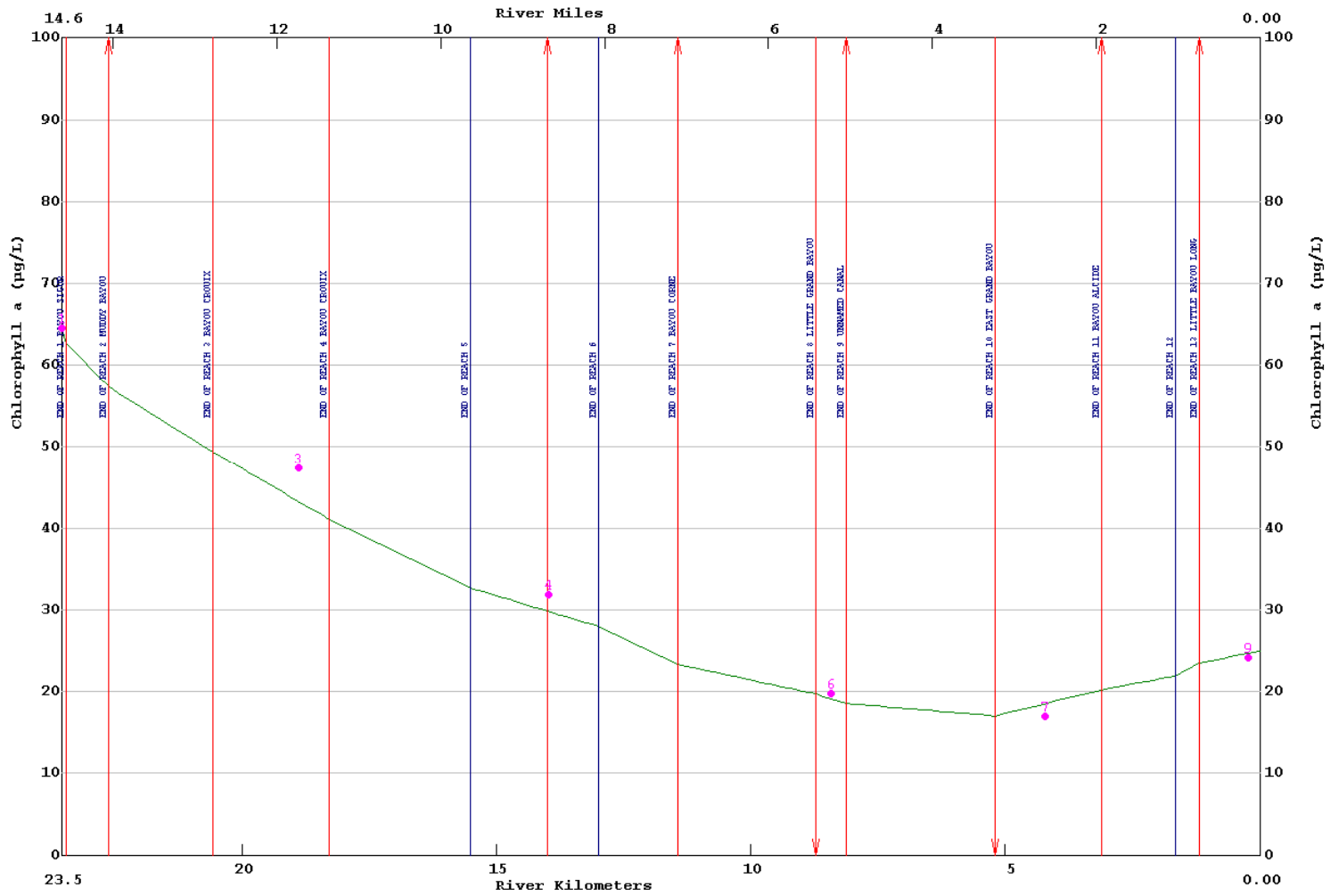
LA-QUAL Version 8.11 Run at 10:24 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06 min= 0.83 max= 3.67
 :REACHES 1-14



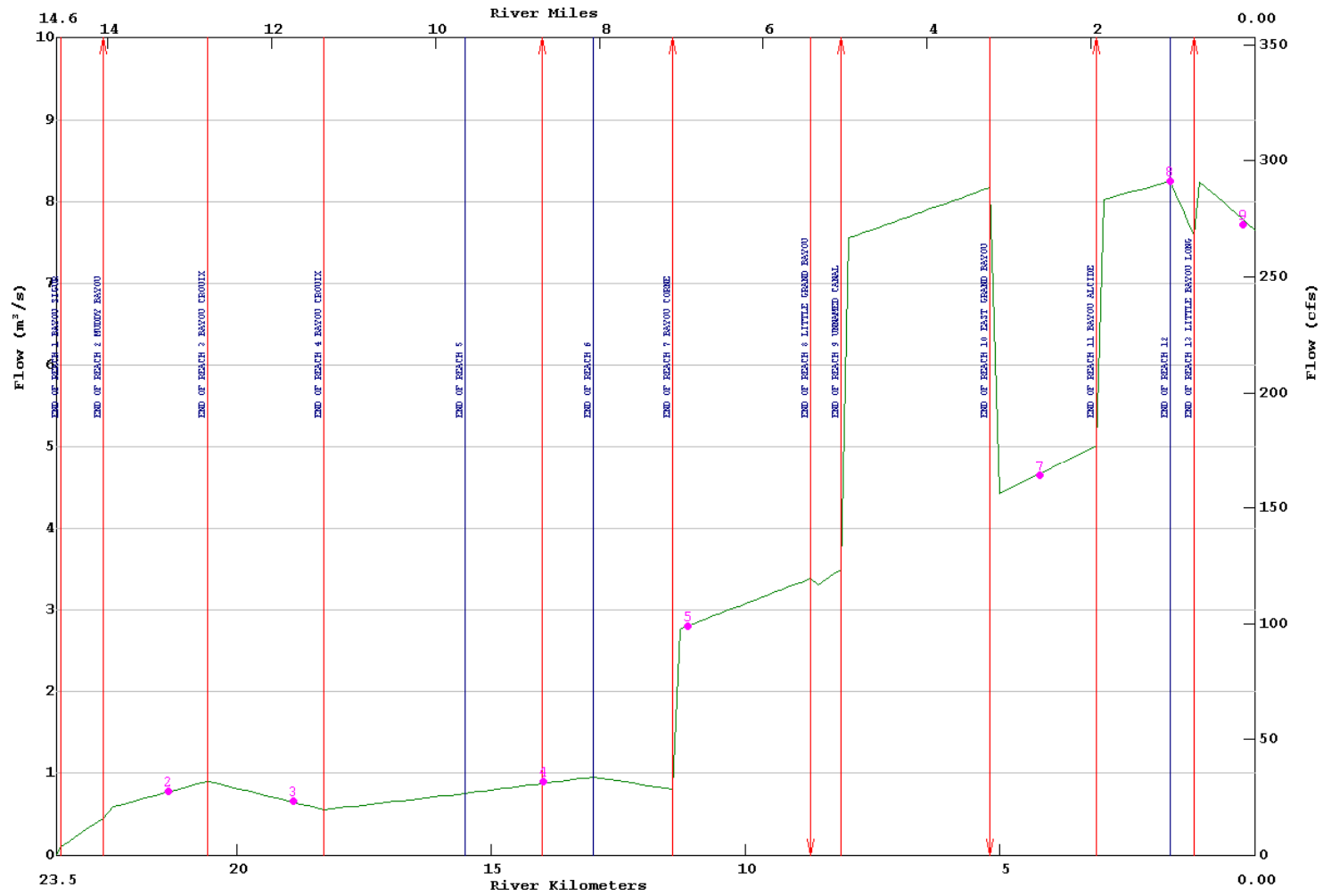
LA-QUAL Version 8.11 Run at 10:24 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06 min= 0.00 max= 8.46
 :REACHES 1-14



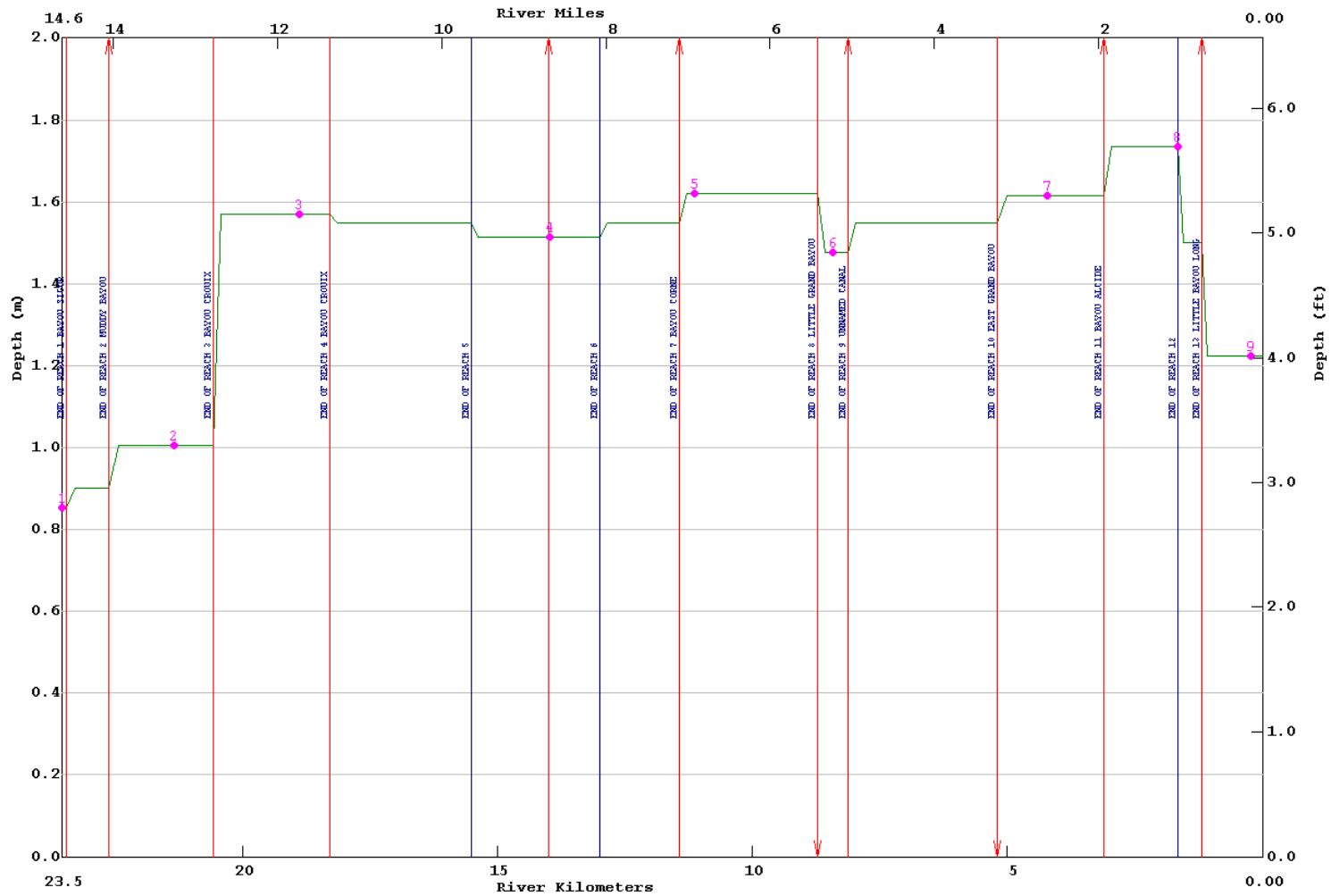
LA-QUAL Version 8.11 Run at 10:24 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06 min= 17.02 max= 64.43
:REACHES 1-14



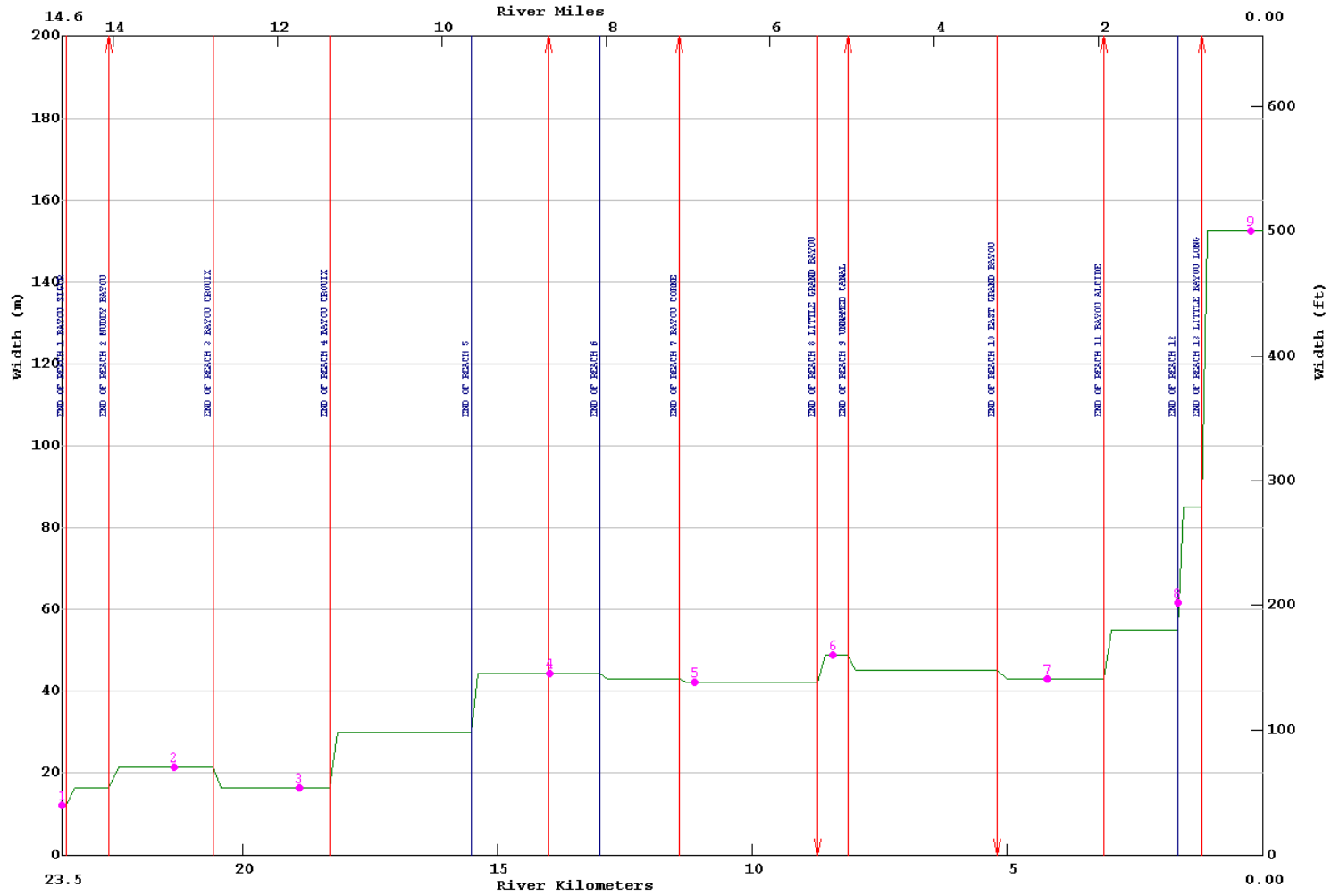
LA-QUAL Version 8.11 Run at 10:24 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06 min= 0.00 max= 8.25
 :REACHES 1-14



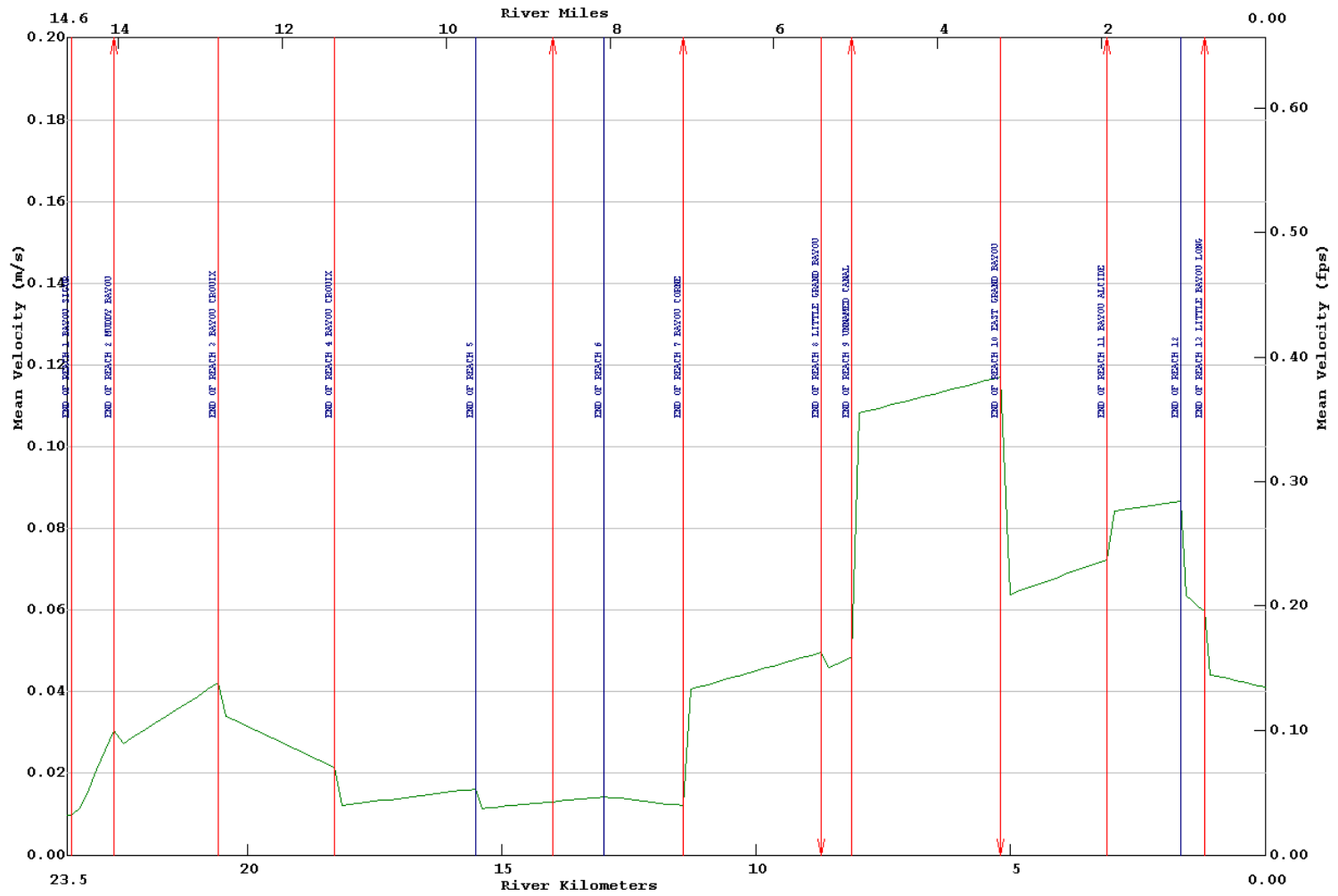
LA-QUAL Version 8.11 Run at 10:24 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06 min= 0.85 max= 1.73
 :REACHES 1-14



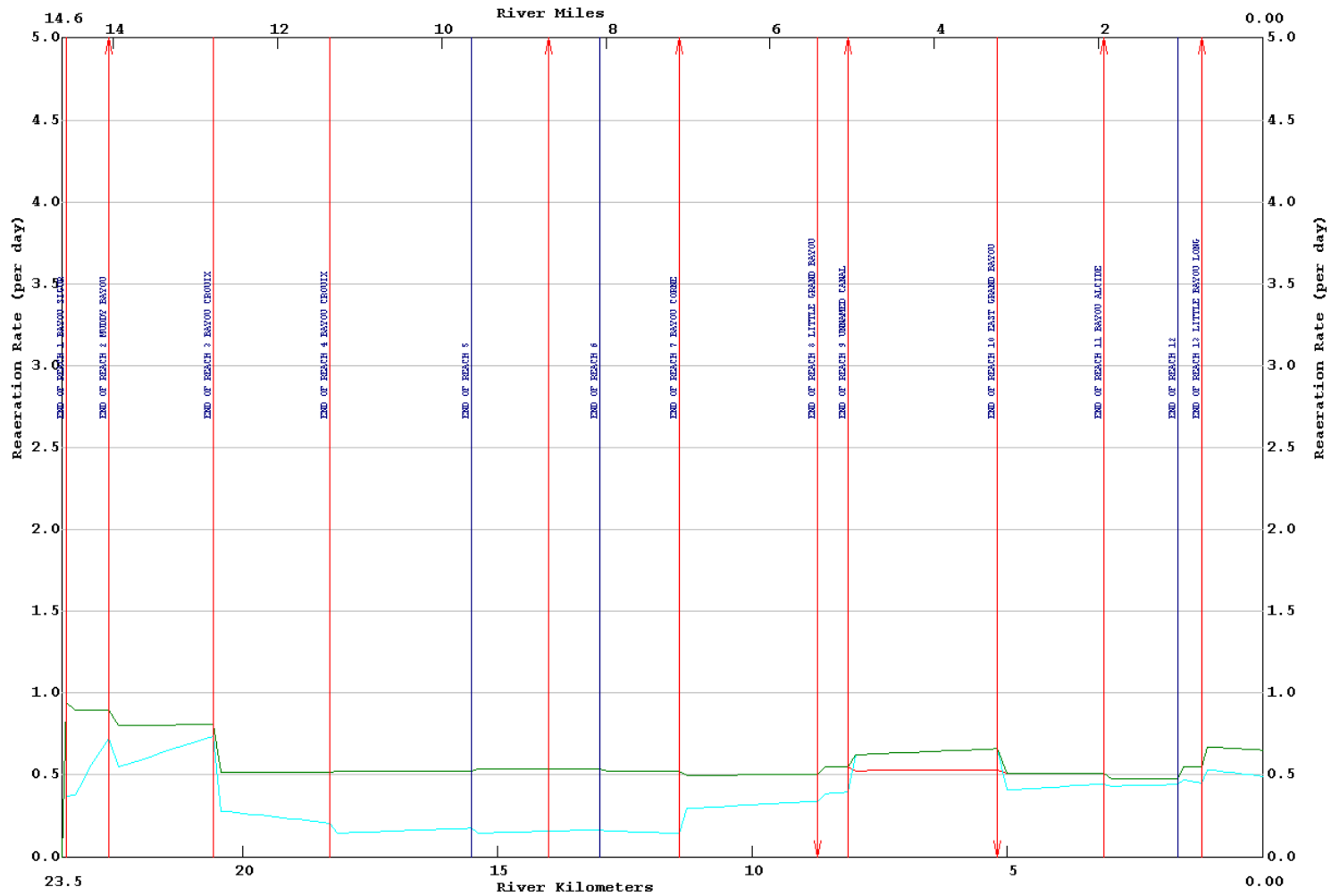
LA-QUAL Version 8.11 Run at 10:24 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06 min= 12.19 max= 152.40
 :REACHES 1-14



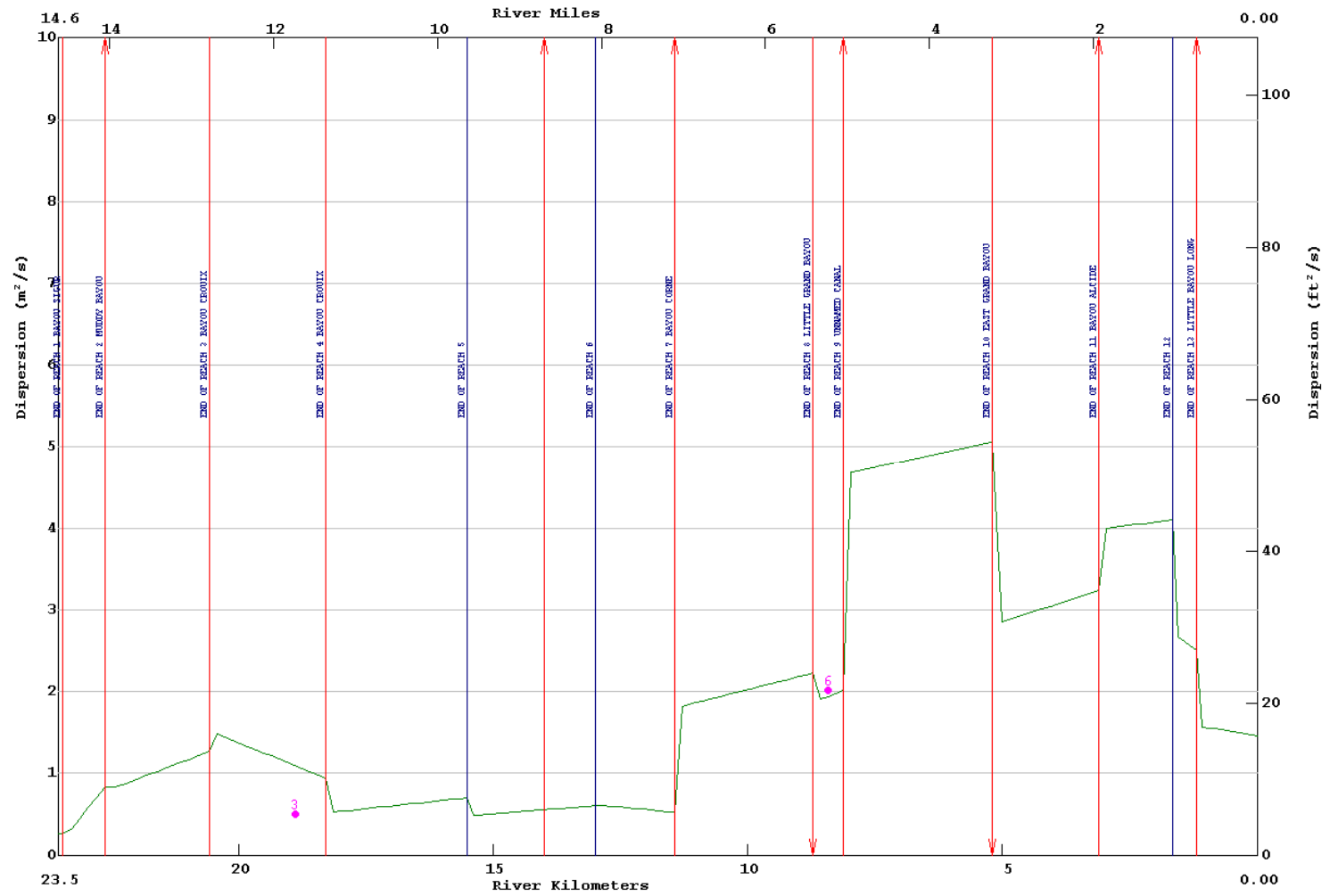
LA-QUAL Version 8.11 Run at 15:32 on 01/16/2008 File C:\Documents and Settings\shane\My Documents\Modeling\Terrebonne\120206\Model\GrandBayouInitia.
 11/09/06 min= 0.01 max= 0.12
 :REACHES 1-14



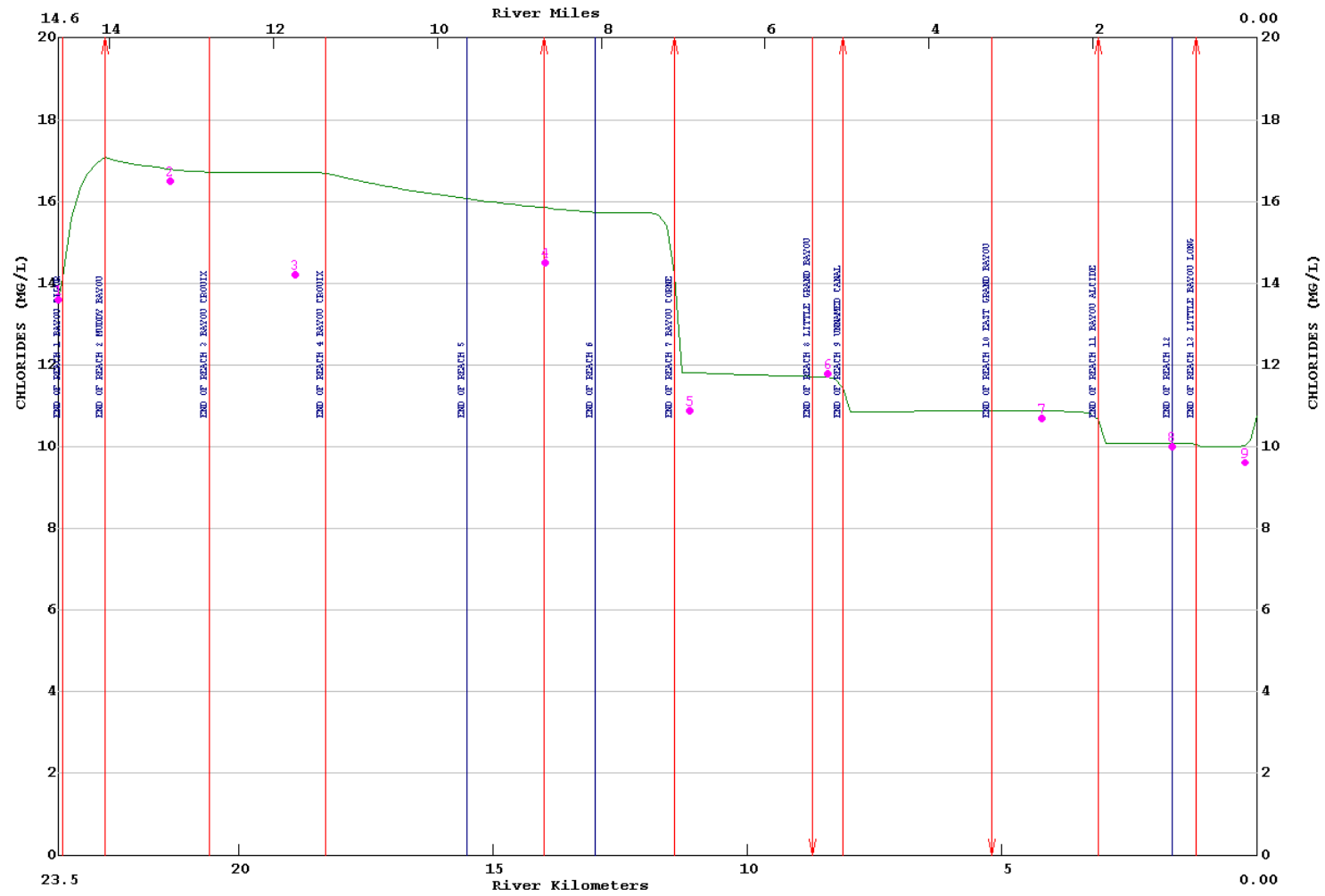
LA-QUAL Version 8.11 Run at 10:24 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06 min= 0.00 max= 0.94
 :REACHES 1-14



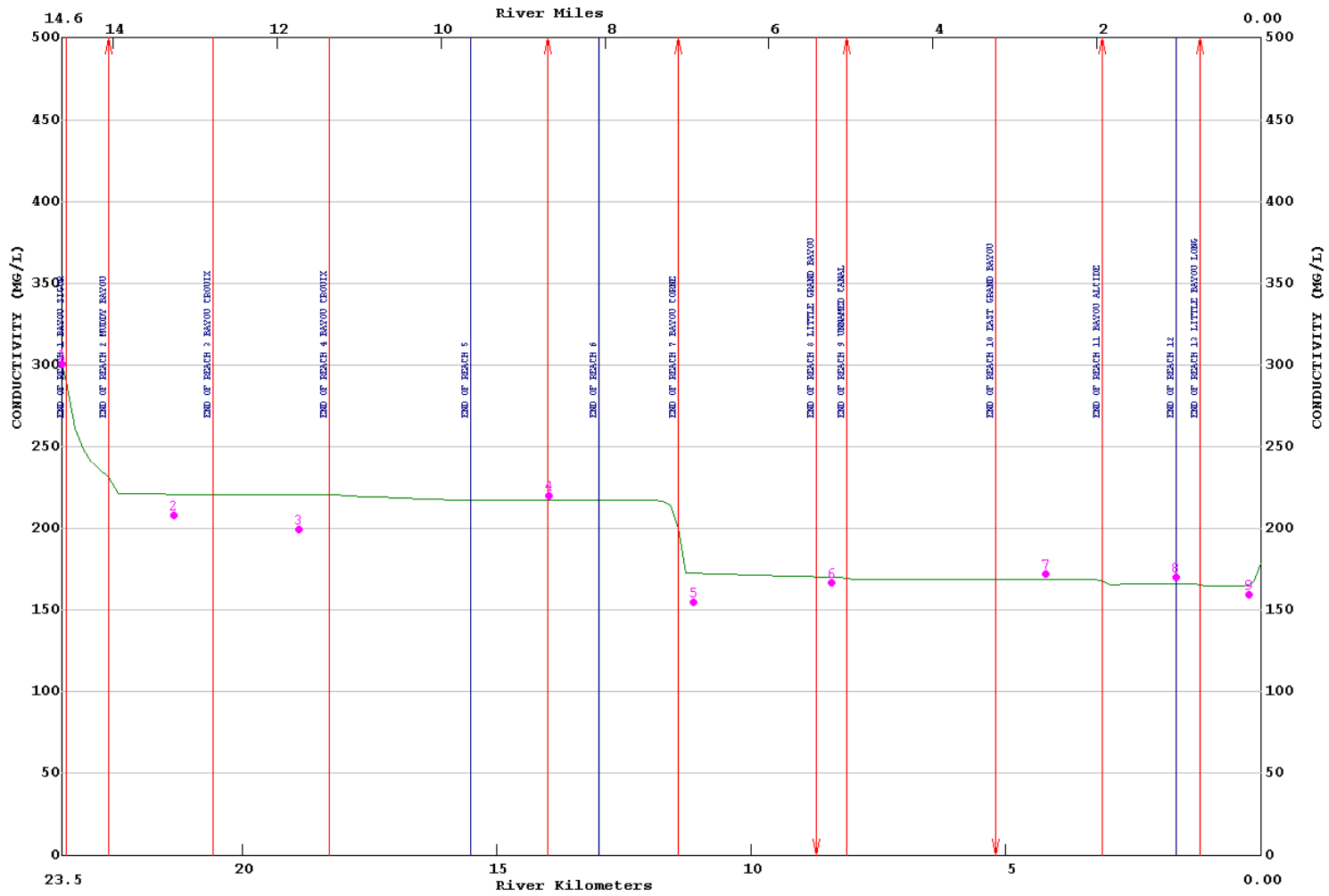
LA-QUAL Version 8.11 Run at 10:24 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06 min= 0.26 max= 5.06
 :REACHES 1-14



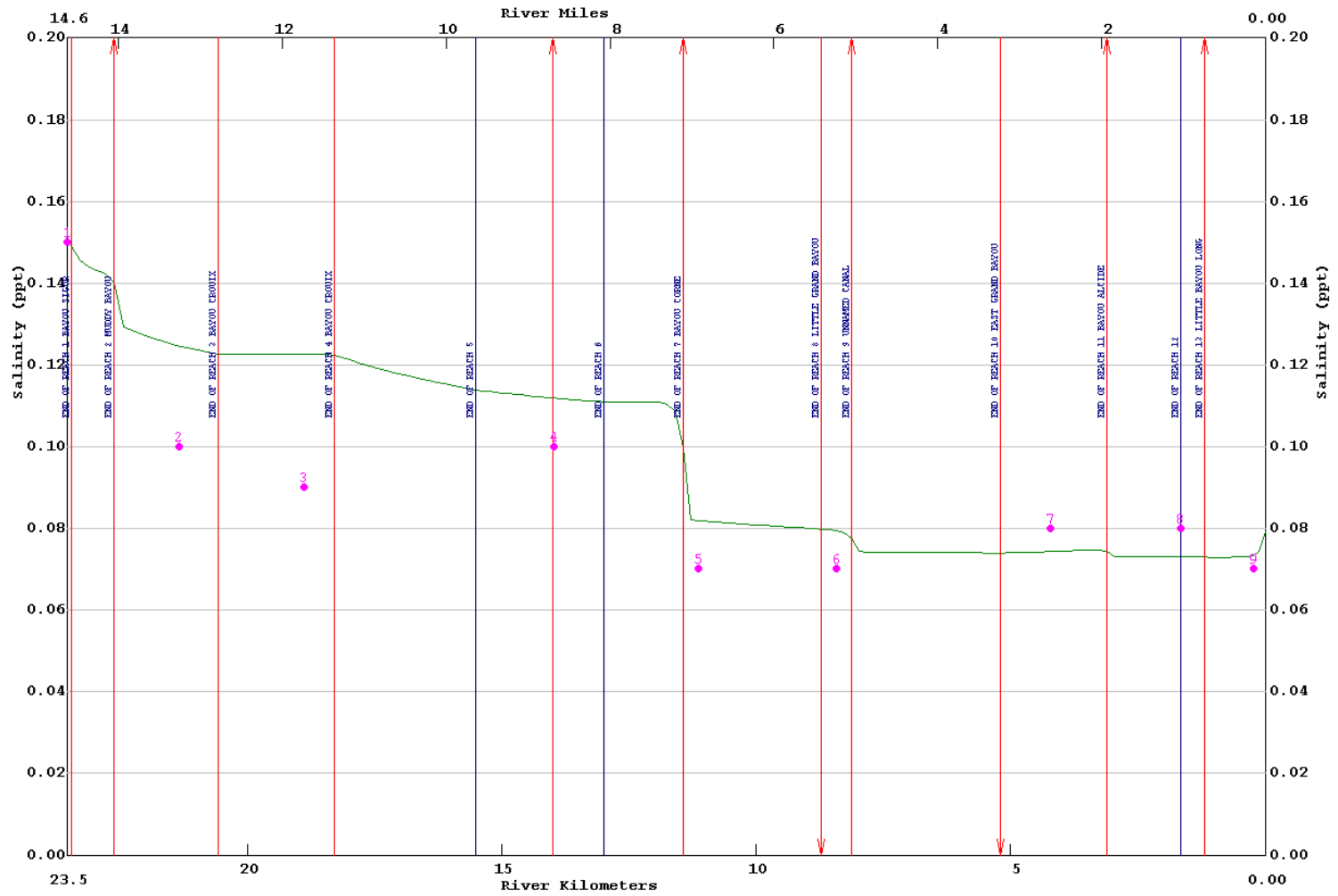
LA-QUAL Version 8.11 Run at 10:24 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06 min= 10.01 max= 17.08
 :REACHES 1-14



LA-QUAL Version 8.11 Run at 10:24 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06 min= 164.64 max= 300.80
 :REACHES 1-14



LA-QUAL Version 8.11 Run at 10:24 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06 min= 0.07 max= 0.15
 :REACHES 1-14



Input File

```

CNTROL01      GRAND BAYOU
CNTROL02      11/09/06
CNTROL12 YES  METRIC UNITS
ENDATA01
MODOPT01     NO  TEMPERATURE
MODOPT02     YES SALINITY
MODOPT03     YES CONSERVATIVE MATERIAL I = CHLORIDES           IN MG/L
MODOPT04     YES CONSERVATIVE MATERIAL II = CONDUCTIVITY      IN MG/L
MODOPT05     YES DISSOLVED OXYGEN
MODOPT06     YES BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT07     NO  BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08     YES NBOD OXYGEN DEMAND
MODOPT09     NO  PHOSPHORUS
MODOPT10     NO  CHLOROPHYLL A
MODOPT11     NO  MACROPHYTES
MODOPT12     NO  COLIFORM
MODOPT13     NO  NONCONSERVATIVE MATERIAL
ENDATA02
PROGRAM      DISPERSION EQUATION           =      3
PROGRAM      TIDE HEIGHT                   =     0.07
PROGRAM      KL MINIMUM                   =     0.7
PROGRAM      INHIBITION CONTROL VALUE     =     3.0
PROGRAM      EFFECTIVE BOD DUE TO ALGAE   =     0.10
PROGRAM      ALGAE OXYGEN PRODUCTION      =     0.05
PROGRAM      K2 MAXIMUM                   =    25.0
PROGRAM      HYDRAULIC CALCULATION METHOD  =     2.0
PROGRAM      SETTLED RATE UNITS           =     2.0
ENDATA03
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
ENDATA04
ENDATA05
ENDATA06
ENDATA07
!Reach Identification Data
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
***  --  *****
REACH ID   1  GB  SITE GRB1-BAYOU SIGUR           23.53    23.44    0.090
REACH ID   2  GB  BAYOU SIGUR-MUDDY BAYOU        23.44    22.62    0.164
REACH ID   3  GB  MUDDY BAYOU-BAYOU CROUX(BYC1)  22.62    20.57    0.205
REACH ID   4  GB  B CROUX(BYC1)-B CROUX(BYC2)    20.57    18.29    0.152
REACH ID   5  GB  B CROUX(BYC2)-km 15.5         18.29    15.50    0.155
REACH ID   6  GB  km 15.5-km 13.0               15.50    13.00    0.125
REACH ID   7  GB  km 13.0-BAYOU CORNE           13.00    11.43    0.157
REACH ID   8  GB  B CORNE-LITTLE GRAND BAYOU    11.43     8.72    0.1355
REACH ID   9  GB  LITTLE GRAND-UNNAMED CANAL    8.72     8.12    0.150
REACH ID  10  GB  UNNAMED CANAL-E GRAND BAYOU   8.12     5.20    0.146
REACH ID  11  GB  E GRAND BAYOU-BAYOU ALCIDE    5.20     3.11    0.190
REACH ID  12  GB  BAYOU ALCIDE-SITE GRB8        3.11     1.66    0.145
REACH ID  13  GB  SITE GRB8-LITTLE BAYOU LONG  1.66     1.20    0.115
REACH ID  14  GB  L BAYOU LONG-LAKE VERRRET     1.20     0.00    0.120
ENDATA08
!Advective Hydraulic Coefficients
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
***  -----*****
HYDR-1     1  0.0000 0.0000 12.192 0.000 0.000 0.853 0.0001 0.035
HYDR-1     2  0.0000 0.0000 16.50 0.000 0.000 0.90 0.0001 0.035
HYDR-1     3  0.0000 0.0000 21.336 0.000 0.000 1.006 0.0001 0.035
HYDR-1     4  0.0000 0.0000 16.459 0.000 0.000 1.570 0.0001 0.035
HYDR-1     5  0.0000 0.0000 30.00 0.000 0.000 1.55 0.0001 0.035
HYDR-1     6  0.0000 0.0000 44.196 0.000 0.000 1.515 0.0001 0.035
HYDR-1     7  0.0000 0.0000 43.00 0.000 0.000 1.55 0.0001 0.035
HYDR-1     8  0.0000 0.0000 42.062 0.000 0.000 1.622 0.0001 0.035
HYDR-1     9  0.0000 0.0000 48.768 0.000 0.000 1.478 0.0001 0.035

```


COEF-2	5	0.100	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	6	0.104	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	7	0.120	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	8	0.138	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	9	0.091	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	10	0.094	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	11	0.098	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	12	0.092	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	13	0.091	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	14	0.097	0.05	1.0	0.00	0.00	0.00	0.00

ENDATA13

!Algae and Macrophyte Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! *** -----*****-----*****-----*****-----*****

ENDATA14

!Coliform and Nonconservative Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! *** -----*****-----*****-----*****-----*****

ENDATA15

!Incremental Data for Flow, Temperature, Salinity, and Conservatives

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! *** -----*****-----*****-----*****-----*****

INCR-1	1	0.0	0.10000	0.15	13.66	298.89
INCR-1	2	0.0	0.35000	0.14	18.08	214.22
INCR-1	3	0.0	0.35000	0.11	16.16	218.81
INCR-1	4	-0.35	0.00000	0.00	0.00	0.00
INCR-1	5	0.0	0.20000	0.09	14.32	207.48
INCR-1	6	0.0	0.20000	0.10	14.48	218.85
INCR-1	7	-0.15	0.00000	0.00	0.00	0.00
INCR-1	8	0.0	0.65000	0.07	11.25	159.20
INCR-1	9	0.0	0.25000	0.07	11.80	166.50
INCR-1	10	0.0	0.65000	0.07	11.34	168.72
INCR-1	11	0.0	0.65000	0.08	10.68	171.75
INCR-1	12	0.0	0.25000	0.08	10.20	170.29
INCR-1	13	-0.65	0.00000	0.00	0.00	0.00
INCR-1	14	-0.65	0.00000	0.00	0.00	0.00

ENDATA16

!Incremental Data for DO, BOD, and Nitrogen

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! *** -----*****-----*****-----*****-----*****

INCR-2	1	3.58	0.00	0.00	0.0	0.00
INCR-2	2	2.18	0.00	0.00	0.0	0.00
INCR-2	3	2.58	0.00	0.00	0.0	0.00
INCR-2	4	0.00	0.00	0.00	0.0	0.00
INCR-2	5	2.74	0.00	0.00	0.0	0.00
INCR-2	6	2.61	0.00	0.00	0.0	0.00
INCR-2	7	0.00	0.00	0.00	0.0	0.00
INCR-2	8	2.86	0.00	0.00	0.0	0.00
INCR-2	9	3.33	0.00	0.00	0.0	0.00
INCR-2	10	3.44	0.00	0.00	0.0	0.00
INCR-2	11	3.60	0.00	0.00	0.0	0.00
INCR-2	12	3.48	0.00	0.00	0.0	0.00
INCR-2	13	0.00	0.00	0.00	0.0	0.00
INCR-2	14	0.00	0.00	0.00	0.0	0.00

ENDATA17

!Incremental Data for Phosphorus, Chlorophyll, Coliform and Nonconservatives

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! *** -----*****-----*****-----*****-----*****

INCR-3	1	0.000	0.000	0.000	0.0000
INCR-3	2	0.000	0.000	0.000	0.0000
INCR-3	3	0.000	0.000	0.000	0.0000
INCR-3	4	0.000	0.000	0.000	0.0000
INCR-3	5	0.000	0.000	0.000	0.0000
INCR-3	6	0.000	0.000	0.000	0.0000
INCR-3	7	0.000	0.000	0.000	0.0000

WSTLD-2	2	2.63	13.411	0.0	4.052	0.00	0.0	0.00	0.000
WSTLD-2	7	4.17	0.508	0.0	0.000	0.00	0.0	0.00	0.000
WSTLD-2	17	2.48	6.908	0.0	1.445	0.00	0.0	0.00	0.000
WSTLD-2	32	2.75	10.311	0.0	2.514	0.00	0.0	0.00	0.000
WSTLD-2	62	2.11	10.259	0.0	2.131	0.00	0.0	0.00	0.000
WSTLD-2	80	2.08	0.288	0.0	0.000	0.00	0.0	0.00	0.000
WSTLD-2	100	2.92	6.815	0.0	1.455	0.00	0.0	0.00	0.000
WSTLD-2	104	3.47	5.475	0.0	1.380	0.00	0.0	0.00	0.000
WSTLD-2	124	3.16	6.452	0.0	1.302	0.00	0.0	0.00	0.000
WSTLD-2	135	2.99	5.537	0.0	1.226	0.00	0.0	0.00	0.000
WSTLD-2	149	1.86	5.774	0.0	0.965	0.00	0.0	0.00	0.000

ENDATA25

!Wasteload Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives

!-----1-----2-----3-----4-----5-----6-----7-----8
 !234567890123456789012345678901234567890123456789012345678901234567890

WSTLD-3	2	0.00	78.10	0.00	0.00
WSTLD-3	7	0.00	78.10	0.00	0.00
WSTLD-3	17	0.00	78.10	0.00	0.00
WSTLD-3	32	0.00	78.10	0.00	0.00
WSTLD-3	62	0.00	0.00	0.00	0.00
WSTLD-3	80	0.00	6.60	0.00	0.00
WSTLD-3	100	0.00	23.80	0.00	0.00
WSTLD-3	104	0.00	23.80	0.00	0.00
WSTLD-3	124	0.00	23.80	0.00	0.00
WSTLD-3	135	0.00	23.80	0.00	0.00
WSTLD-3	149	0.00	23.80	0.00	0.00

ENDATA26

LOWER BC TEMPERATURE	=	26.84
LOWER BC SALINITY	=	0.09
LOWER BC CONSERVATIVE MATERIAL I	=	12.00
LOWER BC CONSERVATIVE MATERIAL II	=	202.14
LOWER BC DISSOLVED OXYGEN	=	2.04
LOWER BC BOD1 BIOCHEMICAL OXYGEN DEMAND	=	0.290
LOWER BC NBOD	=	0.000
LOWER BC PHOSPHORUS	=	0.00
LOWER BC CHLOROPHYLL A	=	25.00
LOWER BC COLIFORM	=	0.00
LOWER BC NONCONSERVATIVE MATERIAL	=	0.00

ENDATA27

!DAM DATA

!-----1-----2-----3-----4-----5-----6-----7-----8
 !234567890123456789012345678901234567890123456789012345678901234567890

WSTLD-3	2	0.00	78.10	0.00	0.00
WSTLD-3	7	0.00	78.10	0.00	0.00
WSTLD-3	17	0.00	78.10	0.00	0.00
WSTLD-3	32	0.00	78.10	0.00	0.00
WSTLD-3	62	0.00	0.00	0.00	0.00
WSTLD-3	80	0.00	6.60	0.00	0.00
WSTLD-3	100	0.00	23.80	0.00	0.00
WSTLD-3	104	0.00	23.80	0.00	0.00
WSTLD-3	124	0.00	23.80	0.00	0.00
WSTLD-3	135	0.00	23.80	0.00	0.00
WSTLD-3	149	0.00	23.80	0.00	0.00

ENDATA28

SENSIT	BASEFLOW	30.0	-30.0
SENSIT	VELOCITY	30.0	-30.0
SENSIT	DEPTH	30.0	-30.0
SENSIT	DISPERSI	30.0	-30.0
SENSIT	REAERATI	30.0	-30.0
SENSIT	BOD DECA	30.0	-30.0
SENSIT	BOD SETT	30.0	-30.0
SENSIT	NBOD DEC	30.0	-30.0
SENSIT	NBOD SET	30.0	-30.0
SENSIT	BENTHAL	30.0	-30.0
SENSIT	TEMPERAT	2.0	-2.0
SENSIT	INC INFL	30.0	-30.0
SENSIT	INC DO	30.0	-30.0
SENSIT	HDW FLOW	30.0	-30.0
SENSIT	HDW TEMP	2.0	-2.0
SENSIT	HDW DO	30.0	-30.0
SENSIT	HDW BOD	30.0	-30.0
SENSIT	HDW NBOD	30.0	-30.0
SENSIT	WSL FLOW	30.0	-30.0
SENSIT	WSL TEMP	2.0	-2.0
SENSIT	WSL DO	30.0	-30.0
SENSIT	WSL BOD	30.0	-30.0
SENSIT	WSL NBOD	30.0	-30.0
SENSIT	LBC TEMP	2.0	-2.0
SENSIT	LBC DO	30.0	-30.0

```
SENSIT  LBC BOD    30.0  -30.0
SENSIT  LBC NBOD   30.0  -30.0
SENSIT  NPS BOD    30.0  -30.0
SENSIT  NPS NBOD   30.0  -30.0
ENDATA29
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 14
PLOT RCH 1  2  3  4  5  6  7  8  9 10 11 12 13 14
ENDATA30
OVERLAY 1 OVERLAY GrandBayou3.TXT           :REACHES 1-14
ENDATA31
```

Overlay File

```
STATION  1  KILOMETER  23.53
02                0.15
03                13.6
04                300.8
05                3.60
06                10.722
13                64.6
18                3.666
33                0.853
34                12.192
STATION  2  KILOMETER  21.34
02                0.10
03                16.5
04                208.0
05                2.45
06                10.158
18                2.487
31                0.777
33                1.006
34                21.336
STATION  3  KILOMETER  18.88
02                0.09
03                14.20
04                198.94
05                2.37    2.84    3.60
06                8.790
13                47.40
18                2.501
31                0.657
32                0.505
33                1.570
34                16.459
STATION  4  KILOMETER  13.98
02                0.10
03                14.50
04                220.01
05                1.59    2.60    3.72
06                10.443
13                31.80
18                2.633
31                0.898
33                1.515
34                44.196
STATION  5  KILOMETER  11.14
02                0.07
03                10.90
04                154.5
```


05		2.56		
06		5.614		
18		1.165		
31		2.794		
33		1.622		
34		42.062		
STATION 6	KILOMETER		8.42	
02		0.07		
03		11.80		
04		166.50		
05	2.17	3.33	4.50	
06		6.297		
13		19.70		
18		1.324		
32		2.01		
33		1.478		
34		48.768		
STATION 7	KILOMETER		4.22	
02		0.08		
03		10.70		
04		171.80		
05	2.46	3.60	4.95	
06		5.784		
13		16.90		
18		1.035		
31		4.644		
33		1.615		
34		42.946		
STATION 8	KILOMETER		1.66	
02		0.08		
03		10.00		
04		169.70		
05		3.43		
06		5.685		
18		0.975		
31		8.248		
33		1.734		
34		61.478		
STATION 9	KILOMETER		0.22	
02		0.07		
03		9.60		
04		159.56		
05	2.66	3.35	4.16	
06		6.534		
13		24.10		
18		1.239		
31		7.718		
33		1.225		
34		152.40		
STD 05	5.0	23.53	00.00	
MRK	23.44	END OF REACH 1	BAYOU SIGUR	
MRK	22.62	END OF REACH 2	MUDDY BAYOU	
MRK	20.57	END OF REACH 3	BAYOU CROUX	
MRK	18.29	END OF REACH 4	BAYOU CROUX	
MRK	15.50	END OF REACH 5		
MRK	13.00	END OF REACH 6		
MRK	11.43	END OF REACH 7	BAYOU CORNE	
MRK	8.72	END OF REACH 8	LITTLE GRAND BAYOU	
MRK	8.12	END OF REACH 9	UNNAMED CANAL	
MRK	5.20	END OF REACH 10	EAST GRAND BAYOU	
MRK	3.11	END OF REACH 11	BAYOU ALCIDE	
MRK	1.66	END OF REACH 12		
MRK	1.20	END OF REACH 13	LITTLE BAYOU LONG	

MRK 0.00 END OF REACH 14
END

Output File

LA-QUAL Version 8.11
 Louisiana Department of Environmental Quality

Input file is C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 Output produced at 15:55 on 12/06/2007

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE	CONTROL TITLES
TITLE01	GRAND BAYOU
TITLE02	11/09/06
CNTR0L12	YES METRIC UNITS
ENDATA01	

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE	MODEL OPTION
MOOPT01	NO TEMPERATURE
MOOPT02	YES SALINITY
MOOPT03	YES CONSERVATIVE MATERIAL I = CHLORIDES IN MG/L
MOOPT04	YES CONSERVATIVE MATERIAL II = CONDUCTIVITY IN MG/L
MOOPT05	YES DISSOLVED OXYGEN
MOOPT06	YES BOD1 BIOCHEMICAL OXYGEN DEMAND
MOOPT07	NO BOD2 BIOCHEMICAL OXYGEN DEMAND
MOOPT08	YES NBOD OXYGEN DEMAND
MOOPT09	NO PHOSPHORUS
MOOPT10	NO CHLOROPHYLL A
MOOPT11	NO MACROPHYTES
MOOPT12	NO COLIFORM
MOOPT13	NO NONCONSERVATIVE MATERIAL
ENDATA02	

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
PROGRAM	DISPERSION EQUATION	= 3.00000 (values entered as a function of D,Q,Vmean)
PROGRAM	TIDE HEIGHT	= 0.07000 meters
PROGRAM	KL MINIMUM	= 0.70000 meters/day

```

PROGRAM      INHIBITION CONTROL VALUE      =      3.00000 (inhibit all rates but SOD)
PROGRAM      EFFECTIVE BOD DUE TO ALGAE     =      0.10000 mg/L BOD per ug/L chl a
PROGRAM      ALGAE OXYGEN PRODUCTION        =      0.05000 mg O/ug chl a/day
PROGRAM      K2 MAXIMUM                     =      25.00000 per day
PROGRAM      HYDRAULIC CALCULATION METHOD    =      2.00000 (widths and depths)
PROGRAM      SETTLED RATE UNITS              =      2.00000 (values entered as per day)
ENDATA03
  
```

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

```

CARD TYPE    RATE CODE    THETA VALUE

ENDATA04
  
```

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

```

CARD TYPE    DESCRIPTION OF CONSTANT          VALUE

ENDATA05
  
```

\$\$\$ DATA TYPE 6 (ALGAE CONSTANTS) \$\$\$

```

CARD TYPE    DESCRIPTION OF CONSTANT          VALUE

ENDATA06
  
```

\$\$\$ DATA TYPE 7 (MACROPHYTE CONSTANTS) \$\$\$

```

CARD TYPE    DESCRIPTION OF CONSTANT          VALUE

ENDATA07
  
```

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN REACH km	TO	END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM
REACH ID	1	GB	SITE GRB1-BAYOU SIGUR	23.53	TO	23.44	0.0900	0.09	1	1	1
REACH ID	2	GB	BAYOU SIGUR-MUDDY BAYOU	23.44	TO	22.62	0.1640	0.82	5	2	6
REACH ID	3	GB	MUDDY BAYOU-BAYOU CROUIX(BYC1)	22.62	TO	20.57	0.2050	2.05	10	7	16
REACH ID	4	GB	B CROUIX(BYC1)-B CROUIX(BYC2)	20.57	TO	18.29	0.1520	2.28	15	17	31
REACH ID	5	GB	B CROUIX(BYC2)-km 15.5	18.29	TO	15.50	0.1550	2.79	18	32	49
REACH ID	6	GB	km 15.5-km 13.0	15.50	TO	13.00	0.1250	2.50	20	50	69
REACH ID	7	GB	km 13.0-BAYOU CORNE	13.00	TO	11.43	0.1570	1.57	10	70	79
REACH ID	8	GB	B CORNE-LITTLE GRAND BAYOU	11.43	TO	8.72	0.1355	2.71	20	80	99

REACH ID											
9	GB	LITTLE GRAND-UNNAMED CANAL	8.72	TO	8.12	0.1500	0.60	4	100	103	
10	GB	UNNAMED CANAL-E GRAND BAYOU	8.12	TO	5.20	0.1460	2.92	20	104	123	
11	GB	E GRAND BAYOU-BAYOU ALCIDE	5.20	TO	3.11	0.1900	2.09	11	124	134	
12	GB	BAYOU ALCIDE-SITE GRB8	3.11	TO	1.66	0.1450	1.45	10	135	144	
13	GB	SITE GRB8-LITTLE BAYOU LONG	1.66	TO	1.20	0.1150	0.46	4	145	148	
14	GB	L BAYOU LONG-LAKE VERRET	1.20	TO	0.00	0.1200	1.20	10	149	158	

ENDATA08

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1	1	GB	0.000	0.000	12.192	0.000	0.000	0.853	0.00010	0.035
HYDR-1	2	GB	0.000	0.000	16.500	0.000	0.000	0.900	0.00010	0.035
HYDR-1	3	GB	0.000	0.000	21.336	0.000	0.000	1.006	0.00010	0.035
HYDR-1	4	GB	0.000	0.000	16.459	0.000	0.000	1.570	0.00010	0.035
HYDR-1	5	GB	0.000	0.000	30.000	0.000	0.000	1.550	0.00010	0.035
HYDR-1	6	GB	0.000	0.000	44.196	0.000	0.000	1.515	0.00010	0.035
HYDR-1	7	GB	0.000	0.000	43.000	0.000	0.000	1.550	0.00010	0.035
HYDR-1	8	GB	0.000	0.000	42.062	0.000	0.000	1.622	0.00010	0.035
HYDR-1	9	GB	0.000	0.000	48.768	0.000	0.000	1.478	0.00010	0.035
HYDR-1	10	GB	0.000	0.000	45.000	0.000	0.000	1.550	0.00010	0.035
HYDR-1	11	GB	0.000	0.000	42.946	0.000	0.000	1.615	0.00010	0.035
HYDR-1	12	GB	0.000	0.000	55.000	0.000	0.000	1.734	0.00010	0.035
HYDR-1	13	GB	0.000	0.000	85.000	0.000	0.000	1.500	0.00010	0.035
HYDR-1	14	GB	0.000	0.000	152.400	0.000	0.000	1.225	0.00010	0.035

ENDATA09

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"
HYDR	1	GB	0.00	30.000	0.833	0.000	1.000
HYDR	2	GB	0.00	30.000	0.833	0.000	1.000
HYDR	3	GB	0.00	30.000	0.833	0.000	1.000
HYDR	4	GB	0.00	30.000	0.833	0.000	1.000
HYDR	5	GB	0.00	30.000	0.833	0.000	1.000
HYDR	6	GB	0.00	30.000	0.833	0.000	1.000
HYDR	7	GB	0.10	30.000	0.833	0.000	1.000
HYDR	8	GB	0.25	30.000	0.833	0.000	1.000
HYDR	9	GB	0.29	30.000	0.833	0.000	1.000
HYDR	10	GB	0.50	30.000	0.833	0.000	1.000
HYDR	11	GB	0.75	30.000	0.833	0.000	1.000

HYDR	12	GB	0.80	30.000	0.833	0.000	1.000
HYDR	13	GB	1.00	30.000	0.833	0.000	1.000
HYDR	14	GB	1.00	30.000	0.833	0.000	1.000

ENDATA10

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL	1	GB	27.01	0.15	3.58	0.00	0.00	0.00	64.43	0.00
INITIAL	2	GB	27.26	0.14	2.18	0.00	0.00	0.00	62.75	0.00
INITIAL	3	GB	27.49	0.11	2.58	0.00	0.00	0.00	57.44	0.00
INITIAL	4	GB	27.88	0.09	2.75	0.00	0.00	0.00	49.43	0.00
INITIAL	5	GB	27.98	0.09	2.74	0.00	0.00	0.00	41.08	0.00
INITIAL	6	GB	27.99	0.10	2.61	0.00	0.00	0.00	32.66	0.00
INITIAL	7	GB	27.60	0.08	2.58	0.00	0.00	0.00	27.96	0.00
INITIAL	8	GB	27.59	0.07	2.86	0.00	0.00	0.00	23.30	0.00
INITIAL	9	GB	27.94	0.07	3.33	0.00	0.00	0.00	19.70	0.00
INITIAL	10	GB	28.08	0.07	3.44	0.00	0.00	0.00	18.53	0.00
INITIAL	11	GB	28.29	0.08	3.60	0.00	0.00	0.00	17.02	0.00
INITIAL	12	GB	28.61	0.08	3.48	0.00	0.00	0.00	20.20	0.00
INITIAL	13	GB	28.73	0.08	3.42	0.00	0.00	0.00	21.92	0.00
INITIAL	14	GB	28.68	0.07	3.37	0.00	0.00	0.00	23.42	0.00

ENDATA11

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD	BOD DECAT	BOD SETT	BOD CONV TO SOD	ANAER BOD2 DECAT	BOD2 DECAT	BOD2 SETT	BOD2 CONV TO SOD	ANAER BOD2 DECAT
							g/m ² /d	per day	m/d		per day	per day	m/d		per day
COEF-1	1	GB	4 OWENS <5 FPS	0.000	0.000	0.000	4.000	0.084	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	2	GB	4 OWENS <5 FPS	0.000	0.000	0.000	4.100	0.081	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	3	GB	4 OWENS <5 FPS	0.000	0.000	0.000	5.150	0.074	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	4	GB	4 OWENS <5 FPS	0.000	0.000	0.000	4.000	0.067	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	5	GB	4 OWENS <5 FPS	0.000	0.000	0.000	4.000	0.071	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	6	GB	4 OWENS <5 FPS	0.000	0.000	0.000	3.650	0.078	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	7	GB	4 OWENS <5 FPS	0.000	0.000	0.000	3.000	0.068	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	8	GB	4 OWENS <5 FPS	0.000	0.000	0.000	2.000	0.054	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	9	GB	4 OWENS <5 FPS	0.000	0.000	0.000	2.150	0.052	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	10	GB	4 OWENS <5 FPS	0.000	0.000	0.000	2.750	0.054	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	11	GB	4 OWENS <5 FPS	0.000	0.000	0.000	2.500	0.057	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	12	GB	4 OWENS <5 FPS	0.000	0.000	0.000	3.000	0.055	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	13	GB	4 OWENS <5 FPS	0.000	0.000	0.000	3.000	0.055	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	14	GB	4 OWENS <5 FPS	0.000	0.000	0.000	3.000	0.061	0.050	0.000	0.000	0.000	0.050	0.000	0.000

ENDATA12

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	NBOD DECA	NBOD SETT	ORGN CONV TO NH3 SRCE	NH3 DECA	NH3 SRCE	PHOS SRCE	DENIT RATE
COEF-2	1	GB	0.115	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	2	GB	0.112	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	3	GB	0.105	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	4	GB	0.099	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	5	GB	0.100	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	6	GB	0.104	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	7	GB	0.120	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	8	GB	0.138	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	9	GB	0.091	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	10	GB	0.094	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	11	GB	0.098	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	12	GB	0.092	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	13	GB	0.091	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	14	GB	0.097	0.050	1.000	0.000	0.000	0.000	0.000

ENDATA13

\$\$\$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP	MACRO SHADING
-----------	-------	----	-----------------	-----------------	---------------	--------------------	---------------	---------------	---------------	---------------	------------------

ENDATA14

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM CONV TO SOD
-----------	-------	----	---------------------	--------------	-------------	--------------------

ENDATA15

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST	OUT/DIST
INCR-1	1	GB	0.00000	0.10000	0.00	0.15	13.66	298.89	1.11111	0.00000
INCR-1	2	GB	0.00000	0.35000	0.00	0.14	18.08	214.22	0.42683	0.00000
INCR-1	3	GB	0.00000	0.35000	0.00	0.11	16.16	218.81	0.17073	0.00000
INCR-1	4	GB	-0.35000	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.15351

INCR-1	5	GB	0.00000	0.20000	0.00	0.09	14.32	207.48	0.07168	0.00000
INCR-1	6	GB	0.00000	0.20000	0.00	0.10	14.48	218.85	0.08000	0.00000
INCR-1	7	GB	-0.15000	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.09554
INCR-1	8	GB	0.00000	0.65000	0.00	0.07	11.25	159.20	0.23985	0.00000
INCR-1	9	GB	0.00000	0.25000	0.00	0.07	11.80	166.50	0.41667	0.00000
INCR-1	10	GB	0.00000	0.65000	0.00	0.07	11.34	168.72	0.22260	0.00000
INCR-1	11	GB	0.00000	0.65000	0.00	0.08	10.68	171.75	0.31100	0.00000
INCR-1	12	GB	0.00000	0.25000	0.00	0.08	10.20	170.29	0.17241	0.00000
INCR-1	13	GB	-0.65000	0.00000	0.00	0.00	0.00	0.00	0.00000	-1.41304
INCR-1	14	GB	-0.65000	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.54167

ENDATA16

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	REACH	ID	DO	BOD	NBOD			BOD#2
INCR-2	1	GB	3.58	0.00	0.00	0.00	0.00	0.00
INCR-2	2	GB	2.18	0.00	0.00	0.00	0.00	0.00
INCR-2	3	GB	2.58	0.00	0.00	0.00	0.00	0.00
INCR-2	4	GB	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	5	GB	2.74	0.00	0.00	0.00	0.00	0.00
INCR-2	6	GB	2.61	0.00	0.00	0.00	0.00	0.00
INCR-2	7	GB	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	8	GB	2.86	0.00	0.00	0.00	0.00	0.00
INCR-2	9	GB	3.33	0.00	0.00	0.00	0.00	0.00
INCR-2	10	GB	3.44	0.00	0.00	0.00	0.00	0.00
INCR-2	11	GB	3.60	0.00	0.00	0.00	0.00	0.00
INCR-2	12	GB	3.48	0.00	0.00	0.00	0.00	0.00
INCR-2	13	GB	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	14	GB	0.00	0.00	0.00	0.00	0.00	0.00

ENDATA17

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	PHOS	CHL A	COLI	NCM
INCR-3	1	GB	0.00	0.00	0.00	0.00
INCR-3	2	GB	0.00	0.00	0.00	0.00
INCR-3	3	GB	0.00	0.00	0.00	0.00
INCR-3	4	GB	0.00	0.00	0.00	0.00
INCR-3	5	GB	0.00	0.00	0.00	0.00
INCR-3	6	GB	0.00	0.00	0.00	0.00
INCR-3	7	GB	0.00	0.00	0.00	0.00
INCR-3	8	GB	0.00	0.00	0.00	0.00
INCR-3	9	GB	0.00	0.00	0.00	0.00

INCR-3	10	GB	0.00	0.00	0.00	0.00
INCR-3	11	GB	0.00	0.00	0.00	0.00
INCR-3	12	GB	0.00	0.00	0.00	0.00
INCR-3	13	GB	0.00	0.00	0.00	0.00
INCR-3	14	GB	0.00	0.00	0.00	0.00
ENDATA18						

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH	ID	BOD#1	NBOD	COLI	NCM	DO	BOD#2
NONPOINT	1	GB	40.00	30.00	0.00	0.00	0.00	0.00
NONPOINT	2	GB	150.00	95.00	0.00	0.00	0.00	0.00
NONPOINT	3	GB	250.00	100.00	0.00	0.00	0.00	0.00
NONPOINT	4	GB	0.00	27.00	0.00	0.00	0.00	0.00
NONPOINT	5	GB	350.00	115.00	0.00	0.00	0.00	0.00
NONPOINT	6	GB	425.00	132.00	0.00	0.00	0.00	0.00
NONPOINT	7	GB	225.00	75.00	0.00	0.00	0.00	0.00
NONPOINT	8	GB	675.00	245.00	0.00	0.00	0.00	0.00
NONPOINT	9	GB	150.00	15.00	0.00	0.00	0.00	0.00
NONPOINT	10	GB	0.00	0.00	0.00	0.00	0.00	0.00
NONPOINT	11	GB	0.00	0.00	0.00	0.00	0.00	0.00
NONPOINT	12	GB	0.00	0.00	0.00	0.00	0.00	0.00
NONPOINT	13	GB	25.00	50.00	0.00	0.00	0.00	0.00
NONPOINT	14	GB	140.00	250.00	0.00	0.00	0.00	0.00
ENDATA19								

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m ³ /s	FLOW cfs	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L	
HDWTR-1	1	Grand Bayou Upstream	0	0.00100	0.035	27.00	0.15	13.600	300.800	0.00
ENDATA20										

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L	mg/L	mg/L	BOD#2 mg/L
HDWTR-2	1	Grand Bayou Upstream	3.60	10.72	3.67	0.00	0.00	0.00
ENDATA21								

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
HDWTR-3 ENDATA22	1	Grand Bayou Upstream	0.00	64.60	0.00	0.00

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	RIVER KILOM	NAME
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ENDATA23

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	RKILO	NAME	FLOW m ³ /s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L
WSTLD-1	2	23.44	BAYOU SIGUR	0.00000	0.00000	0.000	28.64	0.17	15.000	345.000
WSTLD-1	7	22.62	MUDDY BAYOU	0.10200	3.60169	2.328	27.74	0.08	16.900	169.200
WSTLD-1	17	20.57	BAYOU CROUIX (BYC1)	0.00000	0.00000	0.000	28.18	0.12	8.400	250.200
WSTLD-1	32	18.29	BAYOU CROUIX (BYC2)	0.00000	0.00000	0.000	28.60	0.14	17.400	296.800
WSTLD-1	62	14.00	GATOR SUPER STOP	0.00034	0.01201	0.008	27.17	0.11	13.800	234.100
WSTLD-1	80	11.43	BAYOU CORNE	1.93000	68.14972	44.053	26.95	0.07	10.200	154.130
WSTLD-1	100	8.72	LITTLE GRAND BAYOU	-0.14000	-4.94350	-3.196	27.95	0.07	11.700	167.200
WSTLD-1	104	8.12	UNNAMED CANAL	4.02800	142.23164	91.940	27.93	0.07	10.100	166.800
WSTLD-1	124	5.20	EAST GRAND BAYOU	-3.80600	-134.39265	-86.873	28.29	0.08	10.900	170.700
WSTLD-1	135	3.11	BAYOU ALCIDE	2.98400	105.36723	68.111	27.96	0.07	8.800	160.110
WSTLD-1	149	1.20	LITTLE BAYOU LONG	0.70700	24.96469	16.137	28.27	0.07	9.000	153.600

ENDATA24

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD RMVL	NBOD mg/L	mg/L	% NITRIF	mg/L	BOD#2 mg/L
WSTLD-2	2	BAYOU SIGUR	2.63	13.41	0.00	4.05	0.00	0.00	0.00	0.00
WSTLD-2	7	MUDDY BAYOU	4.17	0.51	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	17	BAYOU CROUIX (BYC1)	2.48	6.91	0.00	1.45	0.00	0.00	0.00	0.00
WSTLD-2	32	BAYOU CROUIX (BYC2)	2.75	10.31	0.00	2.51	0.00	0.00	0.00	0.00
WSTLD-2	62	GATOR SUPER STOP	2.11	10.26	0.00	2.13	0.00	0.00	0.00	0.00
WSTLD-2	80	BAYOU CORNE	2.08	0.29	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	100	LITTLE GRAND BAYOU	2.92	6.82	0.00	1.46	0.00	0.00	0.00	0.00
WSTLD-2	104	UNNAMED CANAL	3.47	5.47	0.00	1.38	0.00	0.00	0.00	0.00
WSTLD-2	124	EAST GRAND BAYOU	3.16	6.45	0.00	1.30	0.00	0.00	0.00	0.00

WSTLD-2	135	BAYOU ALCIDE	2.99	5.54	0.00	1.23	0.00	0.00	0.00	0.00
WSTLD-2	149	LITTLE BAYOU LONG	1.86	5.77	0.00	0.96	0.00	0.00	0.00	0.00
ENDATA25										

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
WSTLD-3	2	BAYOU SIGUR	0.00	78.10	0.00	0.00
WSTLD-3	7	MUDDY BAYOU	0.00	78.10	0.00	0.00
WSTLD-3	17	BAYOU CROUX (BYC1)	0.00	78.10	0.00	0.00
WSTLD-3	32	BAYOU CROUX (BYC2)	0.00	78.10	0.00	0.00
WSTLD-3	62	GATOR SUPER STOP	0.00	0.00	0.00	0.00
WSTLD-3	80	BAYOU CORNE	0.00	6.60	0.00	0.00
WSTLD-3	100	LITTLE GRAND BAYOU	0.00	23.80	0.00	0.00
WSTLD-3	104	UNNAMED CANAL	0.00	23.80	0.00	0.00
WSTLD-3	124	EAST GRAND BAYOU	0.00	23.80	0.00	0.00
WSTLD-3	135	BAYOU ALCIDE	0.00	23.80	0.00	0.00
WSTLD-3	149	LITTLE BAYOU LONG	0.00	23.80	0.00	0.00
ENDATA26						

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENTRATION
LOWER BC	TEMPERATURE	= 26.840 deg C
LOWER BC	SALINITY	= 0.090 ppt
LOWER BC	CONSERVATIVE MATERIAL I	= 12.000 MG/L
LOWER BC	CONSERVATIVE MATERIAL II	= 202.140 MG/L
LOWER BC	DISSOLVED OXYGEN	= 2.040 mg/L
LOWER BC	BOD1 BIOCHEMICAL OXYGEN DEMAND	= 0.290 mg/L
LOWER BC	NBOD	= 0.000 mg/L
LOWER BC	PHOSPHORUS	= 0.000 mg/L
LOWER BC	CHLOROPHYLL A	= 25.000 µg/L
LOWER BC	COLIFORM	= 0.000 #/100 mL
LOWER BC	NONCONSERVATIVE MATERIAL	= 0.000
ENDATA27		

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD TYPE	ELEMENT	NAME	EQN	"A"	"B"	"H"
ENDATA28						

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE	PARAMETER	COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
SENSIT	BASEFLOW	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	VELOCITY	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	DEPTH	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	DISPERSI	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	REAERATI	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	BOD DECA	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	BOD SETT	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	NBOD DEC	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	NBOD SET	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	BENTHAL	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	TEMPERAT	2.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	INC INFL	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	INC DO	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	HDW FLOW	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	HDW TEMP	2.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	HDW DO	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	HDW BOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	HDW NBOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	WSL FLOW	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	WSL TEMP	2.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	WSL DO	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	WSL BOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	WSL NBOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	LBC TEMP	2.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	LBC DO	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	LBC BOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	LBC NBOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	NPS BOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	NPS NBOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0

ENDATA29

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

NUMBER OF PLOTS = 1
 NUMBER OF REACHES IN PLOT 1 = 14
 PLOT RCH 1 2 3 4 5 6 7 8 9 10 11 12 13 14
 ENDATA30

\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

OVERLAY 1 OVERLAY GrandBayou3.TXT :REACHES 1-14
 ENDATA31

.....NO ERRORS DETECTED IN INPUT DATA
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 6 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED
GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11

FINAL REPORT Grand Bayou Upstream GRAND BAYOU
 REACH NO. 1 SITE GRB1-BAYOU SIGUR 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
1	HDWTR	0.00100	27.00	0.15	13.60	300.80	3.60	4.28	0.00	10.72	0.00	3.67	0.00	0.00	0.00	64.43	0.00	0.00
EACH	INCR	0.10000	0.00	0.15	13.66	298.89	3.58	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
1	23.53	23.44	0.10100	0.0	0.00971	0.11	0.85	12.19	935.98	1097.28	10.40	0.00	0.000	0.255	0.010
TOT						0.11			935.98	1097.28					
AVG					0.0097		0.85	12.19			10.40				
CUM						0.11									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	*	**	**	1/da	1/da	1/da

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da	
2	23.276	7.92	0.89	0.11	0.06	0.00	0.00	0.00	0.00	6.50	6.50	6.50	0.14	0.06	0.00	0.00	0.00	0.00	4.31	0.00	0.00	0.00	0.00	
3	23.112	7.91	0.89	0.11	0.06	0.00	0.00	0.00	0.00	6.51	6.51	6.51	0.14	0.06	0.00	0.00	0.00	0.00	4.25	0.00	0.00	0.00	0.00	
4	22.948	7.91	0.89	0.11	0.06	0.00	0.00	0.00	0.00	6.53	6.53	6.53	0.14	0.06	0.00	0.00	0.00	0.00	4.18	0.00	0.00	0.00	0.00	
5	22.784	7.90	0.89	0.11	0.06	0.00	0.00	0.00	0.00	6.55	6.55	6.55	0.14	0.06	0.00	0.00	0.00	0.00	4.12	0.00	0.00	0.00	0.00	
6	22.620	7.89	0.90	0.11	0.06	0.00	0.00	0.00	0.00	6.57	6.57	6.57	0.14	0.06	0.00	0.00	0.00	0.00	4.05	0.00	0.00	0.00	0.00	
AVG 20 DEG C RATE			0.78	0.08	0.05	0.00	0.00	0.05	0.00	4.10			0.11	0.05	0.00	0.00	0.00	0.00				0.00	0.00	0.00
* g/m ² /d			** mg/L/day																					

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
2	23.276	27.31	0.15	15.61	261.56	3.05	4.58	0.00	10.75	0.00	3.17	0.00	0.00	0.00	0.00	61.69	0.00	0.	0.00
3	23.112	27.35	0.14	16.30	248.28	2.87	4.60	0.00	10.66	0.00	3.09	0.00	0.00	0.00	0.00	60.63	0.00	0.	0.00
4	22.948	27.40	0.14	16.69	240.80	2.77	4.61	0.00	10.56	0.00	3.05	0.00	0.00	0.00	0.00	59.56	0.00	0.	0.00
5	22.784	27.44	0.14	16.93	235.84	2.71	4.60	0.00	10.45	0.00	3.01	0.00	0.00	0.00	0.00	58.50	0.00	0.	0.00
6	22.620	27.49	0.14	17.08	231.32	2.68	4.54	0.00	10.28	0.00	2.92	0.00	0.00	0.00	0.00	57.44	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU
 REACH NO. 3 MUDDY BAYOU-BAYOU CROUX(BYC1) 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
7	UPR RCH	0.45100	27.49	0.14	17.08	231.32	2.68	4.54	0.00	10.28	0.00	2.92	0.00	0.00	0.00	57.44	0.00	0.00
EACH	INCR	0.03500	0.00	0.11	16.16	218.81	2.58	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	
7	WSTLD	0.10200	27.74	0.08	16.90	169.20	4.17	0.51	0.00	0.51	0.00	0.00	0.00	0.00	0.00	78.10	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
7	22.62	22.42	0.58800	17.3	0.02739	0.09	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.826	0.027
8	22.42	22.21	0.62300	16.4	0.02903	0.08	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.875	0.029
9	22.21	22.01	0.65800	15.5	0.03066	0.08	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.924	0.031
10	22.01	21.80	0.69300	14.7	0.03229	0.07	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.973	0.032
11	21.80	21.60	0.72800	14.0	0.03392	0.07	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	1.023	0.034
12	21.60	21.39	0.76300	13.4	0.03555	0.07	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	1.072	0.036
13	21.39	21.19	0.79800	12.8	0.03718	0.06	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	1.121	0.037
14	21.19	20.98	0.83300	12.2	0.03881	0.06	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	1.170	0.039
15	20.98	20.78	0.86800	11.8	0.04044	0.06	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	1.219	0.040
16	20.78	20.57	0.90300	11.3	0.04207	0.06	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	1.268	0.042
TOT						0.70			44001.24	43738.79					
AVG					0.0341		1.01	21.34			21.46				
CUM						1.31									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD#1 DECAY	BOD#1 SETT	ABOD#1 DECAY	BOD#2 DECAY	BOD#2 SETT	ABOD#2 DECAY	BKGD SOD	FULL SOD	CORR SOD	ORGN DECAY	ORGN SETT	NH3 DECAY	NH3 SRCE	DENIT RATE	PO4 SRCE	ALG PROD	MAC PROD	COLI DECAY	NCM DECAY	NCM SETT
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	*	**	**	1/da	1/da	1/da
7	22.415	7.89	0.80	0.10	0.06	0.00	0.00	0.00	0.00	8.27	8.27	8.27	0.13	0.06	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00	0.00
8	22.210	7.88	0.80	0.10	0.06	0.00	0.00	0.00	0.00	8.29	8.29	8.29	0.13	0.06	0.00	0.00	0.00	0.00	3.95	0.00	0.00	0.00	0.00
9	22.005	7.88	0.80	0.10	0.06	0.00	0.00	0.00	0.00	8.31	8.31	8.31	0.13	0.06	0.00	0.00	0.00	0.00	3.90	0.00	0.00	0.00	0.00
10	21.800	7.87	0.80	0.11	0.06	0.00	0.00	0.00	0.00	8.34	8.34	8.34	0.13	0.06	0.00	0.00	0.00	0.00	3.85	0.00	0.00	0.00	0.00
11	21.595	7.87	0.80	0.11	0.06	0.00	0.00	0.00	0.00	8.36	8.36	8.36	0.13	0.06	0.00	0.00	0.00	0.00	3.80	0.00	0.00	0.00	0.00
12	21.390	7.86	0.80	0.11	0.06	0.00	0.00	0.00	0.00	8.38	8.38	8.38	0.13	0.06	0.00	0.00	0.00	0.00	3.75	0.00	0.00	0.00	0.00
13	21.185	7.85	0.80	0.11	0.06	0.00	0.00	0.00	0.00	8.40	8.40	8.40	0.13	0.06	0.00	0.00	0.00	0.00	3.70	0.00	0.00	0.00	0.00
14	20.980	7.85	0.81	0.11	0.06	0.00	0.00	0.00	0.00	8.42	8.42	8.42	0.13	0.06	0.00	0.00	0.00	0.00	3.65	0.00	0.00	0.00	0.00
15	20.775	7.84	0.81	0.11	0.06	0.00	0.00	0.00	0.00	8.44	8.44	8.44	0.13	0.06	0.00	0.00	0.00	0.00	3.60	0.00	0.00	0.00	0.00
16	20.570	7.84	0.81	0.11	0.06	0.00	0.00	0.00	0.00	8.46	8.46	8.46	0.13	0.06	0.00	0.00	0.00	0.00	3.55	0.00	0.00	0.00	0.00
AVG	20 DEG C	RATE	0.70	0.07	0.05	0.00	0.00	0.05	0.00	5.15			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
7	22.415	27.53	0.13	16.99	221.21	2.82	4.09	0.00	9.75	0.00	2.46	0.00	0.00	0.00	0.00	56.64	0.00	0.	0.00
8	22.210	27.57	0.13	16.95	221.08	2.73	4.27	0.00	9.85	0.00	2.47	0.00	0.00	0.00	0.00	55.84	0.00	0.	0.00
9	22.005	27.61	0.13	16.91	220.96	2.65	4.42	0.00	9.92	0.00	2.48	0.00	0.00	0.00	0.00	55.04	0.00	0.	0.00
10	21.800	27.65	0.13	16.87	220.85	2.57	4.56	0.00	9.98	0.00	2.49	0.00	0.00	0.00	0.00	54.24	0.00	0.	0.00
11	21.595	27.68	0.13	16.84	220.75	2.50	4.68	0.00	10.03	0.00	2.49	0.00	0.00	0.00	0.00	53.44	0.00	0.	0.00
12	21.390	27.72	0.12	16.80	220.66	2.44	4.79	0.00	10.06	0.00	2.50	0.00	0.00	0.00	0.00	52.63	0.00	0.	0.00
13	21.185	27.76	0.12	16.78	220.58	2.38	4.89	0.00	10.08	0.00	2.50	0.00	0.00	0.00	0.00	51.83	0.00	0.	0.00
14	20.980	27.80	0.12	16.75	220.51	2.32	4.98	0.00	10.09	0.00	2.51	0.00	0.00	0.00	0.00	51.03	0.00	0.	0.00
15	20.775	27.84	0.12	16.73	220.44	2.26	5.06	0.00	10.09	0.00	2.51	0.00	0.00	0.00	0.00	50.23	0.00	0.	0.00
16	20.570	27.88	0.12	16.71	220.39	2.23	5.12	0.00	10.07	0.00	2.52	0.00	0.00	0.00	0.00	49.43	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU
 REACH NO. 4 B CROUX(BYC1)-B CROUX(BYC2) 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
17	UPR RCH	0.90300	27.88	0.12	16.71	220.39	2.23	5.12	0.00	10.07	0.00	2.52	0.00	0.00	0.00	49.43	0.00	0.00
	EACH INCR	-0.02333																

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
17	20.57	20.42	0.87967	11.3	0.03404	0.05	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.487	0.034
18	20.42	20.27	0.85633	11.3	0.03314	0.05	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.448	0.033
19	20.27	20.11	0.83300	11.3	0.03224	0.05	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.408	0.032
20	20.11	19.96	0.80967	11.3	0.03133	0.06	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.369	0.031
21	19.96	19.81	0.78633	11.3	0.03043	0.06	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.329	0.030
22	19.81	19.66	0.76300	11.3	0.02953	0.06	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.290	0.030
23	19.66	19.51	0.73967	11.3	0.02862	0.06	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.250	0.029
24	19.51	19.35	0.71633	11.3	0.02772	0.06	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.211	0.028
25	19.35	19.20	0.69300	11.3	0.02682	0.07	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.171	0.027
26	19.20	19.05	0.66967	11.3	0.02592	0.07	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.132	0.026
27	19.05	18.90	0.64633	11.3	0.02501	0.07	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.093	0.025

28	18.90	18.75	0.62300	11.3	0.02411	0.07	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.053	0.024
29	18.75	18.59	0.59967	11.3	0.02321	0.08	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.014	0.023
30	18.59	18.44	0.57633	11.3	0.02230	0.08	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.974	0.022
31	18.44	18.29	0.55300	11.3	0.02140	0.08	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.935	0.021
TOT						0.97			58916.64	37526.52					
AVG					0.0272		1.57	16.46			25.84				
CUM						2.28									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
17	20.418	7.84	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.57	6.57	6.57	0.12	0.06	0.00	0.00	0.00	0.00	3.51	0.00	0.00	0.00	0.00
18	20.266	7.84	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.58	6.58	6.58	0.12	0.06	0.00	0.00	0.00	0.00	3.47	0.00	0.00	0.00	0.00
19	20.114	7.84	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.58	6.58	6.58	0.12	0.06	0.00	0.00	0.00	0.00	3.43	0.00	0.00	0.00	0.00
20	19.962	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.58	6.58	6.58	0.13	0.06	0.00	0.00	0.00	0.00	3.39	0.00	0.00	0.00	0.00
21	19.810	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.58	6.58	6.58	0.13	0.06	0.00	0.00	0.00	0.00	3.35	0.00	0.00	0.00	0.00
22	19.658	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.59	6.59	6.59	0.13	0.06	0.00	0.00	0.00	0.00	3.32	0.00	0.00	0.00	0.00
23	19.506	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.59	6.59	6.59	0.13	0.06	0.00	0.00	0.00	0.00	3.28	0.00	0.00	0.00	0.00
24	19.354	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.59	6.59	6.59	0.13	0.06	0.00	0.00	0.00	0.00	3.24	0.00	0.00	0.00	0.00
25	19.202	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.60	6.60	6.60	0.13	0.06	0.00	0.00	0.00	0.00	3.20	0.00	0.00	0.00	0.00
26	19.050	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.60	6.60	6.60	0.13	0.06	0.00	0.00	0.00	0.00	3.16	0.00	0.00	0.00	0.00
27	18.898	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.60	6.60	6.60	0.13	0.06	0.00	0.00	0.00	0.00	3.12	0.00	0.00	0.00	0.00
28	18.746	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.60	6.60	6.60	0.13	0.06	0.00	0.00	0.00	0.00	3.08	0.00	0.00	0.00	0.00
29	18.594	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.13	0.06	0.00	0.00	0.00	0.00	3.04	0.00	0.00	0.00	0.00
30	18.442	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.13	0.06	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00
31	18.290	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.13	0.06	0.00	0.00	0.00	0.00	2.96	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE			0.45	0.07	0.05	0.00	0.00	0.05	0.00	4.00			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00
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* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
17	20.418	27.89	0.12	16.71	220.39	2.30	5.08	0.00	9.97	0.00	2.52	0.00	0.00	0.00	0.00	48.87	0.00	0.	0.00
18	20.266	27.89	0.12	16.71	220.39	2.37	5.04	0.00	9.87	0.00	2.52	0.00	0.00	0.00	0.00	48.32	0.00	0.	0.00
19	20.114	27.90	0.12	16.71	220.39	2.43	5.00	0.00	9.77	0.00	2.51	0.00	0.00	0.00	0.00	47.76	0.00	0.	0.00

20	19.962	27.91	0.12	16.71	220.39	2.50	4.95	0.00	9.68	0.00	2.51	0.00	0.00	0.00	0.00	47.20	0.00	0.	0.00
21	19.810	27.91	0.12	16.71	220.39	2.56	4.91	0.00	9.58	0.00	2.51	0.00	0.00	0.00	0.00	46.65	0.00	0.	0.00
22	19.658	27.92	0.12	16.71	220.39	2.61	4.87	0.00	9.48	0.00	2.51	0.00	0.00	0.00	0.00	46.09	0.00	0.	0.00
23	19.506	27.93	0.12	16.71	220.39	2.67	4.82	0.00	9.38	0.00	2.51	0.00	0.00	0.00	0.00	45.53	0.00	0.	0.00
24	19.354	27.93	0.12	16.71	220.39	2.72	4.78	0.00	9.27	0.00	2.51	0.00	0.00	0.00	0.00	44.98	0.00	0.	0.00
25	19.202	27.94	0.12	16.71	220.39	2.78	4.73	0.00	9.17	0.00	2.51	0.00	0.00	0.00	0.00	44.42	0.00	0.	0.00
26	19.050	27.95	0.12	16.71	220.39	2.82	4.68	0.00	9.07	0.00	2.51	0.00	0.00	0.00	0.00	43.86	0.00	0.	0.00
27	18.898	27.95	0.12	16.71	220.39	2.87	4.63	0.00	8.96	0.00	2.51	0.00	0.00	0.00	0.00	43.31	0.00	0.	0.00
28	18.746	27.96	0.12	16.71	220.39	2.92	4.58	0.00	8.86	0.00	2.50	0.00	0.00	0.00	0.00	42.75	0.00	0.	0.00
29	18.594	27.97	0.12	16.71	220.38	2.96	4.53	0.00	8.75	0.00	2.50	0.00	0.00	0.00	0.00	42.19	0.00	0.	0.00
30	18.442	27.97	0.12	16.71	220.37	3.00	4.49	0.00	8.66	0.00	2.50	0.00	0.00	0.00	0.00	41.64	0.00	0.	0.00
31	18.290	27.98	0.12	16.70	220.32	3.03	4.49	0.00	8.60	0.00	2.50	0.00	0.00	0.00	0.00	41.08	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU
 REACH NO. 5 B CROUIX(BYC2)-km 15.5 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
32	UPR RCH	0.55300	27.98	0.12	16.70	220.32	3.03	4.49	0.00	8.60	0.00	2.50	0.00	0.00	0.00	41.08	0.00	0.00
EACH	INCR	0.01111	0.00	0.09	14.32	207.48	2.74	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
32	18.29	18.14	0.56411	11.1	0.01213	0.15	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.524	0.012
33	18.14	17.98	0.57522	10.9	0.01237	0.15	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.535	0.012
34	17.98	17.82	0.58633	10.7	0.01261	0.14	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.545	0.013
35	17.82	17.67	0.59745	10.5	0.01285	0.14	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.555	0.013
36	17.67	17.51	0.60856	10.3	0.01309	0.14	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.566	0.013
37	17.51	17.36	0.61967	10.1	0.01333	0.13	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.576	0.013
38	17.36	17.20	0.63078	9.9	0.01357	0.13	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.586	0.014
39	17.20	17.05	0.64189	9.7	0.01380	0.13	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.597	0.014
40	17.05	16.89	0.65300	9.6	0.01404	0.13	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.607	0.014
41	16.89	16.74	0.66411	9.4	0.01428	0.13	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.617	0.014
42	16.74	16.58	0.67522	9.3	0.01452	0.12	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.628	0.015
43	16.58	16.43	0.68633	9.1	0.01476	0.12	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.638	0.015

44	16.43	16.27	0.69745	9.0	0.01500	0.12	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.648	0.015
45	16.27	16.12	0.70856	8.8	0.01524	0.12	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.659	0.015
46	16.12	15.96	0.71967	8.7	0.01548	0.12	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.669	0.015
47	15.96	15.81	0.73078	8.5	0.01572	0.11	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.679	0.016
48	15.81	15.65	0.74189	8.4	0.01595	0.11	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.690	0.016
49	15.65	15.50	0.75300	8.3	0.01619	0.11	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.700	0.016
TOT							2.30		129735.00	83700.00					
AVG					0.0141		1.55	30.00			46.50				
CUM							4.58								

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
32	18.135	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.93	0.00	0.00	0.00	0.00
33	17.980	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.90	0.00	0.00	0.00	0.00
34	17.825	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.86	0.00	0.00	0.00	0.00
35	17.670	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.83	0.00	0.00	0.00	0.00
36	17.515	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.79	0.00	0.00	0.00	0.00
37	17.360	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.76	0.00	0.00	0.00	0.00
38	17.205	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.73	0.00	0.00	0.00	0.00
39	17.050	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.69	0.00	0.00	0.00	0.00
40	16.895	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.66	0.00	0.00	0.00	0.00
41	16.740	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.63	0.00	0.00	0.00	0.00
42	16.585	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.59	0.00	0.00	0.00	0.00
43	16.430	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.56	0.00	0.00	0.00	0.00
44	16.275	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.13	0.06	0.00	0.00	0.00	0.00	2.53	0.00	0.00	0.00	0.00
45	16.120	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.13	0.06	0.00	0.00	0.00	0.00	2.49	0.00	0.00	0.00	0.00
46	15.965	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.62	6.62	6.62	0.13	0.06	0.00	0.00	0.00	0.00	2.46	0.00	0.00	0.00	0.00
47	15.810	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.62	6.62	6.62	0.13	0.06	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
48	15.655	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.62	6.62	6.62	0.13	0.06	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
49	15.500	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.62	6.62	6.62	0.13	0.06	0.00	0.00	0.00	0.00	2.36	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.45	0.07	0.05	0.00	0.00	0.05	0.00	4.00			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00
*	g/m ² /d																						
**	mg/L/day																						

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM	ENDING	TEMP	SALN	CM-I	CM-II	DO	BOD#1	BOD#2	EBOD#1	EBOD#2	ORGN	NH3	NO3+2	TOTN	PHOS	CHL A	MACRO	COLI	NCM
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NO.	DIST	DEG C	PPT	MG/L	MG/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	g/m³	#/100mL	
32	18.135	27.98	0.12	16.65	220.07	3.07	4.68	0.00	8.75	0.00	2.51	0.00	0.00	0.00	0.00	40.61	0.00	0.	0.00
33	17.980	27.98	0.12	16.60	219.83	3.10	4.87	0.00	8.88	0.00	2.52	0.00	0.00	0.00	0.00	40.14	0.00	0.	0.00
34	17.825	27.98	0.12	16.56	219.59	3.12	5.04	0.00	9.01	0.00	2.53	0.00	0.00	0.00	0.00	39.68	0.00	0.	0.00
35	17.670	27.98	0.12	16.52	219.37	3.13	5.20	0.00	9.12	0.00	2.53	0.00	0.00	0.00	0.00	39.21	0.00	0.	0.00
36	17.515	27.98	0.12	16.48	219.15	3.14	5.36	0.00	9.23	0.00	2.54	0.00	0.00	0.00	0.00	38.74	0.00	0.	0.00
37	17.360	27.98	0.12	16.44	218.94	3.13	5.50	0.00	9.33	0.00	2.55	0.00	0.00	0.00	0.00	38.27	0.00	0.	0.00
38	17.205	27.98	0.12	16.40	218.74	3.13	5.64	0.00	9.42	0.00	2.55	0.00	0.00	0.00	0.00	37.81	0.00	0.	0.00
39	17.050	27.98	0.12	16.37	218.55	3.11	5.77	0.00	9.50	0.00	2.56	0.00	0.00	0.00	0.00	37.34	0.00	0.	0.00
40	16.895	27.98	0.12	16.33	218.36	3.09	5.89	0.00	9.58	0.00	2.56	0.00	0.00	0.00	0.00	36.87	0.00	0.	0.00
41	16.740	27.99	0.12	16.30	218.18	3.07	6.01	0.00	9.65	0.00	2.57	0.00	0.00	0.00	0.00	36.40	0.00	0.	0.00
42	16.585	27.99	0.12	16.27	218.01	3.05	6.12	0.00	9.71	0.00	2.57	0.00	0.00	0.00	0.00	35.93	0.00	0.	0.00
43	16.430	27.99	0.12	16.24	217.84	3.02	6.22	0.00	9.77	0.00	2.58	0.00	0.00	0.00	0.00	35.47	0.00	0.	0.00
44	16.275	27.99	0.12	16.21	217.67	2.99	6.32	0.00	9.82	0.00	2.58	0.00	0.00	0.00	0.00	35.00	0.00	0.	0.00
45	16.120	27.99	0.12	16.18	217.51	2.96	6.42	0.00	9.87	0.00	2.59	0.00	0.00	0.00	0.00	34.53	0.00	0.	0.00
46	15.965	27.99	0.12	16.15	217.36	2.93	6.51	0.00	9.91	0.00	2.59	0.00	0.00	0.00	0.00	34.06	0.00	0.	0.00
47	15.810	27.99	0.11	16.12	217.21	2.89	6.59	0.00	9.95	0.00	2.60	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
48	15.655	27.99	0.11	16.09	217.07	2.86	6.68	0.00	9.99	0.00	2.60	0.00	0.00	0.00	0.00	33.13	0.00	0.	0.00
49	15.500	27.99	0.11	16.07	216.97	2.82	6.76	0.00	10.02	0.00	2.60	0.00	0.00	0.00	0.00	32.66	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream
 REACH NO. 6 km 15.5-km 13.0

GRAND BAYOU
 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
50	UPR RCH	0.75300	27.99	0.11	16.07	216.97	2.82	6.76	0.00	10.02	0.00	2.60	0.00	0.00	0.00	32.66	0.00	0.00
EACH	INCR	0.01000	0.00	0.10	14.48	218.85	2.61	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00
62	WSTLD	0.00034	27.17	0.11	13.80	234.10	2.11	10.26	0.00	10.26	0.00	2.13	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
50	15.50	15.38	0.76300	8.2	0.01140	0.13	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.483	0.011
51	15.38	15.25	0.77300	8.1	0.01154	0.13	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.490	0.012
52	15.25	15.12	0.78300	8.0	0.01169	0.12	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.496	0.012

53	15.12	15.00	0.79300	7.9	0.01184	0.12	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.502	0.012
54	15.00	14.88	0.80300	7.8	0.01199	0.12	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.509	0.012
55	14.88	14.75	0.81300	7.7	0.01214	0.12	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.515	0.012
56	14.75	14.62	0.82300	7.6	0.01229	0.12	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.521	0.012
57	14.62	14.50	0.83300	7.5	0.01244	0.12	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.528	0.012
58	14.50	14.38	0.84300	7.4	0.01259	0.11	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.534	0.013
59	14.38	14.25	0.85300	7.3	0.01274	0.11	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.540	0.013
60	14.25	14.12	0.86300	7.2	0.01289	0.11	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.547	0.013
61	14.12	14.00	0.87300	7.2	0.01304	0.11	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.553	0.013
62	14.00	13.88	0.88334	7.1	0.01319	0.11	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.559	0.013
63	13.88	13.75	0.89334	7.0	0.01334	0.11	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.566	0.013
64	13.75	13.62	0.90334	7.0	0.01349	0.11	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.572	0.013
65	13.62	13.50	0.91334	6.9	0.01364	0.11	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.578	0.014
66	13.50	13.38	0.92334	6.8	0.01379	0.10	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.585	0.014
67	13.38	13.25	0.93334	6.7	0.01394	0.10	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.591	0.014
68	13.25	13.12	0.94334	6.7	0.01409	0.10	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.597	0.014
69	13.12	13.00	0.95334	6.6	0.01424	0.10	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.604	0.014
TOT										167392.38	110490.00				
AVG			0.0128				1.51	44.20						66.96	
CUM						6.85									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAT 1/da	BOD#1 SETT 1/da	ABOD#1 DECAT 1/da	BOD#2 DECAT 1/da	BOD#2 SETT 1/da	ABOD#2 DECAT 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAT 1/da	ORGN SETT 1/da	NH3 DECAT 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAT 1/da	NCM DECAT 1/da	NCM SETT 1/da
50	15.375	7.83	0.54	0.11	0.06	0.00	0.00	0.00	0.00	6.03	6.03	6.03	0.14	0.06	0.00	0.00	0.00	0.00	2.34	0.00	0.00	0.00	0.00
51	15.250	7.83	0.54	0.11	0.06	0.00	0.00	0.00	0.00	6.02	6.02	6.02	0.14	0.06	0.00	0.00	0.00	0.00	2.32	0.00	0.00	0.00	0.00
52	15.125	7.83	0.54	0.11	0.06	0.00	0.00	0.00	0.00	6.01	6.01	6.01	0.14	0.06	0.00	0.00	0.00	0.00	2.30	0.00	0.00	0.00	0.00
53	15.000	7.83	0.54	0.11	0.06	0.00	0.00	0.00	0.00	6.01	6.01	6.01	0.14	0.06	0.00	0.00	0.00	0.00	2.28	0.00	0.00	0.00	0.00
54	14.875	7.84	0.54	0.11	0.06	0.00	0.00	0.00	0.00	6.00	6.00	6.00	0.14	0.06	0.00	0.00	0.00	0.00	2.26	0.00	0.00	0.00	0.00
55	14.750	7.84	0.54	0.11	0.06	0.00	0.00	0.00	0.00	5.99	5.99	5.99	0.14	0.06	0.00	0.00	0.00	0.00	2.24	0.00	0.00	0.00	0.00
56	14.625	7.84	0.54	0.11	0.06	0.00	0.00	0.00	0.00	5.99	5.99	5.99	0.13	0.06	0.00	0.00	0.00	0.00	2.22	0.00	0.00	0.00	0.00
57	14.500	7.85	0.54	0.11	0.06	0.00	0.00	0.00	0.00	5.98	5.98	5.98	0.13	0.06	0.00	0.00	0.00	0.00	2.21	0.00	0.00	0.00	0.00
58	14.375	7.85	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.97	5.97	5.97	0.13	0.06	0.00	0.00	0.00	0.00	2.19	0.00	0.00	0.00	0.00
59	14.250	7.85	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.96	5.96	5.96	0.13	0.06	0.00	0.00	0.00	0.00	2.17	0.00	0.00	0.00	0.00
60	14.125	7.85	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.96	5.96	5.96	0.13	0.06	0.00	0.00	0.00	0.00	2.15	0.00	0.00	0.00	0.00
61	14.000	7.86	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.95	5.95	5.95	0.13	0.06	0.00	0.00	0.00	0.00	2.13	0.00	0.00	0.00	0.00
62	13.875	7.86	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.94	5.94	5.94	0.13	0.06	0.00	0.00	0.00	0.00	2.11	0.00	0.00	0.00	0.00
63	13.750	7.86	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.93	5.93	5.93	0.13	0.06	0.00	0.00	0.00	0.00	2.09	0.00	0.00	0.00	0.00
64	13.625	7.86	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.93	5.93	5.93	0.13	0.06	0.00	0.00	0.00	0.00	2.07	0.00	0.00	0.00	0.00
65	13.500	7.87	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.92	5.92	5.92	0.13	0.06	0.00	0.00	0.00	0.00	2.06	0.00	0.00	0.00	0.00

66	13.375	7.87	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.91	5.91	5.91	0.13	0.06	0.00	0.00	0.00	0.00	2.04	0.00	0.00	0.00	0.00
67	13.250	7.87	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.90	5.90	5.90	0.13	0.06	0.00	0.00	0.00	0.00	2.02	0.00	0.00	0.00	0.00
68	13.125	7.88	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.90	5.90	5.90	0.13	0.06	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
69	13.000	7.88	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.89	5.89	5.89	0.13	0.06	0.00	0.00	0.00	0.00	1.98	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.46	0.08	0.05	0.00	0.00	0.05	0.00	3.65			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00
* g/m ² /d			** mg/L/day																				

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
50	15.375	27.97	0.11	16.05	216.99	2.81	6.84	0.00	10.08	0.00	2.60	0.00	0.00	0.00	0.00	32.42	0.00	0.	0.00
51	15.250	27.95	0.11	16.03	217.02	2.80	6.92	0.00	10.14	0.00	2.61	0.00	0.00	0.00	0.00	32.19	0.00	0.	0.00
52	15.125	27.93	0.11	16.01	217.04	2.78	7.00	0.00	10.19	0.00	2.61	0.00	0.00	0.00	0.00	31.95	0.00	0.	0.00
53	15.000	27.91	0.11	15.99	217.06	2.76	7.07	0.00	10.24	0.00	2.61	0.00	0.00	0.00	0.00	31.72	0.00	0.	0.00
54	14.875	27.89	0.11	15.97	217.09	2.75	7.14	0.00	10.29	0.00	2.61	0.00	0.00	0.00	0.00	31.48	0.00	0.	0.00
55	14.750	27.87	0.11	15.95	217.11	2.73	7.20	0.00	10.33	0.00	2.61	0.00	0.00	0.00	0.00	31.25	0.00	0.	0.00
56	14.625	27.85	0.11	15.93	217.13	2.71	7.27	0.00	10.37	0.00	2.61	0.00	0.00	0.00	0.00	31.01	0.00	0.	0.00
57	14.500	27.83	0.11	15.92	217.15	2.69	7.33	0.00	10.41	0.00	2.61	0.00	0.00	0.00	0.00	30.78	0.00	0.	0.00
58	14.375	27.81	0.11	15.90	217.17	2.67	7.39	0.00	10.44	0.00	2.61	0.00	0.00	0.00	0.00	30.55	0.00	0.	0.00
59	14.250	27.80	0.11	15.88	217.19	2.65	7.44	0.00	10.47	0.00	2.62	0.00	0.00	0.00	0.00	30.31	0.00	0.	0.00
60	14.125	27.78	0.11	15.87	217.21	2.63	7.50	0.00	10.50	0.00	2.62	0.00	0.00	0.00	0.00	30.07	0.00	0.	0.00
61	14.000	27.76	0.11	15.85	217.23	2.61	7.55	0.00	10.53	0.00	2.62	0.00	0.00	0.00	0.00	29.84	0.00	0.	0.00
62	13.875	27.74	0.11	15.83	217.25	2.59	7.60	0.00	10.56	0.00	2.62	0.00	0.00	0.00	0.00	29.60	0.00	0.	0.00
63	13.750	27.72	0.11	15.82	217.27	2.57	7.65	0.00	10.58	0.00	2.62	0.00	0.00	0.00	0.00	29.37	0.00	0.	0.00
64	13.625	27.70	0.11	15.80	217.29	2.55	7.69	0.00	10.61	0.00	2.62	0.00	0.00	0.00	0.00	29.13	0.00	0.	0.00
65	13.500	27.68	0.11	15.79	217.30	2.53	7.74	0.00	10.63	0.00	2.63	0.00	0.00	0.00	0.00	28.90	0.00	0.	0.00
66	13.375	27.66	0.11	15.78	217.32	2.51	7.78	0.00	10.65	0.00	2.63	0.00	0.00	0.00	0.00	28.66	0.00	0.	0.00
67	13.250	27.64	0.11	15.76	217.34	2.49	7.82	0.00	10.67	0.00	2.63	0.00	0.00	0.00	0.00	28.43	0.00	0.	0.00
68	13.125	27.62	0.11	15.75	217.35	2.47	7.87	0.00	10.69	0.00	2.63	0.00	0.00	0.00	0.00	28.19	0.00	0.	0.00
69	13.000	27.60	0.11	15.74	217.36	2.47	7.92	0.00	10.72	0.00	2.64	0.00	0.00	0.00	0.00	27.96	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU
 REACH NO. 7 km 13.0-BAYOU CORNE 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
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70 UPR RCH 0.95334 27.60 0.11 15.74 217.36 2.47 7.92 0.00 10.72 0.00 2.64 0.00 0.00 0.00 27.96 0.00 0.00
 EACH INCR -0.01500

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
70	13.00	12.84	0.93834	6.6	0.01408	0.13	1.55	43.00	10464.05	6751.00	66.65	47.26	0.000	0.608	0.014
71	12.84	12.69	0.92334	6.6	0.01385	0.13	1.55	43.00	10464.05	6751.00	66.65	94.51	0.000	0.599	0.014
72	12.69	12.53	0.90834	6.6	0.01363	0.13	1.55	43.00	10464.05	6751.00	66.65	141.77	0.000	0.589	0.014
73	12.53	12.37	0.89334	6.6	0.01340	0.14	1.55	43.00	10464.05	6751.00	66.65	189.03	0.000	0.579	0.013
74	12.37	12.22	0.87834	6.6	0.01318	0.14	1.55	43.00	10464.05	6751.00	66.65	236.29	0.000	0.570	0.013
75	12.22	12.06	0.86334	6.6	0.01295	0.14	1.55	43.00	10464.05	6751.00	66.65	283.54	0.000	0.560	0.013
76	12.06	11.90	0.84834	6.6	0.01273	0.14	1.55	43.00	10464.05	6751.00	66.65	330.80	0.000	0.550	0.013
77	11.90	11.74	0.83334	6.6	0.01250	0.15	1.55	43.00	10464.05	6751.00	66.65	378.06	0.000	0.540	0.013
78	11.74	11.59	0.81834	6.6	0.01228	0.15	1.55	43.00	10464.05	6751.00	66.65	425.31	0.000	0.531	0.012
79	11.59	11.43	0.80334	6.6	0.01205	0.15	1.55	43.00	10464.05	6751.00	66.65	472.57	0.000	0.521	0.012
TOT						1.39			104640.49	67510.00					
AVG				0.0130			1.55	43.00			66.65				
CUM						8.24									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECATY 1/da	BOD#1 SETT 1/da	ABOD#1 DECATY 1/da	BOD#2 DECATY 1/da	BOD#2 SETT 1/da	ABOD#2 DECATY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECATY 1/da	ORGN SETT 1/da	NH3 DECATY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECATY 1/da	NCM DECATY 1/da	NCM SETT 1/da
70	12.843	7.88	0.52	0.10	0.06	0.00	0.00	0.00	0.00	4.84	4.84	4.84	0.15	0.06	0.00	0.00	0.00	0.00	1.95	0.00	0.00	0.00	0.00
71	12.686	7.88	0.52	0.10	0.06	0.00	0.00	0.00	0.00	4.84	4.84	4.84	0.15	0.06	0.00	0.00	0.00	0.00	1.92	0.00	0.00	0.00	0.00
72	12.529	7.88	0.52	0.10	0.06	0.00	0.00	0.00	0.00	4.84	4.84	4.84	0.15	0.06	0.00	0.00	0.00	0.00	1.88	0.00	0.00	0.00	0.00
73	12.372	7.88	0.52	0.10	0.06	0.00	0.00	0.00	0.00	4.84	4.84	4.84	0.15	0.06	0.00	0.00	0.00	0.00	1.85	0.00	0.00	0.00	0.00
74	12.215	7.88	0.52	0.10	0.06	0.00	0.00	0.00	0.00	4.84	4.84	4.84	0.15	0.06	0.00	0.00	0.00	0.00	1.82	0.00	0.00	0.00	0.00
75	12.058	7.88	0.52	0.10	0.06	0.00	0.00	0.00	0.00	4.84	4.84	4.84	0.15	0.06	0.00	0.00	0.00	0.00	1.78	0.00	0.00	0.00	0.00
76	11.901	7.88	0.52	0.10	0.06	0.00	0.00	0.00	0.00	4.84	4.84	4.84	0.15	0.06	0.00	0.00	0.00	0.00	1.75	0.00	0.00	0.00	0.00
77	11.744	7.88	0.52	0.10	0.06	0.00	0.00	0.00	0.00	4.84	4.84	4.84	0.15	0.06	0.00	0.00	0.00	0.00	1.72	0.00	0.00	0.00	0.00
78	11.587	7.88	0.52	0.10	0.06	0.00	0.00	0.00	0.00	4.84	4.84	4.84	0.15	0.06	0.00	0.00	0.00	0.00	1.68	0.00	0.00	0.00	0.00
79	11.430	7.88	0.52	0.10	0.06	0.00	0.00	0.00	0.00	4.84	4.84	4.84	0.15	0.06	0.00	0.00	0.00	0.00	1.65	0.00	0.00	0.00	0.00
AVG	20 DEG C RATE		0.45	0.07	0.05	0.00	0.00	0.05	0.00	3.00			0.12	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
70	12.843	27.60	0.11	15.74	217.36	2.52	8.03	0.00	10.78	0.00	2.66	0.00	0.00	0.00	0.00	27.49	0.00	0.	0.00
71	12.686	27.60	0.11	15.74	217.36	2.56	8.14	0.00	10.85	0.00	2.68	0.00	0.00	0.00	0.00	27.03	0.00	0.	0.00
72	12.529	27.60	0.11	15.74	217.36	2.60	8.26	0.00	10.91	0.00	2.70	0.00	0.00	0.00	0.00	26.56	0.00	0.	0.00
73	12.372	27.60	0.11	15.74	217.36	2.63	8.37	0.00	10.98	0.00	2.72	0.00	0.00	0.00	0.00	26.10	0.00	0.	0.00
74	12.215	27.60	0.11	15.74	217.36	2.66	8.48	0.00	11.04	0.00	2.74	0.00	0.00	0.00	0.00	25.63	0.00	0.	0.00
75	12.058	27.59	0.11	15.74	217.33	2.67	8.58	0.00	11.10	0.00	2.75	0.00	0.00	0.00	0.00	25.16	0.00	0.	0.00
76	11.901	27.59	0.11	15.72	217.20	2.68	8.68	0.00	11.15	0.00	2.77	0.00	0.00	0.00	0.00	24.70	0.00	0.	0.00
77	11.744	27.59	0.11	15.67	216.59	2.68	8.71	0.00	11.13	0.00	2.76	0.00	0.00	0.00	0.00	24.23	0.00	0.	0.00
78	11.587	27.59	0.11	15.42	213.71	2.67	8.44	0.00	10.82	0.00	2.66	0.00	0.00	0.00	0.00	23.77	0.00	0.	0.00
79	11.430	27.59	0.10	14.22	200.02	2.60	6.72	0.00	9.05	0.00	2.09	0.00	0.00	0.00	0.00	23.30	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU
 REACH NO. 8 B CORNE-LITTLE GRAND BAYOU 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
80	UPR RCH	0.80334	27.59	0.10	14.22	200.02	2.60	6.72	0.00	9.05	0.00	2.09	0.00	0.00	0.00	23.30	0.00	0.00
EACH	INCR	0.03250	0.00	0.07	11.25	159.20	2.86	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	
80	WSTLD	1.93000	26.95	0.07	10.20	154.13	2.08	0.29	0.00	0.29	0.00	0.00	0.00	0.00	0.00	6.60	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
80	11.43	11.29	2.76584	71.7	0.04054	0.04	1.62	42.06	9244.43	5699.40	68.22	572.31	0.000	1.820	0.041
81	11.29	11.16	2.79834	70.9	0.04102	0.04	1.62	42.06	9244.43	5699.40	68.22	672.05	0.000	1.841	0.041
82	11.16	11.02	2.83084	70.0	0.04149	0.04	1.62	42.06	9244.43	5699.40	68.22	771.79	0.000	1.862	0.041
83	11.02	10.89	2.86334	69.3	0.04197	0.04	1.62	42.06	9244.43	5699.40	68.22	871.53	0.000	1.884	0.042

84	10.89	10.75	2.89584	68.5	0.04245	0.04	1.62	42.06	9244.43	5699.40	68.22	971.27	0.000	1.905	0.042
85	10.75	10.62	2.92834	67.7	0.04292	0.04	1.62	42.06	9244.43	5699.40	68.22	1071.01	0.000	1.927	0.043
86	10.62	10.48	2.96084	67.0	0.04340	0.04	1.62	42.06	9244.43	5699.40	68.22	1170.75	0.000	1.948	0.043
87	10.48	10.35	2.99334	66.2	0.04387	0.04	1.62	42.06	9244.43	5699.40	68.22	1270.49	0.000	1.969	0.044
88	10.35	10.21	3.02584	65.5	0.04435	0.04	1.62	42.06	9244.43	5699.40	68.22	1370.23	0.000	1.991	0.044
89	10.21	10.08	3.05834	64.8	0.04483	0.03	1.62	42.06	9244.43	5699.40	68.22	1469.97	0.000	2.012	0.045
90	10.08	9.94	3.09084	64.2	0.04530	0.03	1.62	42.06	9244.43	5699.40	68.22	1569.70	0.001	2.033	0.045
91	9.94	9.80	3.12334	63.5	0.04578	0.03	1.62	42.06	9244.43	5699.40	68.22	1669.44	0.001	2.055	0.046
92	9.80	9.67	3.15584	62.8	0.04626	0.03	1.62	42.06	9244.43	5699.40	68.22	1769.18	0.001	2.076	0.046
93	9.67	9.53	3.18834	62.2	0.04673	0.03	1.62	42.06	9244.43	5699.40	68.22	1868.92	0.001	2.098	0.047
94	9.53	9.40	3.22084	61.6	0.04721	0.03	1.62	42.06	9244.43	5699.40	68.22	1968.66	0.001	2.119	0.047
95	9.40	9.26	3.25334	61.0	0.04769	0.03	1.62	42.06	9244.43	5699.40	68.22	2068.40	0.001	2.140	0.048
96	9.26	9.13	3.28584	60.3	0.04816	0.03	1.62	42.06	9244.43	5699.40	68.22	2168.14	0.001	2.162	0.048
97	9.13	8.99	3.31834	59.8	0.04864	0.03	1.62	42.06	9244.43	5699.40	68.22	2267.88	0.001	2.183	0.049
98	8.99	8.86	3.35084	59.2	0.04911	0.03	1.62	42.06	9244.43	5699.40	68.22	2367.62	0.001	2.204	0.049
99	8.86	8.72	3.38334	58.6	0.04959	0.03	1.62	42.06	9244.43	5699.40	68.22	2467.36	0.001	2.226	0.050
TOT							0.70		184888.55	113988.01					
AVG					0.0449		1.62	42.06			68.22				
CUM							8.94								

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
80	11.295	7.88	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.23	3.23	3.23	0.17	0.06	0.00	0.00	0.00	0.00	1.64	0.00	0.00	0.00	0.00
81	11.159	7.88	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.23	3.23	3.23	0.17	0.06	0.00	0.00	0.00	0.00	1.63	0.00	0.00	0.00	0.00
82	11.024	7.87	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.24	3.24	3.24	0.17	0.06	0.00	0.00	0.00	0.00	1.62	0.00	0.00	0.00	0.00
83	10.888	7.87	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.24	3.24	3.24	0.17	0.06	0.00	0.00	0.00	0.00	1.61	0.00	0.00	0.00	0.00
84	10.753	7.87	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.24	3.24	3.24	0.18	0.06	0.00	0.00	0.00	0.00	1.59	0.00	0.00	0.00	0.00
85	10.617	7.87	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.25	3.25	3.25	0.18	0.06	0.00	0.00	0.00	0.00	1.58	0.00	0.00	0.00	0.00
86	10.482	7.86	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.25	3.25	3.25	0.18	0.06	0.00	0.00	0.00	0.00	1.57	0.00	0.00	0.00	0.00
87	10.346	7.86	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.25	3.25	3.25	0.18	0.06	0.00	0.00	0.00	0.00	1.56	0.00	0.00	0.00	0.00
88	10.211	7.86	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.26	3.26	3.26	0.18	0.06	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00
89	10.075	7.86	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.26	3.26	3.26	0.18	0.06	0.00	0.00	0.00	0.00	1.54	0.00	0.00	0.00	0.00
90	9.940	7.85	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.26	3.26	3.26	0.18	0.06	0.00	0.00	0.00	0.00	1.52	0.00	0.00	0.00	0.00
91	9.804	7.85	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.27	3.27	3.27	0.19	0.06	0.00	0.00	0.00	0.00	1.51	0.00	0.00	0.00	0.00
92	9.669	7.85	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.27	3.27	3.27	0.19	0.06	0.00	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00
93	9.533	7.85	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.28	3.28	3.28	0.19	0.06	0.00	0.00	0.00	0.00	1.49	0.00	0.00	0.00	0.00
94	9.398	7.84	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.28	3.28	3.28	0.19	0.06	0.00	0.00	0.00	0.00	1.48	0.00	0.00	0.00	0.00
95	9.262	7.84	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.28	3.28	3.28	0.19	0.06	0.00	0.00	0.00	0.00	1.47	0.00	0.00	0.00	0.00
96	9.127	7.84	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.29	3.29	3.29	0.19	0.06	0.00	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00

97	8.991	7.84	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.29	3.29	3.29	0.19	0.06	0.00	0.00	0.00	0.00	1.44	0.00	0.00	0.00	0.00
98	8.856	7.83	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.29	3.29	3.29	0.19	0.06	0.00	0.00	0.00	0.00	1.43	0.00	0.00	0.00	0.00
99	8.720	7.83	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.19	0.06	0.00	0.00	0.00	0.00	1.42	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.43	0.05	0.05	0.00	0.00	0.05	0.00	2.00			0.14	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00
* g/m ² /d			** mg/L/day																				

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
80	11.295	27.61	0.08	11.83	172.62	2.39	3.00	0.00	5.32	0.00	0.89	0.00	0.00	0.00	0.00	23.12	0.00	0.	0.00
81	11.159	27.62	0.08	11.82	172.47	2.46	3.09	0.00	5.39	0.00	0.92	0.00	0.00	0.00	0.00	22.94	0.00	0.	0.00
82	11.024	27.64	0.08	11.82	172.32	2.54	3.18	0.00	5.45	0.00	0.95	0.00	0.00	0.00	0.00	22.76	0.00	0.	0.00
83	10.888	27.66	0.08	11.81	172.17	2.61	3.26	0.00	5.52	0.00	0.98	0.00	0.00	0.00	0.00	22.58	0.00	0.	0.00
84	10.753	27.68	0.08	11.80	172.02	2.67	3.34	0.00	5.58	0.00	1.01	0.00	0.00	0.00	0.00	22.40	0.00	0.	0.00
85	10.617	27.69	0.08	11.80	171.88	2.74	3.42	0.00	5.64	0.00	1.04	0.00	0.00	0.00	0.00	22.22	0.00	0.	0.00
86	10.482	27.71	0.08	11.79	171.74	2.80	3.50	0.00	5.70	0.00	1.06	0.00	0.00	0.00	0.00	22.04	0.00	0.	0.00
87	10.346	27.73	0.08	11.79	171.61	2.85	3.57	0.00	5.76	0.00	1.09	0.00	0.00	0.00	0.00	21.86	0.00	0.	0.00
88	10.211	27.75	0.08	11.78	171.47	2.91	3.65	0.00	5.81	0.00	1.12	0.00	0.00	0.00	0.00	21.68	0.00	0.	0.00
89	10.075	27.76	0.08	11.77	171.34	2.96	3.72	0.00	5.87	0.00	1.14	0.00	0.00	0.00	0.00	21.50	0.00	0.	0.00
90	9.940	27.78	0.08	11.77	171.22	3.00	3.79	0.00	5.92	0.00	1.16	0.00	0.00	0.00	0.00	21.32	0.00	0.	0.00
91	9.804	27.80	0.08	11.76	171.09	3.05	3.85	0.00	5.97	0.00	1.19	0.00	0.00	0.00	0.00	21.14	0.00	0.	0.00
92	9.669	27.82	0.08	11.76	170.97	3.09	3.92	0.00	6.01	0.00	1.21	0.00	0.00	0.00	0.00	20.96	0.00	0.	0.00
93	9.533	27.84	0.08	11.75	170.85	3.13	3.98	0.00	6.06	0.00	1.23	0.00	0.00	0.00	0.00	20.78	0.00	0.	0.00
94	9.398	27.85	0.08	11.75	170.73	3.17	4.04	0.00	6.10	0.00	1.25	0.00	0.00	0.00	0.00	20.60	0.00	0.	0.00
95	9.262	27.87	0.08	11.74	170.62	3.21	4.10	0.00	6.15	0.00	1.27	0.00	0.00	0.00	0.00	20.42	0.00	0.	0.00
96	9.127	27.89	0.08	11.74	170.51	3.24	4.16	0.00	6.19	0.00	1.29	0.00	0.00	0.00	0.00	20.24	0.00	0.	0.00
97	8.991	27.91	0.08	11.73	170.40	3.27	4.22	0.00	6.23	0.00	1.31	0.00	0.00	0.00	0.00	20.06	0.00	0.	0.00
98	8.856	27.92	0.08	11.73	170.29	3.30	4.28	0.00	6.26	0.00	1.33	0.00	0.00	0.00	0.00	19.88	0.00	0.	0.00
99	8.720	27.94	0.08	11.73	170.19	3.33	4.32	0.00	6.29	0.00	1.34	0.00	0.00	0.00	0.00	19.70	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU
 REACH NO. 9 LITTLE GRAND-UNNAMED CANAL 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
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100	UPR RCH	3.38334	27.94	0.08	11.73	170.19	3.33	4.32	0.00	6.29	0.00	1.34	0.00	0.00	0.00	19.70	0.00	0.00
EACH	INCR	0.06250	0.00	0.07	11.80	166.50	3.33	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	WSTLD	-0.14000	27.98	0.08	11.72	170.13	3.36	4.35	0.00	6.29	0.00	1.32	0.00	0.00	0.00	19.41	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
100	8.72	8.57	3.30584	57.5	0.04586	0.04	1.48	48.77	10811.87	7315.20	72.08	2613.81	0.001	1.905	0.046
101	8.57	8.42	3.36834	56.5	0.04673	0.04	1.48	48.77	10811.87	7315.20	72.08	2760.26	0.001	1.941	0.047
102	8.42	8.27	3.43084	55.4	0.04760	0.04	1.48	48.77	10811.87	7315.20	72.08	2906.71	0.001	1.977	0.048
103	8.27	8.12	3.49334	54.5	0.04847	0.04	1.48	48.77	10811.87	7315.20	72.08	3053.16	0.001	2.013	0.048
TOT						0.15			43247.46	29260.80					
AVG					0.0471		1.48	48.77			72.08				
CUM						9.09									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD#1 DECAY	BOD#1 SETT	ABOD#1 DECAY	BOD#2 DECAY	BOD#2 SETT	ABOD#2 DECAY	BKGD SOD	FULL SOD	CORR SOD	ORGN DECAY	ORGN SETT	NH3 DECAY	NH3 SRCE	DENIT RATE	PO4 SRCE	ALG PROD	MAC PROD	COLI DECAY	NCM DECAY	NCM SETT	
100	8.570	7.83	0.55	0.08	0.06	0.00	0.00	0.00	0.00	3.55	3.55	3.55	0.13	0.06	0.00	0.00	0.00	0.00	1.40	0.00	0.00	0.00	0.00	0.00
101	8.420	7.82	0.55	0.08	0.06	0.00	0.00	0.00	0.00	3.56	3.56	3.56	0.13	0.06	0.00	0.00	0.00	0.00	1.38	0.00	0.00	0.00	0.00	0.00
102	8.270	7.82	0.55	0.08	0.06	0.00	0.00	0.00	0.00	3.57	3.57	3.57	0.13	0.06	0.00	0.00	0.00	0.00	1.36	0.00	0.00	0.00	0.00	0.00
103	8.120	7.81	0.55	0.08	0.06	0.00	0.00	0.00	0.00	3.58	3.58	3.58	0.13	0.06	0.00	0.00	0.00	0.00	1.34	0.00	0.00	0.00	0.00	0.00
AVG	20 DEG C RATE		0.47	0.05	0.05	0.00	0.00	0.05	0.00	2.15			0.09	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00	

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
100	8.570	27.98	0.08	11.72	170.13	3.36	4.35	0.00	6.29	0.00	1.32	0.00	0.00	0.00	0.00	19.41	0.00	0.	0.00
101	8.420	28.01	0.08	11.72	170.04	3.40	4.38	0.00	6.29	0.00	1.30	0.00	0.00	0.00	0.00	19.12	0.00	0.	0.00
102	8.270	28.05	0.08	11.67	169.89	3.43	4.43	0.00	6.32	0.00	1.28	0.00	0.00	0.00	0.00	18.82	0.00	0.	0.00

103 8.120 28.08 0.08 11.46 169.43 3.45 4.58 0.00 6.43 0.00 1.28 0.00 0.00 0.00 0.00 18.53 0.00 0. 0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU
 REACH NO. 10 UNNAMED CANAL-E GRAND BAYOU 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
104	UPR RCH	3.49334	28.08	0.08	11.46	169.43	3.45	4.58	0.00	6.43	0.00	1.28	0.00	0.00	0.00	18.53	0.00	0.00
EACH	INCR	0.03250	0.00	0.07	11.34	168.72	3.44	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	
104	WSTLD	4.02800	27.93	0.07	10.10	166.80	3.47	5.47	0.00	5.47	0.00	1.38	0.00	0.00	0.00	23.80	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
104	8.12	7.97	7.55384	78.5	0.10830	0.02	1.55	45.00	10183.50	6570.00	69.75	3283.11	0.001	4.680	0.108
105	7.97	7.83	7.58634	78.2	0.10876	0.02	1.55	45.00	10183.50	6570.00	69.75	3513.06	0.001	4.701	0.109
106	7.83	7.68	7.61884	77.8	0.10923	0.02	1.55	45.00	10183.50	6570.00	69.75	3743.01	0.001	4.721	0.109
107	7.68	7.54	7.65134	77.5	0.10970	0.02	1.55	45.00	10183.50	6570.00	69.75	3972.96	0.001	4.741	0.110
108	7.54	7.39	7.68384	77.2	0.11016	0.02	1.55	45.00	10183.50	6570.00	69.75	4202.91	0.001	4.761	0.110
109	7.39	7.24	7.71634	76.9	0.11063	0.02	1.55	45.00	10183.50	6570.00	69.75	4432.86	0.001	4.781	0.111
110	7.24	7.10	7.74884	76.5	0.11109	0.02	1.55	45.00	10183.50	6570.00	69.75	4662.81	0.001	4.801	0.111
111	7.10	6.95	7.78134	76.2	0.11156	0.02	1.55	45.00	10183.50	6570.00	69.75	4892.76	0.002	4.821	0.112
112	6.95	6.81	7.81384	75.9	0.11203	0.02	1.55	45.00	10183.50	6570.00	69.75	5122.71	0.002	4.842	0.112
113	6.81	6.66	7.84634	75.6	0.11249	0.02	1.55	45.00	10183.50	6570.00	69.75	5352.66	0.002	4.862	0.112
114	6.66	6.51	7.87884	75.3	0.11296	0.01	1.55	45.00	10183.50	6570.00	69.75	5582.61	0.002	4.882	0.113
115	6.51	6.37	7.91134	75.0	0.11342	0.01	1.55	45.00	10183.50	6570.00	69.75	5812.56	0.002	4.902	0.113
116	6.37	6.22	7.94384	74.7	0.11389	0.01	1.55	45.00	10183.50	6570.00	69.75	6042.51	0.002	4.922	0.114
117	6.22	6.08	7.97634	74.3	0.11436	0.01	1.55	45.00	10183.50	6570.00	69.75	6272.46	0.002	4.942	0.114
118	6.08	5.93	8.00884	74.0	0.11482	0.01	1.55	45.00	10183.50	6570.00	69.75	6502.41	0.002	4.962	0.115
119	5.93	5.78	8.04134	73.7	0.11529	0.01	1.55	45.00	10183.50	6570.00	69.75	6732.36	0.002	4.983	0.115
120	5.78	5.64	8.07384	73.5	0.11575	0.01	1.55	45.00	10183.50	6570.00	69.75	6962.31	0.002	5.003	0.116
121	5.64	5.49	8.10634	73.2	0.11622	0.01	1.55	45.00	10183.50	6570.00	69.75	7192.26	0.002	5.023	0.116
122	5.49	5.35	8.13884	72.9	0.11669	0.01	1.55	45.00	10183.50	6570.00	69.75	7422.21	0.002	5.043	0.117
123	5.35	5.20	8.17134	72.6	0.11715	0.01	1.55	45.00	10183.50	6570.00	69.75	7652.16	0.002	5.063	0.117
TOT						0.30			203670.00	131400.00					

AVG 0.1127 1.55 45.00 69.75
 CUM 9.39

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECATY 1/da	BOD#1 SETT 1/da	ABOD#1 DECATY 1/da	BOD#2 DECATY 1/da	BOD#2 SETT 1/da	ABOD#2 DECATY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECATY 1/da	ORGN SETT 1/da	NH3 DECATY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECATY 1/da	NCM DECATY 1/da	NCM SETT 1/da
104	7.974	7.81	0.62	0.08	0.06	0.00	0.00	0.00	0.00	4.58	4.58	4.58	0.13	0.06	0.00	0.00	0.00	0.00	1.34	0.00	0.00	0.00	0.00
105	7.828	7.81	0.62	0.08	0.06	0.00	0.00	0.00	0.00	4.58	4.58	4.58	0.13	0.06	0.00	0.00	0.00	0.00	1.33	0.00	0.00	0.00	0.00
106	7.682	7.81	0.63	0.08	0.06	0.00	0.00	0.00	0.00	4.58	4.58	4.58	0.13	0.06	0.00	0.00	0.00	0.00	1.33	0.00	0.00	0.00	0.00
107	7.536	7.81	0.63	0.08	0.06	0.00	0.00	0.00	0.00	4.59	4.59	4.59	0.14	0.06	0.00	0.00	0.00	0.00	1.32	0.00	0.00	0.00	0.00
108	7.390	7.81	0.63	0.08	0.06	0.00	0.00	0.00	0.00	4.59	4.59	4.59	0.14	0.06	0.00	0.00	0.00	0.00	1.32	0.00	0.00	0.00	0.00
109	7.244	7.80	0.63	0.08	0.06	0.00	0.00	0.00	0.00	4.59	4.59	4.59	0.14	0.06	0.00	0.00	0.00	0.00	1.31	0.00	0.00	0.00	0.00
110	7.098	7.80	0.63	0.08	0.06	0.00	0.00	0.00	0.00	4.60	4.60	4.60	0.14	0.06	0.00	0.00	0.00	0.00	1.31	0.00	0.00	0.00	0.00
111	6.952	7.80	0.64	0.08	0.06	0.00	0.00	0.00	0.00	4.60	4.60	4.60	0.14	0.06	0.00	0.00	0.00	0.00	1.30	0.00	0.00	0.00	0.00
112	6.806	7.80	0.64	0.08	0.06	0.00	0.00	0.00	0.00	4.60	4.60	4.60	0.14	0.06	0.00	0.00	0.00	0.00	1.30	0.00	0.00	0.00	0.00
113	6.660	7.80	0.64	0.08	0.06	0.00	0.00	0.00	0.00	4.60	4.60	4.60	0.14	0.06	0.00	0.00	0.00	0.00	1.29	0.00	0.00	0.00	0.00
114	6.514	7.80	0.64	0.08	0.06	0.00	0.00	0.00	0.00	4.61	4.61	4.61	0.14	0.06	0.00	0.00	0.00	0.00	1.29	0.00	0.00	0.00	0.00
115	6.368	7.80	0.64	0.08	0.06	0.00	0.00	0.00	0.00	4.61	4.61	4.61	0.14	0.06	0.00	0.00	0.00	0.00	1.28	0.00	0.00	0.00	0.00
116	6.222	7.79	0.65	0.08	0.06	0.00	0.00	0.00	0.00	4.61	4.61	4.61	0.14	0.06	0.00	0.00	0.00	0.00	1.28	0.00	0.00	0.00	0.00
117	6.076	7.79	0.65	0.08	0.06	0.00	0.00	0.00	0.00	4.62	4.62	4.62	0.14	0.06	0.00	0.00	0.00	0.00	1.27	0.00	0.00	0.00	0.00
118	5.930	7.79	0.65	0.08	0.06	0.00	0.00	0.00	0.00	4.62	4.62	4.62	0.14	0.06	0.00	0.00	0.00	0.00	1.27	0.00	0.00	0.00	0.00
119	5.784	7.79	0.65	0.08	0.06	0.00	0.00	0.00	0.00	4.62	4.62	4.62	0.14	0.06	0.00	0.00	0.00	0.00	1.26	0.00	0.00	0.00	0.00
120	5.638	7.79	0.65	0.08	0.06	0.00	0.00	0.00	0.00	4.63	4.63	4.63	0.14	0.06	0.00	0.00	0.00	0.00	1.26	0.00	0.00	0.00	0.00
121	5.492	7.79	0.66	0.08	0.06	0.00	0.00	0.00	0.00	4.63	4.63	4.63	0.14	0.06	0.00	0.00	0.00	0.00	1.26	0.00	0.00	0.00	0.00
122	5.346	7.79	0.66	0.08	0.06	0.00	0.00	0.00	0.00	4.63	4.63	4.63	0.14	0.06	0.00	0.00	0.00	0.00	1.25	0.00	0.00	0.00	0.00
123	5.200	7.78	0.66	0.08	0.06	0.00	0.00	0.00	0.00	4.64	4.64	4.64	0.14	0.06	0.00	0.00	0.00	0.00	1.25	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.55	0.05	0.05	0.00	0.00	0.05	0.00	2.75			0.09	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00
* g/m ² /d			** mg/L/day																				

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
104	7.974	28.09	0.07	10.86	168.27	3.47	4.94	0.00	6.79	0.00	1.31	0.00	0.00	0.00	0.00	18.45	0.00	0.	0.00
105	7.828	28.10	0.07	10.86	168.27	3.48	4.91	0.00	6.75	0.00	1.30	0.00	0.00	0.00	0.00	18.38	0.00	0.	0.00
106	7.682	28.11	0.07	10.86	168.27	3.49	4.88	0.00	6.71	0.00	1.29	0.00	0.00	0.00	0.00	18.30	0.00	0.	0.00
107	7.536	28.12	0.07	10.87	168.27	3.49	4.85	0.00	6.67	0.00	1.28	0.00	0.00	0.00	0.00	18.23	0.00	0.	0.00

108	7.390	28.13	0.07	10.87	168.27	3.50	4.82	0.00	6.63	0.00	1.28	0.00	0.00	0.00	0.00	18.15	0.00	0.	0.00
109	7.244	28.14	0.07	10.87	168.28	3.51	4.79	0.00	6.59	0.00	1.27	0.00	0.00	0.00	0.00	18.08	0.00	0.	0.00
110	7.098	28.15	0.07	10.87	168.28	3.52	4.76	0.00	6.56	0.00	1.26	0.00	0.00	0.00	0.00	18.00	0.00	0.	0.00
111	6.952	28.16	0.07	10.87	168.28	3.52	4.73	0.00	6.52	0.00	1.25	0.00	0.00	0.00	0.00	17.93	0.00	0.	0.00
112	6.806	28.17	0.07	10.88	168.28	3.53	4.70	0.00	6.48	0.00	1.24	0.00	0.00	0.00	0.00	17.85	0.00	0.	0.00
113	6.660	28.18	0.07	10.88	168.28	3.54	4.67	0.00	6.45	0.00	1.23	0.00	0.00	0.00	0.00	17.78	0.00	0.	0.00
114	6.514	28.20	0.07	10.88	168.29	3.55	4.64	0.00	6.41	0.00	1.22	0.00	0.00	0.00	0.00	17.70	0.00	0.	0.00
115	6.368	28.21	0.07	10.88	168.29	3.55	4.61	0.00	6.37	0.00	1.21	0.00	0.00	0.00	0.00	17.62	0.00	0.	0.00
116	6.222	28.22	0.07	10.88	168.29	3.56	4.58	0.00	6.34	0.00	1.20	0.00	0.00	0.00	0.00	17.55	0.00	0.	0.00
117	6.076	28.23	0.07	10.89	168.29	3.57	4.55	0.00	6.30	0.00	1.20	0.00	0.00	0.00	0.00	17.47	0.00	0.	0.00
118	5.930	28.24	0.07	10.89	168.29	3.57	4.53	0.00	6.27	0.00	1.19	0.00	0.00	0.00	0.00	17.40	0.00	0.	0.00
119	5.784	28.25	0.07	10.89	168.29	3.58	4.50	0.00	6.23	0.00	1.18	0.00	0.00	0.00	0.00	17.32	0.00	0.	0.00
120	5.638	28.26	0.07	10.89	168.30	3.59	4.47	0.00	6.20	0.00	1.17	0.00	0.00	0.00	0.00	17.25	0.00	0.	0.00
121	5.492	28.27	0.07	10.89	168.30	3.59	4.44	0.00	6.16	0.00	1.16	0.00	0.00	0.00	0.00	17.17	0.00	0.	0.00
122	5.346	28.28	0.07	10.89	168.30	3.60	4.42	0.00	6.13	0.00	1.16	0.00	0.00	0.00	0.00	17.10	0.00	0.	0.00
123	5.200	28.29	0.07	10.90	168.31	3.61	4.39	0.00	6.09	0.00	1.15	0.00	0.00	0.00	0.00	17.02	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream
 REACH NO. 11 E GRAND BAYOU-BAYOU ALCIDE

GRAND BAYOU
 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
124	UPR RCH	8.17134	28.29	0.07	10.90	168.31	3.61	4.39	0.00	6.09	0.00	1.15	0.00	0.00	0.00	17.02	0.00	0.00
EACH	INCR	0.05909	0.00	0.08	10.68	171.75	3.60	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	
124	WSTLD	-3.80600	28.32	0.07	10.89	168.33	3.61	4.35	0.00	6.08	0.00	1.13	0.00	0.00	0.00	17.31	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
124	5.20	5.01	4.42443	72.1	0.06379	0.03	1.62	42.95	13177.98	8159.74	69.36	8080.55	0.003	2.853	0.064
125	5.01	4.82	4.48352	71.1	0.06464	0.03	1.62	42.95	13177.98	8159.74	69.36	8508.94	0.003	2.891	0.065
126	4.82	4.63	4.54261	70.2	0.06550	0.03	1.62	42.95	13177.98	8159.74	69.36	8937.32	0.003	2.929	0.065
127	4.63	4.44	4.60170	69.3	0.06635	0.03	1.62	42.95	13177.98	8159.74	69.36	9365.71	0.003	2.967	0.066
128	4.44	4.25	4.66080	68.4	0.06720	0.03	1.62	42.95	13177.98	8159.74	69.36	9794.10	0.003	3.005	0.067
129	4.25	4.06	4.71989	67.5	0.06805	0.03	1.62	42.95	13177.98	8159.74	69.36	10222.48	0.003	3.043	0.068
130	4.06	3.87	4.77898	66.7	0.06890	0.03	1.62	42.95	13177.98	8159.74	69.36	10650.87	0.003	3.082	0.069

131	3.87	3.68	4.83807	65.9	0.06976	0.03	1.62	42.95	13177.98	8159.74	69.36	11079.26	0.004	3.120	0.070
132	3.68	3.49	4.89716	65.1	0.07061	0.03	1.62	42.95	13177.98	8159.74	69.36	11507.64	0.004	3.158	0.071
133	3.49	3.30	4.95625	64.3	0.07146	0.03	1.62	42.95	13177.98	8159.74	69.36	11936.03	0.004	3.196	0.071
134	3.30	3.11	5.01534	63.6	0.07231	0.03	1.62	42.95	13177.98	8159.74	69.36	12364.42	0.004	3.234	0.072
TOT						0.36			144957.77	89757.14					
AVG					0.0679		1.61	42.95			69.36				
CUM						9.75									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECA 1/da	BOD#1 SETT 1/da	ABOD#1 DECA 1/da	BOD#2 DECA 1/da	BOD#2 SETT 1/da	ABOD#2 DECA 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECA 1/da	ORGN SETT 1/da	NH3 DECA 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECA 1/da	NCM DECA 1/da	NCM SETT 1/da
124	5.010	7.78	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.22	4.22	4.22	0.14	0.06	0.00	0.00	0.00	0.00	1.27	0.00	0.00	0.00	0.00
125	4.820	7.78	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.23	4.23	4.23	0.14	0.06	0.00	0.00	0.00	0.00	1.29	0.00	0.00	0.00	0.00
126	4.630	7.77	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.14	0.06	0.00	0.00	0.00	0.00	1.31	0.00	0.00	0.00	0.00
127	4.440	7.77	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.15	0.06	0.00	0.00	0.00	0.00	1.34	0.00	0.00	0.00	0.00
128	4.250	7.76	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.25	4.25	4.25	0.15	0.06	0.00	0.00	0.00	0.00	1.36	0.00	0.00	0.00	0.00
129	4.060	7.76	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.26	4.26	4.26	0.15	0.06	0.00	0.00	0.00	0.00	1.38	0.00	0.00	0.00	0.00
130	3.870	7.76	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.27	4.27	4.27	0.15	0.06	0.00	0.00	0.00	0.00	1.41	0.00	0.00	0.00	0.00
131	3.680	7.75	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.28	4.28	4.28	0.15	0.06	0.00	0.00	0.00	0.00	1.43	0.00	0.00	0.00	0.00
132	3.490	7.75	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.28	4.28	4.28	0.15	0.06	0.00	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
133	3.300	7.74	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.29	4.29	4.29	0.15	0.06	0.00	0.00	0.00	0.00	1.48	0.00	0.00	0.00	0.00
134	3.110	7.74	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.30	4.30	4.30	0.15	0.06	0.00	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.43	0.06	0.05	0.00	0.00	0.05	0.00	2.50			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00
*	g/m ² /d																						
**	mg/L/day																						

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
124	5.010	28.32	0.07	10.89	168.33	3.61	4.35	0.00	6.08	0.00	1.13	0.00	0.00	0.00	0.00	17.31	0.00	0.	0.00
125	4.820	28.35	0.07	10.89	168.38	3.62	4.27	0.00	6.03	0.00	1.11	0.00	0.00	0.00	0.00	17.60	0.00	0.	0.00
126	4.630	28.38	0.07	10.89	168.42	3.63	4.19	0.00	5.98	0.00	1.09	0.00	0.00	0.00	0.00	17.89	0.00	0.	0.00
127	4.440	28.41	0.07	10.89	168.46	3.64	4.12	0.00	5.94	0.00	1.07	0.00	0.00	0.00	0.00	18.18	0.00	0.	0.00
128	4.250	28.44	0.07	10.88	168.50	3.65	4.05	0.00	5.89	0.00	1.05	0.00	0.00	0.00	0.00	18.47	0.00	0.	0.00
129	4.060	28.46	0.07	10.88	168.54	3.66	3.98	0.00	5.85	0.00	1.03	0.00	0.00	0.00	0.00	18.75	0.00	0.	0.00
130	3.870	28.49	0.07	10.88	168.58	3.67	3.91	0.00	5.82	0.00	1.01	0.00	0.00	0.00	0.00	19.04	0.00	0.	0.00

131	3.680	28.52	0.07	10.87	168.62	3.68	3.85	0.00	5.78	0.00	0.99	0.00	0.00	0.00	0.00	19.33	0.00	0.	0.00
132	3.490	28.55	0.07	10.87	168.63	3.69	3.79	0.00	5.75	0.00	0.97	0.00	0.00	0.00	0.00	19.62	0.00	0.	0.00
133	3.300	28.58	0.07	10.83	168.54	3.69	3.76	0.00	5.75	0.00	0.96	0.00	0.00	0.00	0.00	19.91	0.00	0.	0.00
134	3.110	28.61	0.07	10.67	167.90	3.65	3.85	0.00	5.87	0.00	0.97	0.00	0.00	0.00	0.00	20.20	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU
 REACH NO. 12 BAYOU ALCIDE-SITE GRB8 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
135	UPR RCH	5.01534	28.61	0.07	10.67	167.90	3.65	3.85	0.00	5.87	0.00	0.97	0.00	0.00	0.00	20.20	0.00	0.00
EACH	INCR	0.02500	0.00	0.08	10.20	170.29	3.48	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	WSTLD	2.98400	27.96	0.07	8.80	160.11	2.99	5.54	0.00	5.54	0.00	1.23	0.00	0.00	0.00	23.80	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
135	3.11	2.96	8.02434	76.9	0.08414	0.02	1.73	55.00	13828.65	7975.00	95.37	12811.02	0.003	3.993	0.084
136	2.96	2.82	8.04934	76.7	0.08440	0.02	1.73	55.00	13828.65	7975.00	95.37	13257.62	0.003	4.005	0.084
137	2.82	2.67	8.07434	76.4	0.08466	0.02	1.73	55.00	13828.65	7975.00	95.37	13704.22	0.003	4.017	0.085
138	2.67	2.53	8.09934	76.2	0.08493	0.02	1.73	55.00	13828.65	7975.00	95.37	14150.82	0.003	4.030	0.085
139	2.53	2.38	8.12434	76.0	0.08519	0.02	1.73	55.00	13828.65	7975.00	95.37	14597.42	0.003	4.042	0.085
140	2.38	2.24	8.14934	75.7	0.08545	0.02	1.73	55.00	13828.65	7975.00	95.37	15044.01	0.004	4.055	0.085
141	2.24	2.10	8.17434	75.5	0.08571	0.02	1.73	55.00	13828.65	7975.00	95.37	15490.61	0.004	4.067	0.086
142	2.10	1.95	8.19934	75.3	0.08597	0.02	1.73	55.00	13828.65	7975.00	95.37	15937.21	0.004	4.080	0.086
143	1.95	1.81	8.22434	75.0	0.08624	0.02	1.73	55.00	13828.65	7975.00	95.37	16383.81	0.004	4.092	0.086
144	1.81	1.66	8.24934	74.8	0.08650	0.02	1.73	55.00	13828.65	7975.00	95.37	16830.41	0.004	4.104	0.086
TOT						0.20			138286.50	79750.00					
AVG					0.0853		1.73	55.00			95.37				
CUM						9.94									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM	ENDING	SAT	REAER	BOD#1	BOD#1	ABOD#1	BOD#2	BOD#2	ABOD#2	BKGD	FULL	CORR	ORGN	ORGN	NH3	NH3	DENIT	PO4	ALG	MAC	COLI	NCM	NCM
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NO.	DIST	D.O. mg/L	RATE 1/da	DECAY 1/da	SETT 1/da	DECAY 1/da	DECAY 1/da	SETT 1/da	DECAY 1/da	SOD *	SOD *	SOD *	DECAY 1/da	SETT 1/da	DECAY 1/da	SRCE *	RATE 1/da	SRCE *	PROD **	PROD **	DECAY 1/da	DECAY 1/da	SETT 1/da
135	2.965	7.74	0.47	0.08	0.06	0.00	0.00	0.00	0.00	5.16	5.16	5.16	0.14	0.06	0.00	0.00	0.00	0.00	1.51	0.00	0.00	0.00	0.00
136	2.820	7.74	0.47	0.08	0.06	0.00	0.00	0.00	0.00	5.17	5.17	5.17	0.14	0.06	0.00	0.00	0.00	0.00	1.53	0.00	0.00	0.00	0.00
137	2.675	7.74	0.47	0.08	0.06	0.00	0.00	0.00	0.00	5.17	5.17	5.17	0.14	0.06	0.00	0.00	0.00	0.00	1.54	0.00	0.00	0.00	0.00
138	2.530	7.73	0.47	0.08	0.06	0.00	0.00	0.00	0.00	5.18	5.18	5.18	0.14	0.06	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00
139	2.385	7.73	0.47	0.08	0.06	0.00	0.00	0.00	0.00	5.18	5.18	5.18	0.14	0.06	0.00	0.00	0.00	0.00	1.57	0.00	0.00	0.00	0.00
140	2.240	7.73	0.47	0.08	0.06	0.00	0.00	0.00	0.00	5.18	5.18	5.18	0.14	0.06	0.00	0.00	0.00	0.00	1.58	0.00	0.00	0.00	0.00
141	2.095	7.73	0.47	0.08	0.06	0.00	0.00	0.00	0.00	5.19	5.19	5.19	0.14	0.06	0.00	0.00	0.00	0.00	1.60	0.00	0.00	0.00	0.00
142	1.950	7.73	0.47	0.08	0.06	0.00	0.00	0.00	0.00	5.19	5.19	5.19	0.14	0.06	0.00	0.00	0.00	0.00	1.61	0.00	0.00	0.00	0.00
143	1.805	7.73	0.47	0.08	0.06	0.00	0.00	0.00	0.00	5.19	5.19	5.19	0.14	0.06	0.00	0.00	0.00	0.00	1.62	0.00	0.00	0.00	0.00
144	1.660	7.72	0.47	0.08	0.06	0.00	0.00	0.00	0.00	5.20	5.20	5.20	0.14	0.06	0.00	0.00	0.00	0.00	1.64	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.40	0.05	0.05	0.00	0.00	0.05	0.00	3.00			0.09	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
135	2.965	28.62	0.07	10.10	165.53	3.45	4.34	0.00	6.37	0.00	1.04	0.00	0.00	0.00	0.00	20.37	0.00	0.	0.00
136	2.820	28.63	0.07	10.10	165.55	3.45	4.31	0.00	6.36	0.00	1.03	0.00	0.00	0.00	0.00	20.54	0.00	0.	0.00
137	2.675	28.65	0.07	10.10	165.56	3.45	4.28	0.00	6.36	0.00	1.02	0.00	0.00	0.00	0.00	20.72	0.00	0.	0.00
138	2.530	28.66	0.07	10.10	165.57	3.45	4.26	0.00	6.35	0.00	1.02	0.00	0.00	0.00	0.00	20.89	0.00	0.	0.00
139	2.385	28.67	0.07	10.10	165.59	3.46	4.23	0.00	6.34	0.00	1.01	0.00	0.00	0.00	0.00	21.06	0.00	0.	0.00
140	2.240	28.68	0.07	10.10	165.60	3.46	4.21	0.00	6.33	0.00	1.00	0.00	0.00	0.00	0.00	21.23	0.00	0.	0.00
141	2.095	28.69	0.07	10.10	165.62	3.46	4.18	0.00	6.32	0.00	1.00	0.00	0.00	0.00	0.00	21.40	0.00	0.	0.00
142	1.950	28.71	0.07	10.10	165.63	3.47	4.16	0.00	6.32	0.00	0.99	0.00	0.00	0.00	0.00	21.58	0.00	0.	0.00
143	1.805	28.72	0.07	10.10	165.65	3.47	4.14	0.00	6.31	0.00	0.98	0.00	0.00	0.00	0.00	21.75	0.00	0.	0.00
144	1.660	28.73	0.07	10.10	165.65	3.47	4.12	0.00	6.31	0.00	0.98	0.00	0.00	0.00	0.00	21.92	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU
 REACH NO. 13 SITE GRB8-LITTLE BAYOU LONG 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
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145	UPR RCH	8.24934	28.73	0.07	10.10	165.65	3.47	4.12	0.00	6.31	0.00	0.98	0.00	0.00	0.00	21.92	0.00	0.00	
EACH	INCR	-0.16250																	

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
145	1.66	1.54	8.08684	74.8	0.06343	0.02	1.50	85.00	14662.50	9775.00	127.50	17514.66	0.003	2.667	0.063
146	1.54	1.43	7.92434	74.8	0.06215	0.02	1.50	85.00	14662.50	9775.00	127.50	18198.91	0.003	2.614	0.062
147	1.43	1.31	7.76184	74.8	0.06088	0.02	1.50	85.00	14662.50	9775.00	127.50	18883.16	0.003	2.560	0.061
148	1.31	1.20	7.59934	74.8	0.05960	0.02	1.50	85.00	14662.50	9775.00	127.50	19567.41	0.003	2.507	0.060
TOT						0.09			58650.00	39100.00					
AVG					0.0615		1.50	85.00			127.50				
CUM						10.03									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD#1 DECAY	BOD#1 SETT	ABOD#1 DECAY	BOD#2 DECAY	BOD#2 SETT	ABOD#2 DECAY	BKGD SOD	FULL SOD	CORR SOD	ORGN DECAY	ORGN SETT	NH3 DECAY	NH3 SRCE	DENIT RATE	PO4 SRCE	ALG PROD	MAC PROD	COLI DECAY	NCM DECAY	NCM SETT	
145	1.545	7.73	0.55	0.08	0.06	0.00	0.00	0.00	0.00	5.19	5.19	5.19	0.14	0.06	0.00	0.00	0.00	0.00	1.66	0.00	0.00	0.00	0.00	0.00
146	1.430	7.73	0.55	0.08	0.06	0.00	0.00	0.00	0.00	5.19	5.19	5.19	0.14	0.06	0.00	0.00	0.00	0.00	1.69	0.00	0.00	0.00	0.00	0.00
147	1.315	7.73	0.55	0.08	0.06	0.00	0.00	0.00	0.00	5.19	5.19	5.19	0.14	0.06	0.00	0.00	0.00	0.00	1.72	0.00	0.00	0.00	0.00	0.00
148	1.200	7.73	0.55	0.08	0.06	0.00	0.00	0.00	0.00	5.18	5.18	5.18	0.14	0.06	0.00	0.00	0.00	0.00	1.74	0.00	0.00	0.00	0.00	0.00
AVG	20 DEG C RATE		0.47	0.05	0.05	0.00	0.00	0.05	0.00	3.00			0.09	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
*	g/m ² /d		**	mg/L/day																				

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
145	1.545	28.72	0.07	10.10	165.65	3.47	4.12	0.00	6.35	0.00	1.00	0.00	0.00	0.00	0.00	22.30	0.00	0.	0.00
146	1.430	28.70	0.07	10.10	165.64	3.47	4.11	0.00	6.38	0.00	1.01	0.00	0.00	0.00	0.00	22.67	0.00	0.	0.00
147	1.315	28.69	0.07	10.09	165.59	3.47	4.12	0.00	6.42	0.00	1.02	0.00	0.00	0.00	0.00	23.05	0.00	0.	0.00
148	1.200	28.68	0.07	10.08	165.40	3.45	4.14	0.00	6.48	0.00	1.04	0.00	0.00	0.00	0.00	23.42	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream
 REACH NO. 14 L BAYOU LONG-LAKE VERRET

GRAND BAYOU
 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM	
149	UPR RCH	7.59934	28.68	0.07	10.08	165.40	3.45	4.14	0.00	6.48	0.00	1.04	0.00	0.00	0.00	23.42	0.00	0.00	
EACH	INCR	-0.06500																	
149	WSTLD	0.70700	28.27	0.07	9.00	153.60	1.86	5.77	0.00	5.77	0.00	0.96	0.00	0.00	0.00	23.80	0.00	0.00	

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
149	1.20	1.08	8.24134	77.0	0.04414	0.03	1.23	152.40	22402.80	18288.00	186.69	20847.57	0.002	1.568	0.044
150	1.08	0.96	8.17634	77.0	0.04380	0.03	1.23	152.40	22402.80	18288.00	186.69	22127.73	0.003	1.556	0.044
151	0.96	0.84	8.11134	77.0	0.04345	0.03	1.23	152.40	22402.80	18288.00	186.69	23407.89	0.003	1.544	0.043
152	0.84	0.72	8.04634	77.0	0.04310	0.03	1.23	152.40	22402.80	18288.00	186.69	24688.05	0.003	1.531	0.043
153	0.72	0.60	7.98134	77.0	0.04275	0.03	1.23	152.40	22402.80	18288.00	186.69	25968.21	0.003	1.519	0.043
154	0.60	0.48	7.91634	77.0	0.04240	0.03	1.23	152.40	22402.80	18288.00	186.69	27248.38	0.003	1.506	0.042
155	0.48	0.36	7.85134	77.0	0.04206	0.03	1.23	152.40	22402.80	18288.00	186.69	28528.54	0.003	1.494	0.042
156	0.36	0.24	7.78634	77.0	0.04171	0.03	1.23	152.40	22402.80	18288.00	186.69	29808.70	0.004	1.482	0.042
157	0.24	0.12	7.72134	77.0	0.04136	0.03	1.23	152.40	22402.80	18288.00	186.69	31088.86	0.004	1.469	0.041
158	0.12	0.00	7.65634	77.0	0.04101	0.03	1.23	152.40	22402.80	18288.00	186.69	32369.02	0.004	1.457	0.041
TOT						0.33			224027.98	182880.00					
AVG					0.0426		1.23	152.40			186.69				
CUM						10.36									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da	
149	1.080	7.76	0.67	0.09	0.06	0.00	0.00	0.00	0.00	5.12	5.12	5.12	0.14	0.06	0.00	0.00	0.00	0.00	1.74	0.00	0.00	0.00	0.00	0.00

150	0.960	7.78	0.67	0.09	0.06	0.00	0.00	0.00	0.00	5.06	5.06	5.06	0.14	0.06	0.00	0.00	0.00	0.00	1.74	0.00	0.00	0.00	0.00
151	0.840	7.81	0.67	0.09	0.06	0.00	0.00	0.00	0.00	5.01	5.01	5.01	0.14	0.06	0.00	0.00	0.00	0.00	1.74	0.00	0.00	0.00	0.00
152	0.720	7.83	0.66	0.09	0.06	0.00	0.00	0.00	0.00	4.95	4.95	4.95	0.14	0.06	0.00	0.00	0.00	0.00	1.73	0.00	0.00	0.00	0.00
153	0.600	7.86	0.66	0.09	0.06	0.00	0.00	0.00	0.00	4.89	4.89	4.89	0.13	0.06	0.00	0.00	0.00	0.00	1.73	0.00	0.00	0.00	0.00
154	0.480	7.88	0.66	0.09	0.06	0.00	0.00	0.00	0.00	4.83	4.83	4.83	0.13	0.06	0.00	0.00	0.00	0.00	1.73	0.00	0.00	0.00	0.00
155	0.360	7.91	0.66	0.09	0.06	0.00	0.00	0.00	0.00	4.78	4.78	4.78	0.13	0.06	0.00	0.00	0.00	0.00	1.72	0.00	0.00	0.00	0.00
156	0.240	7.94	0.65	0.08	0.06	0.00	0.00	0.00	0.00	4.72	4.72	4.72	0.13	0.06	0.00	0.00	0.00	0.00	1.72	0.00	0.00	0.00	0.00
157	0.120	7.96	0.65	0.08	0.06	0.00	0.00	0.00	0.00	4.67	4.67	4.67	0.12	0.06	0.00	0.00	0.00	0.00	1.71	0.00	0.00	0.00	0.00
158	0.000	7.99	0.65	0.08	0.06	0.00	0.00	0.00	0.00	4.62	4.62	4.62	0.12	0.06	0.00	0.00	0.00	0.00	1.71	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.57	0.06	0.05	0.00	0.00	0.05	0.00	3.00			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
149	1.080	28.50	0.07	10.01	164.64	3.34	4.25	0.00	6.60	0.00	1.06	0.00	0.00	0.00	0.00	23.58	0.00	0.	0.00
150	0.960	28.31	0.07	10.01	164.64	3.35	4.25	0.00	6.62	0.00	1.09	0.00	0.00	0.00	0.00	23.74	0.00	0.	0.00
151	0.840	28.13	0.07	10.01	164.64	3.35	4.25	0.00	6.63	0.00	1.12	0.00	0.00	0.00	0.00	23.89	0.00	0.	0.00
152	0.720	27.94	0.07	10.01	164.64	3.35	4.25	0.00	6.65	0.00	1.15	0.00	0.00	0.00	0.00	24.05	0.00	0.	0.00
153	0.600	27.76	0.07	10.01	164.64	3.36	4.24	0.00	6.67	0.00	1.18	0.00	0.00	0.00	0.00	24.21	0.00	0.	0.00
154	0.480	27.58	0.07	10.01	164.67	3.37	4.24	0.00	6.68	0.00	1.20	0.00	0.00	0.00	0.00	24.37	0.00	0.	0.00
155	0.360	27.39	0.07	10.02	164.80	3.37	4.23	0.00	6.68	0.00	1.23	0.00	0.00	0.00	0.00	24.53	0.00	0.	0.00
156	0.240	27.21	0.07	10.04	165.34	3.36	4.17	0.00	6.64	0.00	1.24	0.00	0.00	0.00	0.00	24.68	0.00	0.	0.00
157	0.120	27.02	0.07	10.17	167.76	3.29	3.90	0.00	6.38	0.00	1.18	0.00	0.00	0.00	0.00	24.84	0.00	0.	0.00
158	0.000	26.84	0.08	10.74	178.49	2.92	2.68	0.00	5.18	0.00	0.83	0.00	0.00	0.00	0.00	25.00	0.00	0.	0.00

STREAM SUMMARY
 Grand Bayou Upstream

GRAND BAYOU
 11/09/06

TRAVEL TIME	=	10.36 DAYS
MAXIMUM EFFLUENT	=	78.51 PERCENT
FLOW	=	0.10100 TO 8.24934 m ³ /s
DISPERSION	=	0.2552 TO 5.0631 m ² /s
VELOCITY	=	0.00971 TO 0.11715 m/s
DEPTH	=	0.85 TO 1.73 m
WIDTH	=	12.19 TO 152.40 m

BOD DECAY	=	0.08	TO	0.12	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	3.23	TO	8.46	g/m ² /d
NH3 SOURCE	=	0.00	TO	0.00	g/m ² /d
REAERATION	=	0.47	TO	0.94	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.12	TO	0.19	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	26.84	TO	28.73	deg C
DISSOLVED OXYGEN	=	2.23	TO	3.69	mg/L

.....EXECUTION COMPLETED

Justifications

Grand Bayou Calibration

DATA TYPE 3 - PROGRAM CONSTANTS			
CONSTANT NAME	VALUE	UNITS	DATA SOURCE
DISPERSION EQUATION	3		Dispersion calibrated using measured values at two sites
TIDE HEIGHT	0.07	meters	Continuous Monitor data, site GRB9
KL MINIMUM	0.7	m/day	Louisiana Standard Practice
INHIBITION CONTROL VALUE	3		Louisiana Standard Practice
EFFECTIVE BOD DUE TO ALGAE	0.1	mg/L BOD /ug chl a/ day	BPJ and calibration
ALGAE OXYGEN PRODUCTION	0.05	mg O / ug chl a / day	BPJ and calibration
K2 MAXIMUM	25	1/day at 20 deg C	Louisiana Standard Practice
HYDRAULIC CALCULATION METHOD	2		Louisiana Standard Practice
SETTLING RATE UNITS	2		Louisiana Standard Practice

Grand Bayou Calibration

Reach	ID	Name	DATA TYPE 8 - REACH IDENTIFICATION DATA			
			Upstream River Kilometer	Downstream River Kilometer	Element Length, km	Data Source
1	GB	SITE GRB1-BAYOU SIGUR	23.53	23.44	0.0900	
2	GB	BAYOU SIGUR-MUDDY BAYOU	23.44	22.62	0.1640	
3	GB	MUDDY BAYOU-BAYOU CROUX (BYC1)	22.62	20.57	0.2050	
4	GB	B CROUX (BYC1)-B CROUX (BYC2)	20.57	18.29	0.1520	
5	GB	B CROUX (BYC2)-km 15.5	18.29	15.50	0.1550	
6	GB	km 15.5-km 13.0	15.50	13.00	0.1250	
7	GB	km 13.0-BAYOU CORNE	13.00	11.43	0.1570	
8	GB	B CORNE-LITTLE GRAND BAYOU	11.43	8.72	0.1355	
9	GB	LITTLE GRAND-UNNAMED CANAL	8.72	8.12	0.1500	
10	GB	UNNAMED CANAL-E GRAND BAYOU	8.12	5.20	0.1460	
11	GB	E GRAND BAYOU-BAYOU ALCIDE	5.20	3.11	0.1900	
12	GB	BAYOU ALCIDE-SITE GRB8	3.11	1.66	0.1450	
13	GB	SITE GRB8-LITTLE BAYOU LONG	1.66	1.20	0.1150	
14	GB	L BAYOU LONG-LAKE VERRET	1.20	0.00	0.1200	

Grand Bayou Calibration

Reach	Name	DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS			DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS			DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS					
		Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. "d"	Depth Exp. "e"	Depth Const. "f"	Data Source	Slope (unitless)	Data Source	Manning's "n"	Data Source
1	SITE GRB1-BAYOU SIGUR	0	0	12.192	Field Data, Site GRB1	0	0	0.853	Field Data, Site GRB1	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
2	BAYOU SIGUR-MUDDY BAYOU	0	0	16.500	Estimate of field data between Sites GRB1 and GRB2	0	0	0.900	Estimate of field data between Sites GRB1 and GRB2	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
3	MUDDY BAYOU-BAYOU CROUX (BYC1)	0	0	21.336	Field Data, Site GRB2	0	0	1.006	Field Data, Site GRB2	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
4	B CROUX (BYC1)-B CROUX (BYC2)	0	0	16.459	Field Data, Site GRB3	0	0	1.570	Field Data, Site GRB3	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
5	B CROUX (BYC2)-km 15.5	0	0	30.000	Estimate of field data between Sites GRB3 and GRB4	0	0	1.550	Estimate of field data between Sites GRB3 and GRB4	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
6	km 15.5-km 13.0	0	0	44.196	Field Data, Site GRB4	0	0	1.515	Field Data, Site GRB4	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
7	km 13.0-BAYOU CORNE	0	0	43.000	Estimate of field data between Sites GRB4 and GRB5	0	0	1.550	Estimate of field data between Sites GRB4 and GRB5	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
8	B CORNE-LITTLE GRAND BAYOU	0	0	42.062	Field Data, Site GRB5	0	0	1.622	Field Data, Site GRB5	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
9	LITTLE GRAND-UNNAMED CANAL	0	0	48.768	Field Data, Site GRB6	0	0	1.478	Field Data, Site GRB6	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
10	UNNAMED CANAL-E GRAND BAYOU	0	0	45.000	Estimate of field data between Sites GRB6 and GRB7	0	0	1.550	Estimate of field data between Sites GRB6 and GRB7	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
11	E GRAND BAYOU-BAYOU ALCIDE	0	0	42.946	Field Data, Site GRB7	0	0	1.615	Field Data, Site GRB7	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
12	BAYOU ALCIDE-SITE GRB8	0	0	55.000	Estimate of field data between Sites GRB7 and GRB8	0	0	1.734	Field Data, Site GRB8	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
13	SITE GRB8-LITTLE BAYOU LONG	0	0	85.000	Estimate of field data between Sites GRB8 and GRB9	0	0	1.500	Estimate of field data between Sites GRB8 and GRB9	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
14	L BAYOU LONG-LAKE VERRET	0	0	152.400	Field Data, Site GRB9	0	0	1.225	Field Data, Site GRB9	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook

Grand Bayou Calibration

Reach	Name	DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS				Data Source
		Tidal Range	Data Source	Dispersion Coeff. "a"	Dispersion Coeff. "b"	Dispersion Coeff. "c"	Dispersion Coeff. "d"	
1	SITE GRB1-BAYOU SIGUR	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
2	BAYOU SIGUR-MUDDY BAYOU	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
3	MUDDY BAYOU-BAYOU CROUX (BYC1)	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
4	B CROUX (BYC1)-B CROUX (BYC2)	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
5	B CROUX (BYC2)-km 15.5	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
6	km 15.5-km 13.0	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
7	km 13.0-BAYOU CORNE	0.10	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
8	B CORNE-LITTLE GRAND BAYOU	0.25	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
9	LITTLE GRAND-UNNAMED CANAL	0.29	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
10	UNNAMED CANAL-E GRAND BAYOU	0.50	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
11	E GRAND BAYOU-BAYOU ALCIDE	0.75	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
12	BAYOU ALCIDE-SITE GRB8	0.80	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
13	SITE GRB8-LITTLE BAYOU LONG	1.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
14	L BAYOU LONG-LAKE VERRET	1.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"

Grand Bayou Calibration

Reach	Name	DATA TYPE 11 - INITIAL CONDITIONS			DATA TYPE 11 - INITIAL CONDITIONS			
		Temp, deg C	Sal, ppt	DO, mg/l	Data Source	Chlorophyll <u>a</u>	Macrophytes	Data Source
1	SITE GRB1-BAYOU SIGUR	27.01	0.15	3.58	Mathematical interpolations of Field and Lab data based on physical location in reference to Site locations.	64.43	0	Mathematical interpolations of Field and Lab data based on physical location in reference to Site locations.
2	BAYOU SIGUR-MUDDY BAYOU	27.26	0.14	2.18		62.75	0	
3	MUDDY BAYOU-BAYOU CROUX (BYC1)	27.49	0.11	2.58		57.44	0	
4	B CROUX (BYC1)-B CROUX (BYC2)	27.88	0.09	2.75		49.43	0	
5	B CROUX (BYC2)-km 15.5	27.98	0.09	2.74		41.08	0	
6	km 15.5-km 13.0	27.99	0.10	2.61		32.66	0	
7	km 13.0-BAYOU CORNE	27.60	0.08	2.58		27.96	0	
8	B CORNE-LITTLE GRAND BAYOU	27.59	0.07	2.86		23.30	0	
9	LITTLE GRAND-UNNAMED CANAL	27.94	0.07	3.33		19.70	0	
10	UNNAMED CANAL-E GRAND BAYOU	28.08	0.07	3.44		18.53	0	
11	E GRAND BAYOU-BAYOU ALCIDE	28.29	0.08	3.60		17.02	0	
12	BAYOU ALCIDE-SITE GRB8	28.61	0.08	3.48		20.20	0	
13	SITE GRB8-LITTLE BAYOU LONG	28.73	0.08	3.42		21.92	0	
14	L BAYOU LONG-LAKE VERRET	28.68	0.07	3.37		23.42	0	

Grand Bayou Calibration

REACH	NAME	DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS				DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS		DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS	
		K ₂ OPT	Data Source	BKGRND SOD, gmO ₂ /m ² /day at 20 deg C	Data Source	Aerobic BOD1 Dec Rate (1/day)	Data Source	BOD1 SETT RATE (1/day)	Data Source
1	SITE GRB1-BAYOU SIGUR	4	Owens-Edwards-Gibbs	4.00	Calibration	0.084	Mathematical interpolations of Lab bottle rates based on physical location in reference to Site locations.	0.05	LTP, BPJ and calibration
2	BAYOU SIGUR-MUDDY BAYOU	4	Owens-Edwards-Gibbs	4.10	Calibration	0.081		0.05	LTP, BPJ and calibration
3	MUDDY BAYOU-BAYOU CROUX (BYC1)	4	Owens-Edwards-Gibbs	5.15	Calibration	0.074		0.05	LTP, BPJ and calibration
4	B CROUX (BYC1)-B CROUX (BYC2)	4	Owens-Edwards-Gibbs	4.00	Calibration	0.067		0.05	LTP, BPJ and calibration
5	B CROUX (BYC2)-km 15.5	4	Owens-Edwards-Gibbs	4.00	Calibration	0.071		0.05	LTP, BPJ and calibration
6	km 15.5-km 13.0	4	Owens-Edwards-Gibbs	3.65	Calibration	0.078		0.05	LTP, BPJ and calibration
7	km 13.0-BAYOU CORNE	4	Owens-Edwards-Gibbs	3.00	Calibration	0.068		0.05	LTP, BPJ and calibration
8	B CORNE-LITTLE GRAND BAYOU	4	Owens-Edwards-Gibbs	2.00	Calibration	0.054		0.05	LTP, BPJ and calibration
9	LITTLE GRAND-UNNAMED CANAL	4	Owens-Edwards-Gibbs	2.15	Calibration	0.052		0.05	LTP, BPJ and calibration
10	UNNAMED CANAL-E GRAND BAYOU	4	Owens-Edwards-Gibbs	2.75	Calibration	0.054		0.05	LTP, BPJ and calibration
11	E GRAND BAYOU-BAYOU ALCIDE	4	Owens-Edwards-Gibbs	2.50	Calibration	0.057		0.05	LTP, BPJ and calibration
12	BAYOU ALCIDE-SITE GRB8	4	Owens-Edwards-Gibbs	3.00	Calibration	0.055		0.05	LTP, BPJ and calibration
13	SITE GRB8-LITTLE BAYOU LONG	4	Owens-Edwards-Gibbs	3.00	Calibration	0.055		0.05	LTP, BPJ and calibration
14	L BAYOU LONG-LAKE VERRET	4	Owens-Edwards-Gibbs	3.00	Calibration	0.061		0.05	LTP, BPJ and calibration

Grand Bayou Calibration

DATA TYPE 13 - NITROGEN AND PHOSPHORUS COEFFICIENTS						
Reach	Name	NBOD decay rate, 1/day	NBOD settling rate, 1/day	Data Source	Settled Org-N conv. to ammonia benthos source rate	Data Source
1	SITE GRB1-BAYOU SIGUR	0.115	0.05	Mathematical interpolations of Lab bottle rates based on physical location in reference to Site locations.	1.00	
2	BAYOU SIGUR-MUDDY BAYOU	0.112	0.05		1.00	
3	MUDDY BAYOU-BAYOU CROUX (BYC1)	0.105	0.05		1.00	
4	B CROUX (BYC1)-B CROUX (BYC2)	0.099	0.05		1.00	
5	B CROUX (BYC2)-km 15.5	0.100	0.05		1.00	
6	km 15.5-km 13.0	0.104	0.05		1.00	
7	km 13.0-BAYOU CORNE	0.120	0.05		1.00	
8	B CORNE-LITTLE GRAND BAYOU	0.138	0.05		1.00	
9	LITTLE GRAND-UNNAMED CANAL	0.091	0.05		1.00	
10	UNNAMED CANAL-E GRAND BAYOU	0.094	0.05		1.00	
11	E GRAND BAYOU-BAYOU ALCIDE	0.098	0.05		1.00	
12	BAYOU ALCIDE-SITE GRB8	0.092	0.05		1.00	
13	SITE GRB8-LITTLE BAYOU LONG	0.091	0.05		1.00	
14	L BAYOU LONG-LAKE VERRET	0.097	0.05		1.00	

Grand Bayou Calibration

DATA TYPE 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVE									
Reach	Reach Name	Incr. Outflow, m ³	Incr. Inflow, m ³	Data Source	Temp, deg C	Sal., ppt	Cons. Mat I Chlorides	Cons. Mat II Conductivity	Data Source
1	SITE GRB1-BAYOU SIGUR		0.100	BPJ and calibration		0.15	13.66	298.89	Values set to match in-stream values based on mathematical interpolation of Field and Lab data.
2	BAYOU SIGUR-MUDDY BAYOU		0.350			0.14	18.08	214.22	
3	MUDDY BAYOU-BAYOU CROUX (BYC1)		0.350			0.11	16.16	218.81	
4	B CROUX (BYC1)-B CROUX (BYC2)	-0.350							
5	B CROUX (BYC2)-km 15.5		0.200			0.09	14.32	207.48	
6	km 15.5-km 13.0		0.200			0.10	14.48	218.85	
7	km 13.0-BAYOU CORNE	-0.150							
8	B CORNE-LITTLE GRAND BAYOU		0.650			0.07	11.25	159.20	
9	LITTLE GRAND-UNNAMED CANAL		0.250			0.07	11.80	166.50	
10	UNNAMED CANAL-E GRAND BAYOU		0.650			0.07	11.34	168.72	
11	E GRAND BAYOU-BAYOU ALCIDE		0.650			0.08	10.68	171.75	
12	BAYOU ALCIDE-SITE GRB8		0.250			0.08	10.20	170.29	
13	SITE GRB8-LITTLE BAYOU LONG	-0.650							
14	L BAYOU LONG-LAKE VERRET	-0.650							

Grand Bayou Calibration

		DATA TYPE 17 - INCREMENTAL DATA FOR DO, BOD, AND NITROGEN							
Reach	Reach Name	DO, mg/l	UCBOD1, mg/l	ORG-N, mg/l	NBOD, mg/L	NH ³ -N, mg/L	NO ₂ +NO ₃ , mg/L	UCBOD2, mg/l	Data Source
1	SITE GRB1-BAYOU SIGUR	3.58							Values set to match in-stream values based on mathematical interpolation of Field and Lab data.
2	BAYOU SIGUR-MUDDY BAYOU	2.18							
3	MUDDY BAYOU-BAYOU CROUX (BYC1)	2.58							
4	B CROUX (BYC1)-B CROUX (BYC2)								
5	B CROUX (BYC2)-km 15.5	2.74							
6	km 15.5-km 13.0	2.61							
7	km 13.0-BAYOU CORNE								
8	B CORNE-LITTLE GRAND BAYOU	2.86							
9	LITTLE GRAND-UNNAMED CANAL	3.33							
10	UNNAMED CANAL-E GRAND BAYOU	3.44							
11	E GRAND BAYOU-BAYOU ALCIDE	3.60							
12	BAYOU ALCIDE-SITE GRB8	3.48							
13	SITE GRB8-LITTLE BAYOU LONG								
14	L BAYOU LONG-LAKE VERRET								

Grand Bayou Calibration

Reach	Reach Name	DATA TYPE 19 - NONPOINT SOURCES			
		Length of Reach, km	UCBOD1, kg/day	NBOD, kg/day	Data Source
1	SITE GRB1-BAYOU SIGUR	0.09	40	30	Calibration
2	BAYOU SIGUR-MUDDY BAYOU	0.82	150	95	Calibration
3	MUDDY BAYOU-BAYOU CROUX (BYC1)	2.05	250	100	Calibration
4	B CROUX (BYC1)-B CROUX (BYC2)	2.28	0	27	Calibration
5	B CROUX (BYC2)-km 15.5	2.79	350	115	Calibration
6	km 15.5-km 13.0	2.50	425	132	Calibration
7	km 13.0-BAYOU CORNE	1.57	225	75	Calibration
8	B CORNE-LITTLE GRAND BAYOU	2.71	675	245	Calibration
9	LITTLE GRAND-UNNAMED CANAL	0.60	150	15	Calibration
10	UNNAMED CANAL-E GRAND BAYOU	2.92	0	0	Calibration
11	E GRAND BAYOU-BAYOU ALCIDE	2.09	0	0	Calibration
12	BAYOU ALCIDE-SITE GRB8	1.45	0	0	Calibration
13	SITE GRB8-LITTLE BAYOU LONG	0.46	25	50	Calibration
14	L BAYOU LONG-LAKE VERRET	1.20	140	250	Calibration

Grand Bayou Calibration

DATA TYPE 20 - HEADWATER DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES								
Headwater Name	Element No.	Logical Unit Number	Headwater Flow, cms	Temp, deg C	Salinity, ppt	Conservative Material I Chlorides	Conservative Material II Conductivity	Data Source
Grand Bayou	1		0.001	27	0.15	13.6	300.8	Site GRB1 Field and Lab data

DATA TYPE 21 - HEADWATER DATA FOR DO, BOD, AND NITROGEN				
Headwater Name	Dissolved Oxygen, mg/L	UCBOD1, mg/l	NBOD, mg/l	Data Source
Grand Bayou	3.6	10.72	3.67	Site GRB1 Field and Lab data

DATA TYPE 22 - HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES					
Headwater Name	Phosphorus, mg/L	Chlorophyll a, ug/L	Coliform, #/100 mL	Nonconservative Material	Date Source
Grand Bayou		64.6			Site GRB1 Field and Lab data

Grand Bayou Calibration

DATA TYPE 24 - WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES							
Wasteload / Withdrawal Name	EL #	Flow, cms	Temperature, deg C	Salinity	Conservative Material I Chlorides	Conservative Material II Conductivity	Data Source
Bayou Sigur	2	0	28.64	0.17	15	345	Survey data, Site BYS1
Muddy Bayou	7	0.102	27.74	0.08	16.9	169.2	Survey data, Site MB1
Bayou Crouix (BYC1)	17	0	28.18	0.12	8.4	250.2	Survey data, Site BYC1
Bayou Crouix (BYC2)	32	0	28.6	0.14	17.4	296.8	Survey data, Site BYC2
Gator Super Stop	62	0.00034	27.17	0.11	13.8	234.1	Survey data, Site PST1
Bayou Corne	80	1.93	26.95	0.07	10.2	154.13	Survey data, Site BYCO1
Little Grand Bayou	100	-0.14	27.95	0.07	11.7	167.2	Survey data, Site LGBY1
Unnamed Canal	104	4.028	27.93	0.07	10.1	166.8	Survey data, Site UNC2
East Grand Bayou	124	-3.806	28.29	0.08	10.9	170.7	Survey data, Site EGB1
Bayou Alcide	135	2.984	27.96	0.07	8.8	160.11	Survey data, Site BA1
Little Bayou Long	149	0.707	28.27	0.07	9	153.6	Survey data, Site LBL1

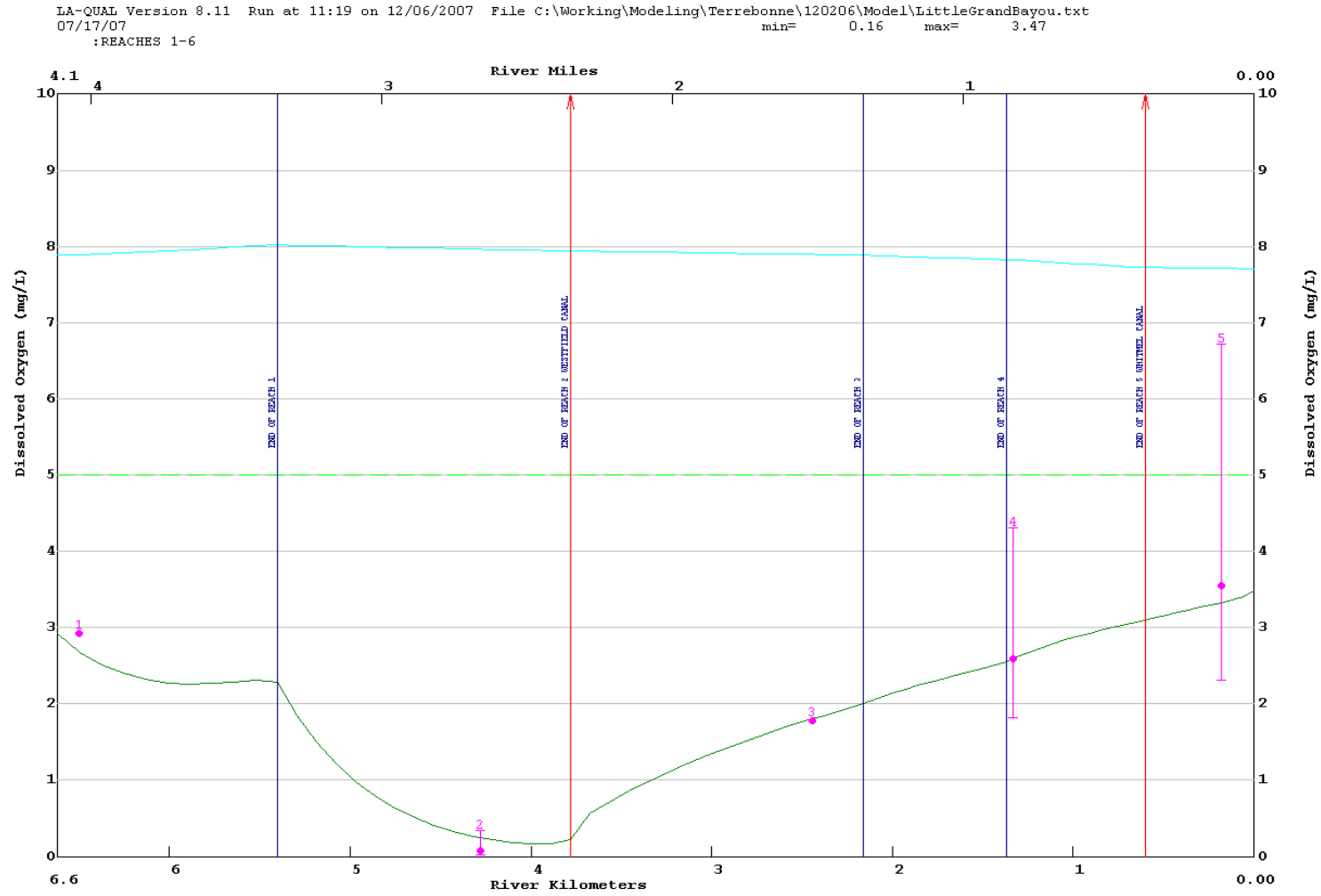
DATA TYPE 25 - WASTELOAD DATA FOR DO, BOD, AND NITROGEN						
Wasteload / Withdrawal Name	EL #	DO, mg/l	UCBOD1, mg/l	BOD decayed, percent	UNBOD, mg/l	Data Source
Bayou Sigur	2	2.63	13.41		4.05	Survey data, Site BYS1
Muddy Bayou	7	4.17	0.51		0	Survey data, Site MB1
Bayou Crouix (BYC1)	17	2.48	6.91		1.45	Survey data, Site BYC1
Bayou Crouix (BYC2)	32	2.75	10.31		2.51	Survey data, Site BYC2
Gator Super Stop	62	2.11	10.26		2.13	Survey data, Site PST1
Bayou Corne	80	2.08	0.29		0	Survey data, Site BYCO1
Little Grand Bayou	100	2.92	6.82		1.46	Survey data, Site LGBY1
Unnamed Canal	104	3.47	5.47		1.38	Survey data, Site UNC2
East Grand Bayou	124	3.16	6.45		1.3	Survey data, Site EGB1
Bayou Alcide	135	2.99	5.54		1.23	Survey data, Site BA1
Little Bayou Long	149	1.86	5.77		0.96	Survey data, Site LBL1

Grand Bayou Calibration

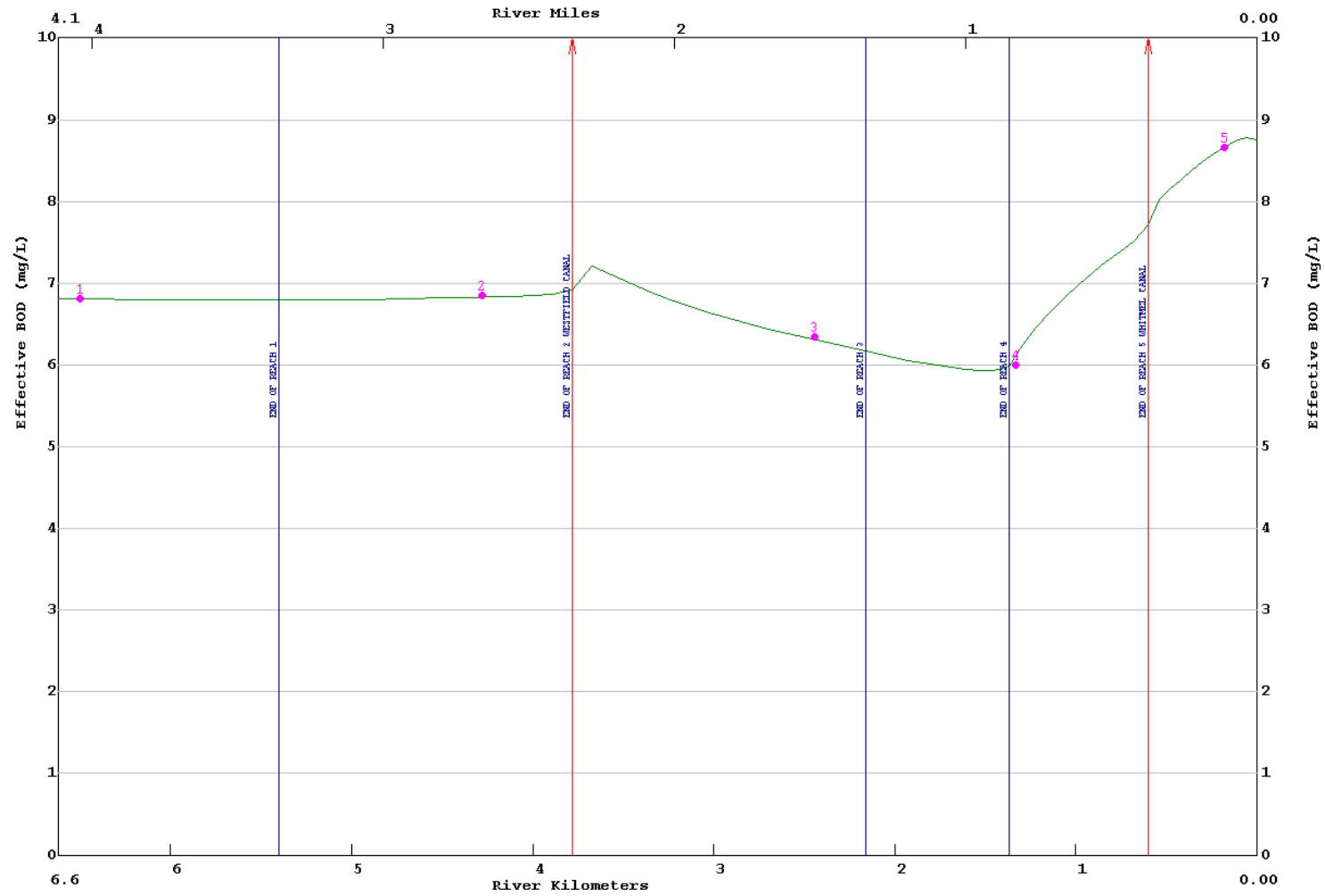
DATA TYPE 26 - WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES						
Wasteload / Withdrawal Name	EL #	Phosphorus, mg/L	Chlorophyll-A, ug/L	Coliform, #/100 mL	Nonconservative Material	Data Source
Bayou Sigur	2		78.1			Lab reading for Site BYS1
Muddy Bayou	7		78.1			
Bayou Crouix (BYC1)	17		78.1			
Bayou Crouix (BYC2)	32		78.1			
Gator Super Stop	62					
Bayou Corne	80		6.6			Lab reading for Site BYCO1
Little Grand Bayou	100		23.8			Lab reading for Site BA1
Unnamed Canal	104		23.8			
East Grand Bayou	124		23.8			
Bayou Alcide	135		23.8			
Little Bayou Long	149		23.8			
DATA TYPE 27 - LOWER BOUNDARY CONDITIONS						
Parameter	Value	Units	Data Source			
TEMPERATURE	26.84	oCelcius	Field and Lab data, Site LV1			
SALINITY	0.09	ppt				
CONSERVATIVE MATERIAL I CHLORIDES	12	mg/L				
CONSERVATIVE MATERIAL II CONDUCTIVITY	202.14	mg/L				
DISSOLVED OXYGEN	2.04	mg/L				
BIOCHEMICAL OXYGEN DEMAND 1	0.29	mg/L				
NBOD	0	mg/L				
PHOSPHORUS	0	mg/L				
CHLOROPHYLL A	25	ug/L				
COLIFORM	0	#/100 mL				
NONCONSERVATIVE MATERIAL	0	mg/L				

Appendix B2 – Little Grand Bayou Calibration Model

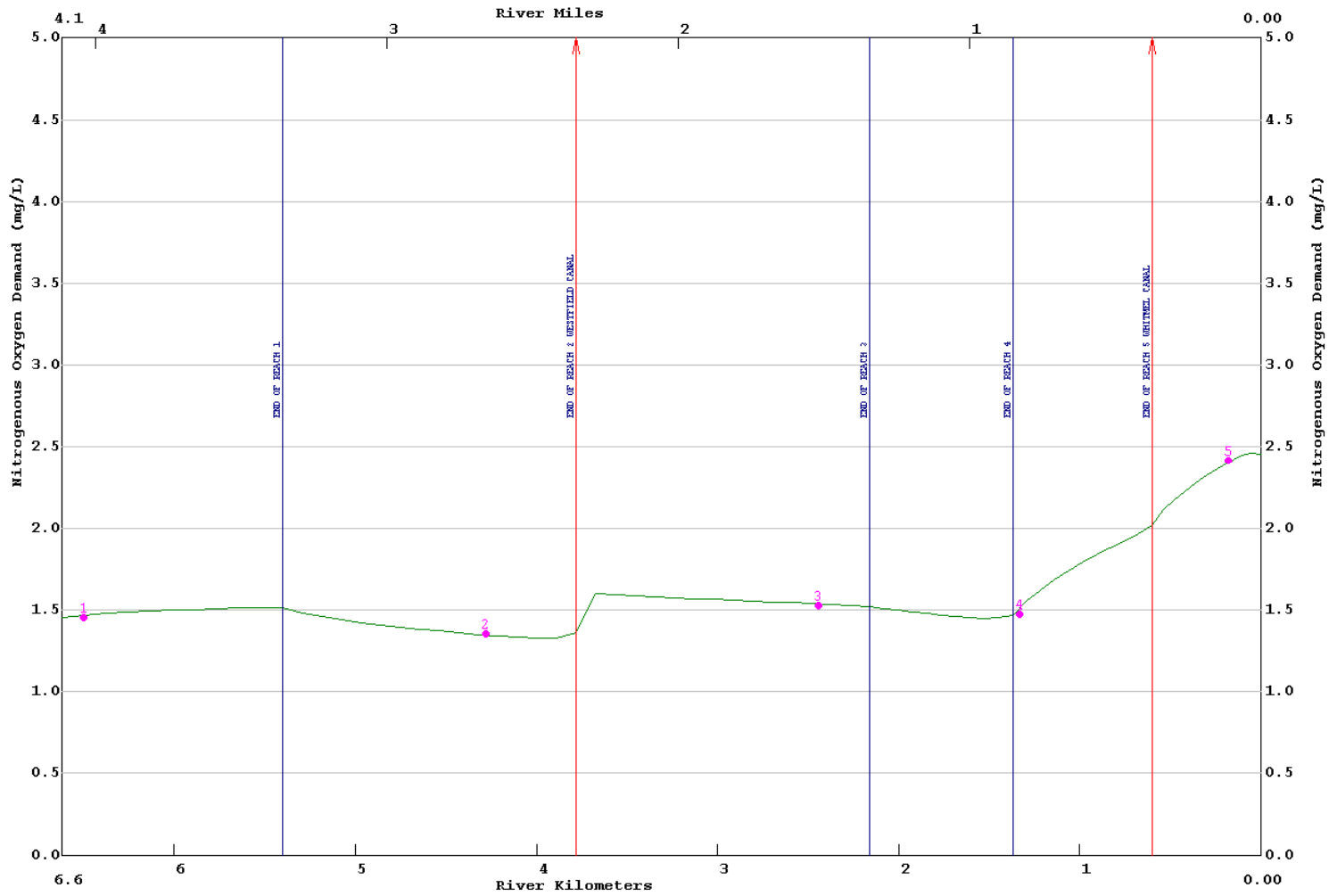
Graphs



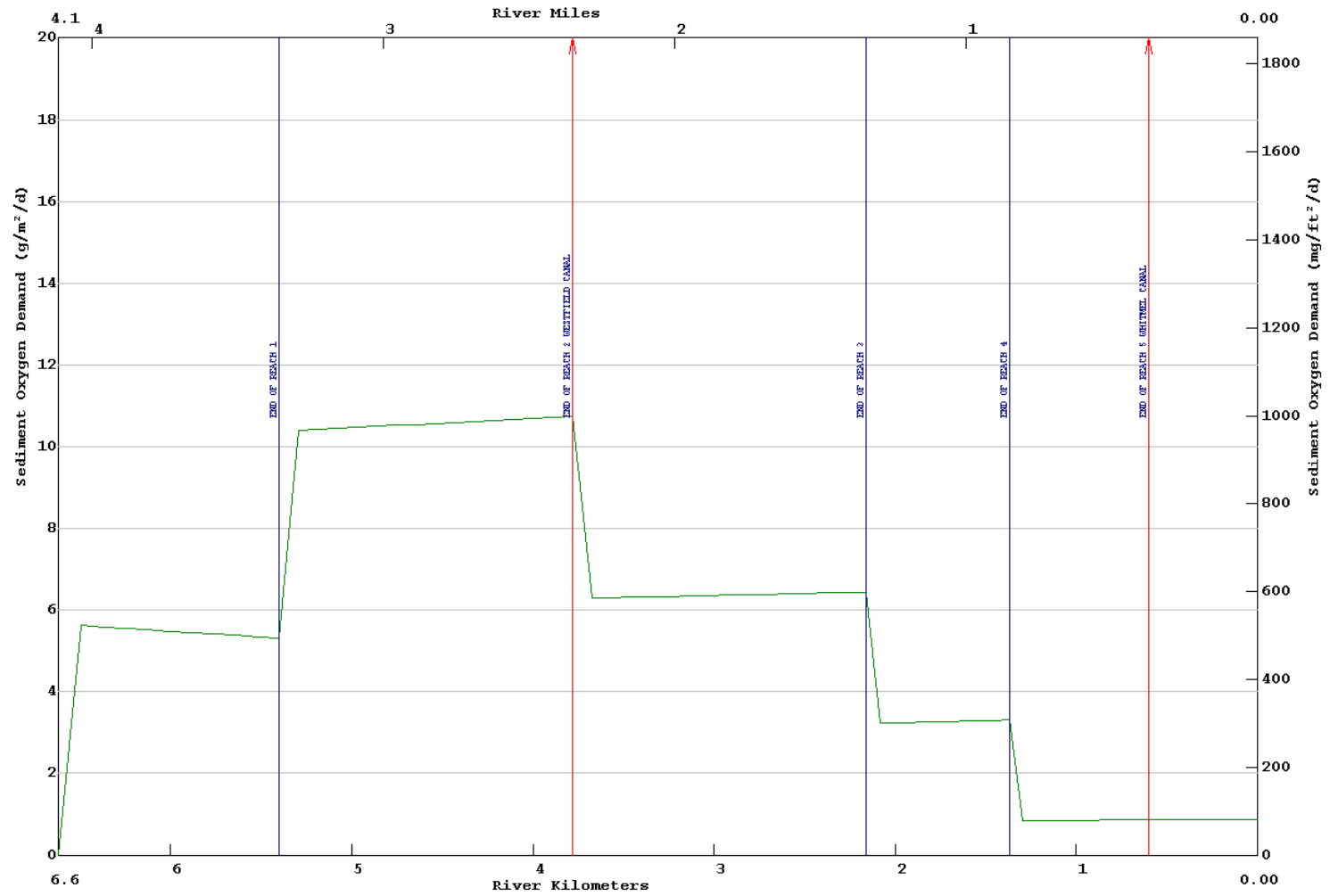
LA-QUAL Version 8.11 Run at 11:19 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07 min= 5.93 max= 8.78
:REACHES 1-6



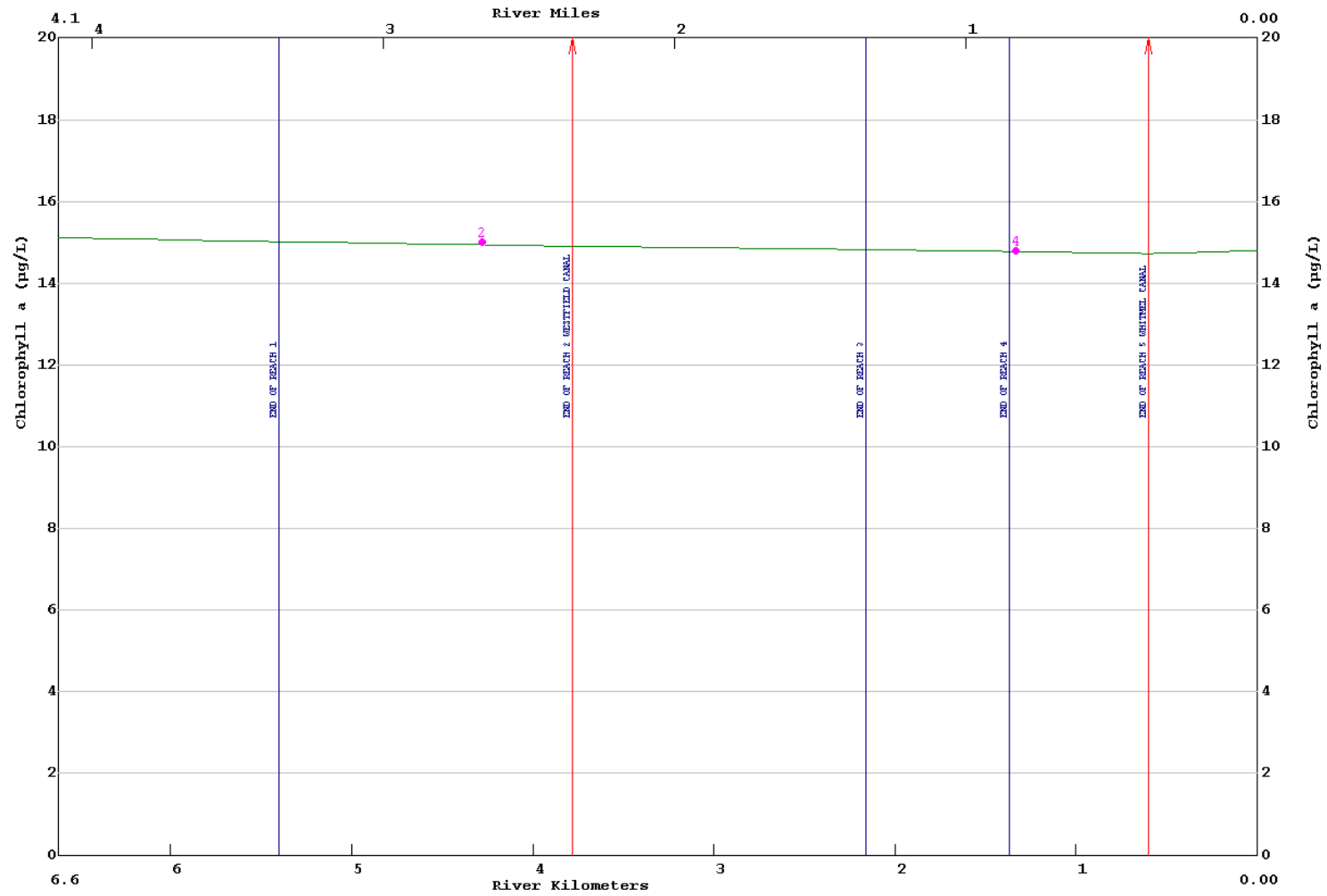
LA-QUAL Version 8.11 Run at 11:19 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
 07/17/07 min= 1.33 max= 2.46
 :REACHES 1-6



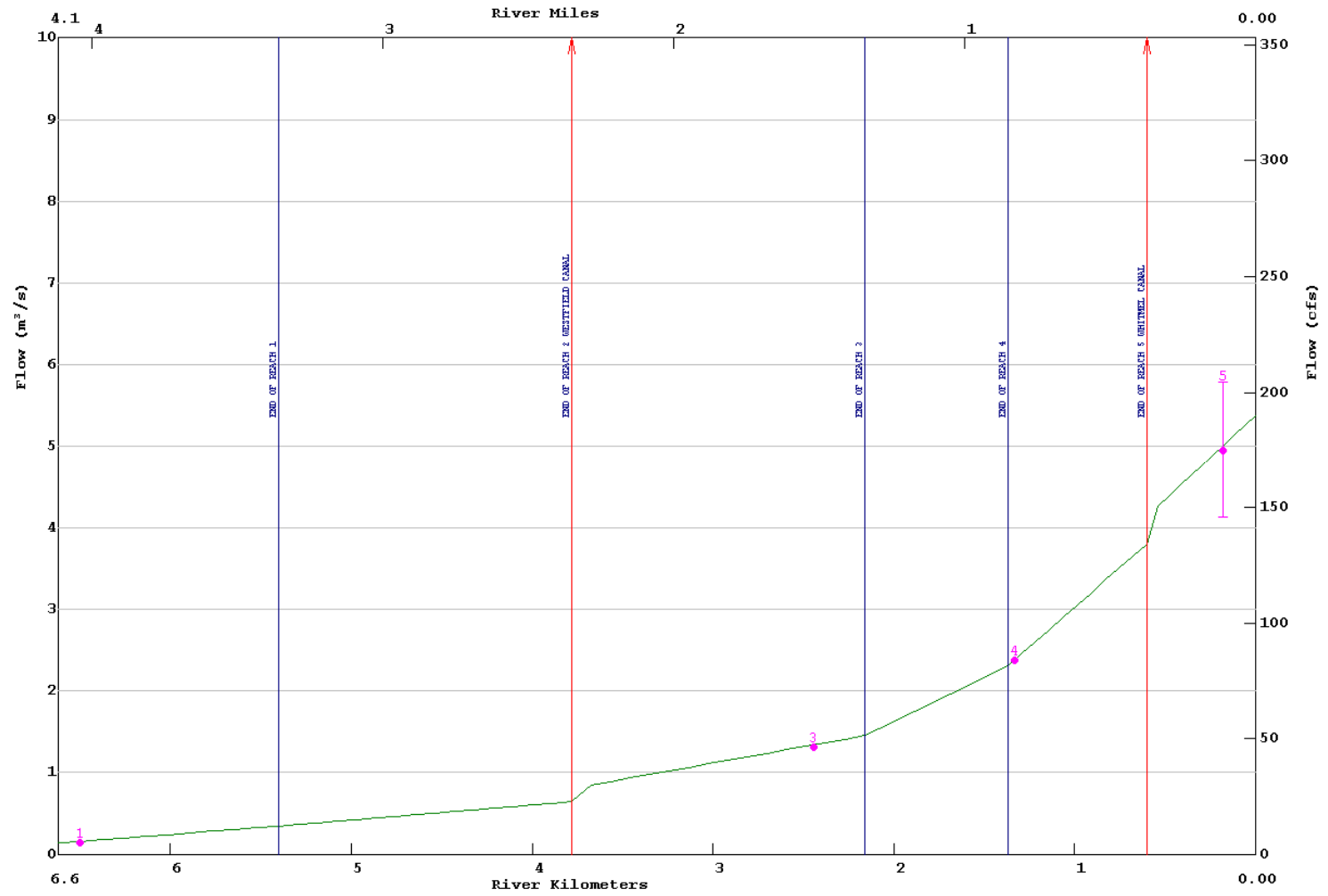
LA-QUAL Version 8.11 Run at 11:19 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07 min= 0.00 max= 10.75
:REACHES 1-6



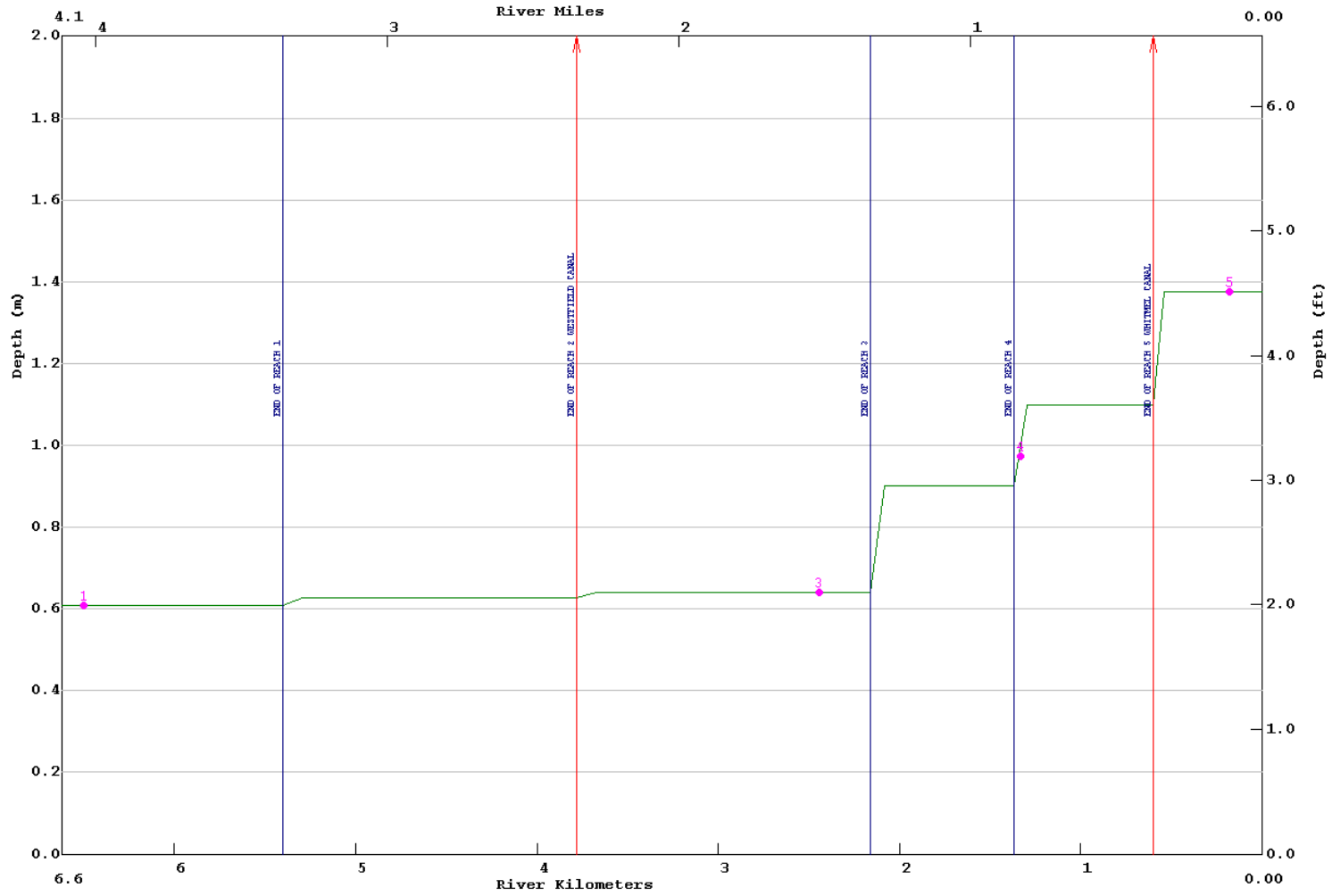
LA-QUAL Version 8.11 Run at 11:19 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07 min= 14.73 max= 15.12
:REACHES 1-6



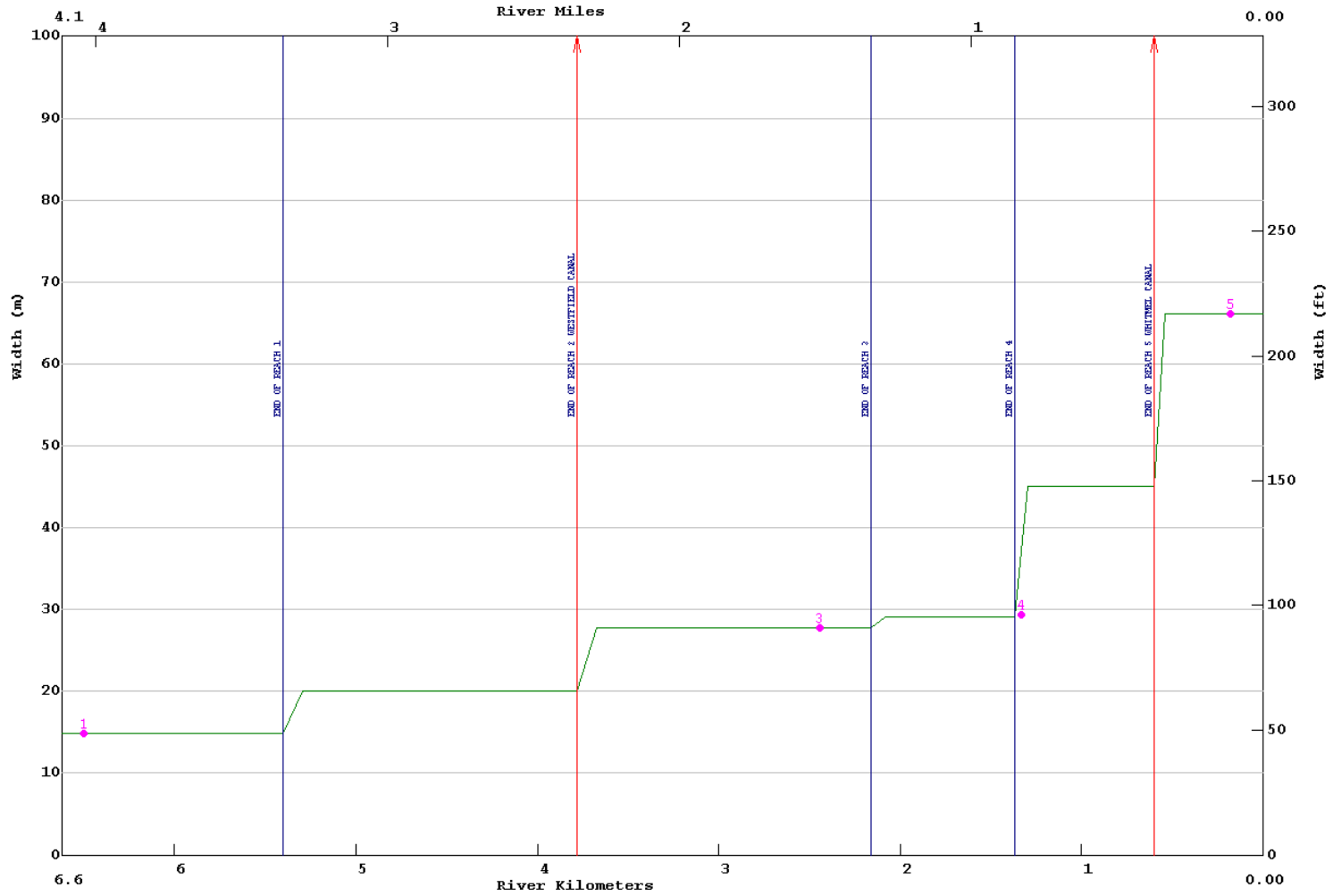
LA-QUAL Version 8.11 Run at 11:19 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07 min= 0.14 max= 5.38
:REACHES 1-6



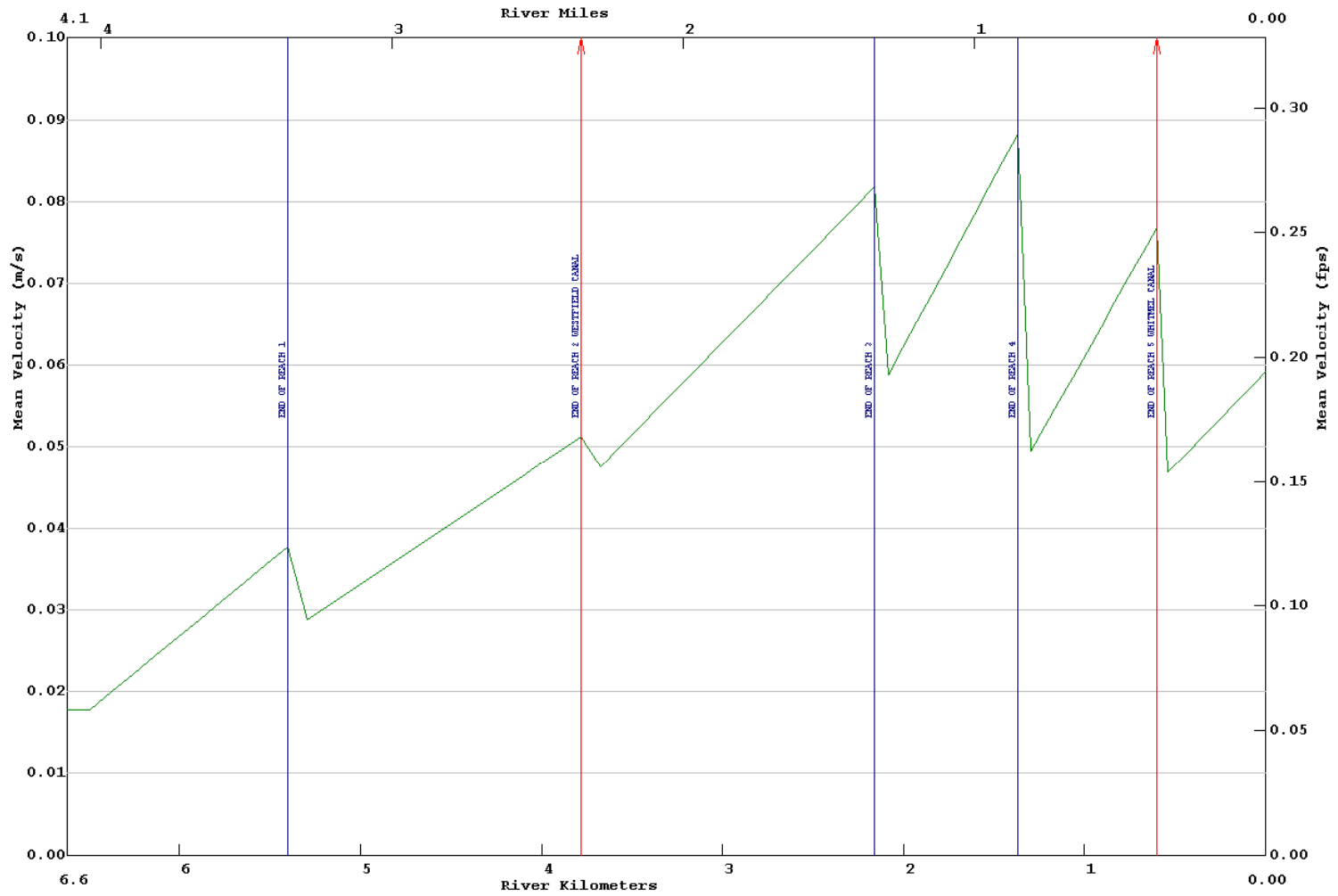
LA-QUAL Version 8.11 Run at 11:19 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07 min= 0.61 max= 1.38
:REACHES 1-6



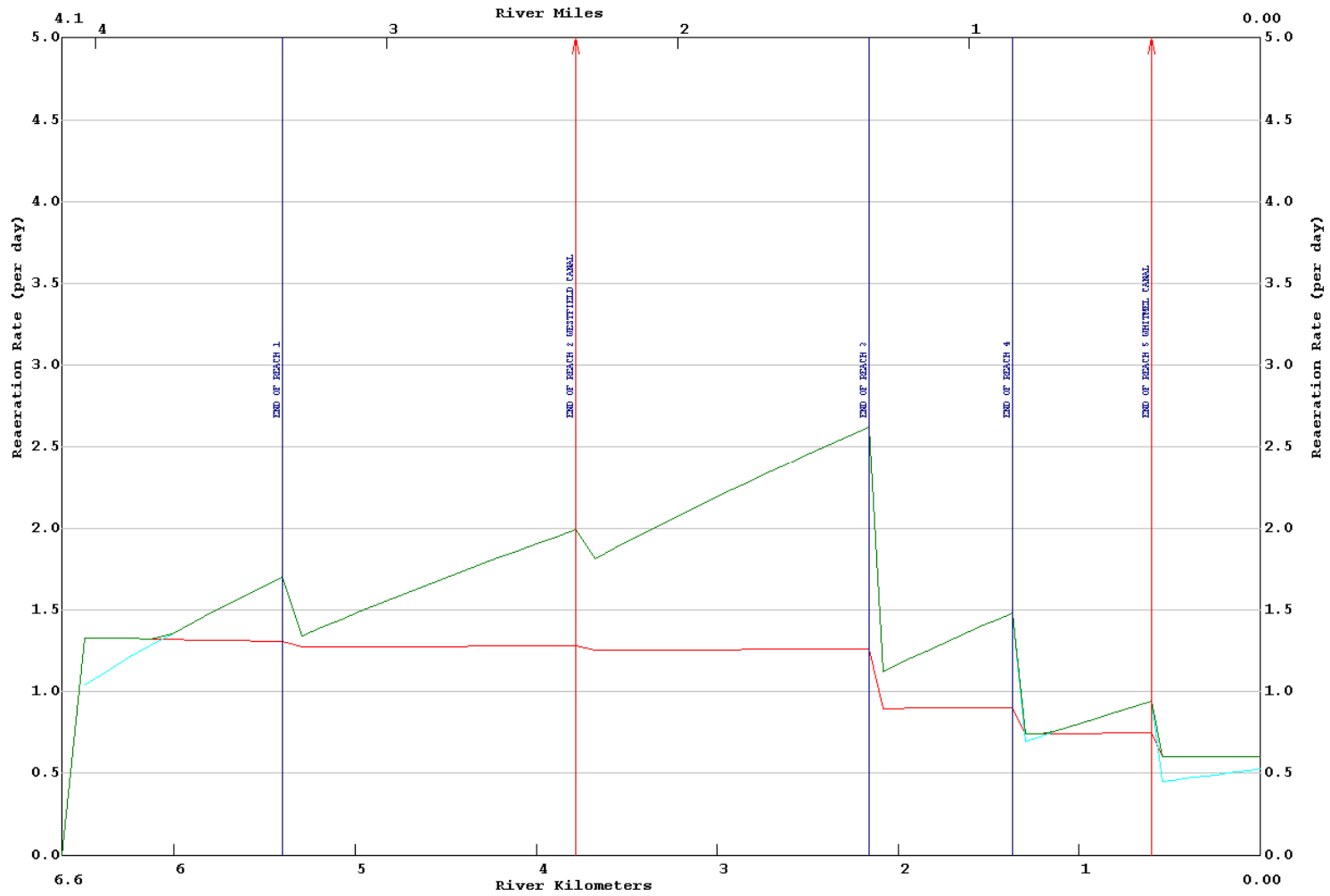
LA-QUAL Version 8.11 Run at 11:19 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07 min= 14.84 max= 66.14
:REACHES 1-6



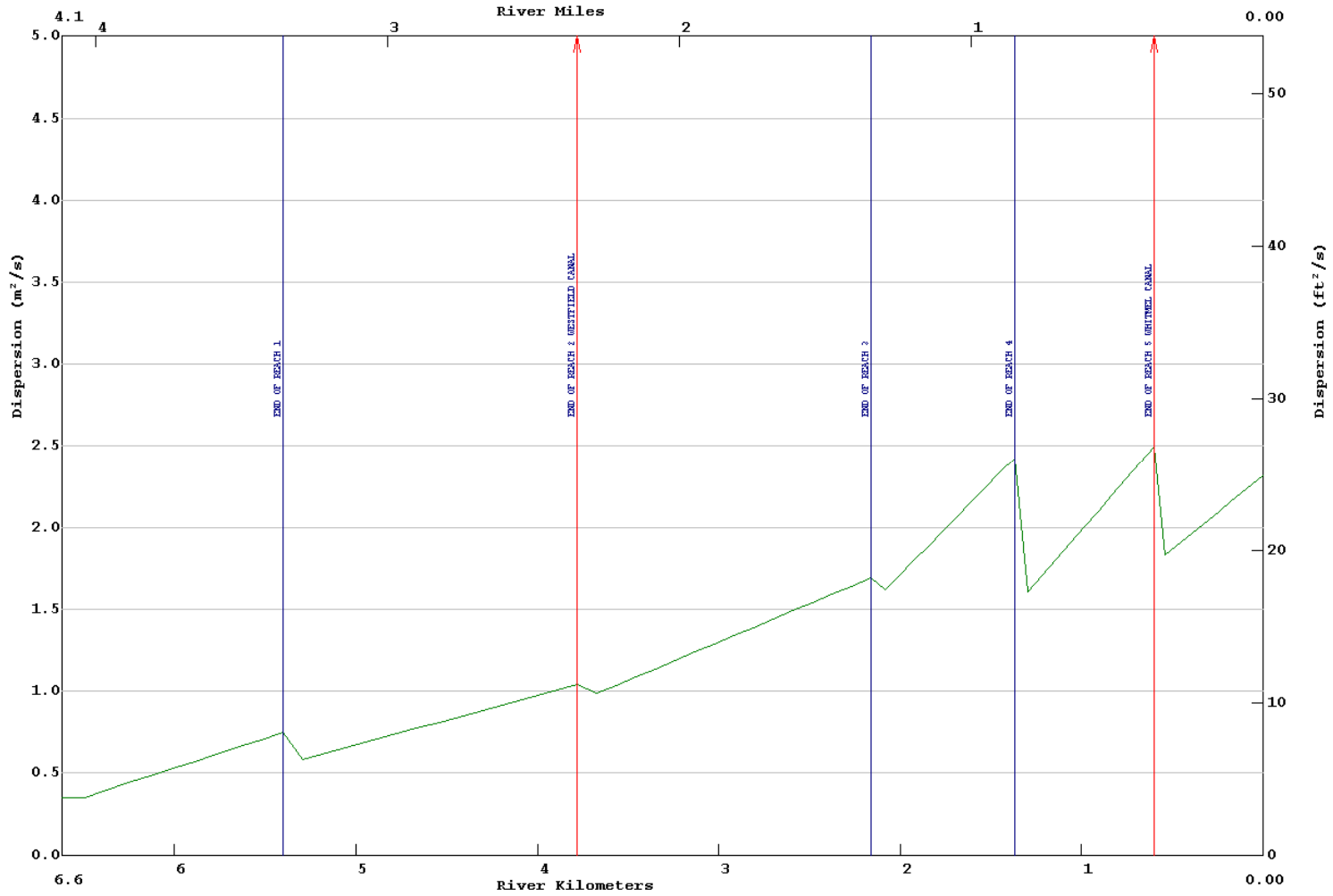
LA-QUAL Version 8.11 Run at 15:34 on 01/16/2008 File C:\Documents and Settings\shane\My Documents\Modeling\Terrebonne\120206\Model\LittleGrandBayou
 07/17/07 min= 0.02 max= 0.09
 :REACHES 1-6



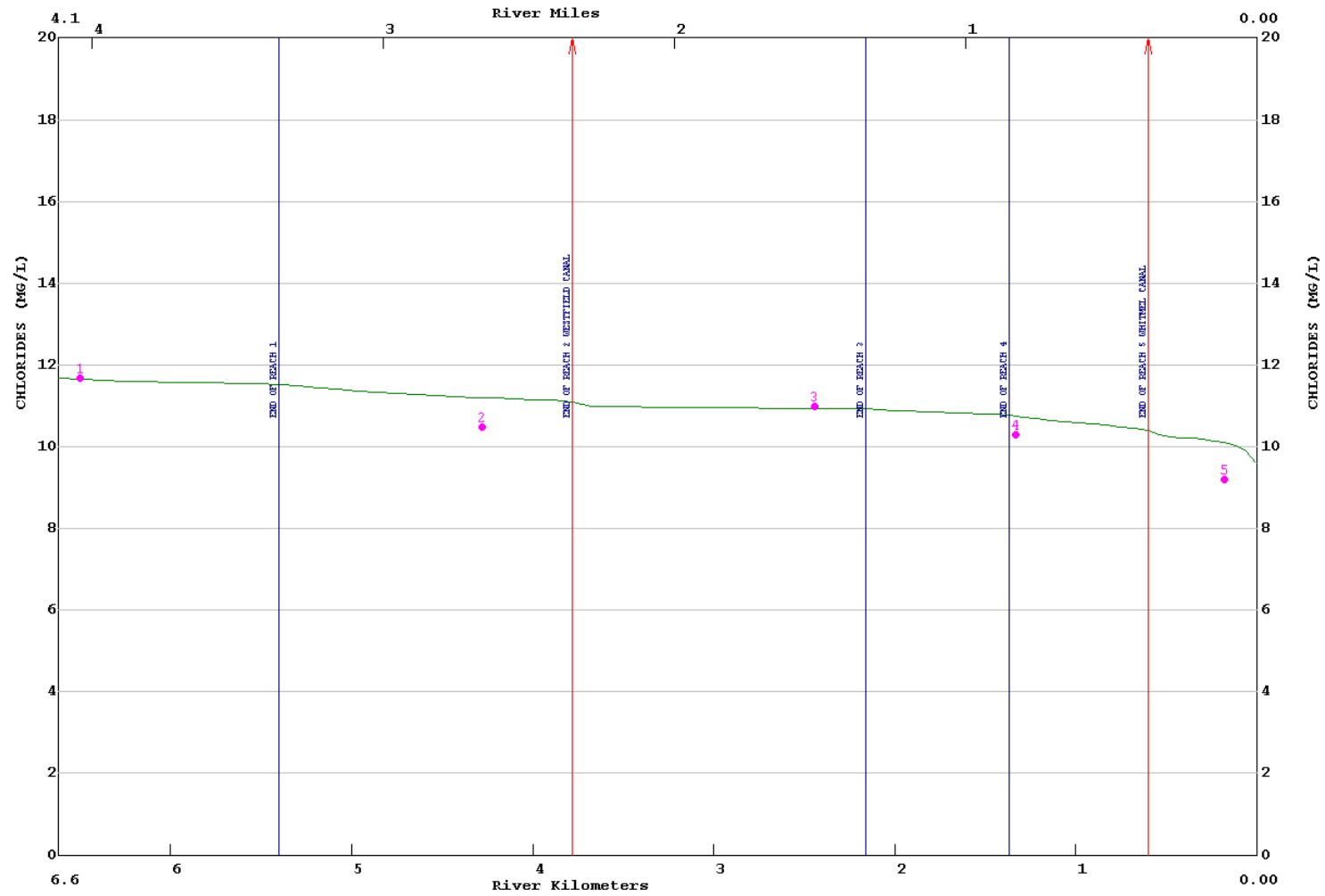
LA-QUAL Version 8.11 Run at 11:19 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07 min= 0.00 max= 2.63
:REACHES 1-6



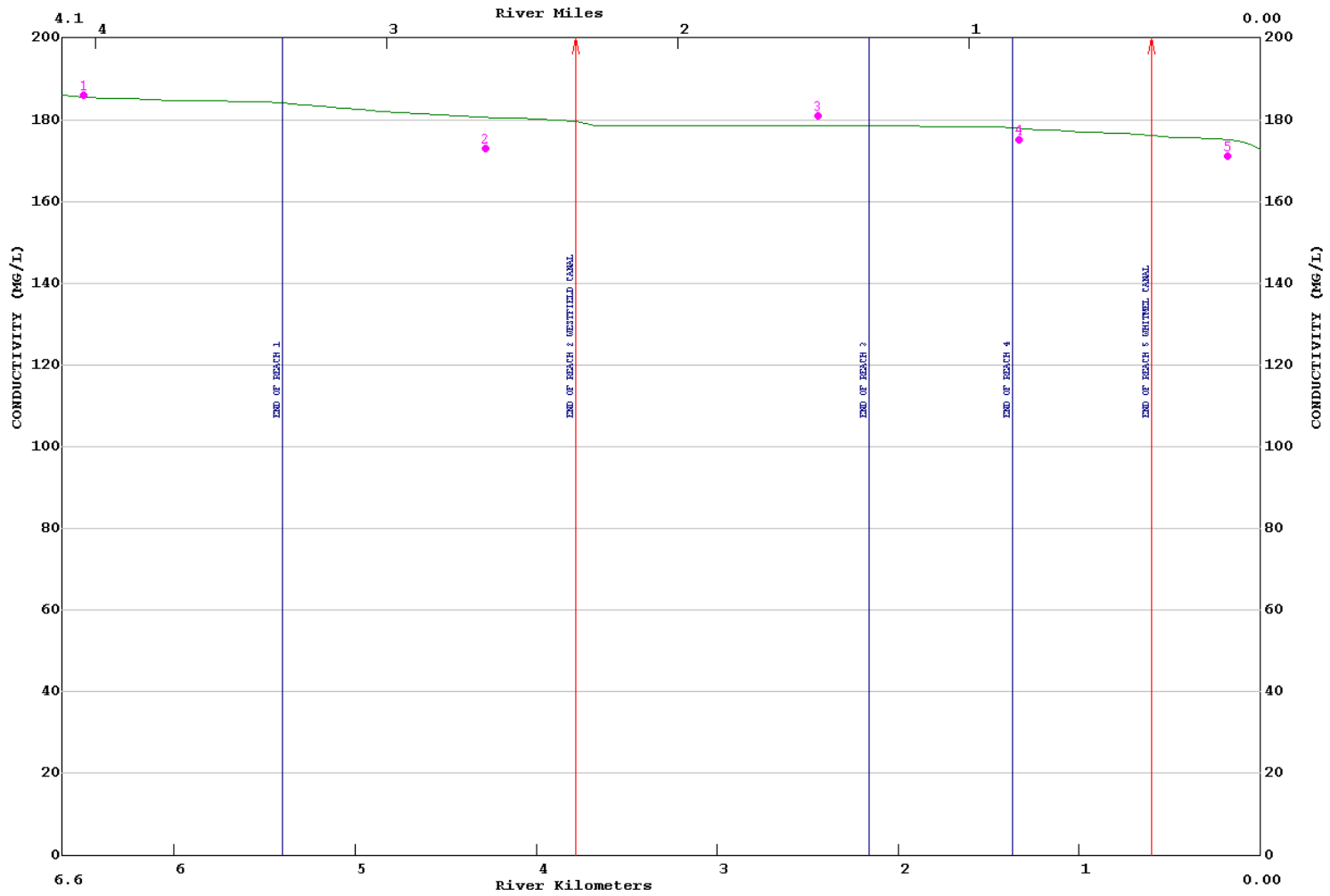
LA-QUAL Version 8.11 Run at 11:19 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07 min= 0.35 max= 2.49
:REACHES 1-6



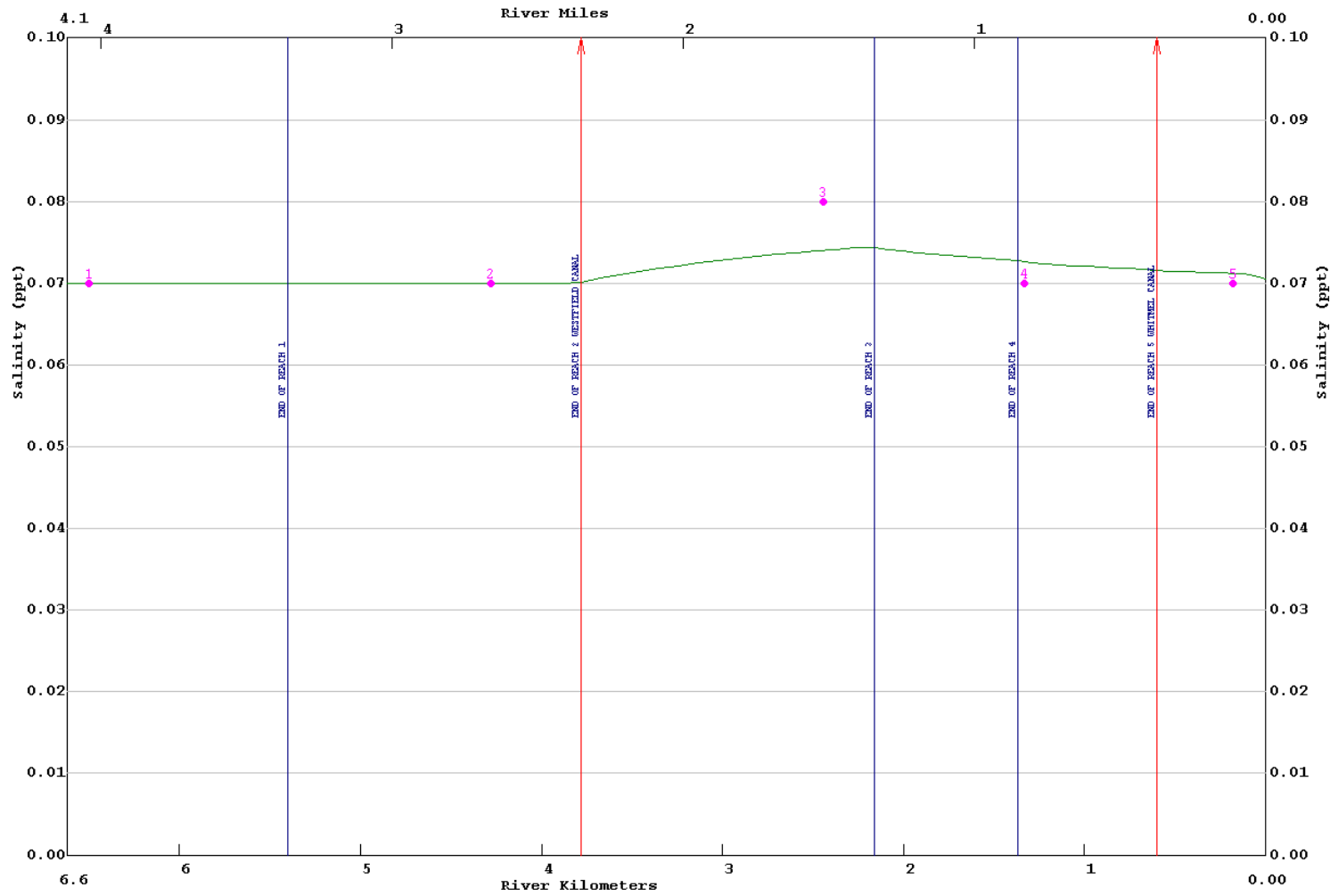
LA-QUAL Version 8.11 Run at 11:19 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07 min= 9.59 max= 11.70
:REACHES 1-6



LA-QUAL Version 8.11 Run at 11:19 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07 min= 172.74 max= 186.00
:REACHES 1-6



LA-QUAL Version 8.11 Run at 11:19 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07 min= 0.07 max= 0.07
:REACHES 1-6



Input File

```

CNTROL01      LITTLE GRAND BAYOU
CNTROL02      07/17/07
CNTROL12 YES  METRIC UNITS
ENDATA01
MODOPT01 NO   TEMPERATURE
MODOPT02 YES  SALINITY
MODOPT03 YES  CONSERVATIVE MATERIAL I = CHLORIDES           IN MG/L
MODOPT04 YES  CONSERVATIVE MATERIAL II = CONDUCTIVITY      IN MG/L
MODOPT05 YES  DISSOLVED OXYGEN
MODOPT06 YES  BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT07 NO   BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08 YES  NBOD OXYGEN DEMAND
MODOPT09 NO   PHOSPHORUS
MODOPT10 NO   CHLOROPHYLL A
MODOPT11 NO   MACROPHYTES
MODOPT12 NO   COLIFORM
MODOPT13 NO   NONCONSERVATIVE MATERIAL
ENDATA02
PROGRAM DISPERSION EQUATION              =      3
PROGRAM TIDE HEIGHT                      =     0.07
PROGRAM KL MINIMUM                       =     0.7
PROGRAM INHIBITION CONTROL VALUE        =     3.0
PROGRAM EFFECTIVE BOD DUE TO ALGAE      =     0.10
PROGRAM ALGAE OXYGEN PRODUCTION         =     0.05
PROGRAM K2 MAXIMUM                      =    25.0
PROGRAM HYDRAULIC CALCULATION METHOD    =     2.0
PROGRAM SETTLED RATE UNITS              =     2.0
ENDATA03
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
ENDATA04
ENDATA05
ENDATA06
ENDATA07
!Reach Identification Data
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
***  -- *****-----*****-----*****-----*****
REACH ID  1  LG  GRAND BAYOU-RKM 5.40          6.62      5.40      0.122
REACH ID  2  LG  RKM 5.40-WESTFIELD CANAL      5.40      3.78      0.108
REACH ID  3  LG  WESTFIELD CANAL-RKM 2.16      3.78      2.16      0.108
REACH ID  4  LG  RKM 2.16-RKM 1.37            2.16      1.37      0.079
REACH ID  5  LG  RKM 1.37-WHITMEL CANAL       1.37      0.60      0.077
REACH ID  6  LG  WHITMEL CANAL-LAKE VERRET    0.60      0.00      0.060
ENDATA08
!Advective Hydraulic Coefficients
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
***  -----*****-----*****-----*****-----*****
HYDR-1    1  0.0000 0.0000 14.844 0.000 0.000 0.607 0.0001 0.035
HYDR-1    2  0.0000 0.0000 20.000 0.000 0.000 0.625 0.0001 0.035
HYDR-1    3  0.0000 0.0000 27.737 0.000 0.000 0.640 0.0001 0.035
HYDR-1    4  0.0000 0.0000 29.000 0.000 0.000 0.900 0.0001 0.035
HYDR-1    5  0.0000 0.0000 45.000 0.000 0.000 1.100 0.0001 0.035
HYDR-1    6  0.0000 0.0000 66.142 0.000 0.000 1.375 0.0001 0.035
ENDATA09
!Dispersive Hydraulic Coefficients
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
***  -----*****-----*****-----*****-----*****
HYDR-2    1  0.00   30.00   0.833   0.00   1.00
HYDR-2    2  0.00   30.00   0.833   0.00   1.00
HYDR-2    3  0.25   30.00   0.833   0.00   1.00
HYDR-2    4  0.50   30.00   0.833   0.00   1.00
HYDR-2    5  0.75   30.00   0.833   0.00   1.00
HYDR-2    6  1.00   30.00   0.833   0.00   1.00
ENDATA10

```

!Initial Conditions

```
!-----1-----2-----3-----4-----5-----6-----7-----8
! 234567890123456789012345678901234567890123456789012345678901234567890
!      *** -----*****-----*****-----*****-----*****
INITIAL 1 27.61 0.07 2.29 0.000 0.000 0.00 15.12 00.00
INITIAL 2 26.62 0.07 0.47 0.000 0.000 0.00 15.02 00.00
INITIAL 3 27.15 0.08 1.28 0.000 0.000 0.00 14.91 00.00
INITIAL 4 27.55 0.07 2.27 0.000 0.000 0.00 14.83 00.00
INITIAL 5 27.97 0.07 2.88 0.000 0.000 0.00 14.78 00.00
INITIAL 6 28.71 0.07 3.45 0.000 0.000 0.00 14.73 00.00
```

ENDATA11

```
!-----1-----2-----3-----4-----5-----6-----7-----8-----9-----0-
! 2345678901234567890123456789012345678901234567890123456789012345678901
!      *** -----*****-----*****-----*****-----*****-----*****
COEF-1 1 4.0 0.00 0.0 0.0 3.50 0.064 0.05 0.00 0.0 0.000 0.05 0.00 0.00
COEF-1 2 4.0 0.00 0.0 0.0 6.85 0.056 0.05 0.00 0.0 0.000 0.05 0.00 0.00
COEF-1 3 4.0 0.00 0.0 0.0 4.00 0.058 0.05 0.00 0.0 0.000 0.05 0.00 0.00
COEF-1 4 4.0 0.00 0.0 0.0 2.00 0.057 0.05 0.00 0.0 0.000 0.05 0.00 0.00
COEF-1 5 4.0 0.00 0.0 0.0 0.50 0.064 0.05 0.00 0.0 0.000 0.05 0.00 0.00
COEF-1 6 4.0 0.00 0.0 0.0 0.50 0.082 0.05 0.00 0.0 0.000 0.05 0.00 0.00
```

ENDATA12

!Nitrogen and Phosphorus Coefficients

```
!-----1-----2-----3-----4-----5-----6-----7-----8
! 234567890123456789012345678901234567890123456789012345678901234567890
!      *** -----*****-----*****-----*****-----*****
COEF-2 1 0.111 0.05 1.0 0.00 0.00 0.00 0.00
COEF-2 2 0.132 0.05 1.0 0.00 0.00 0.00 0.00
COEF-2 3 0.121 0.05 1.0 0.00 0.00 0.00 0.00
COEF-2 4 0.102 0.05 1.0 0.00 0.00 0.00 0.00
COEF-2 5 0.099 0.05 1.0 0.00 0.00 0.00 0.00
COEF-2 6 0.107 0.05 1.0 0.00 0.00 0.00 0.00
```

ENDATA13

!Algae and Macrophyte Coefficients

```
!-----1-----2-----3-----4-----5-----6-----7-----8
! 234567890123456789012345678901234567890123456789012345678901234567890
!      *** -----*****-----*****-----*****-----*****
```

ENDATA14

!Coliform and Nonconservative Coefficients

```
!-----1-----2-----3-----4-----5-----6-----7-----8
! 234567890123456789012345678901234567890123456789012345678901234567890
!      *** -----*****-----*****-----*****-----*****
```

ENDATA15

!Incremental Data for Flow, Temperature, Salinity, and Conservatives

```
!-----1-----2-----3-----4-----5-----6-----7-----8
! 234567890123456789012345678901234567890123456789012345678901234567890
!      *** -----*****-----*****-----*****-----*****
INCR-1 1 0.0 0.20000 0.07 11.44 183.13
INCR-1 2 0.0 0.30000 0.07 10.67 174.82
INCR-1 3 0.0 0.65000 0.08 10.86 178.70
INCR-1 4 0.0 0.85000 0.07 10.57 177.35
INCR-1 5 0.0 1.50000 0.07 9.97 173.80
INCR-1 6 0.0 1.25000 0.07 9.31 171.42
```

ENDATA16

!Incremental Data for DO, BOD, and Nitrogen

```
!-----1-----2-----3-----4-----5-----6-----7-----8
! 234567890123456789012345678901234567890123456789012345678901234567890
!      *** -----*****-----*****-----*****-----*****
INCR-2 1 2.29 0.00 0.00 0.0 0.00
INCR-2 2 0.47 0.00 0.00 0.0 0.00
INCR-2 3 1.28 0.00 0.00 0.0 0.00
INCR-2 4 2.27 0.00 0.00 0.0 0.00
INCR-2 5 2.88 0.00 0.00 0.0 0.00
INCR-2 6 3.45 0.00 0.00 0.0 0.00
```

ENDATA17

!Incremental Data for Phosphorus, Chlorophyll, Coliform and Nonconservatives

```
!-----1-----2-----3-----4-----5-----6-----7-----8
! 234567890123456789012345678901234567890123456789012345678901234567890
!      *** -----*****-----*****-----*****-----*****
INCR-3 1 0.000 0.000 0.000 0.0000
INCR-3 2 0.000 0.000 0.000 0.0000
```

```
INCR-3      3      0.000    0.000    0.000    0.0000
INCR-3      4      0.000    0.000    0.000    0.0000
INCR-3      5      0.000    0.000    0.000    0.0000
INCR-3      6      0.000    0.000    0.000    0.0000
```

ENDATA18

!Nonpoint Source Data

```
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
!      *** -----*****-----*****-----*****
NONPOINT    1    100.00    30.00    0.0    0.00    0.0    0.00
NONPOINT    2    150.00    30.00    0.0    0.00    0.0    0.00
NONPOINT    3    200.00    85.00    0.0    0.00    0.0    0.00
NONPOINT    4    300.00    100.00   0.0    0.00    0.0    0.00
NONPOINT    5   1150.00    375.00   0.0    0.00    0.0    0.00
NONPOINT    6   1250.00    475.00   0.0    0.00    0.0    0.00
```

ENDATA19

!Headwater Data for Flow, Temperature, Salinity, and Conservatives

```
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
!      **** -----*****-----*****-----*****
HDWTR-1     1    Grand Bayou           0.  0.140    27.98  0.07    11.70  186.00
```

ENDATA20

!Headwater Data for DO, BOD, and Nitrogen

```
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
!      **** -----*****-----*****-----*****
HDWTR-2     1          2.92    6.815    1.455    0.000    0.00    0.000
```

ENDATA21

!Headwater Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives

```
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
!      **** -----*****-----*****-----*****
HDWTR-3     1          0.00    19.41    0.00    0.00
```

ENDATA22

!Junction Data

```
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
!      **** -----*****-----*****-----*****
```

ENDATA23

!Wasteload Data for Flow, Temperature, Salinity, and Conservatives

```
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
!      **** -----*****-----*****-----*****
WSTLD-1     26    WESTFIELD CANAL      0.16158    26.85    0.07    10.50    174.0
WSTLD-1     61    WHITMEL CANAL       0.333      28.73    0.07    8.80     172.0
```

ENDATA24

!Wasteload Data for DO, BOD, and Nitrogen

```
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
!      **** -----*****-----*****-----*****
WSTLD-2     26          1.31    7.939   0.0    2.770    0.00    0.0    0.00    0.000
WSTLD-2     61          2.90    9.374   0.0    2.474    0.00    0.0    0.00    0.000
```

ENDATA25

!Wasteload Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives

```
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
!      **** -----*****-----*****-----*****
WSTLD-3     26          0.00    23.80    0.00    0.00
WSTLD-3     61          0.00    23.80    0.00    0.00
```

ENDATA26

```
LOWER BC TEMPERATURE           = 28.84
LOWER BC SALINITY               = 0.07
LOWER BC CONSERVATIVE MATERIAL I = 9.20
LOWER BC CONSERVATIVE MATERIAL II = 171.00
LOWER BC DISSOLVED OXYGEN       = 3.55
LOWER BC BOD1 BIOCHEMICAL OXYGEN DEMAND = 8.663
LOWER BC NBOD                   = 2.416
LOWER BC PHOSPHORUS             = 0.00
LOWER BC CHLOROPHYLL A         = 14.8
LOWER BC COLIFORM               = 0.00
```

```
LOWER BC NONCONSERVATIVE MATERIAL          =    0.00
ENDATA27
!DAM DATA
!-----1-----2-----3-----4-----5-----6-----7-----8
! 234567890123456789012345678901234567890123456789012345678901234567890
!      **** ----- ** -----*****-----
ENDATA28
SENSIT  BASEFLOW    30.0  -30.0
SENSIT  VELOCITY    30.0  -30.0
SENSIT  DEPTH       30.0  -30.0
SENSIT  DISPERSI    30.0  -30.0
SENSIT  REAERATI    30.0  -30.0
SENSIT  BOD DECA    30.0  -30.0
SENSIT  BOD SETT    30.0  -30.0
SENSIT  NBOD DEC    30.0  -30.0
SENSIT  NBOD SET    30.0  -30.0
SENSIT  BENTHAL     30.0  -30.0
SENSIT  TEMPERAT     2.0   -2.0
SENSIT  INC INFL    30.0  -30.0
SENSIT  INC DO      30.0  -30.0
SENSIT  HDW FLOW    30.0  -30.0
SENSIT  HDW TEMP     2.0   -2.0
SENSIT  HDW DO      30.0  -30.0
SENSIT  HDW BOD     30.0  -30.0
SENSIT  HDW NBOD    30.0  -30.0
SENSIT  WSL FLOW    30.0  -30.0
SENSIT  WSL TEMP     2.0   -2.0
SENSIT  WSL DO      30.0  -30.0
SENSIT  WSL BOD     30.0  -30.0
SENSIT  WSL NBOD    30.0  -30.0
SENSIT  LBC TEMP     2.0   -2.0
SENSIT  LBC DO      30.0  -30.0
SENSIT  LBC BOD     30.0  -30.0
SENSIT  LBC NBOD    30.0  -30.0
SENSIT  NPS BOD     30.0  -30.0
SENSIT  NPS NBOD    30.0  -30.0
ENDATA29
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 6
PLOT RCH  1  2  3  4  5  6
ENDATA30
OVERLAY 1 OVERLAY LGrandBayou3.TXT          :REACHES 1-6
ENDATA31
```

Overlay File

STATION	1	KILOMETER	6.50	
02		0.07		
03		11.70		
04		186.00		
05		2.92		
06		6.815		
18		1.455		
31		0.140		
33		0.607		
34		14.844		
STATION	2	KILOMETER	4.28	
02		0.07		
03		10.50		
04		173.00		
05	0.02	0.07	0.34	
06		6.851		
13		15.00		
18		1.354		
STATION	3	KILOMETER	2.44	
02		0.08		
03		11.00		
04		181.00		
05		1.77		
06		6.352		
18		1.527		
31		1.305		
33		0.640		
34		27.737		
STATION	4	KILOMETER	1.33	
02		0.07		
03		10.30		
04		175.00		
05	1.81	2.59	4.30	
06		6.007		
13		14.80		
18		1.471		
31		2.368		
33		0.975		
34		29.261		
STATION	5	KILOMETER	0.18	
02		0.07		
03		9.20		
04		171.00		
05	2.31	3.55	6.72	
06		8.663		
18		2.416		
31	4.128	4.958	5.789	
33		1.375		
34		66.142		
STD	05	5.0	6.62	0.00
MRK	5.40	END OF REACH 1		
MRK	3.78	END OF REACH 2 WESTFIELD CANAL		
MRK	2.16	END OF REACH 3		
MRK	1.37	END OF REACH 4		
MRK	0.60	END OF REACH 5 WHITMEL CANAL		
MRK	0.00	END OF REACH 6		
END				

Output File

LA-QUAL Version 8.11
 Louisiana Department of Environmental Quality

Input file is C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
 Output produced at 15:55 on 12/06/2007

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE		CONTROL TITLES
TITLE01		LITTLE GRAND BAYOU
TITLE02		07/17/07
CNTROL12	YES	METRIC UNITS
ENDATA01		

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE		MODEL OPTION	
MODOPT01	NO	TEMPERATURE	
MODOPT02	YES	SALINITY	
MODOPT03	YES	CONSERVATIVE MATERIAL I = CHLORIDES	IN MG/L
MODOPT04	YES	CONSERVATIVE MATERIAL II = CONDUCTIVITY	IN MG/L
MODOPT05	YES	DISSOLVED OXYGEN	
MODOPT06	YES	BOD1 BIOCHEMICAL OXYGEN DEMAND	
MODOPT07	NO	BOD2 BIOCHEMICAL OXYGEN DEMAND	
MODOPT08	YES	NBOD OXYGEN DEMAND	
MODOPT09	NO	PHOSPHORUS	
MODOPT10	NO	CHLOROPHYLL A	
MODOPT11	NO	MACROPHYTES	
MODOPT12	NO	COLIFORM	
MODOPT13	NO	NONCONSERVATIVE MATERIAL	
ENDATA02			

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT		VALUE
PROGRAM	DISPERSION EQUATION	=	3.00000 (values entered as a function of D,Q,Vmean)
PROGRAM	TIDE HEIGHT	=	0.07000 meters
PROGRAM	KL MINIMUM	=	0.70000 meters/day
PROGRAM	INHIBITION CONTROL VALUE	=	3.00000 (inhibit all rates but SOD)
PROGRAM	EFFECTIVE BOD DUE TO ALGAE	=	0.10000 mg/L BOD per ug/L chl a
PROGRAM	ALGAE OXYGEN PRODUCTION	=	0.05000 mg O/ug chl a/day

PROGRAM K2 MAXIMUM = 25.00000 per day
 PROGRAM HYDRAULIC CALCULATION METHOD = 2.00000 (widths and depths)
 PROGRAM SETTLED RATE UNITS = 2.00000 (values entered as per day)
 ENDATA03

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE RATE CODE THETA VALUE
 ENDATA04

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE
 ENDATA05

\$\$\$ DATA TYPE 6 (ALGAE CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE
 ENDATA06

\$\$\$ DATA TYPE 7 (MACROPHYTE CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE
 ENDATA07

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN REACH km	END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM
REACH ID	1	LG	GRAND BAYOU-RKM 5.40	6.62	5.40	0.1220	1.22	10	1	10
REACH ID	2	LG	RKM 5.40-WESTFIELD CANAL	5.40	3.78	0.1080	1.62	15	11	25
REACH ID	3	LG	WESTFIELD CANAL-RKM 2.16	3.78	2.16	0.1080	1.62	15	26	40
REACH ID	4	LG	RKM 2.16-RKM 1.37	2.16	1.37	0.0790	0.79	10	41	50
REACH ID	5	LG	RKM 1.37-WHITMEL CANAL	1.37	0.60	0.0770	0.77	10	51	60
REACH ID	6	LG	WHITMEL CANAL-LAKE VERRET	0.60	0.00	0.0600	0.60	10	61	70

ENDATA08

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE REACH ID WIDTH "A" WIDTH "B" WIDTH "C" DEPTH "D" DEPTH "E" DEPTH "F" SLOPE MANNINGS "N"

HYDR-1	1	LG	0.000	0.000	14.844	0.000	0.000	0.607	0.00010	0.035
HYDR-1	2	LG	0.000	0.000	20.000	0.000	0.000	0.625	0.00010	0.035
HYDR-1	3	LG	0.000	0.000	27.737	0.000	0.000	0.640	0.00010	0.035
HYDR-1	4	LG	0.000	0.000	29.000	0.000	0.000	0.900	0.00010	0.035
HYDR-1	5	LG	0.000	0.000	45.000	0.000	0.000	1.100	0.00010	0.035
HYDR-1	6	LG	0.000	0.000	66.142	0.000	0.000	1.375	0.00010	0.035

ENDATA09

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"
HYDR	1	LG	0.00	30.000	0.833	0.000	1.000
HYDR	2	LG	0.00	30.000	0.833	0.000	1.000
HYDR	3	LG	0.25	30.000	0.833	0.000	1.000
HYDR	4	LG	0.50	30.000	0.833	0.000	1.000
HYDR	5	LG	0.75	30.000	0.833	0.000	1.000
HYDR	6	LG	1.00	30.000	0.833	0.000	1.000

ENDATA10

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL	1	LG	27.61	0.07	2.29	0.00	0.00	0.00	15.12	0.00
INITIAL	2	LG	26.62	0.07	0.47	0.00	0.00	0.00	15.02	0.00
INITIAL	3	LG	27.15	0.08	1.28	0.00	0.00	0.00	14.91	0.00
INITIAL	4	LG	27.55	0.07	2.27	0.00	0.00	0.00	14.83	0.00
INITIAL	5	LG	27.97	0.07	2.88	0.00	0.00	0.00	14.78	0.00
INITIAL	6	LG	28.71	0.07	3.45	0.00	0.00	0.00	14.73	0.00

ENDATA11

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD g/m ² /d	BOD DECATY per day	BOD SETT m/d	BOD CONV TO SOD	ANAER BOD2 DECATY per day	BOD2 DECATY per day	BOD2 SETT m/d	BOD2 CONV TO SOD	ANAER BOD2 DECATY per day
COEF-1	1	LG	4 OWENS <5 FPS	0.000	0.000	0.000	3.500	0.064	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	2	LG	4 OWENS <5 FPS	0.000	0.000	0.000	6.850	0.056	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	3	LG	4 OWENS <5 FPS	0.000	0.000	0.000	4.000	0.058	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	4	LG	4 OWENS <5 FPS	0.000	0.000	0.000	2.000	0.057	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	5	LG	4 OWENS <5 FPS	0.000	0.000	0.000	0.500	0.064	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	6	LG	4 OWENS <5 FPS	0.000	0.000	0.000	0.500	0.082	0.050	0.000	0.000	0.000	0.050	0.000	0.000

ENDATA12

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	NBOD DECA	NBOD SETT	ORGN CONV TO NH3 SRCE	NH3 DECA	NH3 SRCE	PHOS SRCE	DENIT RATE
COEF-2	1	LG	0.111	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	2	LG	0.132	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	3	LG	0.121	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	4	LG	0.102	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	5	LG	0.099	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	6	LG	0.107	0.050	1.000	0.000	0.000	0.000	0.000

ENDATA13

\$\$\$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP	SHADING
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ENDATA14

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM CONV TO SOD
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ENDATA15

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST	OUT/DIST
INCR-1	1	LG	0.00000	0.20000	0.00	0.07	11.44	183.13	0.16393	0.00000
INCR-1	2	LG	0.00000	0.30000	0.00	0.07	10.67	174.82	0.18519	0.00000
INCR-1	3	LG	0.00000	0.65000	0.00	0.08	10.86	178.70	0.40123	0.00000
INCR-1	4	LG	0.00000	0.85000	0.00	0.07	10.57	177.35	1.07595	0.00000
INCR-1	5	LG	0.00000	1.50000	0.00	0.07	9.97	173.80	1.94805	0.00000
INCR-1	6	LG	0.00000	1.25000	0.00	0.07	9.31	171.42	2.08333	0.00000

ENDATA16

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	REACH	ID	DO	BOD	NBOD	BOD#2
INCR-2	1	LG	2.29	0.00	0.00	0.00

INCR-2	2	LG	0.47	0.00	0.00	0.00	0.00	0.00
INCR-2	3	LG	1.28	0.00	0.00	0.00	0.00	0.00
INCR-2	4	LG	2.27	0.00	0.00	0.00	0.00	0.00
INCR-2	5	LG	2.88	0.00	0.00	0.00	0.00	0.00
INCR-2	6	LG	3.45	0.00	0.00	0.00	0.00	0.00

ENDATA17

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	PHOS	CHL A	COLI	NCM
INCR-3	1	LG	0.00	0.00	0.00	0.00
INCR-3	2	LG	0.00	0.00	0.00	0.00
INCR-3	3	LG	0.00	0.00	0.00	0.00
INCR-3	4	LG	0.00	0.00	0.00	0.00
INCR-3	5	LG	0.00	0.00	0.00	0.00
INCR-3	6	LG	0.00	0.00	0.00	0.00

ENDATA18

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH	ID	BOD#1	NBOD	COLI	NCM	DO	BOD#2
NONPOINT	1	LG	100.00	30.00	0.00	0.00	0.00	0.00
NONPOINT	2	LG	150.00	30.00	0.00	0.00	0.00	0.00
NONPOINT	3	LG	200.00	85.00	0.00	0.00	0.00	0.00
NONPOINT	4	LG	300.00	100.00	0.00	0.00	0.00	0.00
NONPOINT	5	LG	1150.00	375.00	0.00	0.00	0.00	0.00
NONPOINT	6	LG	1250.00	475.00	0.00	0.00	0.00	0.00

ENDATA19

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m ³ /s	FLOW cfs	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L	
HDWTR-1	1	Grand Bayou	0	0.14000	4.944	27.98	0.07	11.700	186.000	0.00

ENDATA20

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L	mg/L	mg/L	BOD#2 mg/L
HDWTR-2	1	Grand Bayou	2.92	6.82	1.46	0.00	0.00	0.00

ENDATA21

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
HDWTR-3 ENDATA22	1	Grand Bayou	0.00	19.41	0.00	0.00

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	RIVER KILOM	NAME
ENDATA23				

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	RKILO	NAME	FLOW m ³ /s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L
WSTLD-1	26	3.78	WESTFIELD CANAL	0.16158	5.70551	3.688	26.85	0.07	10.500	174.000
WSTLD-1	61	0.60	WHITMEL CANAL	0.33300	11.75848	7.601	28.73	0.07	8.800	172.000
ENDATA24										

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD RMVL	NBOD mg/L	mg/L	% NITRIF	mg/L	BOD#2 mg/L
WSTLD-2	26	WESTFIELD CANAL	1.31	7.94	0.00	2.77	0.00	0.00	0.00	0.00
WSTLD-2	61	WHITMEL CANAL	2.90	9.37	0.00	2.47	0.00	0.00	0.00	0.00
ENDATA25										

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
WSTLD-3	26	WESTFIELD CANAL	0.00	23.80	0.00	0.00
WSTLD-3	61	WHITMEL CANAL	0.00	23.80	0.00	0.00
ENDATA26						

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENTRATION
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LOWER BC	TEMPERATURE	=	28.840	deg C
LOWER BC	SALINITY	=	0.070	ppt
LOWER BC	CONSERVATIVE MATERIAL I	=	9.200	MG/L
LOWER BC	CONSERVATIVE MATERIAL II	=	171.000	MG/L
LOWER BC	DISSOLVED OXYGEN	=	3.550	mg/L
LOWER BC	BOD1 BIOCHEMICAL OXYGEN DEMAND	=	8.663	mg/L
LOWER BC	NBOD	=	2.416	mg/L
LOWER BC	PHOSPHORUS	=	0.000	mg/L
LOWER BC	CHLOROPHYLL A	=	14.800	µg/L
LOWER BC	COLIFORM	=	0.000	#/100 mL
LOWER BC	NONCONSERVATIVE MATERIAL	=	0.000	

ENDATA27

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD TYPE	ELEMENT	NAME	EQN	"A"	"B"	"H"
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ENDATA28

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE	PARAMETER	COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
SENSIT	BASEFLOW	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	VELOCITY	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	DEPTH	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	DISPERSI	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	REAERATI	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	BOD DECA	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	BOD SETT	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	NBOD DEC	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	NBOD SET	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	BENTHAL	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	TEMPERAT	2.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	INC INFL	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	INC DO	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	HDW FLOW	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	HDW TEMP	2.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	HDW DO	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	HDW BOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	HDW NBOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	WSL FLOW	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	WSL TEMP	2.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	WSL DO	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	WSL BOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
1	6.62	6.50	0.16000	0.0	0.01776	0.08	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.351	0.018
2	6.50	6.38	0.18000	0.0	0.01998	0.07	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.395	0.020
3	6.38	6.25	0.20000	0.0	0.02220	0.06	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.439	0.022
4	6.25	6.13	0.22000	0.0	0.02442	0.06	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.483	0.024
5	6.13	6.01	0.24000	0.0	0.02664	0.05	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.527	0.027
6	6.01	5.89	0.26000	0.0	0.02886	0.05	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.571	0.029
7	5.89	5.77	0.28000	0.0	0.03108	0.05	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.615	0.031
8	5.77	5.64	0.30000	0.0	0.03330	0.04	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.659	0.033
9	5.64	5.52	0.32000	0.0	0.03551	0.04	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.703	0.036
10	5.52	5.40	0.34000	0.0	0.03773	0.04	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.747	0.038
TOT						0.54			10992.58	18109.68					
AVG					0.0262		0.61	14.84			9.01				
CUM						0.54									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD#1 DECAY	BOD#1 SETT	ABOD#1 DECAY	BOD#2 DECAY	BOD#2 SETT	ABOD#2 DECAY	BKGD SOD	FULL SOD	CORR SOD	ORGN DECAY	ORGN SETT	NH3 DECAY	NH3 SRCE	DENIT RATE	PO4 SRCE	ALG PROD	MAC PROD	COLI DECAY	NCM DECAY	NCM SETT	
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	*	**	**	1/da	1/da	1/da	
1	6.498	7.89	1.33	0.09	0.06	0.00	0.00	0.00	0.00	5.62	5.62	5.62	0.14	0.06	0.00	0.00	0.00	0.00	1.07	0.00	0.00	0.00	0.00	
2	6.376	7.91	1.33	0.09	0.06	0.00	0.00	0.00	0.00	5.58	5.58	5.58	0.14	0.06	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	
3	6.254	7.92	1.32	0.09	0.06	0.00	0.00	0.00	0.00	5.55	5.55	5.55	0.13	0.06	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	
4	6.132	7.93	1.32	0.09	0.06	0.00	0.00	0.00	0.00	5.51	5.51	5.51	0.13	0.06	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00	
5	6.010	7.95	1.36	0.09	0.06	0.00	0.00	0.00	0.00	5.48	5.48	5.48	0.13	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00	
6	5.888	7.96	1.43	0.09	0.06	0.00	0.00	0.00	0.00	5.44	5.44	5.44	0.12	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00	
7	5.766	7.98	1.50	0.09	0.06	0.00	0.00	0.00	0.00	5.41	5.41	5.41	0.12	0.06	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00	
8	5.644	7.99	1.57	0.09	0.06	0.00	0.00	0.00	0.00	5.38	5.38	5.38	0.12	0.06	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00	
9	5.522	8.01	1.63	0.09	0.06	0.00	0.00	0.00	0.00	5.34	5.34	5.34	0.12	0.06	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00	
10	5.400	8.02	1.70	0.09	0.06	0.00	0.00	0.00	0.00	5.31	5.31	5.31	0.12	0.06	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00	
AVG	20 DEG C RATE		1.27	0.06	0.05	0.00	0.00	0.05	0.00	3.50			0.11	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
*	g/m ² /d		**	mg/L/day																				

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
1	6.498	27.51	0.07	11.66	185.59	2.66	5.30	0.00	6.81	0.00	1.47	0.00	0.00	0.00	0.00	15.11	0.00	0.	0.00
2	6.376	27.41	0.07	11.64	185.33	2.51	5.30	0.00	6.81	0.00	1.48	0.00	0.00	0.00	0.00	15.10	0.00	0.	0.00
3	6.254	27.31	0.07	11.62	185.11	2.40	5.30	0.00	6.81	0.00	1.49	0.00	0.00	0.00	0.00	15.09	0.00	0.	0.00
4	6.132	27.21	0.07	11.60	184.93	2.32	5.30	0.00	6.80	0.00	1.49	0.00	0.00	0.00	0.00	15.08	0.00	0.	0.00
5	6.010	27.12	0.07	11.59	184.78	2.27	5.30	0.00	6.80	0.00	1.50	0.00	0.00	0.00	0.00	15.07	0.00	0.	0.00
6	5.888	27.02	0.07	11.58	184.66	2.25	5.30	0.00	6.80	0.00	1.50	0.00	0.00	0.00	0.00	15.06	0.00	0.	0.00
7	5.766	26.92	0.07	11.57	184.55	2.26	5.30	0.00	6.80	0.00	1.51	0.00	0.00	0.00	0.00	15.05	0.00	0.	0.00
8	5.644	26.82	0.07	11.56	184.45	2.28	5.30	0.00	6.80	0.00	1.51	0.00	0.00	0.00	0.00	15.04	0.00	0.	0.00
9	5.522	26.72	0.07	11.55	184.36	2.31	5.30	0.00	6.80	0.00	1.51	0.00	0.00	0.00	0.00	15.03	0.00	0.	0.00
10	5.400	26.62	0.07	11.54	184.22	2.29	5.30	0.00	6.80	0.00	1.51	0.00	0.00	0.00	0.00	15.02	0.00	0.	0.00

FINAL REPORT Grand Bayou
 REACH NO. 2 RKM 5.40-WESTFIELD CANAL

LITTLE GRAND BAYOU
 07/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
11	UPR RCH	0.34000	26.62	0.07	11.54	184.22	2.29	5.30	0.00	6.80	0.00	1.51	0.00	0.00	0.00	15.02	0.00	0.00
EACH	INCR	0.02000	0.00	0.07	10.67	174.82	0.47	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
11	5.40	5.29	0.36000	0.0	0.02880	0.04	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.584	0.029
12	5.29	5.18	0.38000	0.0	0.03040	0.04	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.617	0.030
13	5.18	5.08	0.40000	0.0	0.03200	0.04	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.649	0.032
14	5.08	4.97	0.42000	0.0	0.03360	0.04	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.681	0.034
15	4.97	4.86	0.44000	0.0	0.03520	0.04	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.714	0.035
16	4.86	4.75	0.46000	0.0	0.03680	0.03	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.746	0.037
17	4.75	4.64	0.48000	0.0	0.03840	0.03	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.779	0.038
18	4.64	4.54	0.50000	0.0	0.04000	0.03	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.811	0.040
19	4.54	4.43	0.52000	0.0	0.04160	0.03	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.844	0.042
20	4.43	4.32	0.54000	0.0	0.04320	0.03	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.876	0.043
21	4.32	4.21	0.56000	0.0	0.04480	0.03	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.909	0.045
22	4.21	4.10	0.58000	0.0	0.04640	0.03	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.941	0.046

23	4.10	4.00	0.60000	0.0	0.04800	0.03	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.973	0.048
24	4.00	3.89	0.62000	0.0	0.04960	0.03	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	1.006	0.050
25	3.89	3.78	0.64000	0.0	0.05120	0.02	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	1.038	0.051
TOT						0.48			20250.00	32400.00					
AVG					0.0388		0.62	20.00			12.50				
CUM						1.02									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
11	5.292	8.01	1.34	0.07	0.06	0.00	0.00	0.00	0.00	10.42	10.42	10.42	0.11	0.06	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00
12	5.184	8.01	1.39	0.06	0.06	0.00	0.00	0.00	0.00	10.44	10.44	10.44	0.05	0.06	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00
13	5.076	8.00	1.44	0.05	0.06	0.00	0.00	0.00	0.00	10.46	10.46	10.46	0.02	0.06	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00
14	4.968	8.00	1.49	0.04	0.06	0.00	0.00	0.00	0.00	10.49	10.49	10.49	0.01	0.06	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00
15	4.860	7.99	1.54	0.03	0.06	0.00	0.00	0.00	0.00	10.51	10.51	10.51	0.00	0.06	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00
16	4.752	7.99	1.59	0.02	0.06	0.00	0.00	0.00	0.00	10.53	10.53	10.53	0.00	0.06	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00
17	4.644	7.98	1.63	0.02	0.06	0.00	0.00	0.00	0.00	10.56	10.56	10.56	0.00	0.06	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00
18	4.536	7.98	1.68	0.02	0.06	0.00	0.00	0.00	0.00	10.58	10.58	10.58	0.00	0.06	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00
19	4.428	7.97	1.73	0.01	0.06	0.00	0.00	0.00	0.00	10.60	10.60	10.60	0.00	0.06	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00
20	4.320	7.97	1.77	0.01	0.06	0.00	0.00	0.00	0.00	10.63	10.63	10.63	0.00	0.06	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00
21	4.212	7.96	1.82	0.01	0.06	0.00	0.00	0.00	0.00	10.65	10.65	10.65	0.00	0.06	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00
22	4.104	7.96	1.86	0.01	0.06	0.00	0.00	0.00	0.00	10.67	10.67	10.67	0.00	0.06	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00
23	3.996	7.95	1.90	0.01	0.06	0.00	0.00	0.00	0.00	10.70	10.70	10.70	0.00	0.06	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00
24	3.888	7.95	1.95	0.01	0.06	0.00	0.00	0.00	0.00	10.72	10.72	10.72	0.00	0.06	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00
25	3.780	7.94	1.99	0.01	0.06	0.00	0.00	0.00	0.00	10.75	10.75	10.75	0.00	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			1.47	0.06	0.05	0.00	0.00	0.05	0.00	6.85			0.13	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00
*	g/m ² /d																						
**			mg/L/day																				

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
11	5.292	26.66	0.07	11.49	183.70	1.85	5.29	0.00	6.80	0.00	1.48	0.00	0.00	0.00	0.00	15.01	0.00	0.	0.00
12	5.184	26.69	0.07	11.45	183.23	1.50	5.30	0.00	6.80	0.00	1.46	0.00	0.00	0.00	0.00	15.01	0.00	0.	0.00
13	5.076	26.73	0.07	11.41	182.82	1.21	5.30	0.00	6.80	0.00	1.44	0.00	0.00	0.00	0.00	15.00	0.00	0.	0.00
14	4.968	26.76	0.07	11.37	182.44	0.98	5.30	0.00	6.80	0.00	1.42	0.00	0.00	0.00	0.00	14.99	0.00	0.	0.00
15	4.860	26.80	0.07	11.34	182.09	0.79	5.31	0.00	6.81	0.00	1.41	0.00	0.00	0.00	0.00	14.98	0.00	0.	0.00

16	4.752	26.83	0.07	11.31	181.78	0.63	5.31	0.00	6.81	0.00	1.39	0.00	0.00	0.00	0.00	14.98	0.00	0.	0.00
17	4.644	26.87	0.07	11.29	181.49	0.51	5.32	0.00	6.82	0.00	1.38	0.00	0.00	0.00	0.00	14.97	0.00	0.	0.00
18	4.536	26.90	0.07	11.26	181.23	0.41	5.33	0.00	6.82	0.00	1.37	0.00	0.00	0.00	0.00	14.96	0.00	0.	0.00
19	4.428	26.94	0.07	11.24	180.98	0.33	5.33	0.00	6.83	0.00	1.36	0.00	0.00	0.00	0.00	14.95	0.00	0.	0.00
20	4.320	26.97	0.07	11.22	180.76	0.27	5.34	0.00	6.83	0.00	1.35	0.00	0.00	0.00	0.00	14.95	0.00	0.	0.00
21	4.212	27.01	0.07	11.20	180.55	0.22	5.34	0.00	6.84	0.00	1.34	0.00	0.00	0.00	0.00	14.94	0.00	0.	0.00
22	4.104	27.04	0.07	11.18	180.35	0.19	5.35	0.00	6.84	0.00	1.33	0.00	0.00	0.00	0.00	14.93	0.00	0.	0.00
23	3.996	27.08	0.07	11.16	180.16	0.16	5.36	0.00	6.85	0.00	1.33	0.00	0.00	0.00	0.00	14.92	0.00	0.	0.00
24	3.888	27.11	0.07	11.14	179.96	0.16	5.37	0.00	6.86	0.00	1.33	0.00	0.00	0.00	0.00	14.92	0.00	0.	0.00
25	3.780	27.15	0.07	11.11	179.65	0.22	5.43	0.00	6.92	0.00	1.36	0.00	0.00	0.00	0.00	14.91	0.00	0.	0.00

FINAL REPORT Grand Bayou
 REACH NO. 3 WESTFIELD CANAL-RKM 2.16

LITTLE GRAND BAYOU
 07/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
26	UPR RCH	0.64000	27.15	0.07	11.11	179.65	0.22	5.43	0.00	6.92	0.00	1.36	0.00	0.00	0.00	14.91	0.00	0.00
EACH	INCR	0.04333	0.00	0.08	10.86	178.70	1.28	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	WSTLD	0.16158	26.85	0.07	10.50	174.00	1.31	7.94	0.00	7.94	0.00	2.77	0.00	0.00	0.00	23.80	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
26	3.78	3.67	0.84491	19.1	0.04760	0.03	0.64	27.74	1917.18	2995.60	17.75	52.42	0.000	0.985	0.048
27	3.67	3.56	0.88825	18.2	0.05004	0.02	0.64	27.74	1917.18	2995.60	17.75	104.85	0.000	1.035	0.050
28	3.56	3.46	0.93158	17.3	0.05248	0.02	0.64	27.74	1917.18	2995.60	17.75	157.27	0.000	1.086	0.052
29	3.46	3.35	0.97491	16.6	0.05492	0.02	0.64	27.74	1917.18	2995.60	17.75	209.69	0.000	1.136	0.055
30	3.35	3.24	1.01825	15.9	0.05736	0.02	0.64	27.74	1917.18	2995.60	17.75	262.11	0.000	1.187	0.057
31	3.24	3.13	1.06158	15.2	0.05980	0.02	0.64	27.74	1917.18	2995.60	17.75	314.54	0.000	1.237	0.060
32	3.13	3.02	1.10491	14.6	0.06224	0.02	0.64	27.74	1917.18	2995.60	17.75	366.96	0.000	1.288	0.062
33	3.02	2.92	1.14825	14.1	0.06468	0.02	0.64	27.74	1917.18	2995.60	17.75	419.38	0.001	1.338	0.065
34	2.92	2.81	1.19158	13.6	0.06712	0.02	0.64	27.74	1917.18	2995.60	17.75	471.81	0.001	1.389	0.067
35	2.81	2.70	1.23491	13.1	0.06957	0.02	0.64	27.74	1917.18	2995.60	17.75	524.23	0.001	1.439	0.070
36	2.70	2.59	1.27825	12.6	0.07201	0.02	0.64	27.74	1917.18	2995.60	17.75	576.65	0.001	1.490	0.072
37	2.59	2.48	1.32158	12.2	0.07445	0.02	0.64	27.74	1917.18	2995.60	17.75	629.08	0.001	1.540	0.074
38	2.48	2.38	1.36491	11.8	0.07689	0.02	0.64	27.74	1917.18	2995.60	17.75	681.50	0.001	1.591	0.077
39	2.38	2.27	1.40825	11.5	0.07933	0.02	0.64	27.74	1917.18	2995.60	17.75	733.92	0.001	1.641	0.079

40	2.27	2.16	1.45158	11.1	0.08177	0.02	0.64	27.74	1917.18	2995.60	17.75	786.34	0.001	1.691	0.082
TOT						0.30			28757.72	44933.95					
AVG					0.0629		0.64	27.74			17.75				
CUM						1.32									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAT 1/da	BOD#1 SETT 1/da	ABOD#1 DECAT 1/da	BOD#2 DECAT 1/da	BOD#2 SETT 1/da	ABOD#2 DECAT 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAT 1/da	ORGN SETT 1/da	NH3 DECAT 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAT 1/da	NCM DECAT 1/da	NCM SETT 1/da
26	3.672	7.94	1.81	0.02	0.06	0.00	0.00	0.00	0.00	6.29	6.29	6.29	0.00	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
27	3.564	7.94	1.88	0.03	0.06	0.00	0.00	0.00	0.00	6.30	6.30	6.30	0.00	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
28	3.456	7.93	1.94	0.03	0.06	0.00	0.00	0.00	0.00	6.31	6.31	6.31	0.01	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
29	3.348	7.93	2.00	0.04	0.06	0.00	0.00	0.00	0.00	6.32	6.32	6.32	0.01	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
30	3.240	7.92	2.06	0.04	0.06	0.00	0.00	0.00	0.00	6.33	6.33	6.33	0.01	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
31	3.132	7.92	2.12	0.05	0.06	0.00	0.00	0.00	0.00	6.34	6.34	6.34	0.02	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
32	3.024	7.92	2.18	0.05	0.06	0.00	0.00	0.00	0.00	6.35	6.35	6.35	0.03	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
33	2.916	7.91	2.24	0.06	0.06	0.00	0.00	0.00	0.00	6.36	6.36	6.36	0.04	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
34	2.808	7.91	2.29	0.06	0.06	0.00	0.00	0.00	0.00	6.37	6.37	6.37	0.05	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
35	2.700	7.91	2.35	0.07	0.06	0.00	0.00	0.00	0.00	6.38	6.38	6.38	0.06	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
36	2.592	7.90	2.41	0.07	0.06	0.00	0.00	0.00	0.00	6.39	6.39	6.39	0.07	0.06	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00
37	2.484	7.90	2.46	0.07	0.06	0.00	0.00	0.00	0.00	6.40	6.40	6.40	0.09	0.06	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00
38	2.376	7.89	2.52	0.08	0.06	0.00	0.00	0.00	0.00	6.41	6.41	6.41	0.10	0.06	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00
39	2.268	7.89	2.57	0.08	0.06	0.00	0.00	0.00	0.00	6.42	6.42	6.42	0.12	0.06	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00
40	2.160	7.89	2.63	0.08	0.06	0.00	0.00	0.00	0.00	6.44	6.44	6.44	0.14	0.06	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			1.94	0.06	0.05	0.00	0.00	0.05	0.00	4.00			0.12	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
26	3.672	27.18	0.07	11.00	178.68	0.57	5.73	0.00	7.22	0.00	1.60	0.00	0.00	0.00	0.00	14.90	0.00	0.	0.00
27	3.564	27.20	0.07	10.99	178.68	0.72	5.61	0.00	7.10	0.00	1.59	0.00	0.00	0.00	0.00	14.90	0.00	0.	0.00
28	3.456	27.23	0.07	10.99	178.68	0.85	5.50	0.00	6.99	0.00	1.58	0.00	0.00	0.00	0.00	14.89	0.00	0.	0.00
29	3.348	27.26	0.07	10.98	178.68	0.98	5.41	0.00	6.90	0.00	1.58	0.00	0.00	0.00	0.00	14.89	0.00	0.	0.00
30	3.240	27.28	0.07	10.98	178.68	1.10	5.32	0.00	6.80	0.00	1.57	0.00	0.00	0.00	0.00	14.88	0.00	0.	0.00
31	3.132	27.31	0.07	10.97	178.69	1.22	5.23	0.00	6.72	0.00	1.57	0.00	0.00	0.00	0.00	14.88	0.00	0.	0.00
32	3.024	27.34	0.07	10.97	178.69	1.32	5.16	0.00	6.64	0.00	1.56	0.00	0.00	0.00	0.00	14.87	0.00	0.	0.00

33	2.916	27.36	0.07	10.96	178.69	1.42	5.09	0.00	6.57	0.00	1.56	0.00	0.00	0.00	0.00	14.87	0.00	0.	0.00
34	2.808	27.39	0.07	10.96	178.69	1.52	5.02	0.00	6.51	0.00	1.55	0.00	0.00	0.00	0.00	14.86	0.00	0.	0.00
35	2.700	27.42	0.07	10.96	178.69	1.61	4.96	0.00	6.44	0.00	1.55	0.00	0.00	0.00	0.00	14.86	0.00	0.	0.00
36	2.592	27.44	0.07	10.95	178.69	1.69	4.90	0.00	6.38	0.00	1.54	0.00	0.00	0.00	0.00	14.85	0.00	0.	0.00
37	2.484	27.47	0.07	10.95	178.69	1.77	4.84	0.00	6.33	0.00	1.54	0.00	0.00	0.00	0.00	14.85	0.00	0.	0.00
38	2.376	27.50	0.07	10.95	178.69	1.85	4.79	0.00	6.28	0.00	1.53	0.00	0.00	0.00	0.00	14.84	0.00	0.	0.00
39	2.268	27.52	0.07	10.94	178.69	1.92	4.75	0.00	6.23	0.00	1.53	0.00	0.00	0.00	0.00	14.84	0.00	0.	0.00
40	2.160	27.55	0.07	10.94	178.67	2.00	4.70	0.00	6.18	0.00	1.52	0.00	0.00	0.00	0.00	14.83	0.00	0.	0.00

FINAL REPORT Grand Bayou LITTLE GRAND BAYOU
 REACH NO. 4 RKM 2.16-RKM 1.37 07/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
41	UPR RCH	1.45158	27.55	0.07	10.94	178.67	2.00	4.70	0.00	6.18	0.00	1.52	0.00	0.00	0.00	14.83	0.00	0.00
EACH	INCR	0.08500	0.00	0.07	10.57	177.35	2.27	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
41	2.16	2.08	1.53658	10.5	0.05887	0.02	0.90	29.00	2061.90	2291.00	26.10	866.53	0.001	1.618	0.059
42	2.08	2.00	1.62158	10.0	0.06213	0.01	0.90	29.00	2061.90	2291.00	26.10	946.71	0.001	1.707	0.062
43	2.00	1.92	1.70658	9.5	0.06539	0.01	0.90	29.00	2061.90	2291.00	26.10	1026.90	0.001	1.797	0.065
44	1.92	1.84	1.79158	9.0	0.06864	0.01	0.90	29.00	2061.90	2291.00	26.10	1107.08	0.001	1.886	0.069
45	1.84	1.77	1.87658	8.6	0.07190	0.01	0.90	29.00	2061.90	2291.00	26.10	1187.27	0.001	1.976	0.072
46	1.77	1.69	1.96158	8.2	0.07516	0.01	0.90	29.00	2061.90	2291.00	26.10	1267.45	0.001	2.065	0.075
47	1.69	1.61	2.04658	7.9	0.07841	0.01	0.90	29.00	2061.90	2291.00	26.10	1347.64	0.001	2.155	0.078
48	1.61	1.53	2.13158	7.6	0.08167	0.01	0.90	29.00	2061.90	2291.00	26.10	1427.82	0.001	2.244	0.082
49	1.53	1.45	2.21658	7.3	0.08493	0.01	0.90	29.00	2061.90	2291.00	26.10	1508.01	0.001	2.334	0.085
50	1.45	1.37	2.30158	7.0	0.08818	0.01	0.90	29.00	2061.90	2291.00	26.10	1588.19	0.001	2.423	0.088
TOT						0.13			20619.00	22910.00					
AVG					0.0723		0.90	29.00			26.10				
CUM						1.45									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da	
41	2.081	7.88	1.12	0.08	0.06	0.00	0.00	0.00	0.00	3.23	3.23	3.23	0.12	0.06	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00	
42	2.002	7.88	1.16	0.08	0.06	0.00	0.00	0.00	0.00	3.23	3.23	3.23	0.12	0.06	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00	
43	1.923	7.87	1.21	0.08	0.06	0.00	0.00	0.00	0.00	3.24	3.24	3.24	0.12	0.06	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00	
44	1.844	7.86	1.25	0.08	0.06	0.00	0.00	0.00	0.00	3.25	3.25	3.25	0.12	0.06	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	
45	1.765	7.86	1.29	0.08	0.06	0.00	0.00	0.00	0.00	3.26	3.26	3.26	0.12	0.06	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	
46	1.686	7.85	1.33	0.08	0.06	0.00	0.00	0.00	0.00	3.27	3.27	3.27	0.12	0.06	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	
47	1.607	7.85	1.37	0.08	0.06	0.00	0.00	0.00	0.00	3.28	3.28	3.28	0.13	0.06	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	
48	1.528	7.84	1.40	0.08	0.06	0.00	0.00	0.00	0.00	3.29	3.29	3.29	0.13	0.06	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	
49	1.449	7.83	1.44	0.08	0.06	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.13	0.06	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	
50	1.370	7.83	1.48	0.08	0.06	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.13	0.06	0.00	0.00	0.00	0.00	1.07	0.00	0.00	0.00	0.00	
AVG 20 DEG C RATE			1.13	0.06	0.05	0.00	0.00	0.05	0.00	2.00			0.10	0.05	0.00	0.00	0.00	0.00				0.00	0.00	0.00
* g/m ² /d			** mg/L/day																					

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
41	2.081	27.59	0.07	10.91	178.59	2.07	4.65	0.00	6.13	0.00	1.51	0.00	0.00	0.00	0.00	14.82	0.00	0.	0.00
42	2.002	27.63	0.07	10.90	178.53	2.13	4.61	0.00	6.09	0.00	1.50	0.00	0.00	0.00	0.00	14.82	0.00	0.	0.00
43	1.923	27.68	0.07	10.88	178.47	2.19	4.58	0.00	6.06	0.00	1.49	0.00	0.00	0.00	0.00	14.81	0.00	0.	0.00
44	1.844	27.72	0.07	10.87	178.42	2.25	4.55	0.00	6.03	0.00	1.48	0.00	0.00	0.00	0.00	14.81	0.00	0.	0.00
45	1.765	27.76	0.07	10.85	178.37	2.30	4.52	0.00	6.00	0.00	1.47	0.00	0.00	0.00	0.00	14.81	0.00	0.	0.00
46	1.686	27.80	0.07	10.84	178.33	2.35	4.49	0.00	5.97	0.00	1.46	0.00	0.00	0.00	0.00	14.80	0.00	0.	0.00
47	1.607	27.84	0.07	10.83	178.29	2.40	4.47	0.00	5.95	0.00	1.45	0.00	0.00	0.00	0.00	14.80	0.00	0.	0.00
48	1.528	27.89	0.07	10.82	178.24	2.44	4.45	0.00	5.93	0.00	1.45	0.00	0.00	0.00	0.00	14.79	0.00	0.	0.00
49	1.449	27.93	0.07	10.81	178.19	2.49	4.45	0.00	5.93	0.00	1.45	0.00	0.00	0.00	0.00	14.78	0.00	0.	0.00
50	1.370	27.97	0.07	10.78	178.09	2.54	4.51	0.00	5.99	0.00	1.47	0.00	0.00	0.00	0.00	14.78	0.00	0.	0.00

FINAL REPORT Grand Bayou LITTLE GRAND BAYOU
 REACH NO. 5 RKM 1.37-WHITMEL CANAL 07/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
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51	UPR RCH	2.30158	27.97	0.07	10.78	178.09	2.54	4.51	0.00	5.99	0.00	1.47	0.00	0.00	0.00	14.78	0.00	0.00
EACH	INCR	0.15000	0.00	0.07	9.97	173.80	2.88	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
51	1.37	1.29	2.45158	6.6	0.04953	0.02	1.10	45.00	3811.50	3465.00	49.50	1770.11	0.001	1.609	0.050
52	1.29	1.22	2.60158	6.2	0.05256	0.02	1.10	45.00	3811.50	3465.00	49.50	1952.02	0.001	1.707	0.053
53	1.22	1.14	2.75158	5.9	0.05559	0.02	1.10	45.00	3811.50	3465.00	49.50	2133.93	0.001	1.805	0.056
54	1.14	1.06	2.90158	5.6	0.05862	0.02	1.10	45.00	3811.50	3465.00	49.50	2315.84	0.001	1.904	0.059
55	1.06	0.98	3.05158	5.3	0.06165	0.01	1.10	45.00	3811.50	3465.00	49.50	2497.76	0.001	2.002	0.062
56	0.98	0.91	3.20158	5.0	0.06468	0.01	1.10	45.00	3811.50	3465.00	49.50	2679.67	0.001	2.101	0.065
57	0.91	0.83	3.35158	4.8	0.06771	0.01	1.10	45.00	3811.50	3465.00	49.50	2861.58	0.001	2.199	0.068
58	0.83	0.75	3.50158	4.6	0.07074	0.01	1.10	45.00	3811.50	3465.00	49.50	3043.49	0.001	2.298	0.071
59	0.75	0.68	3.65158	4.4	0.07377	0.01	1.10	45.00	3811.50	3465.00	49.50	3225.41	0.001	2.396	0.074
60	0.68	0.60	3.80158	4.3	0.07680	0.01	1.10	45.00	3811.50	3465.00	49.50	3407.32	0.002	2.494	0.077
TOT						0.14			38115.00	34650.00					
AVG				0.0619			1.10	45.00			49.50				
CUM						1.59									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
51	1.293	7.82	0.74	0.09	0.06	0.00	0.00	0.00	0.00	0.83	0.83	0.83	0.13	0.06	0.00	0.00	0.00	0.00	1.07	0.00	0.00	0.00	0.00
52	1.216	7.81	0.74	0.09	0.06	0.00	0.00	0.00	0.00	0.83	0.83	0.83	0.13	0.06	0.00	0.00	0.00	0.00	1.07	0.00	0.00	0.00	0.00
53	1.139	7.80	0.75	0.09	0.06	0.00	0.00	0.00	0.00	0.84	0.84	0.84	0.13	0.06	0.00	0.00	0.00	0.00	1.08	0.00	0.00	0.00	0.00
54	1.062	7.79	0.78	0.09	0.06	0.00	0.00	0.00	0.00	0.84	0.84	0.84	0.13	0.06	0.00	0.00	0.00	0.00	1.08	0.00	0.00	0.00	0.00
55	0.985	7.78	0.81	0.09	0.06	0.00	0.00	0.00	0.00	0.85	0.85	0.85	0.14	0.06	0.00	0.00	0.00	0.00	1.08	0.00	0.00	0.00	0.00
56	0.908	7.77	0.84	0.09	0.06	0.00	0.00	0.00	0.00	0.85	0.85	0.85	0.14	0.06	0.00	0.00	0.00	0.00	1.09	0.00	0.00	0.00	0.00
57	0.831	7.76	0.86	0.09	0.06	0.00	0.00	0.00	0.00	0.85	0.85	0.85	0.14	0.06	0.00	0.00	0.00	0.00	1.09	0.00	0.00	0.00	0.00
58	0.754	7.75	0.89	0.09	0.06	0.00	0.00	0.00	0.00	0.86	0.86	0.86	0.14	0.06	0.00	0.00	0.00	0.00	1.09	0.00	0.00	0.00	0.00
59	0.677	7.74	0.92	0.10	0.06	0.00	0.00	0.00	0.00	0.86	0.86	0.86	0.14	0.06	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00
60	0.600	7.73	0.94	0.10	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.14	0.06	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.71	0.06	0.05	0.00	0.00	0.05	0.00	0.50			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
51	1.293	28.04	0.07	10.73	177.83	2.63	4.77	0.00	6.24	0.00	1.55	0.00	0.00	0.00	0.00	14.77	0.00	0.	0.00
52	1.216	28.12	0.07	10.69	177.60	2.70	4.99	0.00	6.46	0.00	1.62	0.00	0.00	0.00	0.00	14.77	0.00	0.	0.00
53	1.139	28.19	0.07	10.65	177.40	2.76	5.18	0.00	6.66	0.00	1.68	0.00	0.00	0.00	0.00	14.76	0.00	0.	0.00
54	1.062	28.27	0.07	10.62	177.21	2.82	5.36	0.00	6.83	0.00	1.74	0.00	0.00	0.00	0.00	14.76	0.00	0.	0.00
55	0.985	28.34	0.07	10.59	177.05	2.87	5.51	0.00	6.99	0.00	1.79	0.00	0.00	0.00	0.00	14.76	0.00	0.	0.00
56	0.908	28.41	0.07	10.56	176.90	2.92	5.66	0.00	7.13	0.00	1.84	0.00	0.00	0.00	0.00	14.75	0.00	0.	0.00
57	0.831	28.49	0.07	10.53	176.76	2.97	5.79	0.00	7.26	0.00	1.88	0.00	0.00	0.00	0.00	14.74	0.00	0.	0.00
58	0.754	28.56	0.07	10.50	176.62	3.01	5.92	0.00	7.39	0.00	1.92	0.00	0.00	0.00	0.00	14.74	0.00	0.	0.00
59	0.677	28.64	0.07	10.47	176.48	3.05	6.05	0.00	7.53	0.00	1.96	0.00	0.00	0.00	0.00	14.73	0.00	0.	0.00
60	0.600	28.71	0.07	10.41	176.26	3.09	6.24	0.00	7.72	0.00	2.02	0.00	0.00	0.00	0.00	14.73	0.00	0.	0.00

FINAL REPORT Grand Bayou
 REACH NO. 6 WHITMEL CANAL-LAKE VERRET

LITTLE GRAND BAYOU
 07/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
61	UPR RCH	3.80158	28.71	0.07	10.41	176.26	3.09	6.24	0.00	7.72	0.00	2.02	0.00	0.00	0.00	14.73	0.00	0.00
EACH	INCR	0.12500	0.00	0.07	9.31	171.42	3.45	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	
61	WSTLD	0.33300	28.73	0.07	8.80	172.00	2.90	9.37	0.00	9.37	0.00	2.47	0.00	0.00	0.00	23.80	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
61	0.60	0.54	4.25958	11.6	0.04684	0.01	1.38	66.14	5456.71	3968.52	90.95	3685.12	0.001	1.832	0.047
62	0.54	0.48	4.38458	11.3	0.04821	0.01	1.38	66.14	5456.71	3968.52	90.95	3962.91	0.001	1.886	0.048
63	0.48	0.42	4.50958	11.0	0.04959	0.01	1.38	66.14	5456.71	3968.52	90.95	4240.71	0.001	1.939	0.050
64	0.42	0.36	4.63458	10.7	0.05096	0.01	1.38	66.14	5456.71	3968.52	90.95	4518.51	0.001	1.993	0.051
65	0.36	0.30	4.75958	10.4	0.05233	0.01	1.38	66.14	5456.71	3968.52	90.95	4796.30	0.001	2.047	0.052
66	0.30	0.24	4.88458	10.1	0.05371	0.01	1.38	66.14	5456.71	3968.52	90.95	5074.10	0.001	2.101	0.054

67	0.24	0.18	5.00958	9.9	0.05508	0.01	1.38	66.14	5456.71	3968.52	90.95	5351.89	0.001	2.155	0.055
68	0.18	0.12	5.13458	9.6	0.05646	0.01	1.38	66.14	5456.71	3968.52	90.95	5629.69	0.001	2.208	0.056
69	0.12	0.06	5.25958	9.4	0.05783	0.01	1.38	66.14	5456.71	3968.52	90.95	5907.49	0.001	2.262	0.058
70	0.06	0.00	5.38458	9.2	0.05921	0.01	1.38	66.14	5456.71	3968.52	90.95	6185.28	0.002	2.316	0.059
TOT						0.13			54567.15	39685.20					
AVG					0.0527		1.38	66.14			90.95				
CUM						1.72									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
61	0.540	7.73	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.15	0.06	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00
62	0.480	7.72	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.16	0.06	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00
63	0.420	7.72	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.16	0.06	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00
64	0.360	7.72	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.16	0.06	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00
65	0.300	7.72	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.16	0.06	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00
66	0.240	7.72	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.16	0.06	0.00	0.00	0.00	0.00	1.11	0.00	0.00	0.00	0.00
67	0.180	7.71	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.16	0.06	0.00	0.00	0.00	0.00	1.11	0.00	0.00	0.00	0.00
68	0.120	7.71	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.16	0.06	0.00	0.00	0.00	0.00	1.11	0.00	0.00	0.00	0.00
69	0.060	7.71	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.16	0.06	0.00	0.00	0.00	0.00	1.11	0.00	0.00	0.00	0.00
70	0.000	7.71	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.16	0.06	0.00	0.00	0.00	0.00	1.11	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.51	0.08	0.05	0.00	0.00	0.05	0.00	0.50			0.11	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
61	0.540	28.72	0.07	10.29	175.88	3.13	6.56	0.00	8.03	0.00	2.11	0.00	0.00	0.00	0.00	14.74	0.00	0.	0.00
62	0.480	28.74	0.07	10.26	175.75	3.16	6.68	0.00	8.15	0.00	2.17	0.00	0.00	0.00	0.00	14.74	0.00	0.	0.00
63	0.420	28.75	0.07	10.24	175.63	3.20	6.79	0.00	8.27	0.00	2.22	0.00	0.00	0.00	0.00	14.75	0.00	0.	0.00
64	0.360	28.76	0.07	10.21	175.52	3.23	6.90	0.00	8.38	0.00	2.27	0.00	0.00	0.00	0.00	14.76	0.00	0.	0.00
65	0.300	28.77	0.07	10.19	175.40	3.26	7.01	0.00	8.48	0.00	2.32	0.00	0.00	0.00	0.00	14.77	0.00	0.	0.00
66	0.240	28.79	0.07	10.16	175.26	3.29	7.10	0.00	8.58	0.00	2.37	0.00	0.00	0.00	0.00	14.77	0.00	0.	0.00
67	0.180	28.80	0.07	10.12	175.08	3.32	7.19	0.00	8.67	0.00	2.41	0.00	0.00	0.00	0.00	14.78	0.00	0.	0.00
68	0.120	28.81	0.07	10.05	174.78	3.35	7.26	0.00	8.74	0.00	2.44	0.00	0.00	0.00	0.00	14.79	0.00	0.	0.00
69	0.060	28.83	0.07	9.91	174.16	3.40	7.30	0.00	8.78	0.00	2.46	0.00	0.00	0.00	0.00	14.79	0.00	0.	0.00

70 0.000 28.84 0.07 9.59 172.74 3.47 7.28 0.00 8.76 0.00 2.45 0.00 0.00 0.00 0.00 14.80 0.00 0. 0.00

STREAM SUMMARY
 Grand Bayou

LITTLE GRAND BAYOU
 07/17/07

TRAVEL TIME = 1.72 DAYS

MAXIMUM EFFLUENT = 19.12 PERCENT

FLOW = 0.16000 TO 5.38458 m³/s
 DISPERSION = 0.3515 TO 2.4944 m²/s
 VELOCITY = 0.01776 TO 0.08818 m/s
 DEPTH = 0.61 TO 1.38 m
 WIDTH = 14.84 TO 66.14 m

BOD DECAY = 0.01 TO 0.12 per day
 NH3 DECAY = 0.00 TO 0.00 per day
 SOD = 0.83 TO 10.75 g/m²/d
 NH3 SOURCE = 0.00 TO 0.00 g/m²/d
 REAERATION = 0.60 TO 2.63 per day
 BOD SETTLING = 0.06 TO 0.06 per day
 NBOD DECAY = 0.00 TO 0.16 per day
 NBOD SETTLING = 0.06 TO 0.06 per day

TEMPERATURE = 26.62 TO 28.84 deg C
 DISSOLVED OXYGEN = 0.16 TO 3.47 mg/L

.....EXECUTION COMPLETED

Justifications

Little Grand Bayou Calibration

DATA TYPE 3 - PROGRAM CONSTANTS			
CONSTANT NAME	VALUE	UNITS	DATA SOURCE
DISPERSION EQUATION	3		Dispersion calibrated using measured values at two sites
TIDE HEIGHT	0.07	meters	Continuous Monitor data, site GRB9
KL MINIMUM	0.7	m/day	Louisiana Standard Practice
INHIBITION CONTROL VALUE	3		Louisiana Standard Practice
EFFECTIVE BOD DUE TO ALGAE	0.1	mg/L BOD /ug chl a/ day	BPJ and calibration
ALGAE OXYGEN PRODUCTION	0.05	mg O / ug chl a / day	BPJ and calibration
K2 MAXIMUM	25	1/day at 20 deg C	Louisiana Standard Practice
HYDRAULIC CALCULATION METHOD	2		Louisiana Standard Practice
SETTLING RATE UNITS	2		Louisiana Standard Practice

DATA TYPE 8 - REACH IDENTIFICATION DATA						
Reach	ID	Name	Upstream River Kilometer	Downstream River Kilometer	Element Length, km	Data Source
1	GB	GRAND BAYOU-RKM 5.40	6.62	5.40	0.1220	
2	GB	RKM 5.40-WESTFIELD CANAL	5.40	3.78	0.1080	
3	GB	WESTFIELD CANAL-RKM 2.16	3.78	2.16	0.1080	
4	GB	RKM 2.16-RKM 1.37	2.16	1.37	0.0790	
5	GB	RKM 1.37-WHITMEL CANAL	1.37	0.60	0.0770	
6	GB	WHITMEL CANAL-LAKE VERRET	0.60	0.00	0.0600	

Little Grand Bayou Calibration

Reach	Name	DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS			
		Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. "d"	Depth Exp. "e"	Depth Const. "f"	Data Source	Slope (unitless)	Data Source	Manning's "n"	Data Source
1	GRAND BAYOU-RKM 5.40	0	0	14.844	Field Data, Site LGBY1	0	0	0.607	Field Data, Site LGBY1	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
2	RKM 5.40-WESTFIELD CANAL	0	0	20.000	Estimate of field data between Sites LGBY1 and LGBY3	0	0	0.625	Estimate of field data between Sites LGBY1 and LGBY3	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
3	WESTFIELD CANAL-RKM 2.16	0	0	27.737	Field Data, Site LGBY3	0	0	0.640	Field Data, Site LGBY3	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
4	RKM 2.16-RKM 1.37	0	0	29.000	Field Data, Site LGBY4	0	0	0.900	Estimate of field data between Sites LGBY3, LGBY4 and LGBY5	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
5	RKM 1.37-WHITMEL CANAL	0	0	45.000	Estimate of field data between Sites LGBY4 and LGBY5	0	0	1.100	Estimate of field data between Sites LGBY3, LGBY4 and LGBY5	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
6	WHITMEL CANAL-LAKE VERRET	0	0	66.142	Field Data, Site LGBY5	0	0	1.375	Field Data, Site LGBY5	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook

Reach	Name	DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS				Data Source
		Tidal Range	Data Source	Dispersion Coeff. "a"	Dispersion Coeff. "b"	Dispersion Coeff. "c"	Dispersion Coeff. "d"	
1	GRAND BAYOU-RKM 5.40	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
2	RKM 5.40-WESTFIELD CANAL	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
3	WESTFIELD CANAL-RKM 2.16	0.25	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
4	RKM 2.16-RKM 1.37	0.50	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
5	RKM 1.37-WHITMEL CANAL	0.75	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
6	WHITMEL CANAL-LAKE VERRET	1.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"

Little Grand Bayou Calibration

Reach	Name	DATA TYPE 11 - INITIAL CONDITIONS			DATA TYPE 11 - INITIAL CONDITIONS			
		Temp, deg C	Sal, ppt	DO, mg/l	Data Source	Chlorophyll <u>a</u>	Macrophytes	Data Source
1	GRAND BAYOU-RKM 5.40	27.61	0.07	2.29	Mathematical interpolations of Field and Lab data based on physical location in reference to Site locations.	15.12	0	Mathematical interpolations of Field and Lab data based on physical location in reference to Site locations.
2	RKM 5.40-WESTFIELD CANAL	26.62	0.07	0.47		15.02	0	
3	WESTFIELD CANAL-RKM 2.16	27.15	0.08	1.28		14.91	0	
4	RKM 2.16-RKM 1.37	27.55	0.07	2.27		14.83	0	
5	RKM 1.37-WHITMEL CANAL	27.97	0.07	2.88		14.78	0	
6	WHITMEL CANAL-LAKE VERRET	28.71	0.07	3.45		14.73	0	

REACH	NAME	DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS			DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS			DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS	
		K ₂ OPT	Data Source	BKGRND SOD, gmO ₂ /m ² /day at 20 deg C	Data Source	Aerobic BOD1 Dec Rate (1/day)	Data Source	BOD1 SETT RATE (1/day)	Data Source
1	GRAND BAYOU-RKM 5.40	4	Owens-Edwards-Gibbs	3.50	Calibration	0.064	Mathematical interpolations of Lab bottle rates based on physical location in reference to Site locations.	0.05	LTP, BPJ and calibration
2	RKM 5.40-WESTFIELD CANAL	4	Owens-Edwards-Gibbs	6.85	Calibration	0.056		0.05	LTP, BPJ and calibration
3	WESTFIELD CANAL-RKM 2.16	4	Owens-Edwards-Gibbs	4.00	Calibration	0.058		0.05	LTP, BPJ and calibration
4	RKM 2.16-RKM 1.37	4	Owens-Edwards-Gibbs	2.00	Calibration	0.057		0.05	LTP, BPJ and calibration
5	RKM 1.37-WHITMEL CANAL	4	Owens-Edwards-Gibbs	0.50	Calibration	0.064		0.05	LTP, BPJ and calibration
6	WHITMEL CANAL-LAKE VERRET	4	Owens-Edwards-Gibbs	0.50	Calibration	0.082		0.05	LTP, BPJ and calibration

Little Grand Bayou Calibration

DATA TYPE 13 - NITROGEN AND PHOSPHORUS COEFFICIENTS									
Reach	Name	NBOD decay rate, 1/day	NBOD settling rate, 1/day	Data Source	Settled Org-N conv. to ammonia benthos source rate	Data Source			
1	GRAND BAYOU-RKM 5.40	0.111	0.05	Mathematical interpolations of Lab bottle rates based on physical location in reference to Site locations.	1.00				
2	RKM 5.40-WESTFIELD CANAL	0.132	0.05		1.00				
3	WESTFIELD CANAL-RKM 2.16	0.121	0.05		1.00				
4	RKM 2.16-RKM 1.37	0.102	0.05		1.00				
5	RKM 1.37-WHITMEL CANAL	0.099	0.05		1.00				
6	WHITMEL CANAL-LAKE VERRET	0.107	0.05		1.00				
DATA TYPE 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVE									
Reach	Reach Name	Incr. Outflow, m ³	Incr. Inflow, m ³	Data Source	Temp, deg C	Sal., ppt	Cons. Mat I Chlorides	Cons. Mat II Conductivity	Data Source
1	GRAND BAYOU-RKM 5.40		0.200	BPJ and calibration		0.07	11.44	183.13	Values set to match in-stream values based on mathematical interpolation of Field and Lab data.
2	RKM 5.40-WESTFIELD CANAL		0.300			0.07	10.67	174.82	
3	WESTFIELD CANAL-RKM 2.16		0.650			0.08	10.86	178.70	
4	RKM 2.16-RKM 1.37		0.850			0.07	10.57	177.35	
5	RKM 1.37-WHITMEL CANAL		1.500			0.07	9.97	173.80	
6	WHITMEL CANAL-LAKE VERRET		1.250			0.07	9.31	171.42	

Little Grand Bayou Calibration

DATA TYPE 17 - INCREMENTAL DATA FOR DO, BOD, AND NITROGEN									
Reach	Reach Name	DO, mg/l	UCBOD1, mg/l	ORG-N, mg/l	NBOD, mg/L	NH ³ -N, mg/L	NO ₂ +NO ₃ , mg/L	UCBOD2, mg/l	Data Source
1	GRAND BAYOU-RKM 5.40	2.29							Values set to match in-stream values based on mathematical interpolation of Field and Lab data.
2	RKM 5.40-WESTFIELD CANAL	0.47							
3	WESTFIELD CANAL-RKM 2.16	1.28							
4	RKM 2.16-RKM 1.37	2.27							
5	RKM 1.37-WHITMEL CANAL	2.88							
6	WHITMEL CANAL-LAKE VERRET	3.45							

DATA TYPE 19 - NONPOINT SOURCES					
Reach	Reach Name	Length of Reach, km	UCBOD1, kg/day	NBOD, kg/day	Data Source
1	GRAND BAYOU-RKM 5.40	1.22	100	30	Calibration
2	RKM 5.40-WESTFIELD CANAL	1.62	150	30	Calibration
3	WESTFIELD CANAL-RKM 2.16	1.62	200	85	Calibration
4	RKM 2.16-RKM 1.37	0.79	300	100	Calibration
5	RKM 1.37-WHITMEL CANAL	0.77	1150	375	Calibration
6	WHITMEL CANAL-LAKE VERRET	0.60	1250	475	Calibration

Little Grand Bayou Calibration

DATA TYPE 20 - HEADWATER DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES								
Headwater Name	Element No.	Logical Unit Number	Headwater Flow, cms	Temp, deg C	Salinity, ppt	Conservative Material I Chlorides	Conservative Material II Conductivity	Data Source
Grand Bayou	1		0.14	27.98	0.07	11.7	186	Site LGBY1 data

DATA TYPE 21 - HEADWATER DATA FOR DO, BOD, AND NITROGEN				
Headwater Name	Dissolved Oxygen, mg/L	UCBOD1, mg/l	NBOD, mg/l	Data Source
Grand Bayou	2.92	6.82	1.46	Site LGBY1 data

DATA TYPE 22 - HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES					
Headwater Name	Phosphorus, mg/L	Chlorophyll a, ug/L	Coliform, #/100 mL	Nonconservative Material	Date Source
Grand Bayou		19.41			Site LGBY1 Lab data

Little Grand Bayou Calibration

DATA TYPE 24 - WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES							
Wasteload / Withdrawal Name	EL #	Flow, cms	Temperature, deg C	Salinity	Conservative Material I Chlorides	Conservative Material II Conductivity	Data Source
Westfield Canal	26	0.16158	26.85	0.07	10.5	174	Survey data, Site WC1
Whitmel Canal	61	0.333	28.73	0.07	8.8	172	Survey data, Site WCL1

DATA TYPE 25 - WASTELOAD DATA FOR DO, BOD, AND NITROGEN						
Wasteload / Withdrawal Name	EL #	DO, mg/l	UCBOD1, mg/l	BOD decayed, percent	UNBOD, mg/l	Data Source
Westfield Canal	26	1.31	7.94		2.77	Survey data, Site WC1
Whitmel Canal	61	2.90	9.37		2.47	Survey data, Site WCL1

DATA TYPE 26 - WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES						
Wasteload / Withdrawal Name	EL #	Phosphorus, mg/L	Chlorophyll-A, ug/L	Coliform, #/100 mL	Nonconservative Material	Data Source
Westfield Canal	26		23.8			Lab reading for Site BA1
Whitmel Canal	61		23.8			Lab reading for Site BA1

Little Grand Bayou Calibration

DATA TYPE 27 - LOWER BOUNDARY CONDITIONS			
Parameter	Value	Units	Data Source
TEMPERATURE	28.84	oCelcius	Field and Lab data, Site LV2
SALINITY	0.07	ppt	
CONSERVATIVE MATERIAL I CHLORIDES	9.2	mg/L	
CONSERVATIVE MATERIAL II CONDUCTIVITY	171	mg/L	
DISSOLVED OXYGEN	3.55	mg/L	
BIOCHEMICAL OXYGEN DEMAND 1	8.663	mg/L	
NBOD	2.416	mg/L	
PHOSPHORUS	0	mg/L	
CHLOROPHYLL A	14.8	ug/L	
COLIFORM	0	#/100 mL	
NONCONSERVATIVE MATERIAL	0	mg/L	

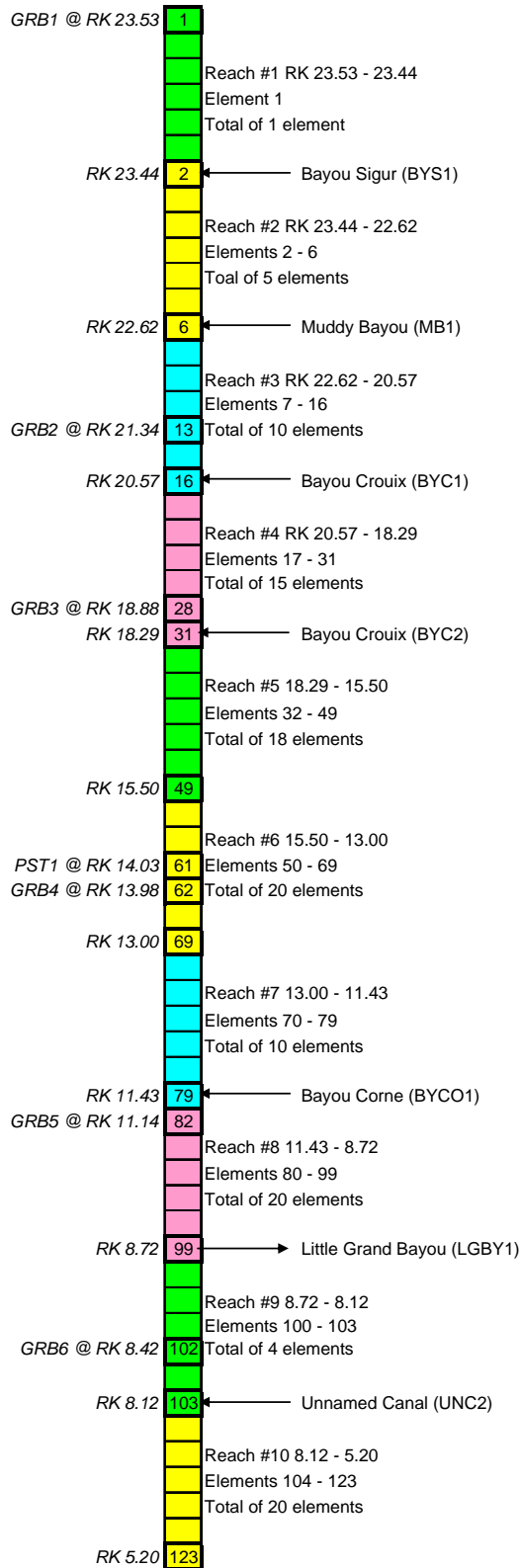
Appendix C – Calibration Model Development

Appendix C1 – Grand Bayou Calibration Model Development

Site Information

Grand Bayou 120206				
Site Number	Site Description	River Kilometer	X	Y
GRB1	Grand Bayou just up from confluence with Bayou Sigur	23.53	678657	3330241
BYS1	Bayou Sigur at confluence with Grand Bayou	23.44	678794	3330234
MB1	Muddy Bayou at confluence with Grand Bayou	22.62	678045	3329458
GRB2	Grand Bayou just downstream of confluence with Bayou Bijou	21.34	679068	3328725
BYC1	Bayou Crouix at confluence with Grand Bayou (about 1 km south of Bayou Bijou)	20.57	679389	3328059
GRB3	Grand Bayou north of Hwy 996 bridge	18.88	679546	3326442
BYC2	Bayou Crouix at confluence with Grand Bayou (south of Hwy 996 bridge)	18.29	679770	3326099
PST1	Point Source on north side of Hwy 70 bridge (travels via roadside ditch)	14.03	680175	3321979
GRB4	Grand Bayou at Hwy 70 bridge (LDEQ site 82) (south of bridge)	13.98	680209	3321937
BYCO1	Bayou Corne upstream of confluence with Grand Bayou	11.43	678860	3320586
GRB5	Grand Bayou midway between Bayou Corne and 1st unnamed canal	11.14	678683	3320230
LGBY1	Little Grand Bayou at confluence with Grand Bayou	8.72	678072	3318093
GRB6	Grand Bayou between Little Grand Bayou and 2nd unnamed canal (leading to Bayou Alcide)	8.42	677685	3318168
UNC2	2nd unnamed canal (leading to Bayou Alcide) at confluence with Grand Bayou	8.12	677320	3318113
EGB1	East Grand Bayou just off from Grand Bayou main channel	5.20	678314	3315684
GRB7	Grand Bayou between East Grand Bayou and Bayou Alcide	4.22	677280	3315683
BA1	Bayou Alcide at confluence with Grand Bayou	3.11	676265	3315766
GRB8	Grand Bayou upstream from confluence with Little Bayou Long	1.66	676220	3314663
LBL1	Little Bayou Long at confluence with Grand Bayou	1.20	676598	3314557
GRB9	Grand Bayou before emptying into Lake Verret	0.22	675646	3314128
LV1	Lake Verret out from the mouth of Grand Bayou	Lower Boundary	674743	3313816

Vector Diagram

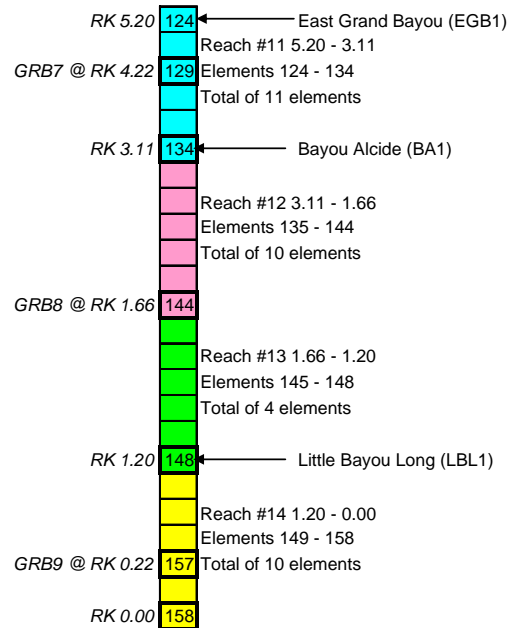


Grand Bayou Vector Diagram

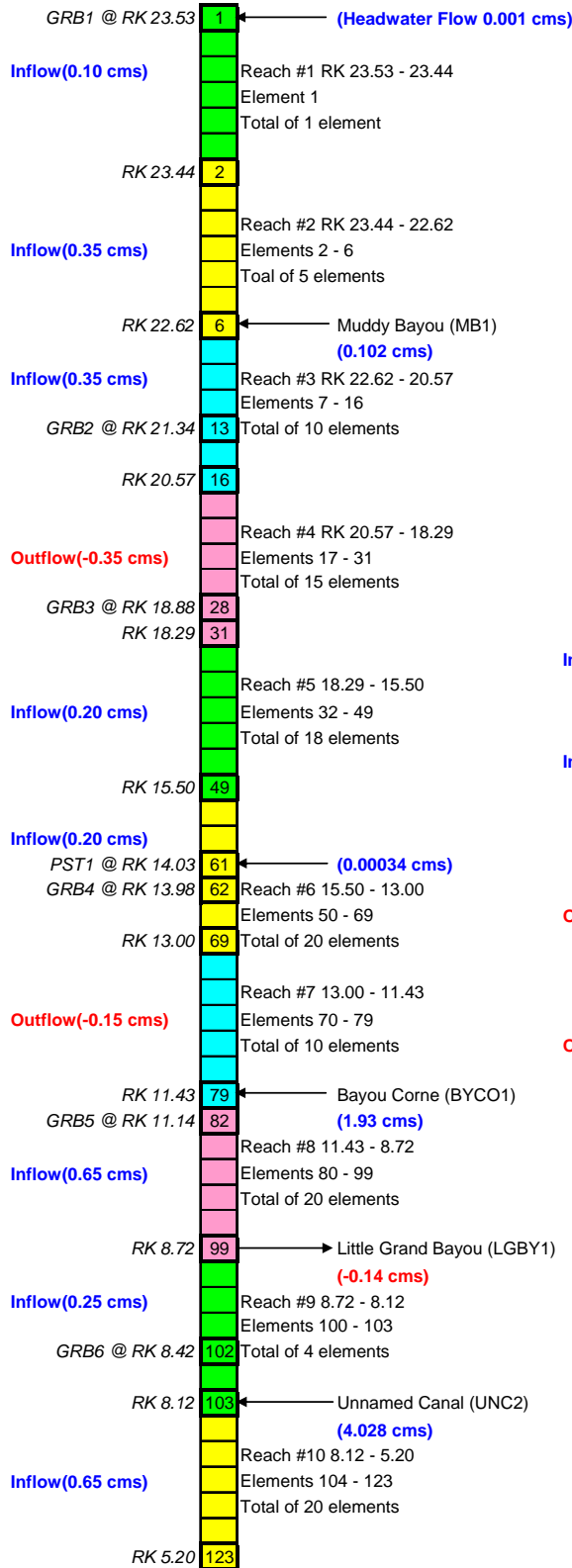
LEGEND:

← TRIBUTARY [11] ELEMENT NUMBER

□ SURVEY SITE



Flow Diagram

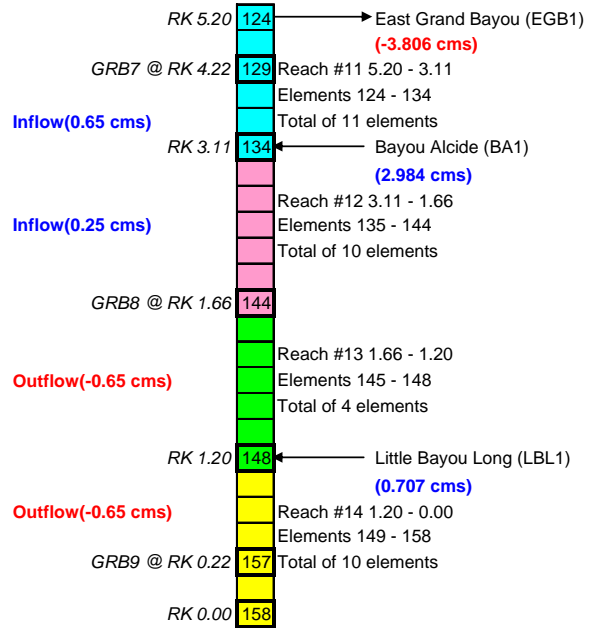


Grand Bayou Flow Diagram

LEGEND:

← TRIBUTARY [11] ELEMENT NUMBER

□ SURVEY SITE



Reach Setup

REACH AND ELEMENT LAYOUT FOR THE GRAND BAYOU LA-QUAL MODEL										
REACH	WATERBODY	REACH DESCRIPTION	BEGINNING RIVER KILOMETER R (km)	ENDING RIVER KILOMETER (km)	TOTAL LENGTH (km)	ELEMENT SIZE (km)	NUMBER OF ELEMENTS IN REACH	TOTAL NUMBER OF ELEMENTS	BEGINNING ELEMENT NUMBER	ENDING ELEMENT NUMBER
1	Grand Bayou	Site GRB1 - Bayou Sigur	23.53	23.44	0.09	0.090000	1	1	1	1
2	Grand Bayou	Bayou Sigur - Muddy Bayou	23.44	22.62	0.82	0.164000	5	6	2	6
3	Grand Bayou	Muddy Bayou - Bayou Crouix (BYC1)	22.62	20.57	2.05	0.205000	10	16	7	16
4	Grand Bayou	Bayou Crouix (BYC1) - Bayou Crouix (BYC2)	20.57	18.29	2.28	0.152000	15	31	17	31
5	Grand Bayou	Bayou Crouix (BYC2) - kilometer 15.5	18.29	15.50	2.79	0.155000	18	49	32	49
6	Grand Bayou	kilometer 15.5 - kilometer 13.0	15.50	13.00	2.50	0.125000	20	69	50	69
7	Grand Bayou	kilometer 13.0 - Bayou Corne	13.00	11.43	1.57	0.157000	10	79	70	79
8	Grand Bayou	Bayou Corne - Little Grand Bayou	11.43	8.72	2.71	0.135500	20	99	80	99
9	Grand Bayou	Little Grand Bayou - Unnamed Canal	8.72	8.12	0.60	0.150000	4	103	100	103
10	Grand Bayou	Unnamed Canal - East Grand Bayou	8.12	5.20	2.92	0.146000	20	123	104	123
11	Grand Bayou	East Grand Bayou - Bayou Alcide	5.20	3.11	2.09	0.190000	11	134	124	134
12	Grand Bayou	Bayou Alcide - Site GRB8	3.11	1.66	1.45	0.145000	10	144	135	144
13	Grand Bayou	Site GRB8 - Little Bayou Long	1.66	1.20	0.46	0.115000	4	148	145	148
14	Grand Bayou	Little Bayou Long - Lake Verret	1.20	0.00	1.20	0.120000	10	158	149	158
Totals					23.53		158			

Calibration Loading

Calibration Model Non-Point Load Equivalent Calculations:

Modeled stream or water body: **GRAND BAYOU (SUBSEGMENT 120206)**

Shaded cells are input values for calculations. If modeling the nitrogen series, be sure that column "I" is clear of all values.

REACH NUMBER & DESCRIPTION	Calibration Model Reach Length	Calibration Model Average Reach Width	Calibration Model Total UCBOB Nonpoint loading	Calibration Model Total UNBOD Nonpoint loading	Calibration Model Total UCBOB Nonpoint loading	Calibration Model Total UNBOD Nonpoint loading	Calibration Model SOD	Calibration Model TOTAL Benthic Load
	km	meters	kg O ₂ /day	kg O ₂ /day	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]
Reach 1--Site GRB1-Bayou Sigur	0.09	12.19	40.00	30.00	36.460	27.345	4.00	67.80
Reach 2--Bayou Sigur-Muddy Bayou	0.82	16.50	150.00	95.00	11.086	7.021	4.10	22.21
Reach 3--Muddy Bayou-Bayou Crouix(BYC1)	2.05	21.34	250.00	100.00	5.715	2.286	5.15	13.15
Reach 4--B Crouix(BYC1)-B Crouix(BYC2)	2.28	16.46	0.00	27.00	0.000	0.719	4.00	4.72
Reach 5--B Crouix(BYC2)-km 15.5	2.79	30.00	350.00	115.00	4.182	1.374	4.00	9.56
Reach 6--km 15.5-km 13.0	2.50	44.20	425.00	132.00	3.846	1.195	3.65	8.69
Reach 7--km 13.0-Bayou Corne	1.57	43.00	225.00	75.00	3.333	1.111	3.00	7.44
Reach 8--B Corne-Little Grand Bayou	2.71	42.06	675.00	245.00	5.922	2.149	2.00	10.07
Reach 9--Little Grand-Unnamed Canal	0.60	48.77	150.00	15.00	5.126	0.513	2.15	7.79
Reach 10--Unnamed Canal-E Grand Bayou	2.92	45.00	0.00	0.00	0.000	0.000	2.75	2.75
Reach 11--E Grand Bayou-Bayou Alcide	2.09	42.95	0.00	0.00	0.000	0.000	2.50	2.50
Reach 12--Bayou Alcide-Site GRB8	1.45	55.00	0.00	0.00	0.000	0.000	3.00	3.00
Reach 13--Site GRB8-Little Bayou Long	0.46	85.00	25.00	50.00	0.639	1.279	3.00	4.92
Reach 14--L Bayou Long-Lake Verret	1.20	152.40	140.00	250.00	0.766	1.367	3.00	5.13

Appendix C2 – Little Grand Bayou Calibration Model Development

Site Information

Little Grand Bayou 120206				
Site Number	Site Description	River Kilometer	X	Y
LGBY1	Little Grand Bayou at confluence with Grand Bayou	6.50	678072	3318093
LGBY2	Little Grand Bayou in wide area upstream from Westfield Canal	4.28	679242	3316454
WC1	Westfield Canal at confluence with Little Grand Bayou	3.78	679770	3316272
LGBY3	Little Grand Bayou upstream of canal leading to East Grand Bayou	2.44	679407	3315369
LGBY4	Little Grand Bayou at Hwy 402 (LDEQ site 980)	1.33	679657	3314321
WCL1	Whitmel Canal at confluence with Little Grand Bayou	0.60	679548	3313686
LGBY5	Little Grand Bayou before emptying into Lake Verret	0.18	679385	3313248
LV2	Lake Verret out from mouth of Little Grand Bayou	Lower Boundary	679031	3312880

Vector Diagram

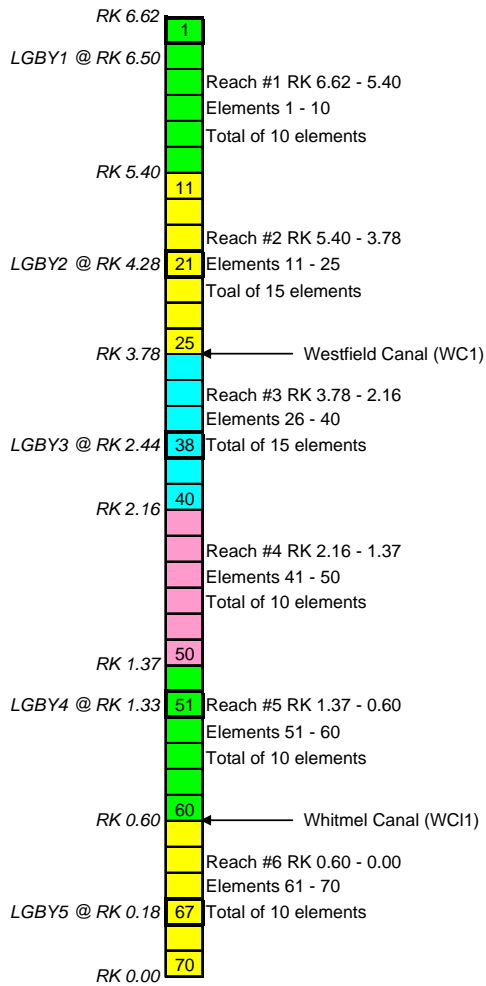
Little Grand Bayou Vector Diagram

LEGEND:

← TRIBUTARY

□ SURVEY SITE

11 ELEMENT NUMBER



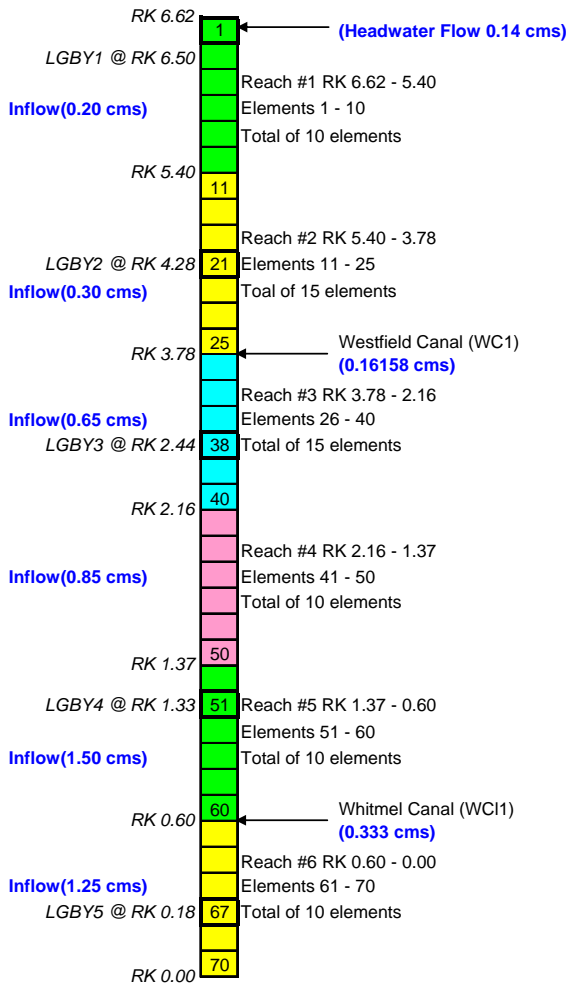
Flow Diagram

Little Grand Bayou Flow Diagram

LEGEND:

← TRIBUTARY 11 ELEMENT NUMBER

SURVEY SITE



Reach Setup

REACH AND ELEMENT LAYOUT FOR THE LITTLE GRAND BAYOU LA-QUAL MODEL										
REACH	WATERBODY	REACH DESCRIPTION	BEGINNING RIVER KILOMETER (km)	ENDING RIVER KILOMETER (km)	TOTAL LENGTH (km)	ELEMENT SIZE (km)	NUMBER OF ELEMENTS IN REACH	TOTAL NUMBER OF ELEMENTS	BEGINNING ELEMENT NUMBER	ENDING ELEMENT NUMBER
1	Little Grand Bayou	Grand Bayou - RKM 5.40	6.62	5.40	1.22	0.122000	10	10	1	10
2	Little Grand Bayou	RKM 5.40 - Westfield Canal	5.40	3.78	1.62	0.108000	15	25	11	25
3	Little Grand Bayou	Westfield Canal - RKM 2.16	3.78	2.16	1.62	0.108000	15	40	26	40
4	Little Grand Bayou	RKM 2.16 - RKM 1.37	2.16	1.37	0.79	0.079000	10	50	41	50
5	Little Grand Bayou	RKM 1.37 - Whitmel Canal	1.37	0.60	0.77	0.077000	10	60	51	60
6	Little Grand Bayou	Whitmel Canal - Lake Verret	0.60	0.00	0.60	0.060000	10	70	61	70
Totals					6.62		70			

Calibration Loading

Calibration Model Non-Point Load Equivalent Calculations:

Modeled stream or water body: **LITTLE GRAND BAYOU (SUBSEGMENT 120206)**

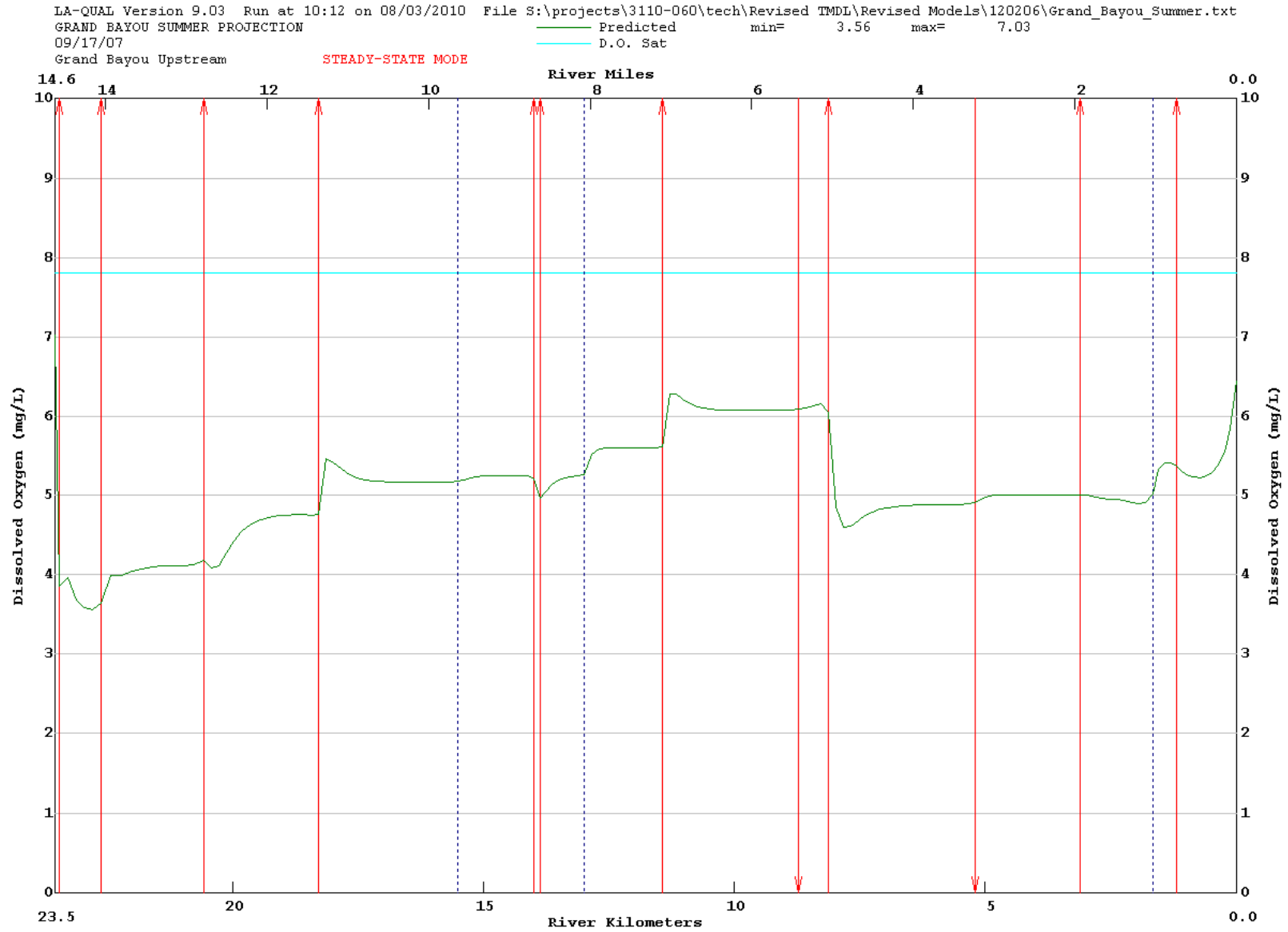
Shaded cells are input values for calculations. If modeling the nitrogen series, be sure that column "I" is clear of all values.

REACH NUMBER & DESCRIPTION	Calibration Model Reach Length	Calibration Model Average Reach Width	Calibration Model Total UCBOD Nonpoint loading	Calibration Model Total UNBOD Nonpoint loading	Calibration Model Total UCBOD Nonpoint loading	Calibration Model Total UNBOD Nonpoint loading	Calibration Model SOD	Calibration Model TOTAL Benthic Load
	km	meters	kg O ₂ /day	kg O ₂ /day	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]
Reach 1--Grand Bayou-RKM 5.40	1.22	14.84	100.00	30.00	5.523	1.657	3.50	10.68
Reach 2--RKM 5.40-Westfield Canal	1.62	20.00	150.00	30.00	4.630	0.926	6.85	12.41
Reach 3--Westfield Canal-RKM 2.16	1.62	27.74	200.00	85.00	4.450	1.891	4.00	10.34
Reach 4--RKM 2.16-RKM 1.37	0.79	29.00	300.00	100.00	13.095	4.365	2.00	19.46
Reach 5--RKM 1.37-Whitmel Canal	0.77	45.00	1150.00	375.00	33.189	10.823	0.50	44.51
Reach 6--Whitmel Canal-Lake Verret	0.60	66.14	1250.00	475.00	31.499	11.970	0.50	43.97

Appendix D – Projection Model Input and Output Data Sets

Appendix D1 – Grand Bayou Summer Projection

Graphs



Input File

```
CNTROL01 GRAND BAYOU SUMMER PROJECTION
CNTROL02 09/17/07
CNTROL12 YES METRIC UNITS
ENDATA01
MODOPT01 NO TEMPERATURE
MODOPT02 YES SALINITY
MODOPT03 YES CONSERVATIVE MATERIAL I = CHLORIDES IN MG/L
MODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY IN MG/L
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT07 NO BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08 YES NBOD OXYGEN DEMAND
MODOPT09 NO PHOSPHORUS
MODOPT10 NO CHLOROPHYLL A
MODOPT11 NO MACROPHYTES
MODOPT12 NO COLIFORM
MODOPT13 NO NONCONSERVATIVE MATERIAL
ENDATA02
PROGRAM DISPERSION EQUATION = 3
PROGRAM TIDE HEIGHT = 0.07
PROGRAM KL MINIMUM = 0.7
PROGRAM INHIBITION CONTROL VALUE = 3.0
PROGRAM EFFECTIVE BOD DUE TO ALGAE = 0.10
PROGRAM ALGAE OXYGEN PRODUCTION = 0.05
PROGRAM K2 MAXIMUM = 25.0
PROGRAM HYDRAULIC CALCULATION METHOD = 2.0
PROGRAM SETTLING RATE UNITS = 2.0
ENDATA03
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
ENDATA04
ENDATA05
ENDATA06
ENDATA07
!Reach Identification Data
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
*** -- *****
REACH ID 1 GB SITE GRB1-BAYOU SIGUR 23.53 23.44 0.090
REACH ID 2 GB BAYOU SIGUR-MUDDY BAYOU 23.44 22.62 0.164
REACH ID 3 GB MUDDY BAYOU-BAYOU CROUUX(BYC1) 22.62 20.57 0.205
REACH ID 4 GB B CROUUX(BYC1)-B CROUUX(BYC2) 20.57 18.29 0.152
REACH ID 5 GB B CROUUX(BYC2)-km 15.5 18.29 15.50 0.155
REACH ID 6 GB km 15.5-km 13.0 15.50 13.00 0.125
REACH ID 7 GB km 13.0-BAYOU CORNE 13.00 11.43 0.157
REACH ID 8 GB B CORNE-LITTLE GRAND BAYOU 11.43 8.72 0.1355
REACH ID 9 GB LITTLE GRAND-UNNAMED CANAL 8.72 8.12 0.150
REACH ID 10 GB UNNAMED CANAL-E GRAND BAYOU 8.12 5.20 0.146
REACH ID 11 GB E GRAND BAYOU-BAYOU ALCIDE 5.20 3.11 0.190
REACH ID 12 GB BAYOU ALCIDE-SITE GRB8 3.11 1.66 0.145
REACH ID 13 GB SITE GRB8-LITTLE BAYOU LONG 1.66 1.20 0.115
REACH ID 14 GB L BAYOU LONG-LAKE VERRET 1.20 0.00 0.120
ENDATA08
!Advective Hydraulic Coefficients
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
*** -----
HYDR-1 1 0.0000 0.0000 12.192 0.000 0.000 0.853 0.0001 0.035
HYDR-1 2 0.0000 0.0000 16.50 0.000 0.000 0.90 0.0001 0.035
HYDR-1 3 0.0000 0.0000 21.336 0.000 0.000 1.006 0.0001 0.035
HYDR-1 4 0.0000 0.0000 16.459 0.000 0.000 1.570 0.0001 0.035
HYDR-1 5 0.0000 0.0000 30.00 0.000 0.000 1.55 0.0001 0.035
HYDR-1 6 0.0000 0.0000 44.196 0.000 0.000 1.515 0.0001 0.035
HYDR-1 7 0.0000 0.0000 43.00 0.000 0.000 1.55 0.0001 0.035
HYDR-1 8 0.0000 0.0000 42.062 0.000 0.000 1.622 0.0001 0.035
HYDR-1 9 0.0000 0.0000 48.768 0.000 0.000 1.478 0.0001 0.035
HYDR-1 10 0.0000 0.0000 45.00 0.000 0.000 1.55 0.0001 0.035
HYDR-1 11 0.0000 0.0000 42.946 0.000 0.000 1.615 0.0001 0.035
```

HYDR-1	12	0.0000	0.0000	55.00	0.000	0.000	1.734	0.0001	0.035
HYDR-1	13	0.0000	0.0000	85.00	0.000	0.000	1.50	0.0001	0.035
HYDR-1	14	0.0000	0.0000	152.400	0.000	0.000	1.225	0.0001	0.035

ENDATA09

!Dispersive Hydraulic Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8

!234567890123456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****

HYDR-2	1	0.00	30.00	0.833	0.00	1.00
HYDR-2	2	0.00	30.00	0.833	0.00	1.00
HYDR-2	3	0.00	30.00	0.833	0.00	1.00
HYDR-2	4	0.00	30.00	0.833	0.00	1.00
HYDR-2	5	0.00	30.00	0.833	0.00	1.00
HYDR-2	6	0.00	30.00	0.833	0.00	1.00
HYDR-2	7	0.10	30.00	0.833	0.00	1.00
HYDR-2	8	0.25	30.00	0.833	0.00	1.00
HYDR-2	9	0.286	30.00	0.833	0.00	1.00
HYDR-2	10	0.50	30.00	0.833	0.00	1.00
HYDR-2	11	0.75	30.00	0.833	0.00	1.00
HYDR-2	12	0.80	30.00	0.833	0.00	1.00
HYDR-2	13	1.00	30.00	0.833	0.00	1.00
HYDR-2	14	1.00	30.00	0.833	0.00	1.00

ENDATA10

!Initial Conditions

!-----1-----2-----3-----4-----5-----6-----7-----8

!234567890123456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****

INITIAL	1	28.13	0.15	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	2	28.13	0.14	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	3	28.13	0.11	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	4	28.13	0.09	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	5	28.13	0.09	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	6	28.13	0.10	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	7	28.13	0.08	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	8	28.13	0.07	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	9	28.13	0.07	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	10	28.13	0.07	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	11	28.13	0.08	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	12	28.13	0.08	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	13	28.13	0.08	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	14	28.13	0.07	5.00	0.000	0.000	0.00	10.00	00.00

ENDATA11

!-----1-----2-----3-----4-----5-----6-----7-----8-----9-----0-

!23456789012345678901234567890123456789012345678901234567890123456789012345678901

! *** -----*****-----*****-----*****-----*****-----*****

COEF-1	1	4	0.00	0.000	0.000	0.652	0.084	0.05	0.05
COEF-1	2	4	0.00	0.000	0.000	0.882	0.081	0.05	0.05
COEF-1	3	4	0.00	0.000	0.000	1.384	0.074	0.05	0.05
COEF-1	4	4	0.00	0.000	0.000	2.012	0.067	0.05	0.05
COEF-1	5	4	0.00	0.000	0.000	1.272	0.071	0.05	0.05
COEF-1	6	4	0.00	0.000	0.000	1.226	0.078	0.05	0.05
COEF-1	7	4	0.00	0.000	0.000	1.108	0.068	0.05	0.05
COEF-1	8	4	0.00	0.000	0.000	0.618	0.054	0.05	0.05
COEF-1	9	4	0.00	0.000	0.000	0.772	0.052	0.05	0.05
COEF-1	10	4	0.00	0.000	0.000	2.103	0.054	0.05	0.05
COEF-1	11	4	0.00	0.000	0.000	2.069	0.057	0.05	0.05
COEF-1	12	4	0.00	0.000	0.000	2.138	0.055	0.05	0.05
COEF-1	13	4	0.00	0.000	0.000	1.465	0.055	0.05	0.05
COEF-1	14	4	0.00	0.000	0.000	1.421	0.061	0.05	0.05

ENDATA12

!Nitrogen and Phosphorus Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8

!234567890123456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****

COEF-2	1	0.115	0.05	1.0	0.00	0.00	0.00	0.00	0.00
COEF-2	2	0.112	0.05	1.0	0.00	0.00	0.00	0.00	0.00
COEF-2	3	0.105	0.05	1.0	0.00	0.00	0.00	0.00	0.00
COEF-2	4	0.099	0.05	1.0	0.00	0.00	0.00	0.00	0.00
COEF-2	5	0.100	0.05	1.0	0.00	0.00	0.00	0.00	0.00
COEF-2	6	0.104	0.05	1.0	0.00	0.00	0.00	0.00	0.00
COEF-2	7	0.120	0.05	1.0	0.00	0.00	0.00	0.00	0.00

COEF-2	8	0.138	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	9	0.091	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	10	0.094	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	11	0.098	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	12	0.092	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	13	0.091	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	14	0.097	0.05	1.0	0.00	0.00	0.00	0.00

ENDATA13

!Algae and Macrophyte Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! *** -----*****-----*****-----*****-----*****

ENDATA14

!Coliform and Nonconservative Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! *** -----*****-----*****-----*****

ENDATA15

!Incremental Data for Flow, Temperature, Salinity, and Conservatives

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! *** -----*****-----*****-----*****

ENDATA16

!Incremental Data for DO, BOD, and Nitrogen

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! *** -----*****-----*****-----*****

ENDATA17

!Incremental Data for Phosphorus, Chlorophyll, Coliform and Nonconservatives

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! *** -----*****-----*****-----*****

ENDATA18

!Nonpoint Source Data

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! *** -----*****-----*****-----*****

NONPOINT	1	6.520	4.890
NONPOINT	2	32.280	20.440
NONPOINT	3	67.170	26.870
NONPOINT	4	0.000	13.580
NONPOINT	5	111.310	36.570
NONPOINT	6	142.790	44.350
NONPOINT	7	83.080	27.690
NONPOINT	8	208.420	75.650
NONPOINT	9	53.850	5.380
NONPOINT	10	0.000	0.000
NONPOINT	11	0.000	0.000
NONPOINT	12	0.000	0.000
NONPOINT	13	12.210	24.410
NONPOINT	14	66.300	118.400

ENDATA19

!Headwater Data for Flow, Temperature, Salinity, and Conservatives

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! **** -----*****-----*****-----*****

HDWTR-1 1 Grand Bayou Upstream 0. 0.00283 28.13 0.15 13.60 300.80

ENDATA20

!Headwater Data for DO, BOD, and Nitrogen

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! **** -----*****-----*****-----*****

HDWTR-2 1 7.03 3.69 3.67 0.000 0.00 0.000

ENDATA21

!Headwater Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! **** -----*****-----*****-----*****

HDWTR-3 1 0.00 10.00 0.00 0.00

ENDATA22

!Junction Data

ENDATA28

!SENSIT	BASEFLOW	30.0	-30.0
!SENSIT	VELOCITY	30.0	-30.0
!SENSIT	DEPTH	30.0	-30.0
!SENSIT	DISPERSI	30.0	-30.0
!SENSIT	REAERATI	30.0	-30.0
!SENSIT	BOD DECA	30.0	-30.0
!SENSIT	BOD SETT	30.0	-30.0
!SENSIT	NBOD DEC	30.0	-30.0
!SENSIT	NBOD SET	30.0	-30.0
!SENSIT	BENTHAL	30.0	-30.0
!SENSIT	TEMPERAT	2.0	-2.0
!SENSIT	HDW FLOW	30.0	-30.0
!SENSIT	HDW TEMP	2.0	-2.0
!SENSIT	HDW DO	30.0	-30.0
!SENSIT	HDW BOD	30.0	-30.0
!SENSIT	HDW NBOD	30.0	-30.0
!SENSIT	WSL FLOW	30.0	-30.0
!SENSIT	WSL TEMP	2.0	-2.0
!SENSIT	WSL DO	30.0	-30.0
!SENSIT	WSL BOD	30.0	-30.0
!SENSIT	WSL NBOD	30.0	-30.0
!SENSIT	LBC TEMP	2.0	-2.0
!SENSIT	LBC DO	30.0	-30.0
!SENSIT	LBC BOD	30.0	-30.0
!SENSIT	LBC NBOD	30.0	-30.0
!SENSIT	NPS BOD	30.0	-30.0
!SENSIT	NPS NBOD	30.0	-30.0

ENDATA29

NUMBER OF PLOTS = 1

NUMBER OF REACHES IN PLOT 1 = 14

PLOT RCH 1 2 3 4 5 6 7 8 9 10 11 12 13 14

ENDATA30

!OVERLAY 1 OVERLAY GBProjection.TXT :REACHES 1-14

ENDATA31

Output File

LA-QUAL Version 9.03
 Louisiana Department of Environmental Quality

Input file is S:\projects\3110-060\tech\Revised TMDL\Revised Models\120206\Grand_Bayou_Summer.txt
 Running in steady-state mode using LA defaults
 Output produced at 10:17 on 06/25/2010

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE	CONTROL TITLES
TITLE01	GRAND BAYOU SUMMER PROJECTION
TITLE02	09/17/07
CONTROL12	YES METRIC UNITS
ENDATA01	

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE	MODEL OPTION
MODEPT01	NO TEMPERATURE
MODEPT02	YES SALINITY
MODEPT03	YES CONSERVATIVE MATERIAL I = CHLORIDES IN MG/L
MODEPT04	YES CONSERVATIVE MATERIAL II = CONDUCTIVITY IN MG/L
MODEPT05	YES DISSOLVED OXYGEN
MODEPT06	YES BOD1 BIOCHEMICAL OXYGEN DEMAND
MODEPT07	NO BOD2 BIOCHEMICAL OXYGEN DEMAND
MODEPT08	YES NBOD OXYGEN DEMAND
MODEPT09	NO PHOSPHORUS
MODEPT10	NO CHLOROPHYLL A
MODEPT11	NO MACROPHYTES
MODEPT12	NO COLIFORM
MODEPT13	NO NONCONSERVATIVE MATERIAL
ENDATA02	

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
PROGRAM	DISPERSION EQUATION	= 3.00000 (values entered as a function of D,Q,Vmean)
PROGRAM	TIDE HEIGHT	= 0.07000 meters
PROGRAM	KL MINIMUM	= 0.70000 meters/day
PROGRAM	INHIBITION CONTROL VALUE	= 3.00000 (inhibit all rates but SOD)
PROGRAM	EFFECTIVE BOD DUE TO ALGAE	= 0.10000 mg/L BOD1 per ug/L chl a
PROGRAM	ALGAE OXYGEN PRODUCTION	= 0.05000 mg O/ug chl a/day
PROGRAM	K2 MAXIMUM	= 25.00000 per day
PROGRAM	HYDRAULIC CALCULATION METHOD	= 2.00000 (widths and depths)
PROGRAM	SETTLING RATE UNITS	= 2.00000 (values entered as per day)
ENDATA03		

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE	RATE CODE	THETA VALUE
ENDATA04		

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
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ENDATA05

\$\$\$ DATA TYPE 6 (PHYTOPLANKTON CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
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ENDATA06

\$\$\$ DATA TYPE 7 (PERIPHYTON CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
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ENDATA07

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN REACH km	TO	END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM
REACH ID	1	GB	SITE GRB1-BAYOU SIGUR	23.53	TO	23.44	0.0900	0.09	1	1	1
REACH ID	2	GB	BAYOU SIGUR-MUDDY BAYOU	23.44	TO	22.62	0.1640	0.82	5	2	6
REACH ID	3	GB	MUDDY BAYOU-BAYOU CROUX(BYC1)	22.62	TO	20.57	0.2050	2.05	10	7	16
REACH ID	4	GB	B CROUX(BYC1)-B CROUX(BYC2)	20.57	TO	18.29	0.1520	2.28	15	17	31
REACH ID	5	GB	B CROUX(BYC2)-km 15.5	18.29	TO	15.50	0.1550	2.79	18	32	49
REACH ID	6	GB	km 15.5-km 13.0	15.50	TO	13.00	0.1250	2.50	20	50	69
REACH ID	7	GB	km 13.0-BAYOU CORNE	13.00	TO	11.43	0.1570	1.57	10	70	79
REACH ID	8	GB	B CORNE-LITTLE GRAND BAYOU	11.43	TO	8.72	0.1355	2.71	20	80	99
REACH ID	9	GB	LITTLE GRAND-UNNAMED CANAL	8.72	TO	8.12	0.1500	0.60	4	100	103
REACH ID	10	GB	UNNAMED CANAL-E GRAND BAYOU	8.12	TO	5.20	0.1460	2.92	20	104	123
REACH ID	11	GB	E GRAND BAYOU-BAYOU ALCIDE	5.20	TO	3.11	0.1900	2.09	11	124	134
REACH ID	12	GB	BAYOU ALCIDE-SITE GRB8	3.11	TO	1.66	0.1450	1.45	10	135	144
REACH ID	13	GB	SITE GRB8-LITTLE BAYOU LONG	1.66	TO	1.20	0.1150	0.46	4	145	148
REACH ID	14	GB	L BAYOU LONG-LAKE VERRET	1.20	TO	0.00	0.1200	1.20	10	149	158

ENDATA08

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1	1	GB	0.000	0.000	12.192	0.000	0.000	0.853	0.00010	0.035
HYDR-1	2	GB	0.000	0.000	16.500	0.000	0.000	0.900	0.00010	0.035
HYDR-1	3	GB	0.000	0.000	21.336	0.000	0.000	1.006	0.00010	0.035
HYDR-1	4	GB	0.000	0.000	16.459	0.000	0.000	1.570	0.00010	0.035
HYDR-1	5	GB	0.000	0.000	30.000	0.000	0.000	1.550	0.00010	0.035
HYDR-1	6	GB	0.000	0.000	44.196	0.000	0.000	1.515	0.00010	0.035
HYDR-1	7	GB	0.000	0.000	43.000	0.000	0.000	1.550	0.00010	0.035
HYDR-1	8	GB	0.000	0.000	42.062	0.000	0.000	1.622	0.00010	0.035
HYDR-1	9	GB	0.000	0.000	48.768	0.000	0.000	1.478	0.00010	0.035
HYDR-1	10	GB	0.000	0.000	45.000	0.000	0.000	1.550	0.00010	0.035
HYDR-1	11	GB	0.000	0.000	42.946	0.000	0.000	1.615	0.00010	0.035
HYDR-1	12	GB	0.000	0.000	55.000	0.000	0.000	1.734	0.00010	0.035
HYDR-1	13	GB	0.000	0.000	85.000	0.000	0.000	1.500	0.00010	0.035

HYDR-1 14 GB 0.000 0.000 152.400 0.000 0.000 1.225 0.00010 0.035
 ENDATA09

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"
HYDR	1	GB	0.00	30.000	0.833	0.000	1.000
HYDR	2	GB	0.00	30.000	0.833	0.000	1.000
HYDR	3	GB	0.00	30.000	0.833	0.000	1.000
HYDR	4	GB	0.00	30.000	0.833	0.000	1.000
HYDR	5	GB	0.00	30.000	0.833	0.000	1.000
HYDR	6	GB	0.00	30.000	0.833	0.000	1.000
HYDR	7	GB	0.10	30.000	0.833	0.000	1.000
HYDR	8	GB	0.25	30.000	0.833	0.000	1.000
HYDR	9	GB	0.29	30.000	0.833	0.000	1.000
HYDR	10	GB	0.50	30.000	0.833	0.000	1.000
HYDR	11	GB	0.75	30.000	0.833	0.000	1.000
HYDR	12	GB	0.80	30.000	0.833	0.000	1.000
HYDR	13	GB	1.00	30.000	0.833	0.000	1.000
HYDR	14	GB	1.00	30.000	0.833	0.000	1.000

ENDATA10

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD TYPE	REACH	ID	TEMP deg C	SALIN ppt	DO mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	PERIP g/m²	BOD1 mg/L	BOD2 mg/L	ORG-N mg/L	ORG-P mg/L	COLI #/100mL	NCM	CM-1 MG/L	CM-2 MG/L
INITIAL	1	GB	28.13	0.15	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	2	GB	28.13	0.14	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	3	GB	28.13	0.11	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	4	GB	28.13	0.09	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	5	GB	28.13	0.09	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	6	GB	28.13	0.10	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	7	GB	28.13	0.08	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	8	GB	28.13	0.07	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	9	GB	28.13	0.07	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	10	GB	28.13	0.07	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	11	GB	28.13	0.08	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	12	GB	28.13	0.08	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	13	GB	28.13	0.08	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	14	GB	28.13	0.07	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ENDATA11

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD g/m²/d	AEROB BOD DECAV per day	BOD SETT per day	SETTLD SOD AVAIL frac	ANAER BOD DECAV per day	AEROB BOD2 DECAV per day	BOD2 SETT per day	ANAER BOD2 DECAV per day	BOD2 HYDR TO BOD1 per day
COEF-1	1	GB	4 OWENS <5 FPS	0.000	0.000	0.000	0.652	0.084	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	2	GB	4 OWENS <5 FPS	0.000	0.000	0.000	0.882	0.081	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	3	GB	4 OWENS <5 FPS	0.000	0.000	0.000	1.384	0.074	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	4	GB	4 OWENS <5 FPS	0.000	0.000	0.000	2.012	0.067	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	5	GB	4 OWENS <5 FPS	0.000	0.000	0.000	1.272	0.071	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	6	GB	4 OWENS <5 FPS	0.000	0.000	0.000	1.226	0.078	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	7	GB	4 OWENS <5 FPS	0.000	0.000	0.000	1.108	0.068	0.050	0.000	0.000	0.000	0.050	0.000	0.000

COEF-1	8	GB	4 OWENS <5 FPS	0.000	0.000	0.000	0.618	0.054	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	9	GB	4 OWENS <5 FPS	0.000	0.000	0.000	0.772	0.052	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	10	GB	4 OWENS <5 FPS	0.000	0.000	0.000	2.103	0.054	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	11	GB	4 OWENS <5 FPS	0.000	0.000	0.000	2.069	0.057	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	12	GB	4 OWENS <5 FPS	0.000	0.000	0.000	2.138	0.055	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	13	GB	4 OWENS <5 FPS	0.000	0.000	0.000	1.465	0.055	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	14	GB	4 OWENS <5 FPS	0.000	0.000	0.000	1.421	0.061	0.050	0.000	0.000	0.000	0.050	0.000	0.000

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	NBOD		SEITLD		BKGRND		DENIT	ORGP		SEITLD	
			DECA	SEIT	ORGN	AVAIL	NH3	SRCE		SRCE	DECA	SEIT	AVAIL
			per day	per day	frac	per day	g/m ² /d	g/m ² /d	per day	per day	per day	frac	
COEF-2	1	GB	0.115	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
COEF-2	2	GB	0.112	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
COEF-2	3	GB	0.105	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
COEF-2	4	GB	0.099	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
COEF-2	5	GB	0.100	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
COEF-2	6	GB	0.104	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
COEF-2	7	GB	0.120	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
COEF-2	8	GB	0.138	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
COEF-2	9	GB	0.091	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
COEF-2	10	GB	0.094	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
COEF-2	11	GB	0.098	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
COEF-2	12	GB	0.092	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
COEF-2	13	GB	0.091	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
COEF-2	14	GB	0.097	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

\$\$\$ DATA TYPE 14 (ALGAE PHYTOPLANKTON AND PERIPHYTON COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	SECCHI	CHL A:	PHYTO	PHYTO	PHYTO	PHYTO	PERIP	PERIP	PERIP	BANK
			m	frac	per day	per day	per day	per day	per day	per day	per day	frac
ENDATA14												

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	COLIFORM	NCM	NCM
			DIE-OFF	DECAY	SEIT
			per day	per day	per day
ENDATA15					

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUIFLOW	INFLOW	TEMP	SALIN	CM-1	CM-2	IN/DIST	OUT/DIST
			m ³ /s	m ³ /s	deg C	ppt	MG/L	MG/L		
ENDATA16										

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	REACH	ID	DO	BOD1	NBOD		BOD2
			mg/L	mg/L	mg/L	mg/L	mg/L

ENDATA17

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, PHYTOPLANKTON, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	PO4 mg/L	PHYTO CHL A µg/L	COLI #/100mL	NCM	ORGP mg/L
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ENDATA18

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH	ID	BOD1 kg/d	NBOD kg/d	COLI #/day	NCM	DO kg/d	BOD2 kg/d	ORG-P kg/d
NONPOINT	1	GB	6.52	4.89	0.00	0.00	0.00	0.00	0.00
NONPOINT	2	GB	32.28	20.44	0.00	0.00	0.00	0.00	0.00
NONPOINT	3	GB	67.17	26.87	0.00	0.00	0.00	0.00	0.00
NONPOINT	4	GB	0.00	13.58	0.00	0.00	0.00	0.00	0.00
NONPOINT	5	GB	111.31	36.57	0.00	0.00	0.00	0.00	0.00
NONPOINT	6	GB	142.79	44.35	0.00	0.00	0.00	0.00	0.00
NONPOINT	7	GB	83.08	27.69	0.00	0.00	0.00	0.00	0.00
NONPOINT	8	GB	208.42	75.65	0.00	0.00	0.00	0.00	0.00
NONPOINT	9	GB	53.85	5.38	0.00	0.00	0.00	0.00	0.00
NONPOINT	10	GB	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NONPOINT	11	GB	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NONPOINT	12	GB	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NONPOINT	13	GB	12.21	24.41	0.00	0.00	0.00	0.00	0.00
NONPOINT	14	GB	66.30	118.40	0.00	0.00	0.00	0.00	0.00

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m³/s	FLOW cfs	TEMP deg C	SALIN ppt	CM-1 MG/L	CM-2 MG/L	HDW DISP EXCHG frac
HDWIR-1	1	Grand Bayou Upstream	0	0.00283	0.09993	28.13	0.15	13.600	300.800	0.000

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L	mg/L	mg/L	BOD2 mg/L
HDWIR-2	1	Grand Bayou Upstream	7.03	3.69	3.67	0.00	0.00	0.00

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, PHYTOPLANKTON, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHYTO CHL A µg/L	COLI #/100mL	PO4-P mg/L	NCM	ORG-P mg/L
HDWIR-3	1	Grand Bayou Upstream	0.00	10.00	0.00	0.00	0.00

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE	JUNCTION	UPSTRM	RIVER	NAME
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ELEMENT ELEMENT KILOM

ENDATA23

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	RKILO	NAME	FLOW m ³ /s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-1 MG/L	CM-2 MG/L
WSTLD-1	2	23.44	BAYOU SIGUR	0.00283	0.09993	0.065	28.13	0.17	15.000	345.000
WSTLD-1	7	22.62	MUDDY BAYOU	0.00283	0.09993	0.065	28.13	0.08	16.900	169.200
WSTLD-1	17	20.57	BAYOU CROULX (BYC1)	0.00283	0.09993	0.065	28.13	0.12	8.400	250.200
WSTLD-1	32	18.29	BAYOU CROULX (BYC2)	0.00283	0.09993	0.065	28.13	0.14	17.400	296.800
WSTLD-1	62	14.00	GATOR SUPER STOP	0.00043	0.01518	0.010	0.00	0.11	13.800	234.100
WSTLD-1	63	13.88	Chevron Pipe Line	0.00001	0.00035	0.000	0.00	0.11	13.800	234.100
WSTLD-1	80	11.43	BAYOU CORNE	0.00283	0.09993	0.065	28.13	0.07	10.200	154.130
WSTLD-1	100	8.72	LITTLE GRAND BAYOU	-0.00087	-0.03072	-0.020	0.00	0.00	0.000	0.000
WSTLD-1	104	8.12	UNNAMED CANAL	0.00283	0.09993	0.065	28.13	0.07	10.100	166.800
WSTLD-1	124	5.20	EAST GRAND BAYOU	-0.00964	-0.34040	-0.220	0.00	0.00	0.000	0.000
WSTLD-1	135	3.11	BAYOU ALCIDE	0.00283	0.09993	0.065	28.13	0.07	8.800	160.110
WSTLD-1	149	1.20	LITTLE BAYOU LONG	0.00283	0.09993	0.065	28.13	0.07	9.000	153.600

ENDATA24

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD FMVL	NBOD mg/L	% NITRIF	BOD2 mg/L
WSTLD-2	2	BAYOU SIGUR	7.03	4.06	0.00	4.05	0.00	0.00
WSTLD-2	7	MUDDY BAYOU	7.03	0.51	0.00	0.00	0.00	0.00
WSTLD-2	17	BAYOU CROULX (BYC1)	7.03	3.17	0.00	1.45	0.00	0.00
WSTLD-2	32	BAYOU CROULX (BYC2)	7.03	3.63	0.00	2.51	0.00	0.00
WSTLD-2	62	GATOR SUPER STOP	2.00	69.00	0.00	64.50	0.00	0.00
WSTLD-2	63	Chevron Pipe Line	2.00	103.50	0.00	64.50	0.00	0.00
WSTLD-2	80	BAYOU CORNE	7.03	0.29	0.00	0.00	0.00	0.00
WSTLD-2	100	LITTLE GRAND BAYOU	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	104	UNNAMED CANAL	7.03	2.97	0.00	1.38	0.00	0.00
WSTLD-2	124	EAST GRAND BAYOU	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	135	BAYOU ALCIDE	7.03	2.98	0.00	1.23	0.00	0.00
WSTLD-2	149	LITTLE BAYOU LONG	7.03	3.01	0.00	0.97	0.00	0.00

ENDATA25

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, PHYTOPLANKTON, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PO4-P mg/L	PHYTO CHL A µg/L	COLI #/100mL	NCM	ORG-P mg/L
WSTLD-3	2	BAYOU SIGUR	0.00	10.00	0.00	0.00	0.00
WSTLD-3	7	MUDDY BAYOU	0.00	10.00	0.00	0.00	0.00
WSTLD-3	17	BAYOU CROULX (BYC1)	0.00	10.00	0.00	0.00	0.00
WSTLD-3	32	BAYOU CROULX (BYC2)	0.00	10.00	0.00	0.00	0.00
WSTLD-3	62	GATOR SUPER STOP	0.00	0.00	0.00	0.00	0.00
WSTLD-3	63	Chevron Pipe Line	0.00	0.00	0.00	0.00	0.00
WSTLD-3	80	BAYOU CORNE	0.00	10.00	0.00	0.00	0.00
WSTLD-3	100	LITTLE GRAND BAYOU	0.00	0.00	0.00	0.00	0.00
WSTLD-3	104	UNNAMED CANAL	0.00	10.00	0.00	0.00	0.00
WSTLD-3	124	EAST GRAND BAYOU	0.00	0.00	0.00	0.00	0.00
WSTLD-3	135	BAYOU ALCIDE	0.00	10.00	0.00	0.00	0.00

WSTLD-3 149 LITTLE BAYOU LONG 0.00 10.00 0.00 0.00 0.00
 ENDATA26

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENTRATION		
LOWER BC	TEMPERATURE	=	28.130	deg C
LOWER BC	SALINITY	=	0.090	ppt
LOWER BC	CONSERVATIVE MATERIAL I	=	9.300	MG/L
LOWER BC	CONSERVATIVE MATERIAL II	=	202.140	MG/L
LOWER BC	DISSOLVED OXYGEN	=	7.030	mg/L
LOWER BC	BOD1 BIOCHEMICAL OXYGEN DEMAND	=	0.290	mg/L
LOWER BC	NBOD	=	0.000	mg/L
LOWER BC	PHOSPHORUS	=	0.000	mg/L
LOWER BC	CHLOROPHYLL A	=	10.000	µg/L
LOWER BC	COLIFORM	=	0.000	#/100 mL
LOWER BC	NONCONSERVATIVE MATERIAL	=	0.000	

ENDATA27

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD TYPE	ELEMENT	NAME	EQN	"A"	"B"	"H"
ENDATA28						

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE	PARAMETER	COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
ENDATA29									

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

NUMBER OF PLOTS = 1
 NUMBER OF REACHES IN PLOT 1 = 14
 PLOT RCH 1 2 3 4 5 6 7 8 9 10 11 12 13 14
 ENDATA30

\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

ENDATA31

***** WARNING: NEGATIVE CONCENTRATIONS OF BOD1 SET TO ZERO IN LOWER BOUNDARY CONDITION

....NO ERRORS DETECTED IN INPUT DATA
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 6 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED
GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A ug/L	COLI #/100mL	NCM
1	HDWTR	0.00283	28.13	0.15	13.60	300.80	7.03	2.69	0.00	3.69	0.00	3.67	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCF EFF	ADVECTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPERSN m²/s	MEAN VELO m/s
1	23.53	23.44	0.00283	0.0	0.00027	3.83	3.83	0.85	12.19	935.98	1097.28	10.40	0.00	0.000	0.007	0.000
TOT AVG					0.0003	3.83		0.85	12.19	935.98	1097.28	10.40				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD1 DECAT	BOD1 SEITP	ABOD1 DECAT	BOD1 HYDR	BOD2 DECAT	BOD2 SEITP	ABOD2 DECAT	BKGD SOD	FULL SOD	CORR SOD	ORG-N HYDR	ORG-N SEITP	NH3-N DECAT	NH3-N SRCE	DENIT RATE	ORG-P HYDR	ORG-P SEITP	PO4 SRCE	PHYTO PROD	PERIP PROD	COLI DECAT	NCM DECAT	NCM SEITP	
1	23.440	7.80	0.96	0.12	0.06	0.00	0.00	0.00	0.00	0.00	1.09	1.09	1.09	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.82	0.08	0.05	0.00	0.00	0.00	0.05	0.00	0.65			0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	BORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	BORG-P mg/L	ETOT-P mg/L	CHL A ug/L	PERIP g/m²	COLI #/100mL	NCM
1	23.440	28.13	0.15	13.78	306.56	3.85	16.52	0.00	17.52	0.00	11.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.00

***** PHYTOPLANKTON AND PERIPLHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SEITP 1/da	PHYT P/R RATIO	PHYTO ug/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SPC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m²
1	23.440	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
20 DEG C RATE										0.000	0.000	0.000	0.000										0.000	0.000	0.000		

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

NO.	DIST	SHADE frac	DEPTH m	N PREF	LIT LIM	N LIM	P LIM	N&P LIM	TOT LIM	GROW 1/da	RESP 1/da	DEATH 1/da	SEIT 1/da	P/R RATIO	PHYTO µg/L	N PREF	LIT LIM	N LIM	P LIM	N&P LIM	SPC LIM	TOT LIM	GROW 1/da	RESP 1/da	DEATH 1/da	P/R RATIO	PERIP g/m²
2	23.276	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
3	23.112	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
4	22.948	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
5	22.784	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
6	22.620	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream GRAND BAYOU SUMMER PROJECTION
 REACH NO. 3 MUDDY BAYOU-BAYOU CROUX(BYC1) 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
7	UPR RCH	0.00566	28.13	0.16	14.45	314.28	3.64	14.21	0.00	15.21	0.00	7.09	0.00	0.00	0.00	10.00	0.00	0.00
7	WSTLD	0.00283	28.13	0.08	16.90	169.20	7.03	0.51	0.00	0.51	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCF EFF	ADVCTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPERSN m²/s	MEAN VELO m/s
7	22.62	22.42	0.00849	66.7	0.00040	6.00	34.73	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.012	0.000
8	22.42	22.21	0.00849	66.7	0.00040	6.00	40.73	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.012	0.000
9	22.21	22.01	0.00849	66.7	0.00040	6.00	46.72	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.012	0.000
10	22.01	21.80	0.00849	66.7	0.00040	6.00	52.72	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.012	0.000
11	21.80	21.60	0.00849	66.7	0.00040	6.00	58.72	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.012	0.000
12	21.60	21.39	0.00849	66.7	0.00040	6.00	64.72	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.012	0.000
13	21.39	21.19	0.00849	66.7	0.00040	6.00	70.72	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.012	0.000
14	21.19	20.98	0.00849	66.7	0.00040	6.00	76.72	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.012	0.000
15	20.98	20.78	0.00849	66.7	0.00040	6.00	82.72	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.012	0.000
16	20.78	20.57	0.00849	66.7	0.00040	6.00	88.71	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.012	0.000
TOT AVG					0.0004	59.99		1.01	21.34	44001.24	43738.79	21.46				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECAT 1/da	BOD1 SEIT 1/da	ABOD1 DECAT 1/da	BOD1 HYDR 1/da	BOD2 DECAT 1/da	BOD2 SEIT 1/da	ABOD2 DECAT 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SEIT 1/da	NH3-N DECAT 1/da	NH3-N SRCE 1/da	DENIT RATE 1/da	ORG-P HYDR 1/da	ORG-P SEIT 1/da	PO4 SRCE *	PHYTO PROD **	PERIP PROD **	COLI DECAT 1/da	NCM DECAT 1/da	NCM SEIT 1/da
7	22.415	7.80	0.81	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.31	2.31	2.31	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
8	22.210	7.80	0.81	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.31	2.31	2.31	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
9	22.005	7.80	0.81	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.31	2.31	2.31	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
10	21.800	7.80	0.81	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.31	2.31	2.31	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00

11	21.595	7.80	0.81	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.31	2.31	2.31	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00							
12	21.390	7.80	0.81	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.31	2.31	2.31	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00							
13	21.185	7.80	0.81	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.31	2.31	2.31	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00							
14	20.980	7.80	0.81	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.31	2.31	2.31	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00							
15	20.775	7.80	0.81	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.31	2.31	2.31	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00							
16	20.570	7.80	0.81	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.31	2.31	2.31	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00							
AVG 20 DEG C RATE				0.70	0.07	0.05	0.00	0.00	0.00	0.05	0.00	1.38			0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00							
* g/m ² /d				** mg/L/day																													

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m ²	COLI #/100mL	NCM
7	22.415	28.13	0.13	15.17	271.67	3.99	9.65	0.00	10.65	0.00	3.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
8	22.210	28.13	0.13	15.17	271.67	3.99	9.37	0.00	10.37	0.00	3.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
9	22.005	28.13	0.13	15.17	271.67	4.04	9.23	0.00	10.23	0.00	2.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
10	21.800	28.13	0.13	15.17	271.67	4.08	9.16	0.00	10.16	0.00	2.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
11	21.595	28.13	0.13	15.17	271.67	4.10	9.12	0.00	10.12	0.00	2.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
12	21.390	28.13	0.13	15.17	271.67	4.10	9.10	0.00	10.10	0.00	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
13	21.185	28.13	0.13	15.17	271.66	4.11	9.09	0.00	10.09	0.00	2.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
14	20.980	28.13	0.13	15.16	271.65	4.11	9.08	0.00	10.08	0.00	2.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
15	20.775	28.13	0.13	15.13	271.54	4.12	9.05	0.00	10.05	0.00	2.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
16	20.570	28.13	0.13	14.84	270.64	4.17	8.62	0.00	9.62	0.00	2.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPLHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SETT 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SEC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m ²
7	22.415	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
8	22.210	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
9	22.005	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
10	21.800	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
11	21.595	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
12	21.390	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
13	21.185	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
14	20.980	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
15	20.775	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
16	20.570	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream GRAND BAYOU SUMMER PROJECTION
 REACH NO. 4 B CROUX(BYC1)-B CROUX(BYC2) 09/17/07

***** REACH INPUTS *****

ELEM TYPE	FLOW	TEMP	SALN	CM-1	CM-2	DO	BOD1	BOD2	EBOD1	EBOD2	ORG-N	NH3-N	NO3-N	PO4-P	CHL A	COLI	NCM
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NO.			deg C	ppt	MG/L	MG/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	#/100mL	
17	UPR RCH	0.00849	28.13	0.13	14.84	270.64	4.17	8.62	0.00	9.62	0.00	2.66	0.00	0.00	0.00	10.00	0.00	0.00
17	WSTLD	0.00283	28.13	0.12	8.40	250.20	7.03	3.17	0.00	3.17	0.00	1.45	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCF EFF	ADVECTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPERSN m²/s	MEAN VELO m/s
17	20.57	20.42	0.01132	75.0	0.00044	4.02	92.73	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.019	0.000
18	20.42	20.27	0.01132	75.0	0.00044	4.02	96.75	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.019	0.000
19	20.27	20.11	0.01132	75.0	0.00044	4.02	100.76	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.019	0.000
20	20.11	19.96	0.01132	75.0	0.00044	4.02	104.78	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.019	0.000
21	19.96	19.81	0.01132	75.0	0.00044	4.02	108.79	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.019	0.000
22	19.81	19.66	0.01132	75.0	0.00044	4.02	112.81	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.019	0.000
23	19.66	19.51	0.01132	75.0	0.00044	4.02	116.83	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.019	0.000
24	19.51	19.35	0.01132	75.0	0.00044	4.02	120.84	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.019	0.000
25	19.35	19.20	0.01132	75.0	0.00044	4.02	124.86	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.019	0.000
26	19.20	19.05	0.01132	75.0	0.00044	4.02	128.87	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.019	0.000
27	19.05	18.90	0.01132	75.0	0.00044	4.02	132.89	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.019	0.000
28	18.90	18.75	0.01132	75.0	0.00044	4.02	136.90	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.019	0.000
29	18.75	18.59	0.01132	75.0	0.00044	4.02	140.92	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.019	0.000
30	18.59	18.44	0.01132	75.0	0.00044	4.02	144.94	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.019	0.000
31	18.44	18.29	0.01132	75.0	0.00044	4.02	148.95	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.019	0.000
TOT						60.24				58916.64	37526.52					
AVG				0.0004				1.57	16.46			25.84				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD1 DECAT	BOD1 SEIT	ABOD1 DECAT	BOD1 HYDR	BOD2 DECAT	BOD2 SEIT	ABOD2 DECAT	BKGD SOD	FULL SOD	CORR SOD	ORG-N HYDR	ORG-N SEIT	NH3-N DECAT	NH3-N SRCE	DENIT RATE	ORG-P HYDR	ORG-P SEIT	PO4 SRCE	PHYTO PROD	PERIP PROD	COLI DECAT	NCM DECAT	NCM SEIT	
17	20.418	7.80	0.52	0.10	0.06	0.00	0.00	0.00	0.00	0.00	3.36	3.36	3.36	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
18	20.266	7.80	0.52	0.10	0.06	0.00	0.00	0.00	0.00	0.00	3.36	3.36	3.36	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
19	20.114	7.80	0.52	0.10	0.06	0.00	0.00	0.00	0.00	0.00	3.36	3.36	3.36	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
20	19.962	7.80	0.52	0.10	0.06	0.00	0.00	0.00	0.00	0.00	3.36	3.36	3.36	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
21	19.810	7.80	0.52	0.10	0.06	0.00	0.00	0.00	0.00	0.00	3.36	3.36	3.36	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
22	19.658	7.80	0.52	0.10	0.06	0.00	0.00	0.00	0.00	0.00	3.36	3.36	3.36	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
23	19.506	7.80	0.52	0.10	0.06	0.00	0.00	0.00	0.00	0.00	3.36	3.36	3.36	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
24	19.354	7.80	0.52	0.10	0.06	0.00	0.00	0.00	0.00	0.00	3.36	3.36	3.36	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
25	19.202	7.80	0.52	0.10	0.06	0.00	0.00	0.00	0.00	0.00	3.36	3.36	3.36	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
26	19.050	7.80	0.52	0.10	0.06	0.00	0.00	0.00	0.00	0.00	3.36	3.36	3.36	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
27	18.898	7.80	0.52	0.10	0.06	0.00	0.00	0.00	0.00	0.00	3.36	3.36	3.36	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
28	18.746	7.80	0.52	0.10	0.06	0.00	0.00	0.00	0.00	0.00	3.36	3.36	3.36	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
29	18.594	7.80	0.52	0.10	0.06	0.00	0.00	0.00	0.00	0.00	3.36	3.36	3.36	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
30	18.442	7.80	0.52	0.10	0.06	0.00	0.00	0.00	0.00	0.00	3.36	3.36	3.36	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
31	18.290	7.80	0.52	0.10	0.06	0.00	0.00	0.00	0.00	0.00	3.36	3.36	3.36	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
AVG	20 DEG C RATE		0.45	0.07	0.05	0.00	0.00	0.00	0.05	0.00	2.01			0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	BORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	BORG-P mg/L	ETOT-P mg/L	CHL A ug/L	PERIP g/m ²	COLI #/100mL	NCM
17	20.418	28.13	0.13	13.47	266.30	4.09	4.59	0.00	5.59	0.00	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
18	20.266	28.13	0.13	13.47	266.30	4.11	2.91	0.00	3.91	0.00	1.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
19	20.114	28.13	0.13	13.47	266.30	4.27	1.85	0.00	2.85	0.00	1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
20	19.962	28.13	0.13	13.47	266.30	4.42	1.18	0.00	2.18	0.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
21	19.810	28.13	0.13	13.47	266.30	4.54	0.75	0.00	1.75	0.00	1.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
22	19.658	28.13	0.13	13.47	266.30	4.62	0.47	0.00	1.47	0.00	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
23	19.506	28.13	0.13	13.47	266.30	4.67	0.30	0.00	1.30	0.00	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
24	19.354	28.13	0.13	13.48	266.30	4.70	0.19	0.00	1.19	0.00	1.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
25	19.202	28.13	0.13	13.48	266.30	4.73	0.12	0.00	1.12	0.00	1.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
26	19.050	28.13	0.13	13.48	266.30	4.74	0.08	0.00	1.08	0.00	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
27	18.898	28.13	0.13	13.48	266.30	4.75	0.05	0.00	1.05	0.00	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
28	18.746	28.13	0.13	13.48	266.32	4.75	0.03	0.00	1.03	0.00	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
29	18.594	28.13	0.13	13.48	266.37	4.76	0.03	0.00	1.03	0.00	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
30	18.442	28.13	0.13	13.52	266.63	4.75	0.08	0.00	1.08	0.00	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
31	18.290	28.13	0.13	13.66	267.77	4.76	0.47	0.00	1.47	0.00	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPLHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SETT 1/da	PHYT P/R RATIO	PHYTO ug/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SEC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m ²
17	20.418	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
18	20.266	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
19	20.114	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
20	19.962	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
21	19.810	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
22	19.658	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
23	19.506	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
24	19.354	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
25	19.202	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
26	19.050	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
27	18.898	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
28	18.746	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
29	18.594	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
30	18.442	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
31	18.290	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream GRAND BAYOU SUMMER PROJECTION
 REACH NO. 5 B CROUX (BYC2)-km 15.5 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A ug/L	COLI #/100mL	NCM
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32	UPR RCH	0.01132	28.13	0.13	13.66	267.77	4.76	0.47	0.00	1.47	0.00	1.09	0.00	0.00	10.00	0.00	0.00
32	WSTLD	0.00283	28.13	0.14	17.40	296.80	7.03	3.63	0.00	3.63	0.00	2.51	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
32	18.29	18.14	0.01415	80.0	0.00030	5.90	154.85	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.013	0.000
33	18.14	17.98	0.01415	80.0	0.00030	5.90	160.74	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.013	0.000
34	17.98	17.82	0.01415	80.0	0.00030	5.90	166.64	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.013	0.000
35	17.82	17.67	0.01415	80.0	0.00030	5.90	172.53	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.013	0.000
36	17.67	17.51	0.01415	80.0	0.00030	5.90	178.43	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.013	0.000
37	17.51	17.36	0.01415	80.0	0.00030	5.90	184.33	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.013	0.000
38	17.36	17.20	0.01415	80.0	0.00030	5.90	190.22	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.013	0.000
39	17.20	17.05	0.01415	80.0	0.00030	5.90	196.12	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.013	0.000
40	17.05	16.89	0.01415	80.0	0.00030	5.90	202.01	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.013	0.000
41	16.89	16.74	0.01415	80.0	0.00030	5.90	207.91	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.013	0.000
42	16.74	16.58	0.01415	80.0	0.00030	5.90	213.80	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.013	0.000
43	16.58	16.43	0.01415	80.0	0.00030	5.90	219.70	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.013	0.000
44	16.43	16.27	0.01415	80.0	0.00030	5.90	225.59	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.013	0.000
45	16.27	16.12	0.01415	80.0	0.00030	5.90	231.49	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.013	0.000
46	16.12	15.96	0.01415	80.0	0.00030	5.90	237.38	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.013	0.000
47	15.96	15.81	0.01415	80.0	0.00030	5.90	243.28	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.013	0.000
48	15.81	15.65	0.01415	80.0	0.00030	5.90	249.17	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.013	0.000
49	15.65	15.50	0.01415	80.0	0.00030	5.90	255.07	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.013	0.000
TOT						106.12				129735.00	83700.00					
AVG					0.0003			1.55	30.00			46.50				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD1 DECA	BOD1 SEIT	ABOD1 DECA	BOD1 HYDR	BOD2 DECA	BOD2 SEIT	ABOD2 DECA	BKGD SOD	FULL SOD	CORR SOD	ORG-N HYDR	ORG-N SEIT	NH3-N DECA	NH3-N SRCE	DENIT RATE	ORG-P HYDR	ORG-P SEIT	PO4 SRCE	PHYTO PROD	PERIP PROD	COLI DECA	NCM DECA	NCM SEIT	
32	18.135	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
33	17.980	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
34	17.825	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
35	17.670	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
36	17.515	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
37	17.360	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
38	17.205	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
39	17.050	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
40	16.895	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
41	16.740	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
42	16.585	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
43	16.430	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
44	16.275	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
45	16.120	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
46	15.965	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
47	15.810	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
48	15.655	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
49	15.500	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream
 REACH NO. 6 km 15.5-km 13.0

GRAND BAYOU SUMMER PROJECTION
 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A ug/L	COLI #/100mL	NCM
50	UPR RCH	0.01415	28.13	0.13	14.26	272.40	5.17	5.22	0.00	6.22	0.00	1.26	0.00	0.00	0.00	10.00	0.00	0.00
62	WSTLD	0.00043	0.00	0.11	13.80	234.10	2.00	69.00	0.00	69.00	0.00	64.50	0.00	0.00	0.00	0.00	0.00	0.00
63	WSTLD	0.00001	0.00	0.11	13.80	234.10	2.00	103.50	0.00	103.50	0.00	64.50	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
50	15.50	15.38	0.01415	80.0	0.00021	6.85	261.92	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
51	15.38	15.25	0.01415	80.0	0.00021	6.85	268.76	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
52	15.25	15.12	0.01415	80.0	0.00021	6.85	275.61	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
53	15.12	15.00	0.01415	80.0	0.00021	6.85	282.45	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
54	15.00	14.88	0.01415	80.0	0.00021	6.85	289.30	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
55	14.88	14.75	0.01415	80.0	0.00021	6.85	296.15	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
56	14.75	14.62	0.01415	80.0	0.00021	6.85	302.99	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
57	14.62	14.50	0.01415	80.0	0.00021	6.85	309.84	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
58	14.50	14.38	0.01415	80.0	0.00021	6.85	316.68	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
59	14.38	14.25	0.01415	80.0	0.00021	6.85	323.53	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
60	14.25	14.12	0.01415	80.0	0.00021	6.85	330.38	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
61	14.12	14.00	0.01415	80.0	0.00021	6.85	337.22	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
62	14.00	13.88	0.01458	80.6	0.00022	6.64	343.87	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
63	13.88	13.75	0.01459	80.6	0.00022	6.64	350.51	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
64	13.75	13.62	0.01459	80.6	0.00022	6.64	357.14	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
65	13.62	13.50	0.01459	80.6	0.00022	6.64	363.78	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
66	13.50	13.38	0.01459	80.6	0.00022	6.64	370.42	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
67	13.38	13.25	0.01459	80.6	0.00022	6.64	377.06	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
68	13.25	13.12	0.01459	80.6	0.00022	6.64	383.70	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
69	13.12	13.00	0.01459	80.6	0.00022	6.64	390.34	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
TOT							135.27			167392.38	110490.00					
AVG					0.0002			1.51	44.20			66.96				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECAY 1/da	BOD1 SEITP 1/da	ABOD1 DECAY 1/da	BOD1 HYDR 1/da	BOD2 DECAY 1/da	BOD2 SEITP 1/da	BOD2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SEITP 1/da	ORG-N DECAY 1/da	NH3-N SRCE *	NH3-N RATE 1/da	DENIT HYDR 1/da	ORG-P SEITP 1/da	ORG-P SRCE *	PHYTO PROD **	PERIP PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SEITP 1/da
50	15.375	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
51	15.250	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
52	15.125	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
53	15.000	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00

54	14.875	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	
55	14.750	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	
56	14.625	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	
57	14.500	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	
58	14.375	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	
59	14.250	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	
60	14.125	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	
61	14.000	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	
62	13.875	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	
63	13.750	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	
64	13.625	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	
65	13.500	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	
66	13.375	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	
67	13.250	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	
68	13.125	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	
69	13.000	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	
AVG 20 DEG C RATE				0.46	0.08	0.05	0.00	0.00	0.00	0.05	0.00	1.23				0.10	0.05	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	BORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	BORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m ²	COLI #/100mL	NCM
50	15.375	28.13	0.13	14.26	272.40	5.20	5.06	0.00	6.06	0.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
51	15.250	28.13	0.13	14.26	272.40	5.22	4.98	0.00	5.98	0.00	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
52	15.125	28.13	0.13	14.26	272.40	5.23	4.94	0.00	5.94	0.00	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
53	15.000	28.13	0.13	14.26	272.40	5.24	4.92	0.00	5.92	0.00	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
54	14.875	28.13	0.13	14.26	272.40	5.25	4.91	0.00	5.91	0.00	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
55	14.750	28.13	0.13	14.26	272.40	5.25	4.91	0.00	5.91	0.00	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
56	14.625	28.13	0.13	14.26	272.40	5.25	4.91	0.00	5.91	0.00	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
57	14.500	28.13	0.13	14.26	272.40	5.25	4.91	0.00	5.91	0.00	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
58	14.375	28.13	0.13	14.26	272.40	5.25	4.90	0.00	5.90	0.00	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
59	14.250	28.13	0.13	14.26	272.38	5.25	4.91	0.00	5.91	0.00	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
60	14.125	28.13	0.13	14.26	272.33	5.24	4.92	0.00	5.92	0.00	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
61	14.000	28.13	0.13	14.26	272.11	5.20	5.00	0.00	6.00	0.00	1.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
62	13.875	28.13	0.13	14.25	271.26	4.96	5.67	0.00	6.67	0.00	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
63	13.750	28.13	0.13	14.25	271.24	5.05	5.31	0.00	6.31	0.00	1.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
64	13.625	28.13	0.13	14.25	271.24	5.14	5.11	0.00	6.11	0.00	1.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
65	13.500	28.13	0.13	14.25	271.24	5.19	5.01	0.00	6.01	0.00	1.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
66	13.375	28.13	0.13	14.25	271.24	5.22	4.96	0.00	5.96	0.00	1.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
67	13.250	28.13	0.13	14.25	271.24	5.23	4.93	0.00	5.93	0.00	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
68	13.125	28.13	0.13	14.25	271.24	5.24	4.92	0.00	5.92	0.00	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
69	13.000	28.13	0.13	14.25	271.24	5.26	4.92	0.00	5.92	0.00	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SEITP 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SPC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m ²
50	15.375	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
51	15.250	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
52	15.125	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

53	15.000	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
54	14.875	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
55	14.750	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
56	14.625	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
57	14.500	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
58	14.375	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
59	14.250	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
60	14.125	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
61	14.000	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
62	13.875	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
63	13.750	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
64	13.625	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
65	13.500	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
66	13.375	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
67	13.250	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
68	13.125	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
69	13.000	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream GRAND BAYOU SUMMER PROJECTION
 REACH NO. 7 km 13.0-BAYOU CORNE 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
70	UPR RCH	0.01459	28.13	0.13	14.25	271.24	5.26	4.92	0.00	5.92	0.00	1.15	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
70	13.00	12.84	0.01459	80.6	0.00022	8.30	398.64	1.55	43.00	10464.05	6751.00	66.65	47.26	0.000	0.009	0.000
71	12.84	12.69	0.01459	80.6	0.00022	8.30	406.94	1.55	43.00	10464.05	6751.00	66.65	94.51	0.000	0.009	0.000
72	12.69	12.53	0.01459	80.6	0.00022	8.30	415.25	1.55	43.00	10464.05	6751.00	66.65	141.77	0.000	0.009	0.000
73	12.53	12.37	0.01459	80.6	0.00022	8.30	423.55	1.55	43.00	10464.05	6751.00	66.65	189.03	0.000	0.009	0.000
74	12.37	12.22	0.01459	80.6	0.00022	8.30	431.85	1.55	43.00	10464.05	6751.00	66.65	236.29	0.000	0.009	0.000
75	12.22	12.06	0.01459	80.6	0.00022	8.30	440.15	1.55	43.00	10464.05	6751.00	66.65	283.54	0.000	0.009	0.000
76	12.06	11.90	0.01459	80.6	0.00022	8.30	448.45	1.55	43.00	10464.05	6751.00	66.65	330.80	0.000	0.009	0.000
77	11.90	11.74	0.01459	80.6	0.00022	8.30	456.75	1.55	43.00	10464.05	6751.00	66.65	378.06	0.000	0.009	0.000
78	11.74	11.59	0.01459	80.6	0.00022	8.30	465.05	1.55	43.00	10464.05	6751.00	66.65	425.31	0.000	0.009	0.000
79	11.59	11.43	0.01459	80.6	0.00022	8.30	473.35	1.55	43.00	10464.05	6751.00	66.65	472.57	0.000	0.010	0.000

TOT 83.01 104640.49 67510.00
 AVG 0.0002 1.55 43.00 66.65

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD1 DECA	BOD1 SEIT	ABOD1 DECA	BOD1 HYDR	BOD2 DECA	BOD2 SEIT	ABOD2 DECA	BKGD SOD	FULL SOD	CORR SOD	ORG-N HYDR	ORG-N SEIT	NH3-N DECA	NH3-N SRCE	DENIT RATE	ORG-P HYDR	ORG-P SEIT	PO4 SRCE	PHYTO PROD	PERIP PROD	COLI DECA	NCM DECA	NCM SEIT
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	1/da	1/da	*	**	**	1/da	1/da	1/da
70	12.843	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	1.85	1.85	1.85	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
71	12.686	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	1.85	1.85	1.85	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
72	12.529	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	1.85	1.85	1.85	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
73	12.372	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	1.85	1.85	1.85	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
74	12.215	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	1.85	1.85	1.85	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
75	12.058	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	1.85	1.85	1.85	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
76	11.901	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	1.85	1.85	1.85	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
77	11.744	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	1.85	1.85	1.85	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
78	11.587	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	1.85	1.85	1.85	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
79	11.430	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	0.00	1.85	1.85	1.85	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 0.45 0.07 0.05 0.00 0.00 0.00 0.05 0.00 1.11 0.12 0.05 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	ETOT-P mg/L	CHL A ug/L	PERIP g/m ²	COLI #/100mL	NCM
70	12.843	28.13	0.13	14.25	271.24	5.51	4.95	0.00	5.95	0.00	1.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
71	12.686	28.13	0.13	14.25	271.24	5.58	4.97	0.00	5.97	0.00	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
72	12.529	28.13	0.13	14.25	271.24	5.59	4.97	0.00	5.97	0.00	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
73	12.372	28.13	0.13	14.25	271.24	5.60	4.98	0.00	5.98	0.00	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
74	12.215	28.13	0.13	14.25	271.24	5.60	4.98	0.00	5.98	0.00	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
75	12.058	28.13	0.13	14.25	271.23	5.60	4.98	0.00	5.98	0.00	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
76	11.901	28.13	0.13	14.24	271.20	5.60	4.98	0.00	5.98	0.00	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
77	11.744	28.13	0.13	14.24	271.02	5.60	4.98	0.00	5.98	0.00	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
78	11.587	28.13	0.13	14.21	270.20	5.59	4.99	0.00	5.99	0.00	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
79	11.430	28.13	0.13	14.08	266.44	5.61	5.11	0.00	6.11	0.00	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPLYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SEIT 1/da	PHYT P/R RATIO	PHYTO ug/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SPC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m ²
70	12.843	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
71	12.686	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
72	12.529	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
73	12.372	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
74	12.215	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
75	12.058	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
76	11.901	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
77	11.744	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
78	11.587	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
79	11.430	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream GRAND BAYOU SUMMER PROJECTION
 REACH NO. 8 B CORNE-LITTLE GRAND BAYOU 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
80	UPR RCH	0.01459	28.13	0.13	14.08	266.44	5.61	5.11	0.00	6.11	0.00	1.04	0.00	0.00	0.00	10.00	0.00	0.00
80	WSTILD	0.00283	28.13	0.07	10.20	154.13	7.03	0.29	0.00	0.29	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
80	11.43	11.29	0.01742	83.8	0.00026	6.14	479.49	1.62	42.06	9244.43	5699.40	68.22	572.31	0.000	0.012	0.000
81	11.29	11.16	0.01742	83.8	0.00026	6.14	485.64	1.62	42.06	9244.43	5699.40	68.22	672.05	0.000	0.013	0.000
82	11.16	11.02	0.01742	83.8	0.00026	6.14	491.78	1.62	42.06	9244.43	5699.40	68.22	771.79	0.000	0.014	0.000
83	11.02	10.89	0.01742	83.8	0.00026	6.14	497.92	1.62	42.06	9244.43	5699.40	68.22	871.53	0.000	0.015	0.000
84	10.89	10.75	0.01742	83.8	0.00026	6.14	504.06	1.62	42.06	9244.43	5699.40	68.22	971.27	0.000	0.016	0.000
85	10.75	10.62	0.01742	83.8	0.00026	6.14	510.21	1.62	42.06	9244.43	5699.40	68.22	1071.01	0.000	0.017	0.000
86	10.62	10.48	0.01742	83.8	0.00026	6.14	516.35	1.62	42.06	9244.43	5699.40	68.22	1170.75	0.000	0.019	0.000
87	10.48	10.35	0.01742	83.8	0.00026	6.14	522.49	1.62	42.06	9244.43	5699.40	68.22	1270.49	0.000	0.020	0.000
88	10.35	10.21	0.01742	83.8	0.00026	6.14	528.63	1.62	42.06	9244.43	5699.40	68.22	1370.23	0.000	0.021	0.000
89	10.21	10.08	0.01742	83.8	0.00026	6.14	534.77	1.62	42.06	9244.43	5699.40	68.22	1469.96	0.000	0.023	0.001
90	10.08	9.94	0.01742	83.8	0.00026	6.14	540.92	1.62	42.06	9244.43	5699.40	68.22	1569.70	0.001	0.024	0.001
91	9.94	9.80	0.01742	83.8	0.00026	6.14	547.06	1.62	42.06	9244.43	5699.40	68.22	1669.44	0.001	0.026	0.001
92	9.80	9.67	0.01742	83.8	0.00026	6.14	553.20	1.62	42.06	9244.43	5699.40	68.22	1769.18	0.001	0.027	0.001
93	9.67	9.53	0.01742	83.8	0.00026	6.14	559.34	1.62	42.06	9244.43	5699.40	68.22	1868.92	0.001	0.028	0.001
94	9.53	9.40	0.01742	83.8	0.00026	6.14	565.48	1.62	42.06	9244.43	5699.40	68.22	1968.66	0.001	0.030	0.001
95	9.40	9.26	0.01742	83.8	0.00026	6.14	571.63	1.62	42.06	9244.43	5699.40	68.22	2068.40	0.001	0.031	0.001
96	9.26	9.13	0.01742	83.8	0.00026	6.14	577.77	1.62	42.06	9244.43	5699.40	68.22	2168.14	0.001	0.033	0.001
97	9.13	8.99	0.01742	83.8	0.00026	6.14	583.91	1.62	42.06	9244.43	5699.40	68.22	2267.88	0.001	0.034	0.001
98	8.99	8.86	0.01742	83.8	0.00026	6.14	590.05	1.62	42.06	9244.43	5699.40	68.22	2367.62	0.001	0.035	0.001
99	8.86	8.72	0.01742	83.8	0.00026	6.14	596.19	1.62	42.06	9244.43	5699.40	68.22	2467.36	0.001	0.037	0.001
TOT						122.84				184888.55	113988.01					
AVG					0.0003			1.62	42.06			68.22				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD1 DECAT	BOD1 SEITP	ABOD1 DECAT	BOD1 HYDR	BOD2 DECAT	BOD2 SEITP	ABOD2 DECAT	BKGD SOD	FULL SOD	CORR SOD	ORG-N HYDR	ORG-N SEITP	NH3-N DECAT	NH3-N SRCE	DENIT RATE	ORG-P HYDR	ORG-P SEITP	PO4 SRCE	PHYTO PROD	PERIP PROD	COLI DECAT	NCM DECAT	NCM SEITP
80	11.295	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
81	11.159	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
82	11.024	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
83	10.888	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
84	10.753	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
85	10.617	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
86	10.482	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00

87	10.346	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
88	10.211	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
89	10.075	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
90	9.940	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
91	9.804	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
92	9.669	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
93	9.533	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
94	9.398	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
95	9.262	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
96	9.127	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
97	8.991	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
98	8.856	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
99	8.720	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 0.43 0.05 0.05 0.00 0.00 0.00 0.05 0.00 0.62 0.14 0.05 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	BORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	BORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m ²	COLI #/100mL	NCM
80	11.295	28.13	0.12	13.59	252.22	6.28	6.09	0.00	7.09	0.00	1.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
81	11.159	28.13	0.12	13.59	252.22	6.28	6.95	0.00	7.95	0.00	1.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
82	11.024	28.13	0.12	13.59	252.22	6.21	7.44	0.00	8.44	0.00	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
83	10.888	28.13	0.12	13.59	252.22	6.16	7.73	0.00	8.73	0.00	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
84	10.753	28.13	0.12	13.59	252.22	6.12	7.89	0.00	8.89	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
85	10.617	28.13	0.12	13.59	252.22	6.10	7.98	0.00	8.98	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
86	10.482	28.13	0.12	13.59	252.22	6.09	8.03	0.00	9.03	0.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
87	10.346	28.13	0.12	13.59	252.22	6.08	8.06	0.00	9.06	0.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
88	10.211	28.13	0.12	13.59	252.22	6.08	8.08	0.00	9.08	0.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
89	10.075	28.13	0.12	13.59	252.22	6.08	8.09	0.00	9.09	0.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
90	9.940	28.13	0.12	13.59	252.22	6.08	8.10	0.00	9.10	0.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
91	9.804	28.13	0.12	13.59	252.22	6.08	8.10	0.00	9.10	0.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
92	9.669	28.13	0.12	13.59	252.22	6.08	8.10	0.00	9.10	0.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
93	9.533	28.13	0.12	13.59	252.21	6.08	8.10	0.00	9.10	0.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
94	9.398	28.13	0.12	13.59	252.21	6.08	8.10	0.00	9.10	0.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
95	9.262	28.13	0.12	13.59	252.19	6.08	8.11	0.00	9.11	0.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
96	9.127	28.13	0.12	13.59	252.16	6.08	8.11	0.00	9.11	0.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
97	8.991	28.13	0.12	13.58	252.10	6.08	8.12	0.00	9.12	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
98	8.856	28.13	0.12	13.58	251.99	6.08	8.15	0.00	9.15	0.00	1.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
99	8.720	28.13	0.12	13.57	251.77	6.10	8.25	0.00	9.25	0.00	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPLHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SEITP 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SPC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m ²
80	11.295	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
81	11.159	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
82	11.024	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
83	10.888	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
84	10.753	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
85	10.617	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

86	10.482	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
87	10.346	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
88	10.211	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
89	10.075	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
90	9.940	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
91	9.804	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
92	9.669	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
93	9.533	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
94	9.398	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
95	9.262	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
96	9.127	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
97	8.991	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
98	8.856	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
99	8.720	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
20 DEG C RATE										0.000	0.000	0.000	0.000											0.000	0.000	0.000	

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream GRAND BAYOU SUMMER PROJECTION
 REACH NO. 9 LITTLE GRAND-UNNAMED CANAL 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
100	UPR RCH	0.01742	28.13	0.12	13.57	251.77	6.10	8.25	0.00	9.25	0.00	1.30	0.00	0.00	0.00	10.00	0.00	0.00
100	WSTLD	-0.00087	28.13	0.12	13.55	251.32	6.11	8.58	0.00	9.58	0.00	0.94	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCF EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPERSN m²/s	MEAN VELO m/s	
100	8.72	8.57	0.01655	83.8	0.00023	7.56	603.76	1.48	48.77	10811.87	7315.20	72.08	2613.81	0.001	0.034	0.001	
101	8.57	8.42	0.01655	83.8	0.00023	7.56	611.32	1.48	48.77	10811.87	7315.20	72.08	2760.26	0.001	0.036	0.001	
102	8.42	8.27	0.01655	83.8	0.00023	7.56	618.88	1.48	48.77	10811.87	7315.20	72.08	2906.71	0.001	0.038	0.001	
103	8.27	8.12	0.01655	83.8	0.00023	7.56	626.44	1.48	48.77	10811.87	7315.20	72.08	3053.16	0.001	0.040	0.001	
TOT AVG							30.24		1.48	48.77	43247.46	29260.80	72.08				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECAT 1/da	BOD1 SEITP 1/da	ABOD1 DECAT 1/da	BOD1 HYDR 1/da	BOD2 DECAT 1/da	BOD2 SEITP 1/da	ABOD2 DECAT 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SEITP 1/da	NH3-N DECAT 1/da	NH3-N SRCE 1/da	DENIT RATE 1/da	ORG-P HYDR 1/da	ORG-P SEITP 1/da	PO4 SRCE *	PHYTO PROD **	PERIP PROD **	COLI DECAT 1/da	NCM DECAT 1/da	NCM SEITP 1/da
100	8.570	7.80	0.55	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.29	1.29	1.29	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
101	8.420	7.80	0.55	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.29	1.29	1.29	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
102	8.270	7.80	0.55	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.29	1.29	1.29	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
103	8.120	7.81	0.55	0.08	0.06	0.00	0.00	0.00	0.00	0.00	1.29	1.29	1.29	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 0.47 0.05 0.05 0.00 0.00 0.00 0.05 0.00 0.77 0.09 0.05 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 * g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	EIOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	EIOT-P mg/L	CHL A µg/L	PERIP g/m ²	COLI #/100mL	NCM
100	8.570	28.13	0.12	13.55	251.32	6.11	8.58	0.00	9.58	0.00	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
101	8.420	28.13	0.12	13.51	250.38	6.14	8.70	0.00	9.70	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
102	8.270	28.13	0.12	13.44	248.62	6.16	8.49	0.00	9.49	0.00	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
103	8.120	28.13	0.12	13.31	245.37	6.06	7.49	0.00	8.49	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SETT 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SEC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m ²
100	8.570	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
101	8.420	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
102	8.270	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
103	8.120	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream GRAND BAYOU SUMMER PROJECTION
 REACH NO. 10 UNNAMED CANAL-E GRAND BAYOU 09/17/07

***** REACH INFUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
104	UPR RCH	0.01655	28.13	0.12	13.31	245.37	6.06	7.49	0.00	8.49	0.00	0.55	0.00	0.00	0.00	10.00	0.00	0.00
104	WSTLD	0.00283	28.13	0.07	10.10	166.80	7.03	2.97	0.00	2.97	0.00	1.38	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCF EFF	ADV/CIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
104	8.12	7.97	0.01938	86.1	0.00028	6.08	632.52	1.55	45.00	10183.50	6570.00	69.75	3283.11	0.001	0.046	0.001
105	7.97	7.83	0.01938	86.1	0.00028	6.08	638.60	1.55	45.00	10183.50	6570.00	69.75	3513.06	0.001	0.049	0.001
106	7.83	7.68	0.01938	86.1	0.00028	6.08	644.68	1.55	45.00	10183.50	6570.00	69.75	3743.01	0.001	0.052	0.001
107	7.68	7.54	0.01938	86.1	0.00028	6.08	650.77	1.55	45.00	10183.50	6570.00	69.75	3972.96	0.001	0.055	0.001
108	7.54	7.39	0.01938	86.1	0.00028	6.08	656.85	1.55	45.00	10183.50	6570.00	69.75	4202.91	0.001	0.058	0.001
109	7.39	7.24	0.01938	86.1	0.00028	6.08	662.93	1.55	45.00	10183.50	6570.00	69.75	4432.86	0.001	0.062	0.001

110	7.24	7.10	0.01938	86.1	0.00028	6.08	669.01	1.55	45.00	10183.50	6570.00	69.75	4662.81	0.001	0.065	0.001
111	7.10	6.95	0.01938	86.1	0.00028	6.08	675.09	1.55	45.00	10183.50	6570.00	69.75	4892.76	0.002	0.068	0.002
112	6.95	6.81	0.01938	86.1	0.00028	6.08	681.18	1.55	45.00	10183.50	6570.00	69.75	5122.71	0.002	0.071	0.002
113	6.81	6.66	0.01938	86.1	0.00028	6.08	687.26	1.55	45.00	10183.50	6570.00	69.75	5352.66	0.002	0.074	0.002
114	6.66	6.51	0.01938	86.1	0.00028	6.08	693.34	1.55	45.00	10183.50	6570.00	69.75	5582.61	0.002	0.077	0.002
115	6.51	6.37	0.01938	86.1	0.00028	6.08	699.42	1.55	45.00	10183.50	6570.00	69.75	5812.56	0.002	0.080	0.002
116	6.37	6.22	0.01938	86.1	0.00028	6.08	705.50	1.55	45.00	10183.50	6570.00	69.75	6042.51	0.002	0.084	0.002
117	6.22	6.08	0.01938	86.1	0.00028	6.08	711.58	1.55	45.00	10183.50	6570.00	69.75	6272.46	0.002	0.087	0.002
118	6.08	5.93	0.01938	86.1	0.00028	6.08	717.67	1.55	45.00	10183.50	6570.00	69.75	6502.41	0.002	0.090	0.002
119	5.93	5.78	0.01938	86.1	0.00028	6.08	723.75	1.55	45.00	10183.50	6570.00	69.75	6732.36	0.002	0.093	0.002
120	5.78	5.64	0.01938	86.1	0.00028	6.08	729.83	1.55	45.00	10183.50	6570.00	69.75	6962.31	0.002	0.096	0.002
121	5.64	5.49	0.01938	86.1	0.00028	6.08	735.91	1.55	45.00	10183.50	6570.00	69.75	7192.26	0.002	0.099	0.002
122	5.49	5.35	0.01938	86.1	0.00028	6.08	741.99	1.55	45.00	10183.50	6570.00	69.75	7422.21	0.002	0.102	0.002
123	5.35	5.20	0.01938	86.1	0.00028	6.08	748.07	1.55	45.00	10183.50	6570.00	69.75	7652.16	0.002	0.106	0.002
TOT						121.64				203670.00	131400.00					
AVG					0.0003			1.55	45.00			69.75				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD1 DECAT	BOD1 SEITT	ABOD1 DECAT	BOD1 HYDR	BOD2 DECAT	BOD2 SEITT	ABOD2 DECAT	BKGD SOD	FULL SOD	CORR SOD	ORG-N HYDR	ORG-N SEITT	NH3-N DECAT	NH3-N SRCE	DENIT RATE	ORG-P HYDR	ORG-P SEITT	PO4 SRCE	PHYTO PROD	PERIP PROD	COLI DECAT	NCM DECAT	NCM SEITT	
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	1/da	1/da	*	**	**	1/da	1/da	1/da	
104	7.974	7.81	0.53	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.51	3.51	3.51	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
105	7.828	7.81	0.53	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.51	3.51	3.51	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
106	7.682	7.81	0.53	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.51	3.51	3.51	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
107	7.536	7.81	0.53	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.51	3.51	3.51	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
108	7.390	7.81	0.53	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.51	3.51	3.51	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
109	7.244	7.81	0.53	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.51	3.51	3.51	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
110	7.098	7.81	0.53	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.51	3.51	3.51	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
111	6.952	7.81	0.53	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.51	3.51	3.51	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
112	6.806	7.81	0.53	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.51	3.51	3.51	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
113	6.660	7.81	0.53	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.51	3.51	3.51	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
114	6.514	7.81	0.53	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.51	3.51	3.51	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
115	6.368	7.81	0.53	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.51	3.51	3.51	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
116	6.222	7.81	0.53	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.51	3.51	3.51	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
117	6.076	7.81	0.53	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.51	3.51	3.51	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
118	5.930	7.81	0.53	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.51	3.51	3.51	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
119	5.784	7.81	0.53	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.51	3.51	3.51	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
120	5.638	7.81	0.53	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.51	3.51	3.51	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
121	5.492	7.81	0.53	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.51	3.51	3.51	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
122	5.346	7.81	0.53	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.51	3.51	3.51	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
123	5.200	7.81	0.53	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.51	3.51	3.51	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
AVG	20 DEG C RATE		0.45	0.05	0.05	0.00	0.00	0.00	0.05	0.00	2.10			0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
*	g/m ² /d																										
**	mg/L/day																										

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	ETOT-P mg/L	CHL A ug/L	PERIP g/m ²	COLI #/100mL	NCM
104	7.974	28.13	0.11	13.08	239.79	4.86	4.41	0.00	5.41	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
105	7.828	28.13	0.11	13.08	239.79	4.60	2.75	0.00	3.75	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

106	7.682	28.13	0.11	13.08	239.78	4.61	1.73	0.00	2.73	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
107	7.536	28.13	0.11	13.08	239.78	4.68	1.09	0.00	2.09	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
108	7.390	28.13	0.11	13.08	239.78	4.74	0.69	0.00	1.69	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
109	7.244	28.13	0.11	13.08	239.78	4.79	0.44	0.00	1.44	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
110	7.098	28.13	0.11	13.08	239.78	4.82	0.28	0.00	1.28	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
111	6.952	28.13	0.11	13.08	239.77	4.84	0.18	0.00	1.18	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
112	6.806	28.13	0.11	13.08	239.77	4.86	0.12	0.00	1.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
113	6.660	28.13	0.11	13.08	239.76	4.86	0.08	0.00	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
114	6.514	28.13	0.11	13.08	239.74	4.87	0.05	0.00	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
115	6.368	28.13	0.11	13.08	239.72	4.87	0.03	0.00	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
116	6.222	28.13	0.11	13.07	239.68	4.88	0.02	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
117	6.076	28.13	0.11	13.07	239.63	4.88	0.01	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
118	5.930	28.13	0.11	13.07	239.56	4.88	0.01	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
119	5.784	28.13	0.11	13.06	239.46	4.88	0.01	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
120	5.638	28.13	0.11	13.05	239.32	4.88	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
121	5.492	28.13	0.11	13.04	239.12	4.88	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
122	5.346	28.13	0.11	13.02	238.86	4.89	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
123	5.200	28.13	0.11	13.00	238.49	4.91	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPLHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SETT 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SEC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m²
104	7.974	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
105	7.828	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
106	7.682	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
107	7.536	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
108	7.390	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
109	7.244	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
110	7.098	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
111	6.952	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
112	6.806	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
113	6.660	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
114	6.514	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
115	6.368	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
116	6.222	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
117	6.076	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
118	5.930	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
119	5.784	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
120	5.638	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
121	5.492	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
122	5.346	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
123	5.200	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream
 REACH NO. 11 E GRAND BAYOU-BAYOU ALCIDE

GRAND BAYOU SUMMER PROJECTION
 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
124	UPR RCH	0.01938	28.13	0.11	13.00	238.49	4.91	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00
124	WSTLD	-0.00964	28.13	0.11	12.97	237.95	4.97	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCF EFF	ADV/CIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
124	5.20	5.01	0.00974	86.1	0.00014	15.66	763.73	1.62	42.95	13177.98	8159.74	69.36	8080.55	0.003	0.116	0.003
125	5.01	4.82	0.00974	86.1	0.00014	15.66	779.39	1.62	42.95	13177.98	8159.74	69.36	8508.94	0.003	0.122	0.003
126	4.82	4.63	0.00974	86.1	0.00014	15.66	795.05	1.62	42.95	13177.98	8159.74	69.36	8937.32	0.003	0.128	0.003
127	4.63	4.44	0.00974	86.1	0.00014	15.66	810.71	1.62	42.95	13177.98	8159.74	69.36	9365.71	0.003	0.134	0.003
128	4.44	4.25	0.00974	86.1	0.00014	15.66	826.37	1.62	42.95	13177.98	8159.74	69.36	9794.10	0.003	0.140	0.003
129	4.25	4.06	0.00974	86.1	0.00014	15.66	842.03	1.62	42.95	13177.98	8159.74	69.36	10222.48	0.003	0.147	0.003
130	4.06	3.87	0.00974	86.1	0.00014	15.66	857.69	1.62	42.95	13177.98	8159.74	69.36	10650.87	0.003	0.153	0.003
131	3.87	3.68	0.00974	86.1	0.00014	15.66	873.35	1.62	42.95	13177.98	8159.74	69.36	11079.26	0.004	0.159	0.004
132	3.68	3.49	0.00974	86.1	0.00014	15.66	889.01	1.62	42.95	13177.98	8159.74	69.36	11507.64	0.004	0.165	0.004
133	3.49	3.30	0.00974	86.1	0.00014	15.66	904.67	1.62	42.95	13177.98	8159.74	69.36	11936.03	0.004	0.171	0.004
134	3.30	3.11	0.00974	86.1	0.00014	15.66	920.33	1.62	42.95	13177.98	8159.74	69.36	12364.42	0.004	0.177	0.004
TOT AVG					0.0001	172.25		1.61	42.95	144957.77	89757.14	69.36				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECAT 1/da	BOD1 ABOD1 1/da	BOD1 HYDR 1/da	BOD2 DECAT 1/da	BOD2 ABOD2 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SEIT DECAT 1/da	NH3-N SRCE 1/da	NH3-N DENIT RATE 1/da	ORG-P HYDR 1/da	ORG-P SEIT 1/da	PO4 SRCE *	PHYTO PROD **	PERIP PROD **	COLI DECAT 1/da	NCM DECAT 1/da	NCM SEIT 1/da
124	5.010	7.81	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.45	3.45	3.45	0.16	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
125	4.820	7.81	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.45	3.45	3.45	0.16	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
126	4.630	7.81	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.45	3.45	3.45	0.16	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
127	4.440	7.81	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.45	3.45	3.45	0.16	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
128	4.250	7.81	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.45	3.45	3.45	0.16	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
129	4.060	7.81	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.45	3.45	3.45	0.16	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
130	3.870	7.81	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.45	3.45	3.45	0.16	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
131	3.680	7.81	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.45	3.45	3.45	0.16	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
132	3.490	7.81	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.45	3.45	3.45	0.16	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
133	3.300	7.81	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.45	3.45	3.45	0.16	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
134	3.110	7.81	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.45	3.45	3.45	0.16	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.43	0.06	0.05	0.00	0.00	0.00	0.05	2.07			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	BORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	BORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI #/100mL	NCM
124	5.010	28.13	0.11	12.97	237.95	4.97	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

125	4.820	28.13	0.11	12.92	237.13	5.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
126	4.630	28.13	0.11	12.86	236.18	5.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
127	4.440	28.13	0.11	12.79	235.08	5.01	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
128	4.250	28.13	0.11	12.71	233.81	5.01	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
129	4.060	28.13	0.11	12.62	232.36	5.01	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
130	3.870	28.13	0.11	12.52	230.71	5.01	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
131	3.680	28.13	0.11	12.40	228.85	5.01	0.01	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
132	3.490	28.13	0.11	12.27	226.75	5.00	0.02	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
133	3.300	28.13	0.11	12.13	224.39	5.00	0.03	0.00	1.03	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
134	3.110	28.13	0.10	11.96	221.75	5.00	0.06	0.00	1.06	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPLHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SETT 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SPC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m²
124	5.010	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
125	4.820	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
126	4.630	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
127	4.440	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
128	4.250	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
129	4.060	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
130	3.870	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
131	3.680	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
132	3.490	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
133	3.300	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
134	3.110	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream GRAND BAYOU SUMMER PROJECTION
 REACH NO. 12 BAYOU ALCIDE-SITE GRB8 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
135	UPR RCH	0.00974	28.13	0.10	11.96	221.75	5.00	0.06	0.00	1.06	0.00	0.02	0.00	0.00	0.00	10.00	0.00	0.00
135	WSTLD	0.00283	28.13	0.07	8.80	160.11	7.03	2.98	0.00	2.98	0.00	1.23	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCF EFF	ADVCTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPERSN m²/s	MEAN VELO m/s
135	3.11	2.96	0.01257	89.3	0.00013	12.73	933.06	1.73	55.00	13828.65	7975.00	95.37	12811.02	0.003	0.142	0.003
136	2.96	2.82	0.01257	89.3	0.00013	12.73	945.79	1.73	55.00	13828.65	7975.00	95.37	13257.62	0.003	0.147	0.003
137	2.82	2.67	0.01257	89.3	0.00013	12.73	958.53	1.73	55.00	13828.65	7975.00	95.37	13704.22	0.003	0.152	0.003
138	2.67	2.53	0.01257	89.3	0.00013	12.73	971.26	1.73	55.00	13828.65	7975.00	95.37	14150.82	0.003	0.157	0.003

139	2.53	2.38	0.01257	89.3	0.00013	12.73	983.99	1.73	55.00	13828.65	7975.00	95.37	14597.42	0.003	0.161	0.003
140	2.38	2.24	0.01257	89.3	0.00013	12.73	996.73	1.73	55.00	13828.65	7975.00	95.37	15044.01	0.004	0.166	0.004
141	2.24	2.10	0.01257	89.3	0.00013	12.73	1009.46	1.73	55.00	13828.65	7975.00	95.37	15490.61	0.004	0.171	0.004
142	2.10	1.95	0.01257	89.3	0.00013	12.73	1022.19	1.73	55.00	13828.65	7975.00	95.37	15937.21	0.004	0.176	0.004
143	1.95	1.81	0.01257	89.3	0.00013	12.73	1034.93	1.73	55.00	13828.65	7975.00	95.37	16383.81	0.004	0.181	0.004
144	1.81	1.66	0.01257	89.3	0.00013	12.73	1047.66	1.73	55.00	13828.65	7975.00	95.37	16830.41	0.004	0.186	0.004
TOT						127.33				138286.50	79750.00					
AVG				0.0001				1.73	55.00			95.37				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECAT 1/da	BOD1 DECAT 1/da	ABOD1 DECAT 1/da	BOD1 HYDR 1/da	BOD2 DECAT 1/da	BOD2 DECAT 1/da	ABOD2 DECAT 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SEIT 1/da	NH3-N DECAT 1/da	NH3-N SRCE *	DENIT RATE 1/da	ORG-P HYDR 1/da	ORG-P SEIT 1/da	PO4 SRCE *	PHYTO PROD **	PERIP PROD **	COLI DECAT 1/da	NCM DECAT 1/da	NCM SEIT 1/da	
135	2.965	7.81	0.47	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.57	3.57	3.57	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
136	2.820	7.81	0.47	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.57	3.57	3.57	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
137	2.675	7.81	0.47	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.57	3.57	3.57	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
138	2.530	7.81	0.47	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.57	3.57	3.57	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
139	2.385	7.81	0.47	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.57	3.57	3.57	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
140	2.240	7.81	0.47	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.57	3.57	3.57	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
141	2.095	7.81	0.47	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.57	3.57	3.57	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
142	1.950	7.81	0.47	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.57	3.57	3.57	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
143	1.805	7.81	0.47	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.57	3.57	3.57	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
144	1.660	7.81	0.47	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.57	3.57	3.57	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.40	0.05	0.05	0.00	0.00	0.00	0.05	0.00	2.14			0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
* g/m ² /d				** mg/L/day																							

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m ²	COLI #/100mL	NCM
135	2.965	28.13	0.10	11.81	219.23	5.00	0.10	0.00	1.10	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
136	2.820	28.13	0.10	11.76	218.69	4.97	0.07	0.00	1.07	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
137	2.675	28.13	0.10	11.70	218.11	4.96	0.06	0.00	1.06	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
138	2.530	28.13	0.10	11.64	217.47	4.95	0.06	0.00	1.06	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
139	2.385	28.13	0.10	11.57	216.77	4.94	0.07	0.00	1.07	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
140	2.240	28.13	0.10	11.49	216.02	4.93	0.10	0.00	1.10	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
141	2.095	28.13	0.10	11.41	215.20	4.91	0.15	0.00	1.15	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
142	1.950	28.13	0.10	11.33	214.31	4.90	0.24	0.00	1.24	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
143	1.805	28.13	0.10	11.23	213.36	4.91	0.37	0.00	1.37	0.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
144	1.660	28.13	0.10	11.13	212.33	5.01	0.59	0.00	1.59	0.00	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPLHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SEIT 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SEC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m ²
135	2.965	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
136	2.820	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

137	2.675	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
138	2.530	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
139	2.385	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
140	2.240	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
141	2.095	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
142	1.950	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
143	1.805	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
144	1.660	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
20 DEG C RATE										0.000	0.000	0.000	0.000											0.000	0.000	0.000	

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream GRAND BAYOU SUMMER PROJECTION
 REACH NO. 13 SITE GRB8-LITTLE BAYOU LONG 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
145	UPR RCH	0.01257	28.13	0.10	11.13	212.33	5.01	0.59	0.00	1.59	0.00	0.73	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFT	ADVECTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s	
145	1.66	1.54	0.01257	89.3	0.00010	13.50	1061.16	1.50	85.00	14662.50	9775.00	127.50	17514.66	0.003	0.128	0.003	
146	1.54	1.43	0.01257	89.3	0.00010	13.50	1074.66	1.50	85.00	14662.50	9775.00	127.50	18198.91	0.003	0.133	0.003	
147	1.43	1.31	0.01257	89.3	0.00010	13.50	1088.16	1.50	85.00	14662.50	9775.00	127.50	18883.16	0.003	0.138	0.003	
148	1.31	1.20	0.01257	89.3	0.00010	13.50	1101.66	1.50	85.00	14662.50	9775.00	127.50	19567.41	0.003	0.143	0.003	
TOT AVG							54.00		1.50	85.00	58650.00	39100.00	127.50				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECAT 1/da	BOD1 SEITP 1/da	ABOD1 DECAT 1/da	BOD1 HYDR 1/da	BOD2 DECAT 1/da	BOD2 SEITP 1/da	ABOD2 DECAT 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SEITP 1/da	NH3-N DECAT 1/da	NH3-N SRCE *	DENIT RATE 1/da	ORG-P HYDR 1/da	ORG-P SEITP 1/da	SRCE *	PHYTO PROD **	PERIP PROD **	COLI DECAT 1/da	NCM DECAT 1/da	NCM SEITP 1/da	
145	1.545	7.81	0.54	0.08	0.06	0.00	0.00	0.00	0.00	0.00	2.44	2.44	2.44	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	
146	1.430	7.81	0.54	0.08	0.06	0.00	0.00	0.00	0.00	0.00	2.44	2.44	2.44	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	
147	1.315	7.81	0.54	0.08	0.06	0.00	0.00	0.00	0.00	0.00	2.44	2.44	2.44	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	
148	1.200	7.81	0.54	0.08	0.06	0.00	0.00	0.00	0.00	0.00	2.44	2.44	2.44	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	
AVG 20 DEG C RATE				0.47	0.05	0.05	0.00	0.00	0.05	0.00	1.47				0.09	0.05	0.00	0.00	0.00	0.00	0.00				0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI #/100mL	NCM	
145	1.545	28.13	0.10	11.03	211.29	5.32	0.91	0.00	1.91	0.00	1.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
146	1.430	28.13	0.10	10.93	210.25	5.41	1.14	0.00	2.14	0.00	1.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
147	1.315	28.13	0.10	10.82	209.17	5.41	1.32	0.00	2.32	0.00	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
148	1.200	28.13	0.10	10.71	208.03	5.37	1.48	0.00	2.48	0.00	1.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SEITT 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SPC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m²
145	1.545	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
146	1.430	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
147	1.315	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
148	1.200	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream GRAND BAYOU SUMMER PROJECTION
 REACH NO. 14 L BAYOU LONG-LAKE VERRET 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
149	UPR RCH	0.01257	28.13	0.10	10.71	208.03	5.37	1.48	0.00	2.48	0.00	1.94	0.00	0.00	0.00	10.00	0.00	0.00
149	WSTLD	0.00283	28.13	0.07	9.00	153.60	7.03	3.01	0.00	3.01	0.00	0.97	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCF EFF	ADVCTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPERSN m²/s	MEAN VELO m/s
149	1.20	1.08	0.01540	91.2	0.00008	16.84	1118.50	1.23	152.40	22402.80	18288.00	186.69	20847.57	0.002	0.088	0.002
150	1.08	0.96	0.01540	91.2	0.00008	16.84	1135.34	1.23	152.40	22402.80	18288.00	186.69	22127.73	0.003	0.094	0.003
151	0.96	0.84	0.01540	91.2	0.00008	16.84	1152.17	1.23	152.40	22402.80	18288.00	186.69	23407.89	0.003	0.099	0.003
152	0.84	0.72	0.01540	91.2	0.00008	16.84	1169.01	1.23	152.40	22402.80	18288.00	186.69	24688.05	0.003	0.104	0.003
153	0.72	0.60	0.01540	91.2	0.00008	16.84	1185.85	1.23	152.40	22402.80	18288.00	186.69	25968.21	0.003	0.110	0.003
154	0.60	0.48	0.01540	91.2	0.00008	16.84	1202.68	1.23	152.40	22402.80	18288.00	186.69	27248.38	0.003	0.115	0.003
155	0.48	0.36	0.01540	91.2	0.00008	16.84	1219.52	1.23	152.40	22402.80	18288.00	186.69	28528.54	0.003	0.121	0.003
156	0.36	0.24	0.01540	91.2	0.00008	16.84	1236.36	1.23	152.40	22402.80	18288.00	186.69	29808.70	0.004	0.126	0.004
157	0.24	0.12	0.01540	91.2	0.00008	16.84	1253.20	1.23	152.40	22402.80	18288.00	186.69	31088.86	0.004	0.131	0.004
158	0.12	0.00	0.01540	91.2	0.00008	16.84	1270.03	1.23	152.40	22402.80	18288.00	186.69	32369.02	0.004	0.137	0.004
TOT AVG					0.0001	168.37			1.23	152.40	224027.98	182880.00		186.69		

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECAT 1/da	BOD1 DECAT 1/da	ABOD1 DECAT 1/da	BOD1 HYDR 1/da	BOD2 DECAT 1/da	BOD2 DECAT 1/da	ABOD2 DECAT 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SEIT 1/da	NH3-N DECAT 1/da	NH3-N SRCE *	DENIT RATE 1/da	ORG-P HYDR 1/da	ORG-P SEIT 1/da	PO4 SRCE *	PHYTO PROD **	PERIP PROD **	COLI DECAT 1/da	NCM DECAT 1/da	NCM SEIT 1/da
149	1.080	7.81	0.67	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.37	2.37	2.37	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
150	0.960	7.81	0.67	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.37	2.37	2.37	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
151	0.840	7.81	0.67	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.37	2.37	2.37	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
152	0.720	7.81	0.67	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.37	2.37	2.37	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
153	0.600	7.81	0.67	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.37	2.37	2.37	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
154	0.480	7.81	0.67	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.37	2.37	2.37	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
155	0.360	7.81	0.67	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.37	2.37	2.37	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
156	0.240	7.81	0.67	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.37	2.37	2.37	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
157	0.120	7.81	0.67	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.37	2.37	2.37	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
158	0.000	7.81	0.67	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.37	2.37	2.37	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 0.57 0.06 0.05 0.00 0.00 0.00 0.05 0.00 1.42 0.10 0.05 0.00 0.00 0.00 0.00 0.00 0.00 0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m ²	COLI #/100mL	NCM
149	1.080	28.13	0.09	10.58	206.74	5.30	1.67	0.00	2.67	0.00	2.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
150	0.960	28.13	0.09	10.47	206.33	5.25	1.76	0.00	2.76	0.00	2.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
151	0.840	28.13	0.09	10.35	205.91	5.22	1.81	0.00	2.81	0.00	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
152	0.720	28.13	0.09	10.23	205.47	5.22	1.82	0.00	2.82	0.00	2.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
153	0.600	28.13	0.09	10.10	205.01	5.24	1.79	0.00	2.79	0.00	2.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
154	0.480	28.13	0.09	9.96	204.53	5.28	1.71	0.00	2.71	0.00	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
155	0.360	28.13	0.09	9.83	204.03	5.37	1.57	0.00	2.57	0.00	2.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
156	0.240	28.13	0.09	9.68	203.51	5.54	1.34	0.00	2.34	0.00	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
157	0.120	28.13	0.09	9.53	202.98	5.85	0.99	0.00	1.99	0.00	1.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
158	0.000	28.13	0.09	9.38	202.43	6.45	0.43	0.00	1.43	0.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPLHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SEIT 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SEC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m ²
149	1.080	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
150	0.960	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
151	0.840	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
152	0.720	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
153	0.600	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
154	0.480	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
155	0.360	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
156	0.240	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
157	0.120	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
158	0.000	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE

0.000 0.000 0.000 0.000

0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

GRAND BAYOU SUMMER PROJECTION
 09/17/07

STREAM SUMMARY REPORT: Grand Bayou Upstream

TRAVEL TIME	=	1270.03	DAYS	
MAXIMUM EFFLUENT	=	91.23	PERCENT	
FLOW	=	0.00283	TO 0.01938	m ³ /s
DISPERSION	=	0.0072	TO 0.1862	m ² /s
VELOCITY	=	0.00008	TO 0.00044	m/s
DEPTH	=	0.85	TO 1.73	m
WIDTH	=	12.19	TO 152.40	m
BOD DECAY	=	0.08	TO 0.12	per day
NH3 DECAY	=	0.00	TO 0.00	per day
SOD	=	1.03	TO 3.57	g/m ² /d
NH3 SED SOURCE	=	0.00	TO 0.00	g/m ² /d
PO4 SED SOURCE	=	0.00	TO 0.00	g/m ² /d
REAERATION	=	0.47	TO 0.96	per day
BOD SETTLING	=	0.06	TO 0.06	per day
NBOD DECAY	=	0.15	TO 0.23	per day
NBOD SETTLING	=	0.06	TO 0.06	per day
TEMPERATURE	=	28.13	TO 28.13	deg C
DISSOLVED OXYGEN	=	3.56	TO 6.45	mg/L

GRAND BAYOU SUMMER PROJECTION
 09/17/07

INPUT/OUTPUT LOADING SUMMARY

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00283	1.72	0.66	0.00	0.90	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.02308	13.83	7.69	0.00	5.29	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWALS	-0.01051	-4.60	-0.65	0.00	-0.07	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER ENDRY	-0.01540	-8.58	-0.58	0.00	-0.83	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER ENDRY		21.46	-15.92	0.00	-22.97	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWR ENDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	783.93	0.00	398.23			0.00				0.00
NATURAL REAERATION		2145.33										
DAM REAERATION		0.00										
SOD BACKGROUND		-2516.50										
BOD1 DECAY		-471.30	-471.30									
BOD1 SETTLING		0.00	-303.84									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		0.00		0.00								
BOD2 SETTLING		0.00		0.00								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-281.23			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SOURCE						0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS							0.00	0.00				
ORG-P SETTLING							0.00	0.00				
PO4-P BACKGROUND SEDIMENT SOURCE								0.00				
PHYTOPLANKTON GROWTH/PHOTOSYNTHESIS		1100.78				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXCRETION		0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTHESIS		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRETION		0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00		0.00		
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.02591	3283.11	792.28	0.00	404.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.02591	-3282.20	-792.28	0.00	-23.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	0.91	0.00	0.00	380.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....EXECUTION COMPLETED

Justifications

Grand Bayou Summer Projection

	DATA TYPE 3 - PROGRAM CONSTANTS		
CONSTANT NAME	VALUE	UNITS	DATA SOURCE
DISPERSION EQUATION	3		Dispersion calibrated using measured values at two sites
TIDE HEIGHT	0.07	meters	Continuous Monitor data, site GRB9
KL MINIMUM	0.7	m/day	Louisiana Standard Practice
INHIBITION CONTROL VALUE	3		Louisiana Standard Practice
EFFECTIVE BOD DUE TO ALGAE	0.1	mg/L BOD /ug chl a/ day	BPJ and calibration
ALGAE OXYGEN PRODUCTION	0.05	mg O / ug chl a / day	BPJ and calibration
K2 MAXIMUM	25	1/day at 20 deg C	Louisiana Standard Practice
HYDRAULIC CALCULATION METHOD	2		Louisiana Standard Practice
SETTLING RATE UNITS	2		Louisiana Standard Practice

Grand Bayou Summer Projection

Reach	ID	Name	DATA TYPE 8 - REACH IDENTIFICATION DATA			
			Upstream River Kilometer	Downstream River Kilometer	Element Length, km	Data Source
1	GB	SITE GRB1-BAYOU SIGUR	23.53	23.44	0.0900	
2	GB	BAYOU SIGUR-MUDDY BAYOU	23.44	22.62	0.1640	
3	GB	MUDDY BAYOU-BAYOU CROUX (BYC1)	22.62	20.57	0.2050	
4	GB	B CROUX (BYC1)-B CROUX (BYC2)	20.57	18.29	0.1520	
5	GB	B CROUX (BYC2)-km 15.5	18.29	15.50	0.1550	
6	GB	km 15.5-km 13.0	15.50	13.00	0.1250	
7	GB	km 13.0-BAYOU CORNE	13.00	11.43	0.1570	
8	GB	B CORNE-LITTLE GRAND BAYOU	11.43	8.72	0.1355	
9	GB	LITTLE GRAND-UNNAMED CANAL	8.72	8.12	0.1500	
10	GB	UNNAMED CANAL-E GRAND BAYOU	8.12	5.20	0.1460	
11	GB	E GRAND BAYOU-BAYOU ALCIDE	5.20	3.11	0.1900	
12	GB	BAYOU ALCIDE-SITE GRB8	3.11	1.66	0.1450	
13	GB	SITE GRB8-LITTLE BAYOU LONG	1.66	1.20	0.1150	
14	GB	L BAYOU LONG-LAKE VERRET	1.20	0.00	0.1200	

Grand Bayou Summer Projection

Reach	Name	DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS			
		Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. "d"	Depth Exp. "e"	Depth Const. "f"	Data Source	Slope (unitless)	Data Source	Manning's "n"	Data Source
1	SITE GRB1-BAYOU SIGUR	0	0	12.192	Field Data, Site GRB1	0	0	0.853	Field Data, Site GRB1	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
2	BAYOU SIGUR-MUDDY BAYOU	0	0	16.500	Estimate of field data between Sites GRB1 and GRB2	0	0	0.900	Estimate of field data between Sites GRB1 and GRB2	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
3	MUDDY BAYOU-BAYOU CROUX (BYC1)	0	0	21.336	Field Data, Site GRB2	0	0	1.006	Field Data, Site GRB2	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
4	B CROUX (BYC1)-B CROUX (BYC2)	0	0	16.459	Field Data, Site GRB3	0	0	1.570	Field Data, Site GRB3	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
5	B CROUX (BYC2)-km 15.5	0	0	30.000	Estimate of field data between Sites GRB3 and GRB4	0	0	1.550	Estimate of field data between Sites GRB3 and GRB4	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
6	km 15.5-km 13.0	0	0	44.196	Field Data, Site GRB4	0	0	1.515	Field Data, Site GRB4	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
7	km 13.0-BAYOU CORNE	0	0	43.000	Estimate of field data between Sites GRB4 and GRB5	0	0	1.550	Estimate of field data between Sites GRB4 and GRB5	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
8	B CORNE-LITTLE GRAND BAYOU	0	0	42.062	Field Data, Site GRB5	0	0	1.622	Field Data, Site GRB5	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
9	LITTLE GRAND-UNNAMED CANAL	0	0	48.768	Field Data, Site GRB6	0	0	1.478	Field Data, Site GRB6	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
10	UNNAMED CANAL-E GRAND BAYOU	0	0	45.000	Estimate of field data between Sites GRB6 and GRB7	0	0	1.550	Estimate of field data between Sites GRB6 and GRB7	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
11	E GRAND BAYOU-BAYOU ALCIDE	0	0	42.946	Field Data, Site GRB7	0	0	1.615	Field Data, Site GRB7	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
12	BAYOU ALCIDE-SITE GRB8	0	0	55.000	Estimate of field data between Sites GRB7 and GRB8	0	0	1.734	Field Data, Site GRB8	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
13	SITE GRB8-LITTLE BAYOU LONG	0	0	85.000	Estimate of field data between Sites GRB8 and GRB9	0	0	1.500	Estimate of field data between Sites GRB8 and GRB9	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
14	L BAYOU LONG-LAKE VERRET	0	0	152.400	Field Data, Site GRB9	0	0	1.225	Field Data, Site GRB9	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook

Grand Bayou Summer Projection

Reach	Name	DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS				Data Source
		Tidal Range	Data Source	Dispersion Coeff. "a"	Dispersion Coeff. "b"	Dispersion Coeff. "c"	Dispersion Coeff. "d"	
1	SITE GRB1-BAYOU SIGUR	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
2	BAYOU SIGUR-MUDDY BAYOU	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
3	MUDDY BAYOU-BAYOU CROUX (BYC1)	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
4	B CROUX (BYC1)-B CROUX (BYC2)	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
5	B CROUX (BYC2)-km 15.5	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
6	km 15.5-km 13.0	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
7	km 13.0-BAYOU CORNE	0.10	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
8	B CORNE-LITTLE GRAND BAYOU	0.25	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
9	LITTLE GRAND-UNNAMED CANAL	0.29	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
10	UNNAMED CANAL-E GRAND BAYOU	0.50	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
11	E GRAND BAYOU-BAYOU ALCIDE	0.75	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
12	BAYOU ALCIDE-SITE GRB8	0.80	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
13	SITE GRB8-LITTLE BAYOU LONG	1.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
14	L BAYOU LONG-LAKE VERRET	1.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"

Grand Bayou Summer Projection

Reach	Name	DATA TYPE 11 - INITIAL CONDITIONS			DATA TYPE 11 - INITIAL CONDITIONS			
		Temp, deg C	Sal, ppt	DO, mg/l	Data Source	Chlorophyll a	Macrophytes	Data Source
1	SITE GRB1-BAYOU SIGUR	28.13	0.15	5.00	Salinity values from Calibration model. Temperature is summer critical temperature calculated from WQN Site 82. DO is the criteria value for the subsegment.	10.00	0	Louisiana standard practice, reduction in nutrients will cause a reduction in algae.
2	BAYOU SIGUR-MUDDY BAYOU	28.13	0.14	5.00		10.00	0	
3	MUDDY BAYOU-BAYOU CROUX (BYC1)	28.13	0.11	5.00		10.00	0	
4	B CROUX (BYC1)-B CROUX (BYC2)	28.13	0.09	5.00		10.00	0	
5	B CROUX (BYC2)-km 15.5	28.13	0.09	5.00		10.00	0	
6	km 15.5-km 13.0	28.13	0.10	5.00		10.00	0	
7	km 13.0-BAYOU CORNE	28.13	0.08	5.00		10.00	0	
8	B CORNE-LITTLE GRAND BAYOU	28.13	0.07	5.00		10.00	0	
9	LITTLE GRAND-UNNAMED CANAL	28.13	0.07	5.00		10.00	0	
10	UNNAMED CANAL-E GRAND BAYOU	28.13	0.07	5.00		10.00	0	
11	E GRAND BAYOU-BAYOU ALCIDE	28.13	0.08	5.00		10.00	0	
12	BAYOU ALCIDE-SITE GRB8	28.13	0.08	5.00		10.00	0	
13	SITE GRB8-LITTLE BAYOU LONG	28.13	0.08	5.00		10.00	0	
14	L BAYOU LONG-LAKE VERRET	28.13	0.07	5.00		10.00	0	

Grand Bayou Summer Projection

REACH	NAME	DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS				DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS		DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS	
		K ₂ OPT	Data Source	BKGRND SOD, gmO ₂ /m ² /day at 20 deg C	Data Source	Aerobic BOD1 Dec Rate (1/day)	Data Source	BOD1 SETT RATE (1/day)	Data Source
1	SITE GRB1-BAYOU SIGUR	4	Owens-Edwards-Gibbs	0.652	TMDL Loading Spreadsheet	0.084	Mathematical interpolations of Lab bottle rates based on physical location in reference to Site locations.	0.05	LTP, BPJ and calibration
2	BAYOU SIGUR-MUDDY BAYOU	4	Owens-Edwards-Gibbs	0.882		0.081		0.05	LTP, BPJ and calibration
3	MUDDY BAYOU-BAYOU CROUX (BYC1)	4	Owens-Edwards-Gibbs	1.384		0.074		0.05	LTP, BPJ and calibration
4	B CROUX (BYC1)-B CROUX (BYC2)	4	Owens-Edwards-Gibbs	2.012		0.067		0.05	LTP, BPJ and calibration
5	B CROUX (BYC2)-km 15.5	4	Owens-Edwards-Gibbs	1.272		0.071		0.05	LTP, BPJ and calibration
6	km 15.5-km 13.0	4	Owens-Edwards-Gibbs	1.226		0.078		0.05	LTP, BPJ and calibration
7	km 13.0-BAYOU CORNE	4	Owens-Edwards-Gibbs	1.108		0.068		0.05	LTP, BPJ and calibration
8	B CORNE-LITTLE GRAND BAYOU	4	Owens-Edwards-Gibbs	0.618		0.054		0.05	LTP, BPJ and calibration
9	LITTLE GRAND-UNNAMED CANAL	4	Owens-Edwards-Gibbs	0.772		0.052		0.05	LTP, BPJ and calibration
10	UNNAMED CANAL-E GRAND BAYOU	4	Owens-Edwards-Gibbs	2.103		0.054		0.05	LTP, BPJ and calibration
11	E GRAND BAYOU-BAYOU ALCIDE	4	Owens-Edwards-Gibbs	2.069		0.057		0.05	LTP, BPJ and calibration
12	BAYOU ALCIDE-SITE GRB8	4	Owens-Edwards-Gibbs	2.138		0.055		0.05	LTP, BPJ and calibration
13	SITE GRB8-LITTLE BAYOU LONG	4	Owens-Edwards-Gibbs	1.465		0.055		0.05	LTP, BPJ and calibration
14	L BAYOU LONG-LAKE VERRET	4	Owens-Edwards-Gibbs	1.421		0.061		0.05	LTP, BPJ and calibration

Grand Bayou Summer Projection

DATA TYPE 13 - NITROGEN AND PHOSPHORUS COEFFICIENTS						
Reach	Name	NBOD decay rate, 1/day	NBOD settling rate, 1/day	Data Source	Settled Org-N conv. to ammonia benthos source rate	Data Source
1	SITE GRB1-BAYOU SIGUR	0.115	0.05	Mathematical interpolations of Lab bottle rates based on physical location in reference to Site locations.	1.00	
2	BAYOU SIGUR-MUDDY BAYOU	0.112	0.05		1.00	
3	MUDDY BAYOU-BAYOU CROUX (BYC1)	0.105	0.05		1.00	
4	B CROUX (BYC1)-B CROUX (BYC2)	0.099	0.05		1.00	
5	B CROUX (BYC2)-km 15.5	0.100	0.05		1.00	
6	km 15.5-km 13.0	0.104	0.05		1.00	
7	km 13.0-BAYOU CORNE	0.120	0.05		1.00	
8	B CORNE-LITTLE GRAND BAYOU	0.138	0.05		1.00	
9	LITTLE GRAND-UNNAMED CANAL	0.091	0.05		1.00	
10	UNNAMED CANAL-E GRAND BAYOU	0.094	0.05		1.00	
11	E GRAND BAYOU-BAYOU ALCIDE	0.098	0.05		1.00	
12	BAYOU ALCIDE-SITE GRB8	0.092	0.05		1.00	
13	SITE GRB8-LITTLE BAYOU LONG	0.091	0.05		1.00	
14	L BAYOU LONG-LAKE VERRET	0.097	0.05		1.00	

Grand Bayou Summer Projection

		DATA TYPE 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVE							
Reach	Reach Name	Incr. Outflow, m ³	Incr. Inflow, m ³	Data Source	Temp, deg C	Sal., ppt	Cons. Mat I Chlorides	Cons. Mat II Conductivity	Data Source
1	SITE GRB1-BAYOU SIGUR		0.000	Incremental flows reduced to zero to simulate dry, critical conditions.					
2	BAYOU SIGUR-MUDDY BAYOU		0.000						
3	MUDDY BAYOU-BAYOU CROUX (BYC1)		0.000						
4	B CROUX (BYC1)-B CROUX (BYC2)		0.000						
5	B CROUX (BYC2)-km 15.5		0.000						
6	km 15.5-km 13.0		0.000						
7	km 13.0-BAYOU CORNE		0.000						
8	B CORNE-LITTLE GRAND BAYOU		0.000						
9	LITTLE GRAND-UNNAMED CANAL		0.000						
10	UNNAMED CANAL-E GRAND BAYOU		0.000						
11	E GRAND BAYOU-BAYOU ALCIDE		0.000						
12	BAYOU ALCIDE-SITE GRB8		0.000						
13	SITE GRB8-LITTLE BAYOU LONG		0.000						
14	L BAYOU LONG-LAKE VERRET		0.000						

Grand Bayou Summer Projection

		DATA TYPE 19 - NONPOINT SOURCES			
Reach	Reach Name	Length of Reach, km	UCBOD1, kg/day	NBOD, kg/day	Data Source
1	SITE GRB1-BAYOU SIGUR	0.09	6.52	4.89	TMDL Loading Spreadsheet.
2	BAYOU SIGUR-MUDDY BAYOU	0.82	32.28	20.44	
3	MUDDY BAYOU-BAYOU CROUX (BYC1)	2.05	67.17	26.87	
4	B CROUX (BYC1)-B CROUX (BYC2)	2.28	0.000	13.58	
5	B CROUX (BYC2)-km 15.5	2.79	111.31	36.57	
6	km 15.5-km 13.0	2.50	142.79	44.35	
7	km 13.0-BAYOU CORNE	1.57	83.08	27.69	
8	B CORNE-LITTLE GRAND BAYOU	2.71	208.42	75.65	
9	LITTLE GRAND-UNNAMED CANAL	0.60	53.85	5.38	
10	UNNAMED CANAL-E GRAND BAYOU	2.92	0.000	0.000	
11	E GRAND BAYOU-BAYOU ALCIDE	2.09	0.000	0.000	
12	BAYOU ALCIDE-SITE GRB8	1.45	0.000	0.000	
13	SITE GRB8-LITTLE BAYOU LONG	0.46	12.21	24.41	
14	L BAYOU LONG-LAKE VERRET	1.20	66.30	118.40	

DATA TYPE 20 - HEADWATER DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES								
Headwater Name	Element No.	Logical Unit Number	Headwater Flow, cms	Temp, deg C	Salinity, ppt	Conservative Material I Chlorides	Conservative Material II Conductivity	Data Source
Grand Bayou	1		0.00283	28.13	0.15	13.6	300.8	Site GRB1 Field and Lab data. Flow and Temp set to critical conditions.

Grand Bayou Summer Projection

DATA TYPE 21 - HEADWATER DATA FOR DO, BOD, AND NITROGEN				
Headwater Name	Dissolved Oxygen, mg/L	UCBOD1, mg/l	NBOD, mg/l	Data Source
Grand Bayou	7.03	3.69	3.67	90% DO saturation and Loading Spreadsheet.

DATA TYPE 22 - HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES					
Headwater Name	Phosphorus, mg/L	Chlorophyll a, ug/L	Coliform, #/100 mL	Nonconservative Material	Date Source
Grand Bayou		10.0			Louisiana standard practice, reduction in nutrients will cause a reduction in algae.

Grand Bayou Summer Projection

DATA TYPE 24 - WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES							
Wasteload / Withdrawal Name	EL #	Flow, cms	Temperature, deg C	Salinity	Conservative Material I Chlorides	Conservative Material II Conductivity	Data Source
Bayou Sigur	2	0.00283	28.13	0.17	15	345	Summer critical Flow and Temp. Survey data, Site BYS1
Muddy Bayou	7	0.00283	28.13	0.08	16.9	169.2	Summer critical Flow and Temp. Survey data, Site MB1
Bayou Crouix (BYC1)	17	0.00283	28.13	0.12	8.4	250.2	Summer critical Flow and Temp. Survey data, Site BYC1
Bayou Crouix (BYC2)	32	0.00283	28.13	0.14	17.4	269.8	Summer critical Flow and Temp. Survey data, Site BYC2
Gator Super Stop	62	0.00043	28.13	0.11	13.8	234.1	Permitted flow adjusted for MOS. Survey data, Site PST1
Chevron Pipe Line	63	0.00001	28.13	0.11	13.8	234.1	Permitted flow adjusted for MOS. Survey data, Site PST1
Bayou Come	80	0.00283	28.13	0.07	10.2	154.13	Summer critical Flow and Temp. Survey data, Site BYCO1
Little Grand Bayou	100	-0.00087	28.13				Flow follows same % of total flow as from calibration.
Unnamed Canal	104	0.00283	28.13	0.07	10.1	166.8	Summer critical Flow and Temp. Survey data, Site UNC2
East Grand Bayou	124	-0.00964	28.13				Flow follows same % of total flow as from calibration.
Bayou Alcide	135	0.00283	28.13	0.07	8.8	160.11	Summer critical Flow and Temp. Survey data, Site BA1
Little Bayou Long	149	0.00283	28.13	0.07	9	153.6	Summer critical Flow and Temp. Survey data, Site LBL1

Grand Bayou Summer Projection

DATA TYPE 25 - WASTELOAD DATA FOR DO, BOD, AND NITROGEN						
Wasteload / Withdrawal Name	EL #	DO, mg/l	UCBOD1, mg/l	BOD decayed, percent	UNBOD, mg/l	Data Source
Bayou Sigur	2	7.03	4.06		4.05	Summer critical temp and TMDL Loading Spreadsheet
Muddy Bayou	7	7.03	0.51		0.00	Summer critical temp and TMDL Loading Spreadsheet
Bayou Crouix (BYC1)	17	7.03	3.17		1.45	Summer critical temp and TMDL Loading Spreadsheet
Bayou Crouix (BYC2)	32	7.03	3.63		2.51	Summer critical temp and TMDL Loading Spreadsheet
Gator Super Stop	62	2.00	69.00		64.50	Permit and application data
Chevron Pipe Line	63	2.00	103.50		64.50	Permit and application data
Bayou Corne	80	7.03	0.29		0.00	Summer critical temp and TMDL Loading Spreadsheet
Little Grand Bayou	100					Summer critical temp and TMDL Loading Spreadsheet
Unnamed Canal	104	7.03	2.97		1.38	Summer critical temp and TMDL Loading Spreadsheet
East Grand Bayou	124					Summer critical temp and TMDL Loading Spreadsheet
Bayou Alcide	135	7.03	2.98		1.23	Summer critical temp and TMDL Loading Spreadsheet
Little Bayou Long	149	7.03	3.01		0.97	Summer critical temp and TMDL Loading Spreadsheet

Grand Bayou Summer Projection

DATA TYPE 26 - WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES						
Wasteload/ Withdrawal Name	EL #	Phosphorus, mg/l	Chlorophyll-A, ug/L	Coliform, #/100 mL	Nonconservative Material	Data Source
Bayou Sigur	2		10.00			Louisiana standard practice, reduction in nutrients will cause a reduction in algae.
Muddy Bayou	7		10.00			
Bayou Crouix (BYC1)	17		10.00			
Bayou Crouix (BYC2)	32		10.00			
Gator Super Stop	62					
Chevron Pipe Line	63					
Bayou Corne	80		10.00			
Little Grand Bayou	100					
Unnamed Canal	104		10.00			
East Grand Bayou	124					
Bayou Alcide	135		10.00			
Little Bayou Long	149		10.00			

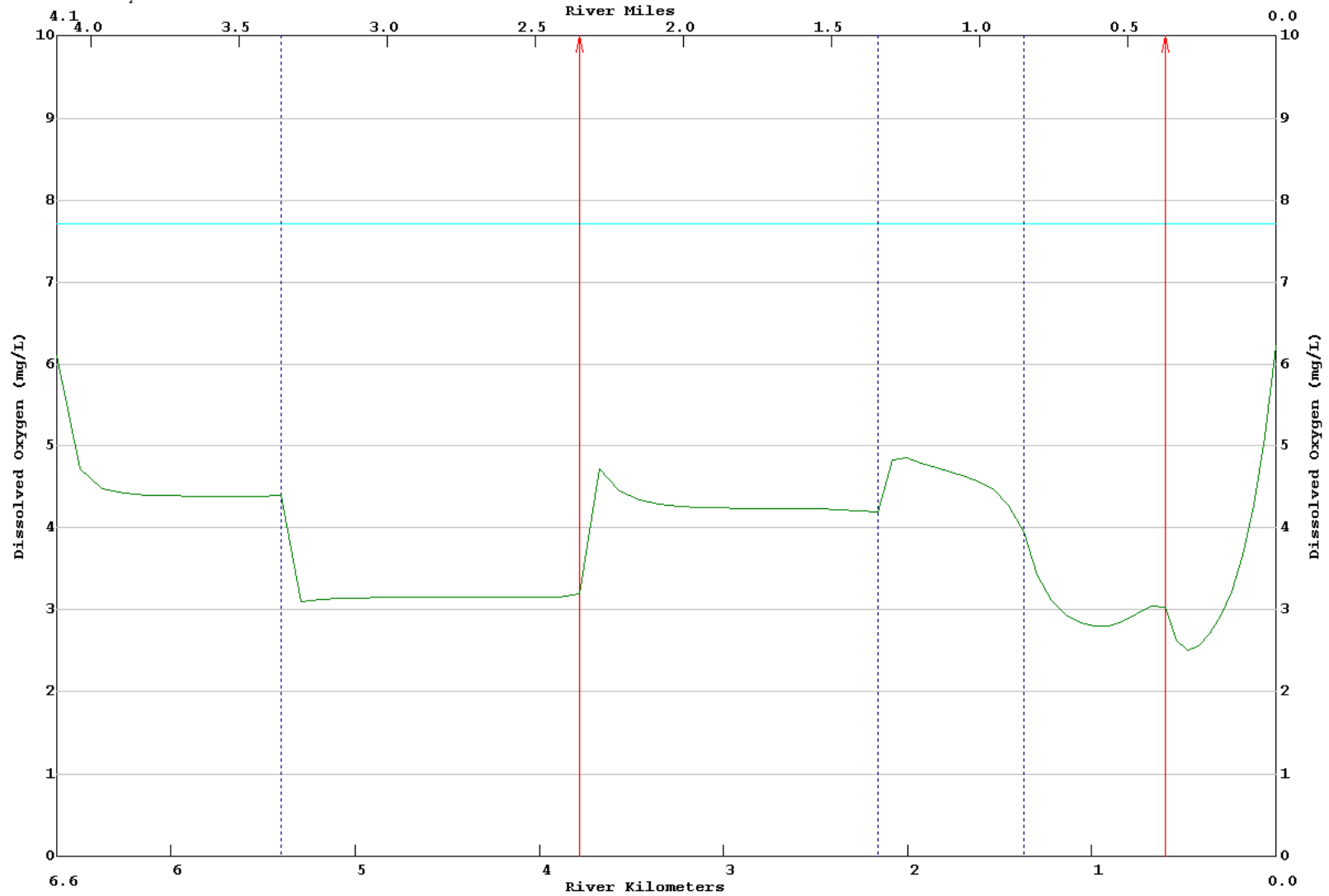
Grand Bayou Summer Projection

DATA TYPE 27 - LOWER BOUNDARY CONDITIONS			
Parameter	Value	Units	Data Source
TEMPERATURE	28.13	oCelcius	Summer critical temperature
SALINITY	0.09	ppt	Field and Lab data, Site LV1
CONSERVATIVE MATERIAL I CHLORIDES	9.3	mg/L	Field and Lab data, Site LV1
CONSERVATIVE MATERIAL II CONDUCTIVITY	202.14	mg/L	Field and Lab data, Site LV1
DISSOLVED OXYGEN	7.03	mg/L	90% DO saturation
BIOCHEMICAL OXYGEN DEMAND 1	0.29	mg/L	Field and Lab data, Site LV1
NBOD	0	mg/L	
PHOSPHORUS	0	mg/L	
CHLOROPHYLL A	10	ug/L	Louisiana standard practice, reduction in nutrients will cause a reduction in algae.
COLIFORM	0	#/100 mL	
NONCONSERVATIVE MATERIAL	0	mg/L	

Appendix D2 – Little Grand Bayou Summer Projection

Graphs

LA-QUAL Version 9.03 Run at 10:13 on 08/03/2010 File S:\projects\3110-060\tech\Revised TMDL\Revised Models\120206\Little_Grand_Bayou_Summer.txt
LITTLE GRAND BAYOU SUMMER PROJECTION
09/17/07
Grand Bayou
STEADY-STATE MODE
Predicted min= 2.51 max= 6.23
D.O. Sat



Input File

```

CNTROL01      LITTLE GRAND BAYOU SUMMER PROJECTION
CNTROL02      09/17/07
CNTROL12 YES  METRIC UNITS
ENDATA01
MODOPT01 NO   TEMPERATURE
MODOPT02 YES  SALINITY
MODOPT03 YES  CONSERVATIVE MATERIAL I = CHLORIDES           IN MG/L
MODOPT04 YES  CONSERVATIVE MATERIAL II = CONDUCTIVITY      IN MG/L
MODOPT05 YES  DISSOLVED OXYGEN
MODOPT06 YES  BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT07 NO   BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08 YES  NBOD OXYGEN DEMAND
MODOPT09 NO   PHOSPHORUS
MODOPT10 NO   CHLOROPHYLL A
MODOPT11 NO   MACROPHYTES
MODOPT12 NO   COLIFORM
MODOPT13 NO   NONCONSERVATIVE MATERIAL
ENDATA02
PROGRAM DISPERSION EQUATION           =      3
PROGRAM TIDE HEIGHT                   =     0.07
PROGRAM KL MINIMUM                    =     0.7
PROGRAM INHIBITION CONTROL VALUE     =     3.0
! Effective BOD due to algae value is within the range
! suggested in the LAQUAL User's Manual (ver. 7.02, rev. L, 8/04/2005)
PROGRAM EFFECTIVE BOD DUE TO ALGAE   =     0.10
PROGRAM ALGAE OXYGEN PRODUCTION      =     0.05
PROGRAM K2 MAXIMUM                   =    25.0
PROGRAM HYDRAULIC CALCULATION METHOD  =     2.0
PROGRAM SETTLING RATE UNITS          =     2.0
ENDATA03
!-----1-----2-----3-----4-----5-----6-----7-----8
! 234567890123456789012345678901234567890123456789012345678901234567890
ENDATA04
ENDATA05
ENDATA06
ENDATA07
!Reach Identification Data
!-----1-----2-----3-----4-----5-----6-----7-----8
! 234567890123456789012345678901234567890123456789012345678901234567890
!
!      ***  -- *****-----*****-----*****-----*****
REACH ID   1  LG  GRAND BAYOU-RKM 5.40           6.62    5.40    0.122
REACH ID   2  LG  RKM 5.40-WESTFIELD CANAL       5.40    3.78    0.108
REACH ID   3  LG  WESTFIELD CANAL-RKM 2.16      3.78    2.16    0.108
REACH ID   4  LG  RKM 2.16-RKM 1.37             2.16    1.37    0.079
REACH ID   5  LG  RKM 1.37-WHITMEL CANAL        1.37    0.60    0.077
REACH ID   6  LG  WHITMEL CANAL-LAKE VERRET     0.60    0.00    0.060
ENDATA08
!Advective Hydraulic Coefficients
!-----1-----2-----3-----4-----5-----6-----7-----8
! 234567890123456789012345678901234567890123456789012345678901234567890
!
!      ***  -----*****-----*****-----*****-----*****
HYDR-1     1  0.0000 0.0000 14.844 0.000 0.000 0.607 0.0001 0.035
HYDR-1     2  0.0000 0.0000 20.000 0.000 0.000 0.625 0.0001 0.035
HYDR-1     3  0.0000 0.0000 27.737 0.000 0.000 0.640 0.0001 0.035
HYDR-1     4  0.0000 0.0000 29.000 0.000 0.000 0.900 0.0001 0.035
HYDR-1     5  0.0000 0.0000 45.000 0.000 0.000 1.100 0.0001 0.035
HYDR-1     6  0.0000 0.0000 66.142 0.000 0.000 1.375 0.0001 0.035
ENDATA09
!Dispersive Hydraulic Coefficients
!-----1-----2-----3-----4-----5-----6-----7-----8
! 234567890123456789012345678901234567890123456789012345678901234567890
!
!      ***  -----*****-----*****-----*****-----*****
HYDR-2     1  0.00  30.00  0.833  0.00  1.00
HYDR-2     2  0.00  30.00  0.833  0.00  1.00
HYDR-2     3  0.25  30.00  0.833  0.00  1.00
HYDR-2     4  0.50  30.00  0.833  0.00  1.00
HYDR-2     5  0.75  30.00  0.833  0.00  1.00
HYDR-2     6  1.00  30.00  0.833  0.00  1.00

```


ENDATA10

!Initial Conditions

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
! *** -----*****-----*****-----*****-----*****
INITIAL 1 28.81 0.07 5.00 0.000 0.000 0.00 10.00 00.00
INITIAL 2 28.81 0.07 5.00 0.000 0.000 0.00 10.00 00.00
INITIAL 3 28.81 0.08 5.00 0.000 0.000 0.00 10.00 00.00
INITIAL 4 28.81 0.07 5.00 0.000 0.000 0.00 10.00 00.00
INITIAL 5 28.81 0.07 5.00 0.000 0.000 0.00 10.00 00.00
INITIAL 6 28.81 0.07 5.00 0.000 0.000 0.00 10.00 00.00

ENDATA11

!-----1-----2-----3-----4-----5-----6-----7-----8-----9-----0-
!23456789012345678901234567890123456789012345678901234567890123456789012345678901
!
! *** -----*****-----*****-----*****-----*****
COEF-1 1 4 0.00 0.000 0.000 1.047 0.064 0.05 0.05
COEF-1 2 4 0.00 0.000 0.000 1.894 0.056 0.05 0.05
COEF-1 3 4 0.00 0.000 0.000 1.217 0.058 0.05 0.05
COEF-1 4 4 0.00 0.000 0.000 0.452 0.057 0.05 0.05
COEF-1 5 4 0.00 0.000 0.000 0.088 0.064 0.05 0.05
COEF-1 6 4 0.00 0.000 0.000 0.088 0.082 0.05 0.05

ENDATA12

!Nitrogen and Phosphorus Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
! *** -----*****-----*****-----*****-----*****
COEF-2 1 0.111 0.05 1.0 0.00 0.00 0.00 0.00
COEF-2 2 0.132 0.05 1.0 0.00 0.00 0.00 0.00
COEF-2 3 0.121 0.05 1.0 0.00 0.00 0.00 0.00
COEF-2 4 0.102 0.05 1.0 0.00 0.00 0.00 0.00
COEF-2 5 0.099 0.05 1.0 0.00 0.00 0.00 0.00
COEF-2 6 0.107 0.05 1.0 0.00 0.00 0.00 0.00

ENDATA13

!Algae and Macrophyte Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
! *** -----*****-----*****-----*****-----*****

ENDATA14

!Coliform and Nonconservative Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
! *** -----*****-----*****-----*****-----*****

ENDATA15

!Incremental Data for Flow, Temperature, Salinity, and Conservatives

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
! *** -----*****-----*****-----*****-----*****

ENDATA16

!Incremental Data for DO, BOD, and Nitrogen

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
! *** -----*****-----*****-----*****-----*****

ENDATA17

!Incremental Data for Phosphorus, Chlorophyll, Coliform and Nonconservatives

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
! *** -----*****-----*****-----*****-----*****

ENDATA18

!Nonpoint Source Data

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
! *** -----*****-----*****-----*****-----*****
NONPOINT 1 29.900 8.970
NONPOINT 2 41.480 8.300
NONPOINT 3 60.860 25.870
NONPOINT 4 67.840 22.610
NONPOINT 5 202.690 66.100
NONPOINT 6 220.920 83.950

ENDATA19

!Headwater Data for Flow, Temperature, Salinity, and Conservatives

!-----1-----2-----3-----4-----5-----6-----7-----8

```
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!      **** ----- *** -----*****-----*****-----
HDWTR-1      1      Grand Bayou      0.  0.00087  28.13  0.12      13.55  251.33
ENDATA20
!Headwater Data for DO, BOD, and Nitrogen
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!      **** -----*****-----*****-----*****-----*****-----
HDWTR-2      1      6.11      8.58      0.94      0.000      0.00      0.000
ENDATA21
!Headwater Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!      **** -----*****-----*****-----*****-----*****-----
HDWTR-3      1      0.00      10.00      0.00      0.00
ENDATA22
!Junction Data
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!      **** ---- *****-----*****-----*****-----*****-----*****-----
ENDATA23
!Wasteload Data for Flow, Temperature, Salinity, and Conservatives
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!      **** -----*****-----*****-----*****-----*****-----*****-----
WSTLD-1      26      WESTFIELD CANAL      0.00283      28.81      0.07      10.50      174.0
WSTLD-1      61      WHITMEL CANAL      0.00283      28.81      0.07      8.80      172.0
ENDATA24
!Wasteload Data for DO, BOD, and Nitrogen
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!      **** -----*****-----*****-----*****-----*****-----*****-----
WSTLD-2      26      6.95      3.31      0.0      2.77      0.00      0.0      0.00      0.000
WSTLD-2      61      6.95      3.51      0.0      2.47      0.00      0.0      0.00      0.000
ENDATA25
!Wasteload Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!      **** -----*****-----*****-----*****-----*****-----*****-----
WSTLD-3      26      0.00      10.00      0.00      0.00
WSTLD-3      61      0.00      10.00      0.00      0.00
ENDATA26
LOWER BC TEMPERATURE = 28.81
LOWER BC SALINITY = 0.07
LOWER BC CONSERVATIVE MATERIAL I = 9.20
LOWER BC CONSERVATIVE MATERIAL II = 171.00
LOWER BC DISSOLVED OXYGEN = 6.94
LOWER BC BOD1 BIOCHEMICAL OXYGEN DEMAND = 8.663
LOWER BC NBOD = 2.416
LOWER BC PHOSPHORUS = 0.00
LOWER BC CHLOROPHYLL A = 10.00
LOWER BC COLIFORM = 0.00
LOWER BC NONCONSERVATIVE MATERIAL = 0.00
ENDATA27
!DAM DATA
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!      **** -----*****-----*****-----*****-----*****-----*****-----
ENDATA28
!SENSIT BASEFLOW 30.0 -30.0
!SENSIT VELOCITY 30.0 -30.0
!SENSIT DEPTH 30.0 -30.0
!SENSIT DISPERSI 30.0 -30.0
!SENSIT REAERATI 30.0 -30.0
!SENSIT BOD DECA 30.0 -30.0
!SENSIT BOD SETT 30.0 -30.0
!SENSIT NBOD DEC 30.0 -30.0
!SENSIT NBOD SET 30.0 -30.0
!SENSIT BENTHAL 30.0 -30.0
!SENSIT TEMPERAT 2.0 -2.0
!SENSIT HDW FLOW 30.0 -30.0
```

!SENSIT HDW TEMP 2.0 -2.0
!SENSIT HDW DO 30.0 -30.0
!SENSIT HDW BOD 30.0 -30.0
!SENSIT HDW NBOD 30.0 -30.0
!SENSIT WSL FLOW 30.0 -30.0
!SENSIT WSL TEMP 2.0 -2.0
!SENSIT WSL DO 30.0 -30.0
!SENSIT WSL BOD 30.0 -30.0
!SENSIT WSL NBOD 30.0 -30.0
!SENSIT LBC TEMP 2.0 -2.0
!SENSIT LBC DO 30.0 -30.0
!SENSIT LBC BOD 30.0 -30.0
!SENSIT LBC NBOD 30.0 -30.0
!SENSIT NPS BOD 30.0 -30.0
!SENSIT NPS NBOD 30.0 -30.0

ENDATA29

NUMBER OF PLOTS = 1

NUMBER OF REACHES IN PLOT 1 = 6

PLOT RCH 1 2 3 4 5 6

ENDATA30

!OVERLAY 1 OVERLAY LGBProjection.TXT

:REACHES 1-6

ENDATA31

Output File

LA-QUAL Version 8.11
 LA-QUAL Version 9.03
 Louisiana Department of Environmental Quality

Input file is S:\projects\3110-060\tech\Revised TMDL\Revised Models\120206\Little_Grand_Bayou_Summer.txt
 Running in steady-state mode using LA defaults
 Output produced at 10:19 on 06/25/2010

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE	CONTROL TITLES
TITLE01	LITTLE GRAND BAYOU SUMMER PROJECTION
TITLE02	09/17/07
CONTROL12	YES METRIC UNITS
ENDATA01	

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE	MODEL OPTION	
MOOPT01	NO TEMPERATURE	
MOOPT02	YES SALINITY	
MOOPT03	YES CONSERVATIVE MATERIAL I = CHLORIDES	IN MG/L
MOOPT04	YES CONSERVATIVE MATERIAL II = CONDUCTIVITY	IN MG/L
MOOPT05	YES DISSOLVED OXYGEN	
MOOPT06	YES BOD1 BIOCHEMICAL OXYGEN DEMAND	
MOOPT07	NO BOD2 BIOCHEMICAL OXYGEN DEMAND	
MOOPT08	YES NBOD OXYGEN DEMAND	
MOOPT09	NO PHOSPHORUS	
MOOPT10	NO CHLOROPHYLL A	
MOOPT11	NO MACROPHYTES	
MOOPT12	NO COLIFORM	
MOOPT13	NO NONCONSERVATIVE MATERIAL	
ENDATA02		

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
PROGRAM	DISPERSION EQUATION	= 3.00000 (values entered as a function of D,Q,Vmean)
PROGRAM	TIDE HEIGHT	= 0.07000 meters
PROGRAM	KL MINIMUM	= 0.70000 meters/day
PROGRAM	INHIBITION CONTROL VALUE	= 3.00000 (inhibit all rates but SOD)
PROGRAM	EFFECTIVE BOD DUE TO ALGAE	= 0.10000 mg/L BOD1 per ug/L chl a
PROGRAM	ALGAE OXYGEN PRODUCTION	= 0.05000 mg O/ug chl a/day
PROGRAM	K2 MAXIMUM	= 25.00000 per day
PROGRAM	HYDRAULIC CALCULATION METHOD	= 2.00000 (widths and depths)
PROGRAM	SETTLING RATE UNITS	= 2.00000 (values entered as per day)
ENDATA03		

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE	RATE CODE	THETA VALUE
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ENDATA04

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
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ENDATA05

\$\$\$ DATA TYPE 6 (PHYTOPLANKTON CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
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ENDATA06

\$\$\$ DATA TYPE 7 (PERIPHYTON CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
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ENDATA07

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN REACH km	END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM
REACH ID	1	LG	GRAND BAYOU-RKM 5.40	6.62	TO 5.40	0.1220	1.22	10	1	10
REACH ID	2	LG	RKM 5.40-WESTFIELD CANAL	5.40	TO 3.78	0.1080	1.62	15	11	25
REACH ID	3	LG	WESTFIELD CANAL-RKM 2.16	3.78	TO 2.16	0.1080	1.62	15	26	40
REACH ID	4	LG	RKM 2.16-RKM 1.37	2.16	TO 1.37	0.0790	0.79	10	41	50
REACH ID	5	LG	RKM 1.37-WHITMEL CANAL	1.37	TO 0.60	0.0770	0.77	10	51	60
REACH ID	6	LG	WHITMEL CANAL-LAKE VERRET	0.60	TO 0.00	0.0600	0.60	10	61	70

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1	1	LG	0.000	0.000	14.844	0.000	0.000	0.607	0.00010	0.035
HYDR-1	2	LG	0.000	0.000	20.000	0.000	0.000	0.625	0.00010	0.035
HYDR-1	3	LG	0.000	0.000	27.737	0.000	0.000	0.640	0.00010	0.035
HYDR-1	4	LG	0.000	0.000	29.000	0.000	0.000	0.900	0.00010	0.035
HYDR-1	5	LG	0.000	0.000	45.000	0.000	0.000	1.100	0.00010	0.035
HYDR-1	6	LG	0.000	0.000	66.142	0.000	0.000	1.375	0.00010	0.035

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"
HYDR	1	LG	0.00	30.000	0.833	0.000	1.000
HYDR	2	LG	0.00	30.000	0.833	0.000	1.000
HYDR	3	LG	0.25	30.000	0.833	0.000	1.000
HYDR	4	LG	0.50	30.000	0.833	0.000	1.000
HYDR	5	LG	0.75	30.000	0.833	0.000	1.000
HYDR	6	LG	1.00	30.000	0.833	0.000	1.000

ENDATA10

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD TYPE	REACH	ID	TEMP deg C	SALIN ppt	DO mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	PERIP g/m²	BOD1 mg/L	BOD2 mg/L	ORG-N mg/L	ORG-P mg/L	COLI #/100mL	NCM	CM-1 MG/L	CM-2 MG/L
INITIAL	1	LG	28.81	0.07	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	2	LG	28.81	0.07	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	3	LG	28.81	0.08	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	4	LG	28.81	0.07	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	5	LG	28.81	0.07	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	6	LG	28.81	0.07	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ENDATA11

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD g/m²/d	AEROB BOD per day	BOD per day	SETTLD SOD frac	ANAER BOD per day	AEROB BOD2 per day	BOD2 per day	ANAER BOD2 per day	BOD2 HYDR TO per day
COEF-1	1	LG	4 OWENS <5 FPS	0.000	0.000	0.000	1.047	0.064	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	2	LG	4 OWENS <5 FPS	0.000	0.000	0.000	1.894	0.056	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	3	LG	4 OWENS <5 FPS	0.000	0.000	0.000	1.217	0.058	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	4	LG	4 OWENS <5 FPS	0.000	0.000	0.000	0.452	0.057	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	5	LG	4 OWENS <5 FPS	0.000	0.000	0.000	0.088	0.064	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	6	LG	4 OWENS <5 FPS	0.000	0.000	0.000	0.088	0.082	0.050	0.000	0.000	0.000	0.050	0.000	0.000

ENDATA12

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	NBOD DECA per day	NBOD SETT per day	SEITLD ORGN AVAIL frac	NH3 DECA per day	BKGRND NH3 SRCE g/m²/d	BKGRND PO4 SRCE g/m²/d	DENIT RATE per day	ORGP DECA per day	ORGP SETT per day	SEITLD ORGP AVAIL frac
COEF-2	1	LG	0.111	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	2	LG	0.132	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	3	LG	0.121	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	4	LG	0.102	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	5	LG	0.099	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	6	LG	0.107	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ENDATA13

\$\$\$ DATA TYPE 14 (ALGAE PHYTOPLANKTON AND PERIPHYTON COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	SECCHI DEPTH m	CHL A: ALGAE frac	PHYTO SETT per day	PHYTO DEATH per day	PHYTO GROW per day	PHYTO RESP per day	PERIP DEATH per day	PERIP GROW per day	PERIP RESP per day	BANK SHADING frac
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ENDATA14

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	COLIFORM DIE-OFF per day	NCM DECAY per day	NCM SETT per day
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ENDATA15

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW m ³ /s	INFLOW m ³ /s	TEMP deg C	SALIN ppt	CM-1 MG/L	CM-2 MG/L	IN/DIST	OUT/DIST
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ENDATA16

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	REACH	ID	DO mg/L	BOD1 mg/L	NBOD mg/L	mg/L	mg/L	BOD2 mg/L
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ENDATA17

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, PHYTOPLANKTON, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	PO4 mg/L	PHYTO CHL A µg/L	COLI #/100mL	NCM	ORGP mg/L
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ENDATA18

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH	ID	BOD1 kg/d	NBOD kg/d	COLI #/day	NCM	DO kg/d	BOD2 kg/d	ORG-P kg/d
NONPOINT	1	LG	29.90	8.97	0.00	0.00	0.00	0.00	0.00
NONPOINT	2	LG	41.48	8.30	0.00	0.00	0.00	0.00	0.00
NONPOINT	3	LG	60.86	25.87	0.00	0.00	0.00	0.00	0.00
NONPOINT	4	LG	67.84	22.61	0.00	0.00	0.00	0.00	0.00
NONPOINT	5	LG	202.69	66.10	0.00	0.00	0.00	0.00	0.00
NONPOINT	6	LG	220.92	83.95	0.00	0.00	0.00	0.00	0.00

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m ³ /s	FLOW cfs	TEMP deg C	SALIN ppt	CM-1 MG/L	CM-2 MG/L	HDW DISP EXCHG frac
HDWIR-1	1	Grand Bayou	0	0.00087	0.03072	28.13	0.12	13.550	251.330	0.000

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L	mg/L	mg/L	BOD2 mg/L
HDWIR-2	1	Grand Bayou	6.11	8.58	0.94	0.00	0.00	0.00

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, PHYTOPLANKTON, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PO4-P mg/L	PHYTO CHL A µg/L	COLI #/100mL	NCM	ORG-P mg/L
HDWIR-3	1	Grand Bayou	0.00	10.00	0.00	0.00	0.00

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	RIVER KILOM	NAME
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ENDATA23

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	RKILO	NAME	FLOW m ³ /s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-1 MG/L	CM-2 MG/L
WSTLD-1	26	3.78	WESTFIELD CANAL	0.00283	0.09993	0.065	28.81	0.07	10.500	174.000
WSTLD-1	61	0.60	WHITMEL CANAL	0.00283	0.09993	0.065	28.81	0.07	8.800	172.000

ENDATA24

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD FMVL	NBOD mg/L	SALIN mg/L	% NITRIF	BOD2 mg/L
WSTLD-2	26	WESTFIELD CANAL	6.95	3.31	0.00	2.77	0.00	0.00	0.00
WSTLD-2	61	WHITMEL CANAL	6.95	3.51	0.00	2.47	0.00	0.00	0.00

ENDATA25

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, PHYTOPLANTON, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PO4-P mg/L	PHYTO CHL A µg/L	COLI #/100mL	NCM	ORG-P mg/L
WSTLD-3	26	WESTFIELD CANAL	0.00	10.00	0.00	0.00	0.00
WSTLD-3	61	WHITMEL CANAL	0.00	10.00	0.00	0.00	0.00

ENDATA26

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENTRATION
LOWER BC	TEMPERATURE	= 28.810 deg C
LOWER BC	SALINITY	= 0.070 ppt
LOWER BC	CONSERVATIVE MATERIAL I	= 9.200 MG/L
LOWER BC	CONSERVATIVE MATERIAL II	= 171.000 MG/L
LOWER BC	DISSOLVED OXYGEN	= 6.940 mg/L
LOWER BC	BOD1 BIOCHEMICAL OXYGEN DEMAND	= 8.663 mg/L
LOWER BC	NBOD	= 2.416 mg/L
LOWER BC	PHOSPHORUS	= 0.000 mg/L
LOWER BC	CHLOROPHYLL A	= 10.000 µg/L
LOWER BC	COLIFORM	= 0.000 #/100 mL
LOWER BC	NONCONSERVATIVE MATERIAL	= 0.000

ENDATA27

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD TYPE	ELEMENT	NAME	EQN	"A"	"B"	"H"
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ENDATA28

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE PARAMETER COL 1 COL 2 COL 3 COL 4 COL 5 COL 6 COL 7 COL 8
 ENDATA29

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

NUMBER OF PLOTS = 1
 NUMBER OF REACHES IN PLOT 1 = 6
 PLOT RCH 1 2 3 4 5 6
 ENDATA30

\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

ENDATA31

.....NO ERRORS DETECTED IN INPUT DATA
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 12 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED
GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11

FINAL REPORT Grand Bayou
 REACH NO. 1 GRAND BAYOU-RKM 5.40

LITTLE GRAND BAYOU SUMMER PROJECTION
 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
1	HDWIR	0.00087	28.13	0.12	13.55	251.33	6.11	7.58	0.00	8.58	0.00	0.94	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCF EFF	ADV/CIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
1	6.62	6.50	0.00087	0.0	0.00010	14.62	14.62	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.002	0.000
2	6.50	6.38	0.00087	0.0	0.00010	14.62	29.25	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.002	0.000
3	6.38	6.25	0.00087	0.0	0.00010	14.62	43.87	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.002	0.000
4	6.25	6.13	0.00087	0.0	0.00010	14.62	58.50	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.002	0.000
5	6.13	6.01	0.00087	0.0	0.00010	14.62	73.12	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.002	0.000
6	6.01	5.89	0.00087	0.0	0.00010	14.62	87.74	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.002	0.000
7	5.89	5.77	0.00087	0.0	0.00010	14.62	102.37	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.002	0.000
8	5.77	5.64	0.00087	0.0	0.00010	14.62	116.99	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.002	0.000
9	5.64	5.52	0.00087	0.0	0.00010	14.62	131.62	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.002	0.000
10	5.52	5.40	0.00087	0.0	0.00010	14.62	146.24	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.002	0.000
TOT						146.24				10992.58	18109.68					

AVG 0.0001 0.61 14.84 9.01

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD1 DECAT	BOD1 SEITP	ABOD1 DECAT	BOD1 HYDR	BOD2 DECAT	BOD2 SEITP	ABOD2 DECAT	BKGD SOD	FULL SOD	CORR SOD	ORG-N HYDR	ORG-N SEITP	NH3-N DECAT	NH3-N SRCE	DENIT RATE	ORG-P HYDR	ORG-P SEITP	PO4 SRCE	PHYTO PROD	PERIP PROD	COLI DECAT	NCM DECAT	NCM SEITP
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	1/da	1/da	*	**	**	1/da	1/da	1/da
1	6.498	7.71	1.36	0.10	0.06	0.00	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.18	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
2	6.376	7.71	1.36	0.10	0.06	0.00	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.18	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
3	6.254	7.71	1.36	0.10	0.06	0.00	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.18	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
4	6.132	7.71	1.36	0.10	0.06	0.00	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.18	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5	6.010	7.71	1.36	0.10	0.06	0.00	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.18	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
6	5.888	7.71	1.36	0.10	0.06	0.00	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.18	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
7	5.766	7.71	1.36	0.10	0.06	0.00	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.18	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
8	5.644	7.71	1.36	0.10	0.06	0.00	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.18	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
9	5.522	7.71	1.36	0.10	0.06	0.00	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.18	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
10	5.400	7.71	1.36	0.10	0.06	0.00	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.18	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			1.15	0.06	0.05	0.00	0.00	0.00	0.05	0.00	1.05			0.11	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	BORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	BORG-P mg/L	ETOT-P mg/L	CHL A ug/L	PERIP g/m ²	COLI #/100mL	NCM
1	6.498	28.81	0.12	13.55	251.33	4.72	14.43	0.00	15.43	0.00	2.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
2	6.376	28.81	0.12	13.55	251.33	4.48	16.34	0.00	17.34	0.00	3.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
3	6.254	28.81	0.12	13.55	251.33	4.41	16.97	0.00	17.97	0.00	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
4	6.132	28.81	0.12	13.55	251.33	4.39	17.17	0.00	18.17	0.00	3.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
5	6.010	28.81	0.12	13.55	251.33	4.39	17.23	0.00	18.23	0.00	3.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
6	5.888	28.81	0.12	13.55	251.33	4.39	17.26	0.00	18.26	0.00	3.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
7	5.766	28.81	0.12	13.55	251.33	4.39	17.26	0.00	18.26	0.00	3.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
8	5.644	28.81	0.12	13.55	251.33	4.39	17.26	0.00	18.26	0.00	3.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
9	5.522	28.81	0.12	13.55	251.33	4.39	17.26	0.00	18.26	0.00	3.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
10	5.400	28.81	0.12	13.55	251.33	4.39	17.16	0.00	18.16	0.00	3.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPLHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SEITP 1/da	PHYT P/R RATIO	PHYTO ug/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SPC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m ²
1	6.498	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
2	6.376	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
3	6.254	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
4	6.132	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
5	6.010	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
6	5.888	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
7	5.766	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
8	5.644	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
9	5.522	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
10	5.400	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou LITTLE GRAND BAYOU SUMMER PROJECTION
 REACH NO. 2 RKM 5.40-WESTFIELD CANAL 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A ug/L	COLI #/100mL	NCM
11	UPR RCH	0.00087	28.81	0.12	13.55	251.33	4.39	17.16	0.00	18.16	0.00	3.32	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCF EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPERSN m²/s	MEAN VELO m/s
11	5.40	5.29	0.00087	0.0	0.00007	17.96	164.20	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.001	0.000
12	5.29	5.18	0.00087	0.0	0.00007	17.96	182.16	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.001	0.000
13	5.18	5.08	0.00087	0.0	0.00007	17.96	200.12	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.001	0.000
14	5.08	4.97	0.00087	0.0	0.00007	17.96	218.08	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.001	0.000
15	4.97	4.86	0.00087	0.0	0.00007	17.96	236.04	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.001	0.000
16	4.86	4.75	0.00087	0.0	0.00007	17.96	254.00	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.001	0.000
17	4.75	4.64	0.00087	0.0	0.00007	17.96	271.96	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.001	0.000
18	4.64	4.54	0.00087	0.0	0.00007	17.96	289.92	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.001	0.000
19	4.54	4.43	0.00087	0.0	0.00007	17.96	307.88	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.001	0.000
20	4.43	4.32	0.00087	0.0	0.00007	17.96	325.84	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.001	0.000
21	4.32	4.21	0.00087	0.0	0.00007	17.96	343.80	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.001	0.000
22	4.21	4.10	0.00087	0.0	0.00007	17.96	361.76	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.001	0.000
23	4.10	4.00	0.00087	0.0	0.00007	17.96	379.72	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.001	0.000
24	4.00	3.89	0.00087	0.0	0.00007	17.96	397.68	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.001	0.000
25	3.89	3.78	0.00087	0.0	0.00007	17.96	415.64	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.001	0.000
TOT						269.40				20250.00	32400.00					
AVG					0.0001			0.62	20.00			12.50				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECAT 1/da	BOD1 SEIT 1/da	ABOD1 DECAT 1/da	BOD1 HYDR 1/da	BOD2 DECAT 1/da	BOD2 SEIT 1/da	ABOD2 DECAT 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SEIT 1/da	NH3-N DECAT 1/da	NH3-N SRCE *	DENIT RATE 1/da	ORG-P HYDR 1/da	ORG-P SEIT 1/da	SRCE *	PHYTO PROD **	PERIP PROD **	COLI DECAT 1/da	NCM DECAT 1/da	NCM SEIT 1/da
11	5.292	7.71	1.32	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
12	5.184	7.71	1.32	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
13	5.076	7.71	1.32	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
14	4.968	7.71	1.32	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
15	4.860	7.71	1.32	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
16	4.752	7.71	1.32	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
17	4.644	7.71	1.32	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
18	4.536	7.71	1.32	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00

19	4.428	7.71	1.32	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
20	4.320	7.71	1.32	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
21	4.212	7.71	1.32	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
22	4.104	7.71	1.32	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
23	3.996	7.71	1.32	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
24	3.888	7.71	1.32	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
25	3.780	7.71	1.32	0.08	0.06	0.00	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 1.12 0.06 0.05 0.00 0.00 0.00 0.05 0.00 1.89 0.13 0.05 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	BORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	BORG-P mg/L	ETOT-P mg/L	CHL A ug/L	PERIP g/m ²	COLI #/100mL	NCM
11	5.292	28.81	0.12	13.55	251.33	3.10	15.00	0.00	16.00	0.00	1.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
12	5.184	28.81	0.12	13.55	251.33	3.12	14.35	0.00	15.35	0.00	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
13	5.076	28.81	0.12	13.55	251.33	3.14	14.16	0.00	15.16	0.00	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
14	4.968	28.81	0.12	13.55	251.33	3.15	14.10	0.00	15.10	0.00	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
15	4.860	28.81	0.12	13.55	251.33	3.15	14.08	0.00	15.08	0.00	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
16	4.752	28.81	0.12	13.55	251.33	3.15	14.08	0.00	15.08	0.00	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
17	4.644	28.81	0.12	13.55	251.33	3.15	14.07	0.00	15.07	0.00	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
18	4.536	28.81	0.12	13.55	251.33	3.15	14.07	0.00	15.07	0.00	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
19	4.428	28.81	0.12	13.55	251.33	3.15	14.07	0.00	15.07	0.00	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
20	4.320	28.81	0.12	13.55	251.33	3.15	14.07	0.00	15.07	0.00	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
21	4.212	28.81	0.12	13.55	251.32	3.15	14.07	0.00	15.07	0.00	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
22	4.104	28.81	0.12	13.55	251.25	3.15	14.07	0.00	15.07	0.00	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
23	3.996	28.81	0.12	13.53	250.84	3.15	14.07	0.00	15.07	0.00	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
24	3.888	28.81	0.12	13.43	248.21	3.15	14.05	0.00	15.05	0.00	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
25	3.780	28.81	0.11	12.77	231.58	3.19	13.61	0.00	14.61	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SETT 1/da	PHYT P/R RATIO	PHYTO ug/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SEC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m ²
11	5.292	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
12	5.184	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
13	5.076	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
14	4.968	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
15	4.860	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
16	4.752	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
17	4.644	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
18	4.536	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
19	4.428	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
20	4.320	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
21	4.212	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
22	4.104	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
23	3.996	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
24	3.888	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
25	3.780	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou
 REACH NO. 3 WESTFIELD CANAL-RKM 2.16

LITTLE GRAND BAYOU SUMMER PROJECTION
 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
26	UPR RCH	0.00087	28.81	0.11	12.77	231.58	3.19	13.61	0.00	14.61	0.00	1.70	0.00	0.00	0.00	10.00	0.00	0.00
26	WSTLD	0.00283	28.81	0.07	10.50	174.00	6.95	3.31	0.00	3.31	0.00	2.77	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
26	3.78	3.67	0.00370	76.5	0.00021	6.00	421.63	0.64	27.74	1917.18	2995.60	17.75	52.42	0.000	0.004	0.000
27	3.67	3.56	0.00370	76.5	0.00021	6.00	427.63	0.64	27.74	1917.18	2995.60	17.75	104.85	0.000	0.004	0.000
28	3.56	3.46	0.00370	76.5	0.00021	6.00	433.63	0.64	27.74	1917.18	2995.60	17.75	157.27	0.000	0.005	0.000
29	3.46	3.35	0.00370	76.5	0.00021	6.00	439.63	0.64	27.74	1917.18	2995.60	17.75	209.69	0.000	0.006	0.000
30	3.35	3.24	0.00370	76.5	0.00021	6.00	445.62	0.64	27.74	1917.18	2995.60	17.75	262.11	0.000	0.007	0.000
31	3.24	3.13	0.00370	76.5	0.00021	6.00	451.62	0.64	27.74	1917.18	2995.60	17.75	314.54	0.000	0.009	0.000
32	3.13	3.02	0.00370	76.5	0.00021	6.00	457.62	0.64	27.74	1917.18	2995.60	17.75	366.96	0.000	0.010	0.000
33	3.02	2.92	0.00370	76.5	0.00021	6.00	463.61	0.64	27.74	1917.18	2995.60	17.75	419.38	0.001	0.011	0.001
34	2.92	2.81	0.00370	76.5	0.00021	6.00	469.61	0.64	27.74	1917.18	2995.60	17.75	471.81	0.001	0.013	0.001
35	2.81	2.70	0.00370	76.5	0.00021	6.00	475.61	0.64	27.74	1917.18	2995.60	17.75	524.23	0.001	0.014	0.001
36	2.70	2.59	0.00370	76.5	0.00021	6.00	481.61	0.64	27.74	1917.18	2995.60	17.75	576.65	0.001	0.015	0.001
37	2.59	2.48	0.00370	76.5	0.00021	6.00	487.60	0.64	27.74	1917.18	2995.60	17.75	629.08	0.001	0.017	0.001
38	2.48	2.38	0.00370	76.5	0.00021	6.00	493.60	0.64	27.74	1917.18	2995.60	17.75	681.50	0.001	0.018	0.001
39	2.38	2.27	0.00370	76.5	0.00021	6.00	499.60	0.64	27.74	1917.18	2995.60	17.75	733.92	0.001	0.019	0.001
40	2.27	2.16	0.00370	76.5	0.00021	6.00	505.59	0.64	27.74	1917.18	2995.60	17.75	786.34	0.001	0.021	0.001
TOT AVG						89.96		0.64	27.74	28757.72	44933.95	17.75				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD1 DECAT	BOD1 SEIT1	ABOD1 DECAT	BOD1 HYDR	BOD2 DECAT	BOD2 SEIT1	ABOD2 DECAT	BKGD SOD	FULL SOD	CORR SOD	ORG-N HYDR	ORG-N SEIT1	NH3-N DECAT	NH3-N SRCE	DENIT RATE	ORG-P HYDR	ORG-P SEIT1	PO4 SRCE	PHYTO PROD	PERIP PROD	COLI DECAT	NCM DECAT	NCM SEIT1	
26	3.672	7.71	1.29	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
27	3.564	7.71	1.29	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
28	3.456	7.71	1.29	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
29	3.348	7.71	1.29	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
30	3.240	7.71	1.29	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
31	3.132	7.71	1.29	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
32	3.024	7.71	1.29	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.19	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
33	2.916	7.71	1.29	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.19	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
34	2.808	7.71	1.29	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.19	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00

35	2.700	7.71	1.29	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.19	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
36	2.592	7.71	1.29	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.19	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
37	2.484	7.71	1.29	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.19	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
38	2.376	7.71	1.29	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.19	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
39	2.268	7.71	1.29	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.19	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
40	2.160	7.71	1.29	0.09	0.06	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.19	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			1.09	0.06	0.05	0.00	0.00	0.00	0.05	0.00	1.22			0.12	0.05	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI #/100mL	NCM
26	3.672	28.81	0.08	11.22	192.18	4.71	10.15	0.00	11.15	0.00	3.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
27	3.564	28.81	0.08	11.22	192.18	4.45	12.00	0.00	13.00	0.00	3.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
28	3.456	28.81	0.08	11.22	192.18	4.34	13.02	0.00	14.02	0.00	3.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
29	3.348	28.81	0.08	11.22	192.18	4.29	13.57	0.00	14.57	0.00	3.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
30	3.240	28.81	0.08	11.22	192.18	4.26	13.87	0.00	14.87	0.00	3.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
31	3.132	28.81	0.08	11.22	192.18	4.25	14.04	0.00	15.04	0.00	3.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
32	3.024	28.81	0.08	11.22	192.18	4.24	14.13	0.00	15.13	0.00	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
33	2.916	28.81	0.08	11.22	192.18	4.24	14.18	0.00	15.18	0.00	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
34	2.808	28.81	0.08	11.22	192.18	4.24	14.21	0.00	15.21	0.00	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
35	2.700	28.81	0.08	11.22	192.18	4.23	14.23	0.00	15.23	0.00	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
36	2.592	28.81	0.08	11.22	192.18	4.23	14.24	0.00	15.24	0.00	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
37	2.484	28.81	0.08	11.22	192.18	4.23	14.27	0.00	15.27	0.00	3.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
38	2.376	28.81	0.08	11.22	192.17	4.22	14.36	0.00	15.36	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
39	2.268	28.81	0.08	11.21	192.15	4.20	14.69	0.00	15.69	0.00	3.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
40	2.160	28.81	0.08	11.21	192.11	4.20	15.81	0.00	16.81	0.00	3.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPLHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SEITP 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SPC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m²
26	3.672	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
27	3.564	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
28	3.456	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
29	3.348	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
30	3.240	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
31	3.132	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
32	3.024	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
33	2.916	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
34	2.808	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
35	2.700	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
36	2.592	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
37	2.484	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
38	2.376	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
39	2.268	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
40	2.160	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
20 DEG C RATE										0.000	0.000	0.000	0.000										0.000	0.000	0.000		

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou
 REACH NO. 4 RKM 2.16-RKM 1.37

LITTLE GRAND BAYOU SUMMER PROJECTION
 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A ug/L	COLI #/100mL	NCM
41	UPR RCH	0.00370	28.81	0.08	11.21	192.11	4.20	15.81	0.00	16.81	0.00	3.73	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPERSN m²/s	MEAN VELO m/s
41	2.16	2.08	0.00370	76.5	0.00014	6.45	512.04	0.90	29.00	2061.90	2291.00	26.10	866.53	0.001	0.020	0.001
42	2.08	2.00	0.00370	76.5	0.00014	6.45	518.49	0.90	29.00	2061.90	2291.00	26.10	946.71	0.001	0.022	0.001
43	2.00	1.92	0.00370	76.5	0.00014	6.45	524.94	0.90	29.00	2061.90	2291.00	26.10	1026.90	0.001	0.024	0.001
44	1.92	1.84	0.00370	76.5	0.00014	6.45	531.39	0.90	29.00	2061.90	2291.00	26.10	1107.08	0.001	0.026	0.001
45	1.84	1.77	0.00370	76.5	0.00014	6.45	537.84	0.90	29.00	2061.90	2291.00	26.10	1187.27	0.001	0.028	0.001
46	1.77	1.69	0.00370	76.5	0.00014	6.45	544.29	0.90	29.00	2061.90	2291.00	26.10	1267.45	0.001	0.030	0.001
47	1.69	1.61	0.00370	76.5	0.00014	6.45	550.74	0.90	29.00	2061.90	2291.00	26.10	1347.64	0.001	0.032	0.001
48	1.61	1.53	0.00370	76.5	0.00014	6.45	557.19	0.90	29.00	2061.90	2291.00	26.10	1427.82	0.001	0.034	0.001
49	1.53	1.45	0.00370	76.5	0.00014	6.45	563.64	0.90	29.00	2061.90	2291.00	26.10	1508.01	0.001	0.035	0.001
50	1.45	1.37	0.00370	76.5	0.00014	6.45	570.09	0.90	29.00	2061.90	2291.00	26.10	1588.19	0.001	0.037	0.001
TOT AVG					0.0001	64.50			0.90	29.00	20619.00	22910.00		26.10		

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECAY 1/da	BOD1 SEITP 1/da	ABOD1 DECAY 1/da	BOD1 HYDR 1/da	BOD2 DECAY 1/da	BOD2 SEITP 1/da	ABOD2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SEITP 1/da	NH3-N DECAY 1/da	NH3-N SRCE *	DENIT RATE 1/da	ORG-P HYDR 1/da	ORG-P SEITP 1/da	PO4 SRCE *	PHYTO PROD **	PERIP PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SEITP 1/da
41	2.081	7.71	0.92	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.79	0.79	0.79	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
42	2.002	7.71	0.92	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.79	0.79	0.79	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
43	1.923	7.71	0.92	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.79	0.79	0.79	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
44	1.844	7.71	0.92	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.79	0.79	0.79	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
45	1.765	7.71	0.92	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.79	0.79	0.79	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
46	1.686	7.71	0.92	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.79	0.79	0.79	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
47	1.607	7.71	0.92	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.79	0.79	0.79	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
48	1.528	7.71	0.92	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.79	0.79	0.79	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
49	1.449	7.71	0.92	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.79	0.79	0.79	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
50	1.370	7.71	0.92	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.79	0.79	0.79	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.78	0.06	0.05	0.00	0.00	0.00	0.05	0.00	0.45			0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	EIOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	EIOT-P mg/L	CHL A ug/L	PERIP g/m ²	COLI #/100mL	NCM	
41	2.081	28.81	0.08	11.20	192.05	4.83	18.59	0.00	19.59	0.00	4.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
42	2.002	28.81	0.08	11.20	191.98	4.85	19.99	0.00	20.99	0.00	4.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
43	1.923	28.81	0.08	11.19	191.88	4.79	20.88	0.00	21.88	0.00	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
44	1.844	28.81	0.08	11.17	191.74	4.73	21.46	0.00	22.46	0.00	4.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
45	1.765	28.81	0.08	11.15	191.56	4.67	21.87	0.00	22.87	0.00	4.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
46	1.686	28.81	0.08	11.13	191.31	4.62	22.24	0.00	23.24	0.00	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
47	1.607	28.81	0.08	11.09	191.00	4.56	22.67	0.00	23.67	0.00	4.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
48	1.528	28.81	0.08	11.05	190.59	4.46	23.32	0.00	24.32	0.00	5.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
49	1.449	28.81	0.08	11.00	190.07	4.28	24.43	0.00	25.43	0.00	5.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
50	1.370	28.81	0.08	10.93	189.41	3.95	26.44	0.00	27.44	0.00	6.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00	

***** PHYTOPLANKTON AND PERIPHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SETT 1/da	PHYT P/R RATIO	PHYTO ug/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SEC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m ²
41	2.081	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
42	2.002	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
43	1.923	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
44	1.844	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
45	1.765	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
46	1.686	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
47	1.607	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
48	1.528	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
49	1.449	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
50	1.370	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE

0.000 0.000 0.000 0.000

0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou
 REACH NO. 5 RKM 1.37-WHITMEL CANAL

LITTLE GRAND BAYOU SUMMER PROJECTION
 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A ug/L	COLI #/100mL	NCM
51	UPR RCH	0.00370	28.81	0.08	10.93	189.41	3.95	26.44	0.00	27.44	0.00	6.01	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCF EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPERSN m ² /s	MEAN VELO m/s
51	1.37	1.29	0.00370	76.5	0.00007	11.92	582.02	1.10	45.00	3811.50	3465.00	49.50	1770.11	0.001	0.026	0.001

51	1.293	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
52	1.216	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
53	1.139	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
54	1.062	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
55	0.985	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
56	0.908	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
57	0.831	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
58	0.754	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
59	0.677	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
60	0.600	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou LITTLE GRAND BAYOU SUMMER PROJECTION
 REACH NO. 6 WHITMEL CANAL-LAKE VERRET 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A ug/L	COLI #/100mL	NCM
61	UPR RCH	0.00370	28.81	0.07	9.87	179.23	3.03	27.42	0.00	28.42	0.00	7.69	0.00	0.00	0.00	10.00	0.00	0.00
61	WSTILD	0.00283	28.81	0.07	8.80	172.00	6.95	3.51	0.00	3.51	0.00	2.47	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCF EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPERSN m²/s	MEAN VELO m/s
61	0.60	0.54	0.00653	86.7	0.00007	9.67	698.99	1.38	66.14	5456.71	3968.52	90.95	3685.12	0.001	0.035	0.001
62	0.54	0.48	0.00653	86.7	0.00007	9.67	708.67	1.38	66.14	5456.71	3968.52	90.95	3962.91	0.001	0.038	0.001
63	0.48	0.42	0.00653	86.7	0.00007	9.67	718.34	1.38	66.14	5456.71	3968.52	90.95	4240.71	0.001	0.041	0.001
64	0.42	0.36	0.00653	86.7	0.00007	9.67	728.01	1.38	66.14	5456.71	3968.52	90.95	4518.51	0.001	0.043	0.001
65	0.36	0.30	0.00653	86.7	0.00007	9.67	737.68	1.38	66.14	5456.71	3968.52	90.95	4796.30	0.001	0.046	0.001
66	0.30	0.24	0.00653	86.7	0.00007	9.67	747.35	1.38	66.14	5456.71	3968.52	90.95	5074.10	0.001	0.049	0.001
67	0.24	0.18	0.00653	86.7	0.00007	9.67	757.02	1.38	66.14	5456.71	3968.52	90.95	5351.89	0.001	0.051	0.001
68	0.18	0.12	0.00653	86.7	0.00007	9.67	766.70	1.38	66.14	5456.71	3968.52	90.95	5629.69	0.001	0.054	0.001
69	0.12	0.06	0.00653	86.7	0.00007	9.67	776.37	1.38	66.14	5456.71	3968.52	90.95	5907.49	0.001	0.056	0.001
70	0.06	0.00	0.00653	86.7	0.00007	9.67	786.04	1.38	66.14	5456.71	3968.52	90.95	6185.28	0.002	0.059	0.002

TOT AVG 0.0001 96.72 1.38 66.14 54567.15 39685.20 90.95

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD1 DECAY	BOD1 SEITP	ABOD1 DECAY	BOD1 HYDR	BOD2 DECAY	BOD2 SEITP	ABOD2 DECAY	BKGD SOD	FULL SOD	CORR SOD	ORG-N HYDR	ORG-N SEITP	NH3-N DECAY	NH3-N SRCE	DENIT RATE	ORG-P HYDR	ORG-P SEITP	PO4 SRCE	PHYTO PROD	PERIP PROD	COLI DECAY	NCM DECAY	NCM SEITP	
61	0.540	7.71	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.15	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00

62	0.480	7.71	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.15	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
63	0.420	7.71	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.15	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
64	0.360	7.71	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.15	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
65	0.300	7.71	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.15	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
66	0.240	7.71	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.15	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
67	0.180	7.71	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.15	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
68	0.120	7.71	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.15	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
69	0.060	7.71	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.15	0.18	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
70	0.000	7.71	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.15	0.19	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 0.51 0.08 0.05 0.00 0.00 0.00 0.05 0.00 0.09 0.11 0.05 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	EIOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	EIOT-P mg/L	CHL A µg/L	PERIP g/m ²	COLI #/100mL	NCM
61	0.540	28.81	0.07	9.75	178.05	2.62	24.24	0.00	25.24	0.00	7.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
62	0.480	28.81	0.07	9.70	177.42	2.51	23.24	0.00	24.24	0.00	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
63	0.420	28.81	0.07	9.65	176.76	2.56	22.45	0.00	23.45	0.00	7.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
64	0.360	28.81	0.07	9.60	176.07	2.70	21.72	0.00	22.72	0.00	6.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
65	0.300	28.81	0.07	9.54	175.36	2.92	20.93	0.00	21.93	0.00	6.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
66	0.240	28.81	0.07	9.48	174.62	3.23	19.94	0.00	20.94	0.00	6.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
67	0.180	28.81	0.07	9.42	173.86	3.66	18.62	0.00	19.62	0.00	5.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
68	0.120	28.81	0.07	9.36	173.08	4.27	16.76	0.00	17.76	0.00	5.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
69	0.060	28.81	0.07	9.30	172.27	5.11	14.13	0.00	15.13	0.00	4.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
70	0.000	28.81	0.07	9.23	171.44	6.23	10.38	0.00	11.38	0.00	3.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SETT 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SEC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m ²
61	0.540	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
62	0.480	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
63	0.420	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
64	0.360	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
65	0.300	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
66	0.240	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
67	0.180	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
68	0.120	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
69	0.060	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
70	0.000	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

STREAM SUMMARY REPORT: Grand Bayou

TRAVEL TIME	=	786.04	DAYS
MAXIMUM EFFLUENT	=	86.68	PERCENT
FLOW	=	0.00087	TO 0.00653 m ³ /s
DISPERSION	=	0.0014	TO 0.0591 m ² /s
VELOCITY	=	0.00007	TO 0.00021 m/s
DEPTH	=	0.61	TO 1.38 m
WIDTH	=	14.84	TO 66.14 m
BOD DECAY	=	0.08	TO 0.12 per day
NH3 DECAY	=	0.00	TO 0.00 per day
SOD	=	0.15	TO 3.30 g/m ² /d
NH3 SED SOURCE	=	0.00	TO 0.00 g/m ² /d
PO4 SED SOURCE	=	0.00	TO 0.00 g/m ² /d
REAERATION	=	0.60	TO 1.36 per day
BOD SETTLING	=	0.06	TO 0.06 per day
NBOD DECAY	=	0.14	TO 0.20 per day
NBOD SETTLING	=	0.06	TO 0.06 per day
TEMPERATURE	=	28.81	TO 28.81 deg C
DISSOLVED OXYGEN	=	2.51	TO 6.23 mg/L

LITTLE GRAND BAYOU SUMMER PROJECTION
 09/17/07

INPUT/OUTPUT LOADING SUMMARY

	FLOW m³/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00087	0.46	0.57	0.00	0.07	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
WASTELOADS	0.00566	3.40	1.67	0.00	1.28	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWALS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER ENDRY	-0.00653	-3.51	-5.86	0.00	-1.86	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER ENDRY		11.04	-42.12	0.00	-13.61	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWR ENDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	623.69	0.00	215.80			0.00				0.00
NATURAL REAERATION		627.65										
DAM REAERATION		0.00										
SOD BACKGROUND		-264.56										
BOD1 DECAY		-358.36	-358.36									
BOD1 SETTLING		0.00	-219.59									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		0.00		0.00								
BOD2 SETTLING		0.00		0.00								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-145.64			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SOURCE						0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOURCE									0.00			
PHYTOPLANKTON GROWTH/PHOTOSYNTHESIS		129.87				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXCRETION		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00	0.00		0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00	0.00	0.00		
PERIPHYTON GROWTH/PHOTOSYNTHESIS		0.00				0.00	0.00		0.00	0.00	0.00	
PERIPHYTON RESPIRATION/EXCRETION		0.00				0.00	0.00		0.00	0.00	0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00	0.00	0.00	0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.00653	772.42	625.93	0.00	217.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.00653	-772.07	-625.93	0.00	-15.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	0.34	0.00	0.00	201.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....EXECUTION COMPLETED

Justifications

Little Grand Bayou Summer Projection

DATA TYPE 3 - PROGRAM CONSTANTS			
CONSTANT NAME	VALUE	UNITS	DATA SOURCE
DISPERSION EQUATION	3		Dispersion calibrated using measured values at two sites
TIDE HEIGHT	0.07	meters	Continuous Monitor data, site GRB9
KL MINIMUM	0.7	m/day	Louisiana Standard Practice
INHIBITION CONTROL VALUE	3		Louisiana Standard Practice
EFFECTIVE BOD DUE TO ALGAE	0.1	mg/L BOD /ug chl a/ day	BPJ and calibration
ALGAE OXYGEN PRODUCTION	0.05	mg O / ug chl a / day	BPJ and calibration
K2 MAXIMUM	25	1/day at 20 deg C	Louisiana Standard Practice
HYDRAULIC CALCULATION METHOD	2		Louisiana Standard Practice
SETTLING RATE UNITS	2		Louisiana Standard Practice

DATA TYPE 8 - REACH IDENTIFICATION DATA						
Reach	ID	Name	Upstream River Kilometer	Downstream River Kilometer	Element Length, km	Data Source
1	GB	GRAND BAYOU-RKM 5.40	6.62	5.40	0.1220	
2	GB	RKM 5.40-WESTFIELD CANAL	5.40	3.78	0.1080	
3	GB	WESTFIELD CANAL-RKM 2.16	3.78	2.16	0.1080	
4	GB	RKM 2.16-RKM 1.37	2.16	1.37	0.0790	
5	GB	RKM 1.37-WHITMEL CANAL	1.37	0.60	0.0770	
6	GB	WHITMEL CANAL-LAKE VERRET	0.60	0.00	0.0600	

Little Grand Bayou Summer Projection

Reach	Name	DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS			
		Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. "d"	Depth Exp. "e"	Depth Const. "f"	Data Source	Slope (unitless)	Data Source	Manning's "n"	Data Source
1	GRAND BAYOU-RKM 5.40	0	0	14.844	Field Data, Site LGBY1	0	0	0.607	Field Data, Site LGBY1	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
2	RKM 5.40-WESTFIELD CANAL	0	0	20.000	Estimate of field data between Sites LGBY1 and LGBY3	0	0	0.625	Estimate of field data between Sites LGBY1 and LGBY3	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
3	WESTFIELD CANAL-RKM 2.16	0	0	27.737	Field Data, Site LGBY3	0	0	0.640	Field Data, Site LGBY3	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
4	RKM 2.16-RKM 1.37	0	0	29.000	Field Data, Site LGBY4	0	0	0.900	Estimate of field data between Sites LGBY3, LGBY4 and LGBY5	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
5	RKM 1.37-WHITMEL CANAL	0	0	45.000	Estimate of field data between Sites LGBY4 and LGBY5	0	0	1.100	Estimate of field data between Sites LGBY3, LGBY4 and LGBY5	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
6	WHITMEL CANAL-LAKE VERRET	0	0	66.142	Field Data, Site LGBY5	0	0	1.375	Field Data, Site LGBY5	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook

Reach	Name	DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS				Data Source
		Tidal Range	Data Source	Dispersion Coeff. "a"	Dispersion Coeff. "b"	Dispersion Coeff. "c"	Dispersion Coeff. "d"	
1	GRAND BAYOU-RKM 5.40	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
2	RKM 5.40-WESTFIELD CANAL	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
3	WESTFIELD CANAL-RKM 2.16	0.25	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
4	RKM 2.16-RKM 1.37	0.50	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
5	RKM 1.37-WHITMEL CANAL	0.75	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
6	WHITMEL CANAL-LAKE VERRET	1.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"

Little Grand Bayou Summer Projection

Reach	Name	DATA TYPE 11 - INITIAL CONDITIONS			DATA TYPE 11 - INITIAL CONDITIONS			
		Temp, deg C	Sal, ppt	DO, mg/l	Data Source	Chlorophyll a	Macrophytes	Data Source
1	GRAND BAYOU-RKM 5.40	28.81	0.07	5.00	Salinity values from Calibration model. Temperature is summer critical temperature calculated from WQN site 980. DO is criteria value for subsegment.	10.00	0	Louisiana standard practice, reduction in nutrients will cause a reduction in algae.
2	RKM 5.40-WESTFIELD CANAL	28.81	0.07	5.00		10.00	0	
3	WESTFIELD CANAL-RKM 2.16	28.81	0.08	5.00		10.00	0	
4	RKM 2.16-RKM 1.37	28.81	0.07	5.00		10.00	0	
5	RKM 1.37-WHITMEL CANAL	28.81	0.07	5.00		10.00	0	
6	WHITMEL CANAL-LAKE VERRET	28.81	0.07	5.00		10.00	0	

REACH	NAME	DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS			DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS		DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS		
		K ₂ OPT	Data Source	BKGRND SOD, gmO ₂ /m ² /day at 20 deg C	Data Source	Aerobic BOD1 Dec Rate (1/day)	Data Source	BOD1 SETT RATE (1/day)	Data Source
1	GRAND BAYOU-RKM 5.40	4	Owens-Edwards-Gibbs	1.047	TMDL Loading Spreadsheet	0.064	Mathematical interpolations of Lab bottle rates based on physical location in reference to Site locations.	0.05	LTP, BPJ and calibration
2	RKM 5.40-WESTFIELD CANAL	4	Owens-Edwards-Gibbs	1.894		0.056		0.05	LTP, BPJ and calibration
3	WESTFIELD CANAL-RKM 2.16	4	Owens-Edwards-Gibbs	1.217		0.058		0.05	LTP, BPJ and calibration
4	RKM 2.16-RKM 1.37	4	Owens-Edwards-Gibbs	0.452		0.057		0.05	LTP, BPJ and calibration
5	RKM 1.37-WHITMEL CANAL	4	Owens-Edwards-Gibbs	0.088		0.064		0.05	LTP, BPJ and calibration
6	WHITMEL CANAL-LAKE VERRET	4	Owens-Edwards-Gibbs	0.088		0.082		0.05	LTP, BPJ and calibration

Little Grand Bayou Summer Projection

DATA TYPE 13 - NITROGEN AND PHOSPHORUS COEFFICIENTS									
Reach	Name	NBOD decay rate, 1/day	NBOD settling rate, 1/day	Data Source	Settled Org-N conv. to ammonia benthos source rate	Data Source			
1	GRAND BAYOU-RKM 5.40	0.111	0.05	Mathematical interpolations of Lab bottle rates based on physical location in reference to Site locations.	1.00				
2	RKM 5.40-WESTFIELD CANAL	0.132	0.05		1.00				
3	WESTFIELD CANAL-RKM 2.16	0.121	0.05		1.00				
4	RKM 2.16-RKM 1.37	0.102	0.05		1.00				
5	RKM 1.37-WHITMEL CANAL	0.099	0.05		1.00				
6	WHITMEL CANAL-LAKE VERRET	0.107	0.05		1.00				
DATA TYPE 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVE									
Reach	Reach Name	Incr. Outflow, m ³	Incr. Inflow, m ³	Data Source	Temp, deg C	Sal., ppt	Cons. Mat I Chlorides	Cons. Mat II Conductivity	Data Source
1	GRAND BAYOU-RKM 5.40		0.000	Incremental flows reduced to zero to simulate dry, critical conditions.					
2	RKM 5.40-WESTFIELD CANAL		0.000						
3	WESTFIELD CANAL-RKM 2.16		0.000						
4	RKM 2.16-RKM 1.37		0.000						
5	RKM 1.37-WHITMEL CANAL		0.000						
6	WHITMEL CANAL-LAKE VERRET		0.000						

Little Grand Bayou Summer Projection

		DATA TYPE 19 - NONPOINT SOURCES			
Reach	Reach Name	Length of Reach, km	UCBOD1, kg/day	NBOD, kg/day	Data Source
1	GRAND BAYOU-RKM 5.40	1.22	29.90	8.97	TMDL Loading Spreadsheet
2	RKM 5.40-WESTFIELD CANAL	1.62	41.48	8.30	
3	WESTFIELD CANAL-RKM 2.16	1.62	60.86	25.87	
4	RKM 2.16-RKM 1.37	0.79	67.84	22.61	
5	RKM 1.37-WHITMEL CANAL	0.77	202.69	66.10	
6	WHITMEL CANAL-LAKE VERRET	0.60	220.92	83.95	

DATA TYPE 20 - HEADWATER DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES								
Headwater Name	Element No.	Logical Unit Number	Headwater Flow, cms	Temp, deg C	Salinity, ppt	Conservative Material I Chlorides	Conservative Material II Conductivity	Data Source
Grand Bayou	1		0.00087	28.13	0.12	13.55	251.33	Output from Grand Bayou summer projection.

DATA TYPE 21 - HEADWATER DATA FOR DO, BOD, AND NITROGEN				
Headwater Name	Dissolved Oxygen, mg/L	UCBOD1, mg/l	NBOD, mg/l	Data Source
Grand Bayou	6.11	8.58	0.94	Output from Grand Bayou summer projection.

Little Grand Bayou Summer Projection

DATA TYPE 22 - HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES					
Headwater Name	Phosphorus, mg/L	Chlorophyll a, ug/L	Coliform, #/100 mL	Nonconservative Material	Date Source
Grand Bayou		10			Output from Grand Bayou summer projection.

DATA TYPE 24 - WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES							
Wasteload / Withdrawal Name	EL #	Flow, cms	Temperature, deg C	Salinity	Conservative Material I Chlorides	Conservative Material II Conductivity	Data Source
Westfield Canal	26	0.00283	28.81	0.07	10.5	174	Summer critical flow and temperature. Survey data, Site WC1
Whitmel Canal	61	0.00283	28.81	0.07	8.8	172	Summer critical flow and temperature. Survey data, Site WCL1

DATA TYPE 25 - WASTELOAD DATA FOR DO, BOD, AND NITROGEN						
Wasteload / Withdrawal Name	EL #	DO, mg/l	UCBOD1, mg/l	BOD decayed, percent	UNBOD, mg/l	Data Source
Westfield Canal	26	6.95	3.31		2.77	90% DO saturation and TMDL
Whitmel Canal	61	6.95	3.51		2.47	Loading Spreadsheet

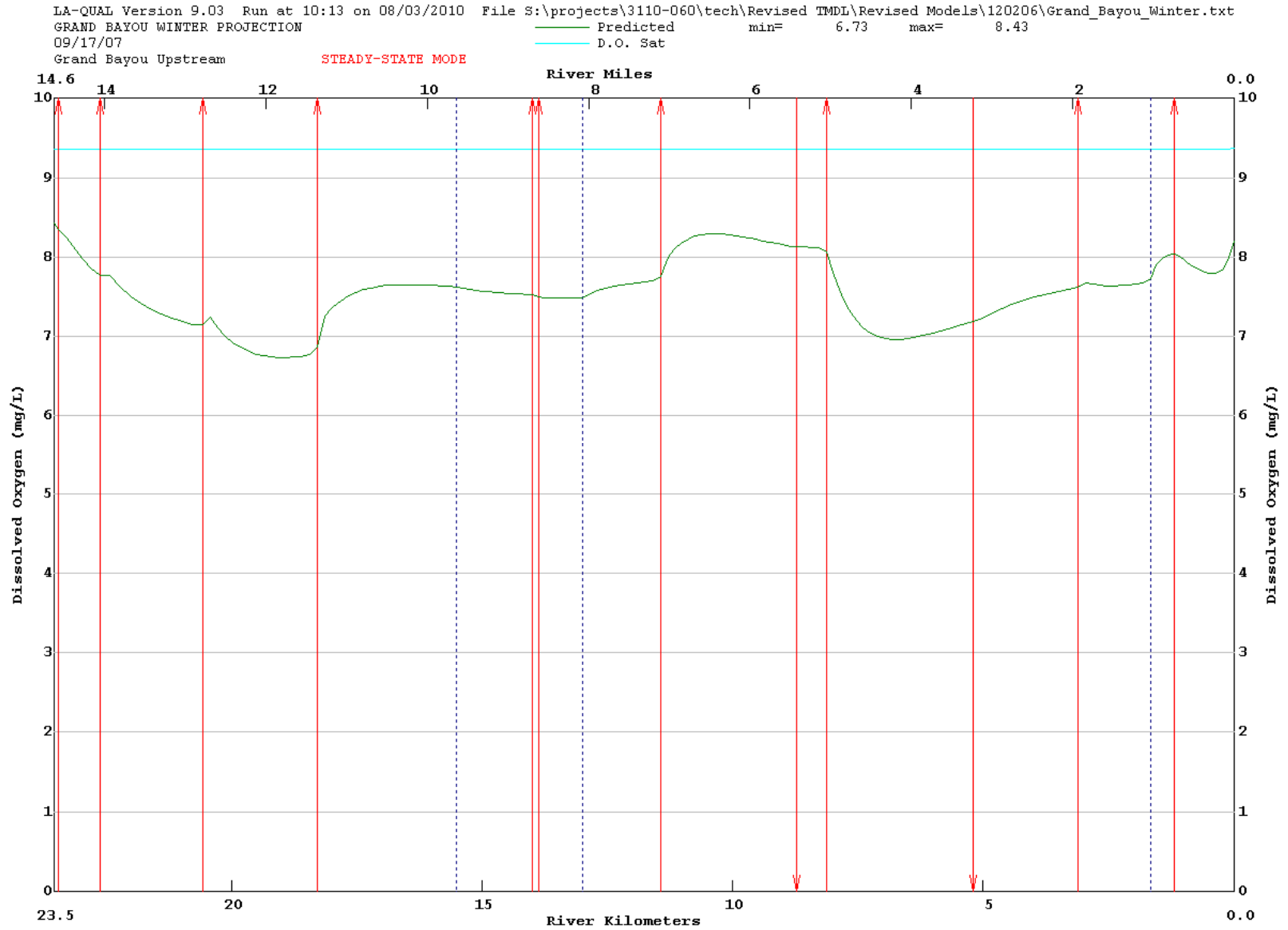
Little Grand Bayou Summer Projection

DATA TYPE 26 - WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES						
Wasteload / Withdrawal Name	EL #	Phosphorus, mg/L	Chlorophyll-A, ug/L	Coliform, #/100 mL	Nonconservative Material	Data Source
Westfield Canal	26		10			Louisiana standard practice, reduction in nutrients will cause a reduction in algae.
Whitmel Canal	61		10			

DATA TYPE 27 - LOWER BOUNDARY CONDITIONS			
Parameter	Value	Units	Data Source
TEMPERATURE	28.81	oCelcius	Summer critical temperature
SALINITY	0.07	ppt	Field and Lab data, Site LV2
CONSERVATIVE MATERIAL I CHLORIDES	9.2	mg/L	Field and Lab data, Site LV2
CONSERVATIVE MATERIAL II CONDUCTIVITY	171	mg/L	Field and Lab data, Site LV2
DISSOLVED OXYGEN	6.94	mg/L	90% DO saturation
BIOCHEMICAL OXYGEN DEMAND 1	8.663	mg/L	Field and Lab data, Site LV2
NBOD	2.416	mg/L	Field and Lab data, Site LV2
PHOSPHORUS	0	mg/L	
CHLOROPHYLL A	10	ug/L	Louisiana standard practice, reduction in nutrients will cause a reduction in algae.
COLIFORM	0	#/100 mL	
NONCONSERVATIVE MATERIAL	0	mg/L	

Appendix D3 – Grand Bayou Winter Projection

Graphs



Input File

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CNTROL01      GRAND BAYOU WINTER PROJECTION
CNTROL02      09/17/07
CNTROL12 YES  METRIC UNITS
ENDATA01
MODOPT01 NO   TEMPERATURE
MODOPT02 YES  SALINITY
MODOPT03 YES  CONSERVATIVE MATERIAL I = CHLORIDES           IN MG/L
MODOPT04 YES  CONSERVATIVE MATERIAL II = CONDUCTIVITY      IN MG/L
MODOPT05 YES  DISSOLVED OXYGEN
MODOPT06 YES  BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT07 NO   BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08 YES  NBOD OXYGEN DEMAND
MODOPT09 NO   PHOSPHORUS
MODOPT10 NO   CHLOROPHYLL A
MODOPT11 NO   MACROPHYTES
MODOPT12 NO   COLIFORM
MODOPT13 NO   NONCONSERVATIVE MATERIAL
ENDATA02
PROGRAM DISPERSION EQUATION           =      3
PROGRAM TIDE HEIGHT                   =     0.07
PROGRAM KL MINIMUM                    =     0.7
PROGRAM INHIBITION CONTROL VALUE     =     3.0
PROGRAM EFFECTIVE BOD DUE TO ALGAE   =     0.10
PROGRAM ALGAE OXYGEN PRODUCTION      =     0.05
PROGRAM K2 MAXIMUM                    =    25.0
PROGRAM HYDRAULIC CALCULATION METHOD  =     2.0
PROGRAM SETTLING RATE UNITS          =     2.0
ENDATA03
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
ENDATA04
ENDATA05
ENDATA06
ENDATA07
!Reach Identification Data
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
! *** -- *****
REACH ID   1  GB  SITE GRB1-BAYOU SIGUR           23.53   23.44   0.090
REACH ID   2  GB  BAYOU SIGUR-MUDDY BAYOU        23.44   22.62   0.164
REACH ID   3  GB  MUDDY BAYOU-BAYOU CROUIX(BYC1) 22.62   20.57   0.205
REACH ID   4  GB  B CROUIX(BYC1)-B CROUIX(BYC2) 20.57   18.29   0.152
REACH ID   5  GB  B CROUIX(BYC2)-km 15.5         18.29   15.50   0.155
REACH ID   6  GB  km 15.5-km 13.0                15.50   13.00   0.125
REACH ID   7  GB  km 13.0-BAYOU CORNE            13.00   11.43   0.157
REACH ID   8  GB  B CORNE-LITTLE GRAND BAYOU     11.43   8.72    0.1355
REACH ID   9  GB  LITTLE GRAND-UNNAMED CANAL     8.72    8.12    0.150
REACH ID  10  GB  UNNAMED CANAL-E GRAND BAYOU    8.12    5.20    0.146
REACH ID  11  GB  E GRAND BAYOU-BAYOU ALCIDE     5.20    3.11    0.190
REACH ID  12  GB  BAYOU ALCIDE-SITE GRB8         3.11    1.66    0.145
REACH ID  13  GB  SITE GRB8-LITTLE BAYOU LONG   1.66    1.20    0.115
REACH ID  14  GB  L BAYOU LONG-LAKE VERRET       1.20    0.00    0.120
ENDATA08
!Advective Hydraulic Coefficients
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
! *** -----
HYDR-1     1  0.0000 0.0000 12.192 0.000 0.000 0.853 0.0001 0.035
HYDR-1     2  0.0000 0.0000 16.500 0.000 0.000 0.900 0.0001 0.035
HYDR-1     3  0.0000 0.0000 21.336 0.000 0.000 1.006 0.0001 0.035
HYDR-1     4  0.0000 0.0000 16.459 0.000 0.000 1.570 0.0001 0.035
HYDR-1     5  0.0000 0.0000 30.000 0.000 0.000 1.550 0.0001 0.035
HYDR-1     6  0.0000 0.0000 44.196 0.000 0.000 1.515 0.0001 0.035
HYDR-1     7  0.0000 0.0000 43.000 0.000 0.000 1.550 0.0001 0.035
HYDR-1     8  0.0000 0.0000 42.062 0.000 0.000 1.622 0.0001 0.035
HYDR-1     9  0.0000 0.0000 48.768 0.000 0.000 1.478 0.0001 0.035
HYDR-1    10  0.0000 0.0000 45.000 0.000 0.000 1.550 0.0001 0.035
HYDR-1    11  0.0000 0.0000 42.946 0.000 0.000 1.615 0.0001 0.035

```

HYDR-1	12	0.0000	0.0000	55.00	0.000	0.000	1.734	0.0001	0.035
HYDR-1	13	0.0000	0.0000	85.00	0.000	0.000	1.50	0.0001	0.035
HYDR-1	14	0.0000	0.0000	152.400	0.000	0.000	1.225	0.0001	0.035

ENDATA09

!Dispersive Hydraulic Coefficients

!	1	2	3	4	5	6	7	8
!	234567890123456789012345678901234567890123456789012345678901234567890							
!	***	*****	*****	*****	*****	*****	*****	*****
HYDR-2	1	0.00	30.00	0.833	0.00	1.00		
HYDR-2	2	0.00	30.00	0.833	0.00	1.00		
HYDR-2	3	0.00	30.00	0.833	0.00	1.00		
HYDR-2	4	0.00	30.00	0.833	0.00	1.00		
HYDR-2	5	0.00	30.00	0.833	0.00	1.00		
HYDR-2	6	0.00	30.00	0.833	0.00	1.00		
HYDR-2	7	0.10	30.00	0.833	0.00	1.00		
HYDR-2	8	0.25	30.00	0.833	0.00	1.00		
HYDR-2	9	0.286	30.00	0.833	0.00	1.00		
HYDR-2	10	0.50	30.00	0.833	0.00	1.00		
HYDR-2	11	0.75	30.00	0.833	0.00	1.00		
HYDR-2	12	0.80	30.00	0.833	0.00	1.00		
HYDR-2	13	1.00	30.00	0.833	0.00	1.00		
HYDR-2	14	1.00	30.00	0.833	0.00	1.00		

ENDATA10

!Initial Conditions

!	1	2	3	4	5	6	7	8	
!	234567890123456789012345678901234567890123456789012345678901234567890								
!	***	*****	*****	*****	*****	*****	*****	*****	
INITIAL	1	18.50	0.15	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	2	18.50	0.14	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	3	18.50	0.11	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	4	18.50	0.09	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	5	18.50	0.09	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	6	18.50	0.10	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	7	18.50	0.08	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	8	18.50	0.07	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	9	18.50	0.07	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	10	18.50	0.07	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	11	18.50	0.08	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	12	18.50	0.08	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	13	18.50	0.08	5.00	0.000	0.000	0.00	10.00	00.00
INITIAL	14	18.50	0.07	5.00	0.000	0.000	0.00	10.00	00.00

ENDATA11

!	1	2	3	4	5	6	7	8	9
0-									
!	234567890123456789012345678901234567890123456789012345678901234567890								
!	***	*****	*****	*****	*****	*****	*****	*****	*****
-									

COEF-1	1	4	0.00	0.000	0.000	0.506	0.084	0.05	0.05
COEF-1	2	4	0.00	0.000	0.000	0.742	0.081	0.05	0.05
COEF-1	3	4	0.00	0.000	0.000	1.220	0.074	0.05	0.05
COEF-1	4	4	0.00	0.000	0.000	1.926	0.067	0.05	0.05
COEF-1	5	4	0.00	0.000	0.000	1.153	0.071	0.05	0.05
COEF-1	6	4	0.00	0.000	0.000	1.121	0.078	0.05	0.05
COEF-1	7	4	0.00	0.000	0.000	1.025	0.068	0.05	0.05
COEF-1	8	4	0.00	0.000	0.000	0.557	0.054	0.05	0.05
COEF-1	9	4	0.00	0.000	0.000	0.712	0.052	0.05	0.05
COEF-1	10	4	0.00	0.000	0.000	2.075	0.054	0.05	0.05
COEF-1	11	4	0.00	0.000	0.000	2.050	0.057	0.05	0.05
COEF-1	12	4	0.00	0.000	0.000	2.100	0.055	0.05	0.05
COEF-1	13	4	0.00	0.000	0.000	1.398	0.055	0.05	0.05
COEF-1	14	4	0.00	0.000	0.000	1.352	0.061	0.05	0.05

ENDATA12

!Nitrogen and Phosphorus Coefficients

!	1	2	3	4	5	6	7	8
!	234567890123456789012345678901234567890123456789012345678901234567890							
!	***	*****	*****	*****	*****	*****	*****	*****
COEF-2	1	0.115	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	2	0.112	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	3	0.105	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	4	0.099	0.05	1.0	0.00	0.00	0.00	0.00

COEF-2	5	0.100	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	6	0.104	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	7	0.120	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	8	0.138	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	9	0.091	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	10	0.094	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	11	0.098	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	12	0.092	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	13	0.091	0.05	1.0	0.00	0.00	0.00	0.00
COEF-2	14	0.097	0.05	1.0	0.00	0.00	0.00	0.00

ENDATA13

!Algae and Macrophyte Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! *** -----*****-----*****-----*****-----*****

ENDATA14

!Coliform and Nonconservative Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! *** -----*****-----*****-----*****-----*****

ENDATA15

!Incremental Data for Flow, Temperature, Salinity, and Conservatives

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! *** -----*****-----*****-----*****-----*****

ENDATA16

!Incremental Data for DO, BOD, and Nitrogen

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! *** -----*****-----*****-----*****-----*****

ENDATA17

!Incremental Data for Phosphorus, Chlorophyll, Coliform and Nonconservatives

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! *** -----*****-----*****-----*****-----*****

ENDATA18

!Nonpoint Source Data

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! *** -----*****-----*****-----*****-----*****

NONPOINT	1	5.060	3.800
NONPOINT	2	27.160	17.200
NONPOINT	3	59.220	23.690
NONPOINT	4	0.000	13.000
NONPOINT	5	100.930	33.160
NONPOINT	6	130.520	40.540
NONPOINT	7	76.910	25.640
NONPOINT	8	188.140	68.290
NONPOINT	9	49.670	4.970
NONPOINT	10	0.000	0.000
NONPOINT	11	0.000	0.000
NONPOINT	12	0.000	0.000
NONPOINT	13	11.650	23.300
NONPOINT	14	63.100	112.680

ENDATA19

!Headwater Data for Flow, Temperature, Salinity, and Conservatives

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! **** -----*****-----*****-----*****-----*****

HDWTR-1 1 Grand Bayou Upstream 0. 0.0283 18.50 0.15 13.60 300.80

ENDATA20

!Headwater Data for DO, BOD, and Nitrogen

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! **** -----*****-----*****-----*****-----*****

HDWTR-2 1 8.43 3.39 3.67 0.000 0.00 0.000

ENDATA21

!Headwater Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives

!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
! **** -----*****-----*****-----*****-----*****

HDWTR-3 1 0.00 10.00 0.00 0.00

ENDATA22

!Junction Data

!-----1-----2-----3-----4-----5-----6-----7-----8
 !234567890123456789012345678901234567890123456789012345678901234567890
 ! **** ----- *****

ENDATA23

!Wasteload Data for Flow, Temperature, Salinity, and Conservatives

!-----1-----2-----3-----4-----5-----6-----7-----8
 !234567890123456789012345678901234567890123456789012345678901234567890
 ! **** ----- *****
 WSTLD-1 2 BAYOU SIGUR 0.0283 18.50 0.17 15.00 345.0
 WSTLD-1 7 MUDDY BAYOU 0.0283 18.50 0.08 16.90 169.2
 WSTLD-1 17 BAYOU CROUX (BYC1) 0.0283 18.50 0.12 8.40 250.2
 WSTLD-1 32 BAYOU CROUX (BYC2) 0.0283 18.50 0.14 17.40 296.8
 WSTLD-1 62 GATOR SUPER STOP 0.00043 0.11 13.80 234.1
 WSTLD-1 63 Chevron Pipe Line 0.00001 0.11 13.80 234.1
 WSTLD-1 80 BAYOU CORNE 0.0283 18.50 0.07 10.20 154.13
 WSTLD-1 100 LITTLE GRAND BAYOU -0.00699
 WSTLD-1 104 UNNAMED CANAL 0.0283 18.50 0.07 10.10 166.8
 WSTLD-1 124 EAST GRAND BAYOU -0.08891
 WSTLD-1 135 BAYOU ALCIDE 0.0283 18.50 0.07 8.80 160.11
 WSTLD-1 149 LITTLE BAYOU LONG 0.0283 18.50 0.07 9.00 153.6

ENDATA24

!Wasteload Data for DO, BOD, and Nitrogen

!-----1-----2-----3-----4-----5-----6-----7-----8
 !234567890123456789012345678901234567890123456789012345678901234567890
 ! **** ----- *****
 WSTLD-2 2 8.43 3.65 0.0 4.05 0.00 0.0 0.00 0.000
 WSTLD-2 7 8.43 0.51 0.0 0.00 0.00 0.0 0.00 0.000
 WSTLD-2 17 8.43 3.00 0.0 1.45 0.00 0.0 0.00 0.000
 WSTLD-2 32 8.43 3.34 0.0 2.51 0.00 0.0 0.00 0.000
 WSTLD-2 62 2.00 69.000 0.0 64.500 0.00 0.0 0.00 0.000
 WSTLD-2 63 2.00 103.500 0.0 64.500 0.00 0.0 0.00 0.000
 WSTLD-2 80 8.43 0.29 0.0 0.000 0.00 0.0 0.00 0.000
 WSTLD-2 100
 WSTLD-2 104 8.43 2.86 0.0 1.38 0.00 0.0 0.00 0.000
 WSTLD-2 124
 WSTLD-2 135 8.43 2.87 0.0 1.23 0.00 0.0 0.00 0.000
 WSTLD-2 149 8.43 2.89 0.0 0.97 0.00 0.0 0.00 0.000

ENDATA25

!Wasteload Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives

!-----1-----2-----3-----4-----5-----6-----7-----8
 !234567890123456789012345678901234567890123456789012345678901234567890
 ! **** ----- *****
 WSTLD-3 2 0.00 10.00 0.00 0.00
 WSTLD-3 7 0.00 10.00 0.00 0.00
 WSTLD-3 17 0.00 10.00 0.00 0.00
 WSTLD-3 32 0.00 10.00 0.00 0.00
 WSTLD-3 62 0.00 0.00 0.00 0.00
 WSTLD-3 63 0.00 0.00 0.00 0.00
 WSTLD-3 80 0.00 10.00 0.00 0.00
 WSTLD-3 100
 WSTLD-3 104 0.00 10.00 0.00 0.00
 WSTLD-3 124
 WSTLD-3 135 0.00 10.00 0.00 0.00
 WSTLD-3 149 0.00 10.00 0.00 0.00

ENDATA26

LOWER BC TEMPERATURE = 18.50
 LOWER BC SALINITY = 0.09
 LOWER BC CONSERVATIVE MATERIAL I = 9.30
 LOWER BC CONSERVATIVE MATERIAL II = 202.14
 LOWER BC DISSOLVED OXYGEN = 8.44
 LOWER BC BOD1 BIOCHEMICAL OXYGEN DEMAND = 0.29
 LOWER BC NBOD = 0.000
 LOWER BC PHOSPHORUS = 0.00
 LOWER BC CHLOROPHYLL A = 10.00
 LOWER BC COLIFORM = 0.00
 LOWER BC NONCONSERVATIVE MATERIAL = 0.00

ENDATA27

!DAM DATA

!-----1-----2-----3-----4-----5-----6-----7-----8
! 234567890123456789012345678901234567890123456789012345678901234567890
! **** ----- ** -----*****-----

ENDATA28

!SENSIT	BASEFLOW	30.0	-30.0
!SENSIT	VELOCITY	30.0	-30.0
!SENSIT	DEPTH	30.0	-30.0
!SENSIT	DISPERSI	30.0	-30.0
!SENSIT	REAERATI	30.0	-30.0
!SENSIT	BOD DECA	30.0	-30.0
!SENSIT	BOD SETT	30.0	-30.0
!SENSIT	NBOD DEC	30.0	-30.0
!SENSIT	NBOD SET	30.0	-30.0
!SENSIT	BENTHAL	30.0	-30.0
!SENSIT	TEMPERAT	2.0	-2.0
!SENSIT	HDW FLOW	30.0	-30.0
!SENSIT	HDW TEMP	2.0	-2.0
!SENSIT	HDW DO	30.0	-30.0
!SENSIT	HDW BOD	30.0	-30.0
!SENSIT	HDW NBOD	30.0	-30.0
!SENSIT	WSL FLOW	30.0	-30.0
!SENSIT	WSL TEMP	2.0	-2.0
!SENSIT	WSL DO	30.0	-30.0
!SENSIT	WSL BOD	30.0	-30.0
!SENSIT	WSL NBOD	30.0	-30.0
!SENSIT	LBC TEMP	2.0	-2.0
!SENSIT	LBC DO	30.0	-30.0
!SENSIT	LBC BOD	30.0	-30.0
!SENSIT	LBC NBOD	30.0	-30.0
!SENSIT	NPS BOD	30.0	-30.0
!SENSIT	NPS NBOD	30.0	-30.0

ENDATA29

NUMBER OF PLOTS = 1

NUMBER OF REACHES IN PLOT 1 = 14

PLOT RCH 1 2 3 4 5 6 7 8 9 10 11 12 13 14

ENDATA30

!OVERLAY 1 OVERLAY GBProjection.TXT :REACHES 1-14

ENDATA31

Output File

LA-QUAL Version 8.11
 LA-QUAL Version 9.03
 Louisiana Department of Environmental Quality

Input file is S:\projects\3110-060\tech\Revised TMDL\Revised Models\120206\Grand_Bayou_Winter.txt
 Running in steady-state mode using LA defaults
 Output produced at 10:19 on 06/25/2010

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE	CONTROL TITLES
TITLE01	GRAND BAYOU WINTER PROJECTION
TITLE02	09/17/07
CONTROL12	YES METRIC UNITS
ENDATA01	

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE	MODEL OPTION
MOOPT01	NO TEMPERATURE
MOOPT02	YES SALINITY
MOOPT03	YES CONSERVATIVE MATERIAL I = CHLORIDES IN MG/L
MOOPT04	YES CONSERVATIVE MATERIAL II = CONDUCTIVITY IN MG/L
MOOPT05	YES DISSOLVED OXYGEN
MOOPT06	YES BOD1 BIOCHEMICAL OXYGEN DEMAND
MOOPT07	NO BOD2 BIOCHEMICAL OXYGEN DEMAND
MOOPT08	YES NBOD OXYGEN DEMAND
MOOPT09	NO PHOSPHORUS
MOOPT10	NO CHLOROPHYLL A
MOOPT11	NO MACROPHYTES
MOOPT12	NO COLIFORM
MOOPT13	NO NONCONSERVATIVE MATERIAL
ENDATA02	

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
PROGRAM	DISPERSION EQUATION	= 3.00000 (values entered as a function of D,Q,Vmean)
PROGRAM	TIDE HEIGHT	= 0.07000 meters
PROGRAM	KL MINIMUM	= 0.70000 meters/day
PROGRAM	INHIBITION CONTROL VALUE	= 3.00000 (inhibit all rates but SOD)
PROGRAM	EFFECTIVE BOD DUE TO ALGAE	= 0.10000 mg/L BOD1 per ug/L chl a
PROGRAM	ALGAE OXYGEN PRODUCTION	= 0.05000 mg O/ug chl a/day
PROGRAM	K2 MAXIMUM	= 25.00000 per day
PROGRAM	HYDRAULIC CALCULATION METHOD	= 2.00000 (widths and depths)
PROGRAM	SETTLING RATE UNITS	= 2.00000 (values entered as per day)
ENDATA03		

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE	RATE CODE	THETA VALUE
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ENDATA04

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
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ENDATA05

\$\$\$ DATA TYPE 6 (PHYTOPLANKTON CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
-----------	-------------------------	-------

ENDATA06

\$\$\$ DATA TYPE 7 (PERIPHYTON CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
-----------	-------------------------	-------

ENDATA07

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN REACH km	END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM
REACH ID	1	GB	SITE GRB1-BAYOU SIGUR	23.53	TO 23.44	0.0900	0.09	1	1	1
REACH ID	2	GB	BAYOU SIGUR-MUDDY BAYOU	23.44	TO 22.62	0.1640	0.82	5	2	6
REACH ID	3	GB	MUDDY BAYOU-BAYOU CROUX(BYC1)	22.62	TO 20.57	0.2050	2.05	10	7	16
REACH ID	4	GB	B CROUX(BYC1)-B CROUX(BYC2)	20.57	TO 18.29	0.1520	2.28	15	17	31
REACH ID	5	GB	B CROUX(BYC2)-km 15.5	18.29	TO 15.50	0.1550	2.79	18	32	49
REACH ID	6	GB	km 15.5-km 13.0	15.50	TO 13.00	0.1250	2.50	20	50	69
REACH ID	7	GB	km 13.0-BAYOU CORNE	13.00	TO 11.43	0.1570	1.57	10	70	79
REACH ID	8	GB	B CORNE-LITTLE GRAND BAYOU	11.43	TO 8.72	0.1355	2.71	20	80	99
REACH ID	9	GB	LITTLE GRAND-UNNAMED CANAL	8.72	TO 8.12	0.1500	0.60	4	100	103
REACH ID	10	GB	UNNAMED CANAL-E GRAND BAYOU	8.12	TO 5.20	0.1460	2.92	20	104	123
REACH ID	11	GB	E GRAND BAYOU-BAYOU ALCIDE	5.20	TO 3.11	0.1900	2.09	11	124	134
REACH ID	12	GB	BAYOU ALCIDE-SITE GRB8	3.11	TO 1.66	0.1450	1.45	10	135	144
REACH ID	13	GB	SITE GRB8-LITTLE BAYOU LONG	1.66	TO 1.20	0.1150	0.46	4	145	148
REACH ID	14	GB	L BAYOU LONG-LAKE VERRET	1.20	TO 0.00	0.1200	1.20	10	149	158

ENDATA08

\$\$\$ DATA TYPE 9 (ADJECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1	1	GB	0.000	0.000	12.192	0.000	0.000	0.853	0.00010	0.035
HYDR-1	2	GB	0.000	0.000	16.500	0.000	0.000	0.900	0.00010	0.035
HYDR-1	3	GB	0.000	0.000	21.336	0.000	0.000	1.006	0.00010	0.035
HYDR-1	4	GB	0.000	0.000	16.459	0.000	0.000	1.570	0.00010	0.035
HYDR-1	5	GB	0.000	0.000	30.000	0.000	0.000	1.550	0.00010	0.035
HYDR-1	6	GB	0.000	0.000	44.196	0.000	0.000	1.515	0.00010	0.035
HYDR-1	7	GB	0.000	0.000	43.000	0.000	0.000	1.550	0.00010	0.035
HYDR-1	8	GB	0.000	0.000	42.062	0.000	0.000	1.622	0.00010	0.035
HYDR-1	9	GB	0.000	0.000	48.768	0.000	0.000	1.478	0.00010	0.035
HYDR-1	10	GB	0.000	0.000	45.000	0.000	0.000	1.550	0.00010	0.035
HYDR-1	11	GB	0.000	0.000	42.946	0.000	0.000	1.615	0.00010	0.035

HYDR-1	12	GB	0.000	0.000	55.000	0.000	0.000	1.734	0.00010	0.035
HYDR-1	13	GB	0.000	0.000	85.000	0.000	0.000	1.500	0.00010	0.035
HYDR-1	14	GB	0.000	0.000	152.400	0.000	0.000	1.225	0.00010	0.035

ENDATA09

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"
HYDR	1	GB	0.00	30.000	0.833	0.000	1.000
HYDR	2	GB	0.00	30.000	0.833	0.000	1.000
HYDR	3	GB	0.00	30.000	0.833	0.000	1.000
HYDR	4	GB	0.00	30.000	0.833	0.000	1.000
HYDR	5	GB	0.00	30.000	0.833	0.000	1.000
HYDR	6	GB	0.00	30.000	0.833	0.000	1.000
HYDR	7	GB	0.10	30.000	0.833	0.000	1.000
HYDR	8	GB	0.25	30.000	0.833	0.000	1.000
HYDR	9	GB	0.29	30.000	0.833	0.000	1.000
HYDR	10	GB	0.50	30.000	0.833	0.000	1.000
HYDR	11	GB	0.75	30.000	0.833	0.000	1.000
HYDR	12	GB	0.80	30.000	0.833	0.000	1.000
HYDR	13	GB	1.00	30.000	0.833	0.000	1.000
HYDR	14	GB	1.00	30.000	0.833	0.000	1.000

ENDATA10

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD TYPE	REACH	ID	TEMP deg C	SALIN ppt	DO mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	PERIP g/m²	BOD1 mg/L	BOD2 mg/L	ORG-N mg/L	ORG-P mg/L	COLI #/100mL	NCM	CM-1 MG/L	CM-2 MG/L
INITIAL	1	GB	18.50	0.15	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	2	GB	18.50	0.14	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	3	GB	18.50	0.11	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	4	GB	18.50	0.09	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	5	GB	18.50	0.09	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	6	GB	18.50	0.10	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	7	GB	18.50	0.08	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	8	GB	18.50	0.07	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	9	GB	18.50	0.07	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	10	GB	18.50	0.07	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	11	GB	18.50	0.08	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	12	GB	18.50	0.08	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	13	GB	18.50	0.08	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	14	GB	18.50	0.07	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ENDATA11

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD g/m²/d	AEROB BOD DECAY per day	BOD SETT per day	SETTLD SOD AVAIL frac	ANAER BOD DECAY per day	AEROB BOD2 DECAY per day	BOD2 SETT per day	ANAER BOD2 DECAY per day	BOD2 HYDR TO BOD1 per day	
COEF-1	1	GB	4 OWENS	<5 FPS	0.000	0.000	0.000	0.506	0.084	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	2	GB	4 OWENS	<5 FPS	0.000	0.000	0.000	0.742	0.081	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	3	GB	4 OWENS	<5 FPS	0.000	0.000	0.000	1.220	0.074	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	4	GB	4 OWENS	<5 FPS	0.000	0.000	0.000	1.926	0.067	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	5	GB	4 OWENS	<5 FPS	0.000	0.000	0.000	1.153	0.071	0.050	0.000	0.000	0.000	0.050	0.000	0.000

COEF-1	6	GB	4	OWENS	<5	FPS	0.000	0.000	0.000	1.121	0.078	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	7	GB	4	OWENS	<5	FPS	0.000	0.000	0.000	1.025	0.068	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	8	GB	4	OWENS	<5	FPS	0.000	0.000	0.000	0.557	0.054	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	9	GB	4	OWENS	<5	FPS	0.000	0.000	0.000	0.712	0.052	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	10	GB	4	OWENS	<5	FPS	0.000	0.000	0.000	2.075	0.054	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	11	GB	4	OWENS	<5	FPS	0.000	0.000	0.000	2.050	0.057	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	12	GB	4	OWENS	<5	FPS	0.000	0.000	0.000	2.100	0.055	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	13	GB	4	OWENS	<5	FPS	0.000	0.000	0.000	1.398	0.055	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	14	GB	4	OWENS	<5	FPS	0.000	0.000	0.000	1.352	0.061	0.050	0.000	0.000	0.000	0.050	0.000	0.000

ENDATA12

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	NBOD		SEITLD	NH3	BKGRND		DENIT	ORGP		SEITLD
			DECA	SEIT	ORGN		NH3	PO4		ORGP	ORGP	
			per day	per day	AVAIL		DECA	SRCE		SRCE	DECA	SEIT	AVAIL
COEF-2	1	GB	0.115	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	2	GB	0.112	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	3	GB	0.105	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	4	GB	0.099	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	5	GB	0.100	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	6	GB	0.104	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	7	GB	0.120	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	8	GB	0.138	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	9	GB	0.091	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	10	GB	0.094	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	11	GB	0.098	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	12	GB	0.092	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	13	GB	0.091	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	14	GB	0.097	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ENDATA13

\$\$\$ DATA TYPE 14 (ALGAE PHYTOPLANKTON AND PERIPHYTON COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	SECCHI	CHL A:	PHYTO	PHYTO	MAX		PERIP	MAX		BANK		
							DEPTH	ALGAE		PHYTO	PHYTO		PERIP	PERIP
							m	frac		SETT	DEATH		GROW	RESP	SHADING

ENDATA14

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	COLIFORM	NCM	NCM			
						DIE-OFF	DECAY	SEIT
						per day	per day	per day

ENDATA15

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-1	CM-2	IN/DIST	OUT/DIST
			m³/s	m³/s	deg C	ppt	MG/L	MG/L		

ENDATA16

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	REACH	ID	DO mg/L	BOD1 mg/L	NBOD mg/L	mg/L	mg/L	BOD2 mg/L
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ENDATA17

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, PHYTOPLANKTON, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	PHYTO CHL A µg/L	COLI #/100mL	NCM	ORGP mg/L
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ENDATA18

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH	ID	BOD1 kg/d	NBOD kg/d	COLI #/day	NCM	DO kg/d	BOD2 kg/d	ORG-P kg/d
NONPOINT	1	GB	5.06	3.80	0.00	0.00	0.00	0.00	0.00
NONPOINT	2	GB	27.16	17.20	0.00	0.00	0.00	0.00	0.00
NONPOINT	3	GB	59.22	23.69	0.00	0.00	0.00	0.00	0.00
NONPOINT	4	GB	0.00	13.00	0.00	0.00	0.00	0.00	0.00
NONPOINT	5	GB	100.93	33.16	0.00	0.00	0.00	0.00	0.00
NONPOINT	6	GB	130.52	40.54	0.00	0.00	0.00	0.00	0.00
NONPOINT	7	GB	76.91	25.64	0.00	0.00	0.00	0.00	0.00
NONPOINT	8	GB	188.14	68.29	0.00	0.00	0.00	0.00	0.00
NONPOINT	9	GB	49.67	4.97	0.00	0.00	0.00	0.00	0.00
NONPOINT	10	GB	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NONPOINT	11	GB	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NONPOINT	12	GB	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NONPOINT	13	GB	11.65	23.30	0.00	0.00	0.00	0.00	0.00
NONPOINT	14	GB	63.10	112.68	0.00	0.00	0.00	0.00	0.00

ENDATA19

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m³/s	FLOW cfs	TEMP deg C	SALIN ppt	CM-1 MG/L	CM-2 MG/L	HDW DISP EXCHG frac
HDWIR-1	1	Grand Bayou Upstream	0	0.02830	0.99929	18.50	0.15	13.600	300.800	0.000

ENDATA20

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L	mg/L	mg/L	BOD2 mg/L
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HDWIR-2	1	Grand Bayou Upstream	8.43	3.39	3.67	0.00	0.00	0.00
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ENDATA21

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, PHYTOPLANKTON, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHYTO PO4-P mg/L	COLI #/100mL	NCM	ORG-P mg/L
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HDWIR-3	1	Grand Bayou Upstream	0.00	10.00	0.00	0.00
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ENDATA22

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE JUNCTION UPSTRM RIVER NAME
 ELEMENT ELEMENT KILOM

ENDATA23

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	RKILO	NAME	FLOW m ³ /s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-1 MG/L	CM-2 MG/L
WSTLD-1	2	23.44	BAYOU SIGUR	0.02830	0.99929	0.646	18.50	0.17	15.000	345.000
WSTLD-1	7	22.62	MUDDY BAYOU	0.02830	0.99929	0.646	18.50	0.08	16.900	169.200
WSTLD-1	17	20.57	BAYOU CROUX (BYC1)	0.02830	0.99929	0.646	18.50	0.12	8.400	250.200
WSTLD-1	32	18.29	BAYOU CROUX (BYC2)	0.02830	0.99929	0.646	18.50	0.14	17.400	296.800
WSTLD-1	62	14.00	GATOR SUPER STOP	0.00043	0.01518	0.010	0.00	0.11	13.800	234.100
WSTLD-1	63	13.88	Chevron Pipe Line	0.00001	0.00035	0.000	0.00	0.11	13.800	234.100
WSTLD-1	80	11.43	BAYOU CORNE	0.02830	0.99929	0.646	18.50	0.07	10.200	154.130
WSTLD-1	100	8.72	LITTLE GRAND BAYOU	-0.00699	-0.24682	-0.160	0.00	0.00	0.000	0.000
WSTLD-1	104	8.12	UNNAMED CANAL	0.02830	0.99929	0.646	18.50	0.07	10.100	166.800
WSTLD-1	124	5.20	EAST GRAND BAYOU	-0.08891	-3.13948	-2.029	0.00	0.00	0.000	0.000
WSTLD-1	135	3.11	BAYOU ALCIDE	0.02830	0.99929	0.646	18.50	0.07	8.800	160.110
WSTLD-1	149	1.20	LITTLE BAYOU LONG	0.02830	0.99929	0.646	18.50	0.07	9.000	153.600

ENDATA24

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD RMVL	NBOD mg/L	mg/L	% NITRIF	mg/L	BOD2 mg/L
WSTLD-2	2	BAYOU SIGUR	8.43	3.65	0.00	4.05	0.00	0.00	0.00	0.00
WSTLD-2	7	MUDDY BAYOU	8.43	0.51	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	17	BAYOU CROUX (BYC1)	8.43	3.00	0.00	1.45	0.00	0.00	0.00	0.00
WSTLD-2	32	BAYOU CROUX (BYC2)	8.43	3.34	0.00	2.51	0.00	0.00	0.00	0.00
WSTLD-2	62	GATOR SUPER STOP	2.00	69.00	0.00	64.50	0.00	0.00	0.00	0.00
WSTLD-2	63	Chevron Pipe Line	2.00	103.50	0.00	64.50	0.00	0.00	0.00	0.00
WSTLD-2	80	BAYOU CORNE	8.43	0.29	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	100	LITTLE GRAND BAYOU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	104	UNNAMED CANAL	8.43	2.86	0.00	1.38	0.00	0.00	0.00	0.00
WSTLD-2	124	EAST GRAND BAYOU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	135	BAYOU ALCIDE	8.43	2.87	0.00	1.23	0.00	0.00	0.00	0.00
WSTLD-2	149	LITTLE BAYOU LONG	8.43	2.89	0.00	0.97	0.00	0.00	0.00	0.00

ENDATA25

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, PHYTOPLANTON, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHYTO PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM	ORG-P mg/L
WSTLD-3	2	BAYOU SIGUR	0.00	10.00	0.00	0.00	0.00
WSTLD-3	7	MUDDY BAYOU	0.00	10.00	0.00	0.00	0.00
WSTLD-3	17	BAYOU CROUX (BYC1)	0.00	10.00	0.00	0.00	0.00
WSTLD-3	32	BAYOU CROUX (BYC2)	0.00	10.00	0.00	0.00	0.00
WSTLD-3	62	GATOR SUPER STOP	0.00	0.00	0.00	0.00	0.00
WSTLD-3	63	Chevron Pipe Line	0.00	0.00	0.00	0.00	0.00
WSTLD-3	80	BAYOU CORNE	0.00	10.00	0.00	0.00	0.00
WSTLD-3	100	LITTLE GRAND BAYOU	0.00	0.00	0.00	0.00	0.00
WSTLD-3	104	UNNAMED CANAL	0.00	10.00	0.00	0.00	0.00

WSTLD-3	124	EAST GRAND BAYOU	0.00	0.00	0.00	0.00	0.00
WSTLD-3	135	BAYOU ALCIDE	0.00	10.00	0.00	0.00	0.00
WSTLD-3	149	LITTLE BAYOU LONG	0.00	10.00	0.00	0.00	0.00

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENTRATION		
LOWER BC	TEMPERATURE	=	18.500	deg C
LOWER BC	SALINITY	=	0.090	ppt
LOWER BC	CONSERVATIVE MATERIAL I	=	9.300	MG/L
LOWER BC	CONSERVATIVE MATERIAL II	=	202.140	MG/L
LOWER BC	DISSOLVED OXYGEN	=	8.440	mg/L
LOWER BC	BOD1 BIOCHEMICAL OXYGEN DEMAND	=	0.290	mg/L
LOWER BC	NBOD	=	0.000	mg/L
LOWER BC	PHOSPHORUS	=	0.000	mg/L
LOWER BC	CHLOROPHYLL A	=	10.000	µg/L
LOWER BC	COLIFORM	=	0.000	#/100 mL
LOWER BC	NONCONSERVATIVE MATERIAL	=	0.000	

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD TYPE	ELEMENT	NAME	EQN	"A"	"B"	"H"
ENDATA28						

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE	PARAMETER	COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
ENDATA29									

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

NUMBER OF PLOTS = 1
 NUMBER OF REACHES IN PLOT 1 = 14
 PLOT RCH 1 2 3 4 5 6 7 8 9 10 11 12 13 14
 ENDATA30

\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

ENDATA31
 ***** WARNING: NEGATIVE CONCENTRATIONS OF BOD1 SET TO ZERO IN LOWER BOUNDARY CONDITION

.....NO ERRORS DETECTED IN INPUT DATA
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 1 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED
GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11

REACH NO. 1 SITE GRB1-BAYOU SIGUR 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
1	HDWTR	0.02830	18.50	0.15	13.60	300.80	8.43	2.39	0.00	3.39	0.00	3.67	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
1	23.53	23.44	0.02830	0.0	0.00272	0.38	0.38	0.85	12.19	935.98	1097.28	10.40	0.00	0.000	0.072	0.003
TOT AVG					0.0027	0.38		0.85	12.19	935.98	1097.28	10.40				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECAT 1/da	BOD1 SEIT 1/da	ABOD1 DECAT 1/da	BOD1 HYDR 1/da	BOD2 DECAT 1/da	BOD2 SEIT 1/da	ABOD2 DECAT 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SEIT 1/da	NH3-N DECAT 1/da	NH3-N SRCE *	DENIT RATE 1/da	ORG-P HYDR 1/da	ORG-P SEIT 1/da	PO4 PROD *	PHYTO PROD **	PERIP PROD **	COLI DECAT 1/da	NCM DECAT 1/da	NCM SEIT 1/da				
1	23.440	9.36	0.80	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00			
AVG 20 DEG C RATE			0.82	0.08	0.05	0.00	0.00	0.00	0.05	0.00	0.51			0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00	0.00			
* g/m²/d			** mg/L/day																											

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	EIOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	EIOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI #/100mL	NCM	
1	23.440	18.50	0.15	13.78	306.56	8.35	4.41	0.00	5.41	0.00	4.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00

***** PHYTOPLANKTON AND PERIPLHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SEIT 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI P LIM	PERI N&P LIM	PERI SEC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m²
1	23.440	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
20 DEG C RATE									0.000	0.000	0.000	0.000									0.000	0.000	0.000		

NOTE ON NITR. PREF: 1.0=NO3 ; 0.0=NH3

REACH NO. 2 BAYOU SIGUR-MUDDY BAYOU 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
2	UPR RCH	0.02830	18.50	0.15	13.78	306.56	8.35	4.41	0.00	5.41	0.00	4.92	0.00	0.00	0.00	10.00	0.00	0.00
2	WSTILD	0.02830	18.50	0.17	15.00	345.00	8.43	3.65	0.00	3.65	0.00	4.05	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCF EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPERSN m²/s	MEAN VELO m/s
2	23.44	23.28	0.05660	50.0	0.00381	0.50	0.88	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.105	0.004
3	23.28	23.11	0.05660	50.0	0.00381	0.50	1.38	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.105	0.004
4	23.11	22.95	0.05660	50.0	0.00381	0.50	1.88	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.105	0.004
5	22.95	22.78	0.05660	50.0	0.00381	0.50	2.37	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.105	0.004
6	22.78	22.62	0.05660	50.0	0.00381	0.50	2.87	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.105	0.004
TOT AVG					0.0038	2.49		0.90	16.50	12177.00	13530.00	14.85				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD1 DECAT	BOD1 SEIT	ABOD1 DECAT	BOD1 HYDR	BOD2 DECAT	BOD2 SEIT	ABOD2 DECAT	BKGD SOD	FULL SOD	CORR SOD	ORG-N HYDR	ORG-N SEIT	NH3-N DECAT	NH3-N SRCE	DENIT RATE	ORG-P HYDR	ORG-P SEIT	PO4 SRCE	PHYTO PROD	PERIP PROD	COLI DECAT	NCM DECAT	NCM SEIT
2	23.276	9.36	0.75	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.68	0.68	0.68	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
3	23.112	9.36	0.75	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.68	0.68	0.68	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
4	22.948	9.36	0.75	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.68	0.68	0.68	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
5	22.784	9.36	0.75	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.68	0.68	0.68	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
6	22.620	9.36	0.75	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.68	0.68	0.68	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.78	0.08	0.05	0.00	0.00	0.00	0.05	0.00	0.74			0.11	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	EIOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	EIOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI #/100mL	NCM	
2	23.276	18.50	0.16	14.30	322.90	8.24	4.88	0.00	5.88	0.00	4.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00
3	23.112	18.50	0.16	14.30	322.87	8.10	5.64	0.00	6.64	0.00	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00
4	22.948	18.50	0.16	14.30	322.72	7.97	6.34	0.00	7.34	0.00	5.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00
5	22.784	18.50	0.16	14.32	321.66	7.85	6.97	0.00	7.97	0.00	5.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00
6	22.620	18.50	0.16	14.45	314.28	7.76	7.26	0.00	8.26	0.00	5.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00

***** PHYTOPLANKTON AND PERIPLHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SETT 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SEC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m²
2	23.276	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
3	23.112	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
4	22.948	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
5	22.784	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
6	22.620	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream GRAND BAYOU WINTER PROJECTION
 REACH NO. 3 MUDDY BAYOU-BAYOU CROUX (BYC1) 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
7	UPR RCH	0.05660	18.50	0.16	14.45	314.28	7.76	7.26	0.00	8.26	0.00	5.66	0.00	0.00	0.00	10.00	0.00	0.00
7	WSTLD	0.02830	18.50	0.08	16.90	169.20	8.43	0.51	0.00	0.51	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
7	22.62	22.42	0.08490	66.7	0.00396	0.60	3.47	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.119	0.004
8	22.42	22.21	0.08490	66.7	0.00396	0.60	4.07	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.119	0.004
9	22.21	22.01	0.08490	66.7	0.00396	0.60	4.67	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.119	0.004
10	22.01	21.80	0.08490	66.7	0.00396	0.60	5.27	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.119	0.004
11	21.80	21.60	0.08490	66.7	0.00396	0.60	5.87	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.119	0.004
12	21.60	21.39	0.08490	66.7	0.00396	0.60	6.47	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.119	0.004
13	21.39	21.19	0.08490	66.7	0.00396	0.60	7.07	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.119	0.004
14	21.19	20.98	0.08490	66.7	0.00396	0.60	7.67	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.119	0.004
15	20.98	20.78	0.08490	66.7	0.00396	0.60	8.27	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.119	0.004
16	20.78	20.57	0.08490	66.7	0.00396	0.60	8.87	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.119	0.004
TOT AVG					0.0040	6.00		1.01	21.34	44001.24	43738.79	21.46				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECATY 1/da	BOD1 SETT 1/da	ABOD1 DECATY 1/da	BOD1 HYDR 1/da	BOD2 DECATY 1/da	BOD2 SETT 1/da	ABOD2 DECATY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SETT 1/da	NH3-N DECATY 1/da	NH3-N SRCE 1/da	DENIT RATE 1/da	ORG-P HYDR 1/da	ORG-P SETT 1/da	SRCE *	PHYTO PROD **	PERIP PROD **	COLI DECATY 1/da	NCM DECATY 1/da	NCM SETT 1/da
7	22.415	9.36	0.68	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.11	1.11	1.11	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
8	22.210	9.36	0.68	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.11	1.11	1.11	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00

9	22.005	9.36	0.68	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.11	1.11	1.11	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
10	21.800	9.36	0.68	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.11	1.11	1.11	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
11	21.595	9.36	0.68	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.11	1.11	1.11	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
12	21.390	9.36	0.68	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.11	1.11	1.11	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
13	21.185	9.36	0.68	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.11	1.11	1.11	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
14	20.980	9.36	0.68	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.11	1.11	1.11	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
15	20.775	9.36	0.68	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.11	1.11	1.11	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
16	20.570	9.36	0.68	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.11	1.11	1.11	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 0.70 0.07 0.05 0.00 0.00 0.00 0.05 0.00 1.22 0.10 0.05 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI #/100mL	NCM
7	22.415	18.50	0.13	15.17	271.67	7.77	5.69	0.00	6.69	0.00	3.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
8	22.210	18.50	0.13	15.17	271.67	7.62	6.06	0.00	7.06	0.00	3.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
9	22.005	18.50	0.13	15.17	271.67	7.50	6.42	0.00	7.42	0.00	3.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
10	21.800	18.50	0.13	15.17	271.67	7.41	6.75	0.00	7.75	0.00	3.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
11	21.595	18.50	0.13	15.17	271.67	7.34	7.05	0.00	8.05	0.00	3.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
12	21.390	18.50	0.13	15.17	271.67	7.27	7.34	0.00	8.34	0.00	3.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
13	21.185	18.50	0.13	15.17	271.66	7.22	7.61	0.00	8.61	0.00	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
14	20.980	18.50	0.13	15.16	271.65	7.18	7.86	0.00	8.86	0.00	3.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
15	20.775	18.50	0.13	15.13	271.54	7.15	8.06	0.00	9.06	0.00	3.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
16	20.570	18.50	0.13	14.84	270.64	7.14	7.99	0.00	8.99	0.00	3.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SEITP 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SPC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m²
7	22.415	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
8	22.210	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
9	22.005	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
10	21.800	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
11	21.595	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
12	21.390	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
13	21.185	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
14	20.980	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
15	20.775	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
16	20.570	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream GRAND BAYOU WINTER PROJECTION
 REACH NO. 4 B CROUX (BYC1)-B CROUX (BYC2) 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
17	UPR RCH	0.08490	18.50	0.13	14.84	270.64	7.14	7.99	0.00	8.99	0.00	3.74	0.00	0.00	0.00	10.00	0.00	0.00
17	WSTILD	0.02830	18.50	0.12	8.40	250.20	8.43	3.00	0.00	3.00	0.00	1.45	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
17	20.57	20.42	0.11320	75.0	0.00438	0.40	9.27	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.191	0.004
18	20.42	20.27	0.11320	75.0	0.00438	0.40	9.67	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.191	0.004
19	20.27	20.11	0.11320	75.0	0.00438	0.40	10.08	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.191	0.004
20	20.11	19.96	0.11320	75.0	0.00438	0.40	10.48	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.191	0.004
21	19.96	19.81	0.11320	75.0	0.00438	0.40	10.88	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.191	0.004
22	19.81	19.66	0.11320	75.0	0.00438	0.40	11.28	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.191	0.004
23	19.66	19.51	0.11320	75.0	0.00438	0.40	11.68	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.191	0.004
24	19.51	19.35	0.11320	75.0	0.00438	0.40	12.08	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.191	0.004
25	19.35	19.20	0.11320	75.0	0.00438	0.40	12.49	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.191	0.004
26	19.20	19.05	0.11320	75.0	0.00438	0.40	12.89	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.191	0.004
27	19.05	18.90	0.11320	75.0	0.00438	0.40	13.29	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.191	0.004
28	18.90	18.75	0.11320	75.0	0.00438	0.40	13.69	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.191	0.004
29	18.75	18.59	0.11320	75.0	0.00438	0.40	14.09	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.191	0.004
30	18.59	18.44	0.11320	75.0	0.00438	0.40	14.49	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.191	0.004
31	18.44	18.29	0.11320	75.0	0.00438	0.40	14.90	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.191	0.004
TOT AVG					0.0044	6.02		1.57	16.46	58916.64	37526.52	25.84				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD1 DECA	BOD1 SEIT	ABOD1 DECA	BOD1 HYDR	BOD2 DECA	BOD2 SEIT	ABOD2 DECA	BKGD SOD	FULL SOD	CORR SOD	ORG-N HYDR	ORG-N SEIT	NH3-N DECA	NH3-N SRCE	DENIT RATE	ORG-P HYDR	ORG-P SEIT	PO4 SRCE	PHYTO PROD	PERIP PROD	COLI DECA	NCM DECA	NCM SEIT
17	20.418	9.36	0.43	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.75	1.75	1.75	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
18	20.266	9.36	0.43	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.75	1.75	1.75	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
19	20.114	9.36	0.43	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.75	1.75	1.75	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
20	19.962	9.36	0.43	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.75	1.75	1.75	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
21	19.810	9.36	0.43	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.75	1.75	1.75	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
22	19.658	9.36	0.43	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.75	1.75	1.75	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
23	19.506	9.36	0.43	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.75	1.75	1.75	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
24	19.354	9.36	0.43	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.75	1.75	1.75	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
25	19.202	9.36	0.43	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.75	1.75	1.75	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
26	19.050	9.36	0.43	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.75	1.75	1.75	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
27	18.898	9.36	0.43	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.75	1.75	1.75	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
28	18.746	9.36	0.43	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.75	1.75	1.75	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
29	18.594	9.36	0.43	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.75	1.75	1.75	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
30	18.442	9.36	0.43	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.75	1.75	1.75	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
31	18.290	9.36	0.43	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.75	1.75	1.75	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.45	0.07	0.05	0.00	0.00	0.00	0.05	0.00	1.93			0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	ETOT-P mg/L	CHL A ug/L	PERIP g/m ²	COLI #/100mL	NCM
17	20.418	18.50	0.13	13.48	266.30	7.24	6.61	0.00	7.61	0.00	3.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
18	20.266	18.50	0.13	13.48	266.30	7.11	6.33	0.00	7.33	0.00	3.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
19	20.114	18.50	0.13	13.48	266.30	7.00	6.07	0.00	7.07	0.00	3.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
20	19.962	18.50	0.13	13.48	266.30	6.92	5.81	0.00	6.81	0.00	2.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
21	19.810	18.50	0.13	13.48	266.30	6.86	5.57	0.00	6.57	0.00	2.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
22	19.658	18.50	0.13	13.48	266.30	6.81	5.33	0.00	6.33	0.00	2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
23	19.506	18.50	0.13	13.48	266.30	6.77	5.11	0.00	6.11	0.00	2.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
24	19.354	18.50	0.13	13.48	266.30	6.75	4.89	0.00	5.89	0.00	2.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
25	19.202	18.50	0.13	13.48	266.30	6.74	4.69	0.00	5.69	0.00	2.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
26	19.050	18.50	0.13	13.48	266.30	6.73	4.49	0.00	5.49	0.00	2.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
27	18.898	18.50	0.13	13.48	266.30	6.73	4.30	0.00	5.30	0.00	2.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
28	18.746	18.50	0.13	13.48	266.32	6.74	4.12	0.00	5.12	0.00	2.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
29	18.594	18.50	0.13	13.48	266.37	6.75	3.95	0.00	4.95	0.00	2.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
30	18.442	18.50	0.13	13.52	266.63	6.77	3.80	0.00	4.80	0.00	2.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
31	18.290	18.50	0.13	13.66	267.77	6.87	3.70	0.00	4.70	0.00	2.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPLHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N	PHYT LIT	PHYT N	PHYT P	PHYT N&P	PHYT TOT	PHYT GROW	PHYT RESP	PHYT DEATH	PHYT SEITP	PHYT P/R	PHYTO ug/L	PERI N	PERI LIT	PERI N	PERI P	PERI N&P	PERI SPC	PERI TOT	PERI GROW	PERI RESP	PERI DEATH	PERI P/R	PERIP g/m ²
				PREF	LIM	LIM	LIM	LIM	1/d	1/d	1/d	1/d	1/d	RATIO	PREF	LIM	LIM	LIM	LIM	LIM	LIM	LIM	LIM	1/d	1/d	1/d		RATIO
17	20.418	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
18	20.266	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
19	20.114	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
20	19.962	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
21	19.810	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
22	19.658	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
23	19.506	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
24	19.354	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
25	19.202	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
26	19.050	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
27	18.898	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
28	18.746	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
29	18.594	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
30	18.442	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
31	18.290	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=N03 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream GRAND BAYOU WINTER PROJECTION
 REACH NO. 5 B CROUX (BYC2)-km 15.5 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
32	UPR RCH	0.11320	18.50	0.13	13.66	267.77	6.87	3.70	0.00	4.70	0.00	2.35	0.00	0.00	0.00	10.00	0.00	0.00
32	WSTLD	0.02830	18.50	0.14	17.40	296.80	8.43	3.34	0.00	3.34	0.00	2.51	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADV/CIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
32	18.29	18.14	0.14150	80.0	0.00304	0.59	15.48	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.132	0.003
33	18.14	17.98	0.14150	80.0	0.00304	0.59	16.07	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.132	0.003
34	17.98	17.82	0.14150	80.0	0.00304	0.59	16.66	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.132	0.003
35	17.82	17.67	0.14150	80.0	0.00304	0.59	17.25	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.132	0.003
36	17.67	17.51	0.14150	80.0	0.00304	0.59	17.84	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.132	0.003
37	17.51	17.36	0.14150	80.0	0.00304	0.59	18.43	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.132	0.003
38	17.36	17.20	0.14150	80.0	0.00304	0.59	19.02	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.132	0.003
39	17.20	17.05	0.14150	80.0	0.00304	0.59	19.61	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.132	0.003
40	17.05	16.89	0.14150	80.0	0.00304	0.59	20.20	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.132	0.003
41	16.89	16.74	0.14150	80.0	0.00304	0.59	20.79	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.132	0.003
42	16.74	16.58	0.14150	80.0	0.00304	0.59	21.38	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.132	0.003
43	16.58	16.43	0.14150	80.0	0.00304	0.59	21.97	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.132	0.003
44	16.43	16.27	0.14150	80.0	0.00304	0.59	22.56	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.132	0.003
45	16.27	16.12	0.14150	80.0	0.00304	0.59	23.15	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.132	0.003
46	16.12	15.96	0.14150	80.0	0.00304	0.59	23.74	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.132	0.003
47	15.96	15.81	0.14150	80.0	0.00304	0.59	24.33	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.132	0.003
48	15.81	15.65	0.14150	80.0	0.00304	0.59	24.92	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.132	0.003
49	15.65	15.50	0.14150	80.0	0.00304	0.59	25.51	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.132	0.003
TOT						10.61				129735.00	83700.00					
AVG					0.0030			1.55	30.00			46.50				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECAY 1/da	BOD1 SEITT 1/da	ABOD1 DECAY 1/da	BOD1 HYDR 1/da	BOD2 DECAY 1/da	BOD2 SEITT 1/da	ABOD2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SEITT 1/da	NH3-N DECAY 1/da	NH3-N SRCE *	DENIT RATE 1/da	ORG-P HYDR 1/da	ORG-P SEITT 1/da	PO4 SRCE *	PHYTO PROD **	PERIP PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SEITT 1/da
32	18.135	9.36	0.44	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.05	1.05	1.05	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
33	17.980	9.36	0.44	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.05	1.05	1.05	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
34	17.825	9.36	0.44	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.05	1.05	1.05	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
35	17.670	9.36	0.44	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.05	1.05	1.05	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
36	17.515	9.36	0.44	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.05	1.05	1.05	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
37	17.360	9.36	0.44	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.05	1.05	1.05	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
38	17.205	9.36	0.44	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.05	1.05	1.05	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
39	17.050	9.36	0.44	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.05	1.05	1.05	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
40	16.895	9.36	0.44	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.05	1.05	1.05	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
41	16.740	9.36	0.44	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.05	1.05	1.05	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
42	16.585	9.36	0.44	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.05	1.05	1.05	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
43	16.430	9.36	0.44	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.05	1.05	1.05	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
44	16.275	9.36	0.44	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.05	1.05	1.05	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
45	16.120	9.36	0.44	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.05	1.05	1.05	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
46	15.965	9.36	0.44	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.05	1.05	1.05	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
47	15.810	9.36	0.44	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.05	1.05	1.05	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00

48	15.655	9.36	0.44	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.05	1.05	1.05	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
49	15.500	9.36	0.44	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.05	1.05	1.05	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE				0.45	0.07	0.05	0.00	0.00	0.00	0.05	0.00	1.15			0.10	0.05	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	ETOT-P mg/L	CHL A ug/L	PERIP g/m ²	COLI #/100mL	NCM
32	18.135	18.50	0.13	14.26	272.40	7.26	3.85	0.00	4.85	0.00	2.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
33	17.980	18.50	0.13	14.26	272.40	7.36	4.03	0.00	5.03	0.00	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34	17.825	18.50	0.13	14.26	272.40	7.44	4.20	0.00	5.20	0.00	2.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35	17.670	18.50	0.13	14.26	272.40	7.51	4.36	0.00	5.36	0.00	2.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	17.515	18.50	0.13	14.26	272.40	7.55	4.51	0.00	5.51	0.00	2.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37	17.360	18.50	0.13	14.26	272.40	7.59	4.66	0.00	5.66	0.00	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38	17.205	18.50	0.13	14.26	272.40	7.61	4.79	0.00	5.79	0.00	2.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39	17.050	18.50	0.13	14.26	272.40	7.63	4.91	0.00	5.91	0.00	2.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	16.895	18.50	0.13	14.26	272.40	7.64	5.03	0.00	6.03	0.00	2.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41	16.740	18.50	0.13	14.26	272.40	7.65	5.14	0.00	6.14	0.00	2.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42	16.585	18.50	0.13	14.26	272.40	7.65	5.24	0.00	6.24	0.00	2.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43	16.430	18.50	0.13	14.26	272.40	7.65	5.34	0.00	6.34	0.00	2.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	16.275	18.50	0.13	14.26	272.40	7.65	5.43	0.00	6.43	0.00	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45	16.120	18.50	0.13	14.26	272.40	7.64	5.51	0.00	6.51	0.00	2.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46	15.965	18.50	0.13	14.26	272.40	7.64	5.59	0.00	6.59	0.00	2.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
47	15.810	18.50	0.13	14.26	272.40	7.63	5.67	0.00	6.67	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	15.655	18.50	0.13	14.26	272.40	7.63	5.74	0.00	6.74	0.00	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49	15.500	18.50	0.13	14.26	272.40	7.62	5.80	0.00	6.80	0.00	1.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

***** PHYTOPLANKTON AND PERIPLHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SETT 1/da	PHYT P/R RATIO	PHYTO ug/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SPC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m ²
32	18.135	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
33	17.980	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
34	17.825	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
35	17.670	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
36	17.515	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
37	17.360	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
38	17.205	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
39	17.050	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
40	16.895	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
41	16.740	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
42	16.585	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
43	16.430	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
44	16.275	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
45	16.120	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
46	15.965	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
47	15.810	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
48	15.655	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
49	15.500	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream GRAND BAYOU WINTER PROJECTION
 REACH NO. 6 km 15.5-km 13.0 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
50	UPR RCH	0.14150	18.50	0.13	14.26	272.40	7.62	5.80	0.00	6.80	0.00	1.97	0.00	0.00	0.00	10.00	0.00	0.00
62	WSTLD	0.00043	0.00	0.11	13.80	234.10	2.00	69.00	0.00	69.00	0.00	64.50	0.00	0.00	0.00	0.00	0.00	0.00
63	WSTLD	0.00001	0.00	0.11	13.80	234.10	2.00	103.50	0.00	103.50	0.00	64.50	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCP EFF	ADV/CIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
50	15.50	15.38	0.14150	80.0	0.00211	0.68	26.19	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
51	15.38	15.25	0.14150	80.0	0.00211	0.68	26.88	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
52	15.25	15.12	0.14150	80.0	0.00211	0.68	27.56	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
53	15.12	15.00	0.14150	80.0	0.00211	0.68	28.25	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
54	15.00	14.88	0.14150	80.0	0.00211	0.68	28.93	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
55	14.88	14.75	0.14150	80.0	0.00211	0.68	29.61	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
56	14.75	14.62	0.14150	80.0	0.00211	0.68	30.30	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
57	14.62	14.50	0.14150	80.0	0.00211	0.68	30.98	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
58	14.50	14.38	0.14150	80.0	0.00211	0.68	31.67	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
59	14.38	14.25	0.14150	80.0	0.00211	0.68	32.35	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
60	14.25	14.12	0.14150	80.0	0.00211	0.68	33.04	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
61	14.12	14.00	0.14150	80.0	0.00211	0.68	33.72	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
62	14.00	13.88	0.14193	80.1	0.00212	0.68	34.40	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
63	13.88	13.75	0.14194	80.1	0.00212	0.68	35.09	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
64	13.75	13.62	0.14194	80.1	0.00212	0.68	35.77	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
65	13.62	13.50	0.14194	80.1	0.00212	0.68	36.45	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
66	13.50	13.38	0.14194	80.1	0.00212	0.68	37.13	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
67	13.38	13.25	0.14194	80.1	0.00212	0.68	37.82	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
68	13.25	13.12	0.14194	80.1	0.00212	0.68	38.50	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
69	13.12	13.00	0.14194	80.1	0.00212	0.68	39.18	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
TOT AVG					0.0021		13.68		1.51	44.20	167392.38	110490.00				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECA 1/da	BOD1 SEIT 1/da	ABOD1 DECA 1/da	BOD1 HYDR 1/da	BOD2 DECA 1/da	BOD2 SEIT 1/da	ABOD2 DECA 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SEIT 1/da	NH3-N DECA 1/da	NH3-N SRCE 1/da	DNITR RATE 1/da	ORG-P HYDR 1/da	ORG-P SEIT 1/da	PO4 SRCE *	PHYTO PROD **	PERIP PROD **	COLI DECA 1/da	NCM DECA 1/da	NCM SEIT 1/da
50	15.375	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.02	1.02	1.02	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
51	15.250	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.02	1.02	1.02	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00

52	15.125	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.02	1.02	1.02	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
53	15.000	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.02	1.02	1.02	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
54	14.875	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.02	1.02	1.02	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
55	14.750	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.02	1.02	1.02	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
56	14.625	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.02	1.02	1.02	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
57	14.500	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.02	1.02	1.02	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
58	14.375	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.02	1.02	1.02	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
59	14.250	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.02	1.02	1.02	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
60	14.125	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.02	1.02	1.02	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
61	14.000	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.02	1.02	1.02	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
62	13.875	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.02	1.02	1.02	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
63	13.750	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.02	1.02	1.02	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
64	13.625	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.02	1.02	1.02	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
65	13.500	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.02	1.02	1.02	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
66	13.375	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.02	1.02	1.02	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
67	13.250	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.02	1.02	1.02	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
68	13.125	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.02	1.02	1.02	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
69	13.000	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.00	1.02	1.02	1.02	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 0.46 0.08 0.05 0.00 0.00 0.00 0.05 0.00 1.12 0.10 0.05 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m ²	COLI #/100mL	NCM
50	15.375	18.50	0.13	14.26	272.40	7.60	5.85	0.00	6.85	0.00	1.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
51	15.250	18.50	0.13	14.26	272.40	7.59	5.90	0.00	6.90	0.00	1.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
52	15.125	18.50	0.13	14.26	272.40	7.58	5.94	0.00	6.94	0.00	1.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
53	15.000	18.50	0.13	14.26	272.40	7.57	5.97	0.00	6.97	0.00	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
54	14.875	18.50	0.13	14.26	272.40	7.56	6.01	0.00	7.01	0.00	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
55	14.750	18.50	0.13	14.26	272.40	7.55	6.04	0.00	7.04	0.00	1.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
56	14.625	18.50	0.13	14.26	272.40	7.55	6.07	0.00	7.07	0.00	1.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
57	14.500	18.50	0.13	14.26	272.40	7.54	6.10	0.00	7.10	0.00	1.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
58	14.375	18.50	0.13	14.26	272.40	7.54	6.12	0.00	7.12	0.00	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
59	14.250	18.50	0.13	14.26	272.40	7.54	6.15	0.00	7.15	0.00	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
60	14.125	18.50	0.13	14.26	272.39	7.53	6.18	0.00	7.18	0.00	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
61	14.000	18.50	0.13	14.26	272.37	7.52	6.23	0.00	7.23	0.00	1.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
62	13.875	18.50	0.13	14.26	272.28	7.50	6.38	0.00	7.38	0.00	1.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
63	13.750	18.50	0.13	14.26	272.28	7.49	6.39	0.00	7.39	0.00	1.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
64	13.625	18.50	0.13	14.26	272.28	7.48	6.39	0.00	7.39	0.00	1.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
65	13.500	18.50	0.13	14.26	272.28	7.48	6.40	0.00	7.40	0.00	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
66	13.375	18.50	0.13	14.26	272.28	7.48	6.40	0.00	7.40	0.00	1.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
67	13.250	18.50	0.13	14.26	272.28	7.48	6.40	0.00	7.40	0.00	1.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
68	13.125	18.50	0.13	14.26	272.28	7.48	6.41	0.00	7.41	0.00	1.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
69	13.000	18.50	0.13	14.26	272.28	7.49	6.41	0.00	7.41	0.00	1.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPLHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SETT 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SPC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m ²
50	15.375	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

51	15.250	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
52	15.125	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
53	15.000	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
54	14.875	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
55	14.750	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
56	14.625	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
57	14.500	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
58	14.375	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
59	14.250	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
60	14.125	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
61	14.000	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
62	13.875	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
63	13.750	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
64	13.625	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
65	13.500	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
66	13.375	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
67	13.250	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
68	13.125	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
69	13.000	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
20 DEG C RATE										0.000	0.000	0.000	0.000											0.000	0.000	0.000	

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream GRAND BAYOU WINTER PROJECTION
 REACH NO. 7 km 13.0-BAYOU CORNE 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
70	UPR RCH	0.14194	18.50	0.13	14.26	272.28	7.49	6.41	0.00	7.41	0.00	1.83	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCP EFF	ADV/CIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
70	13.00	12.84	0.14194	80.1	0.00213	0.85	40.04	1.55	43.00	10464.05	6751.00	66.65	47.26	0.000	0.092	0.002
71	12.84	12.69	0.14194	80.1	0.00213	0.85	40.89	1.55	43.00	10464.05	6751.00	66.65	94.51	0.000	0.092	0.002
72	12.69	12.53	0.14194	80.1	0.00213	0.85	41.74	1.55	43.00	10464.05	6751.00	66.65	141.77	0.000	0.092	0.002
73	12.53	12.37	0.14194	80.1	0.00213	0.85	42.60	1.55	43.00	10464.05	6751.00	66.65	189.03	0.000	0.092	0.002
74	12.37	12.22	0.14194	80.1	0.00213	0.85	43.45	1.55	43.00	10464.05	6751.00	66.65	236.29	0.000	0.092	0.002
75	12.22	12.06	0.14194	80.1	0.00213	0.85	44.30	1.55	43.00	10464.05	6751.00	66.65	283.54	0.000	0.092	0.002
76	12.06	11.90	0.14194	80.1	0.00213	0.85	45.15	1.55	43.00	10464.05	6751.00	66.65	330.80	0.000	0.092	0.002
77	11.90	11.74	0.14194	80.1	0.00213	0.85	46.01	1.55	43.00	10464.05	6751.00	66.65	378.06	0.000	0.092	0.002
78	11.74	11.59	0.14194	80.1	0.00213	0.85	46.86	1.55	43.00	10464.05	6751.00	66.65	425.31	0.000	0.092	0.002
79	11.59	11.43	0.14194	80.1	0.00213	0.85	47.71	1.55	43.00	10464.05	6751.00	66.65	472.57	0.000	0.092	0.002
TOT AVG					0.0021	8.53		1.55	43.00	104640.49	67510.00	66.65				

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream
 REACH NO. 8 B CORNE-LITTLE GRAND BAYOU

GRAND BAYOU WINTER PROJECTION
 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A ug/L	COLI #/100mL	NCM
80	UPR RCH	0.14194	18.50	0.13	14.09	267.42	7.75	6.36	0.00	7.36	0.00	1.61	0.00	0.00	0.00	10.00	0.00	0.00
80	WSTLD	0.02830	18.50	0.07	10.20	154.13	8.43	0.29	0.00	0.29	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCP EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
80	11.43	11.29	0.17024	83.4	0.00250	0.63	48.34	1.62	42.06	9244.43	5699.40	68.22	572.31	0.000	0.112	0.002
81	11.29	11.16	0.17024	83.4	0.00250	0.63	48.97	1.62	42.06	9244.43	5699.40	68.22	672.05	0.000	0.112	0.002
82	11.16	11.02	0.17024	83.4	0.00250	0.63	49.60	1.62	42.06	9244.43	5699.40	68.22	771.79	0.000	0.112	0.002
83	11.02	10.89	0.17024	83.4	0.00250	0.63	50.23	1.62	42.06	9244.43	5699.40	68.22	871.53	0.000	0.112	0.002
84	10.89	10.75	0.17024	83.4	0.00250	0.63	50.86	1.62	42.06	9244.43	5699.40	68.22	971.27	0.000	0.112	0.002
85	10.75	10.62	0.17024	83.4	0.00250	0.63	51.49	1.62	42.06	9244.43	5699.40	68.22	1071.01	0.000	0.112	0.002
86	10.62	10.48	0.17024	83.4	0.00250	0.63	52.11	1.62	42.06	9244.43	5699.40	68.22	1170.75	0.000	0.112	0.002
87	10.48	10.35	0.17024	83.4	0.00250	0.63	52.74	1.62	42.06	9244.43	5699.40	68.22	1270.49	0.000	0.112	0.002
88	10.35	10.21	0.17024	83.4	0.00250	0.63	53.37	1.62	42.06	9244.43	5699.40	68.22	1370.23	0.000	0.112	0.002
89	10.21	10.08	0.17024	83.4	0.00250	0.63	54.00	1.62	42.06	9244.43	5699.40	68.22	1469.96	0.000	0.112	0.002
90	10.08	9.94	0.17024	83.4	0.00250	0.63	54.63	1.62	42.06	9244.43	5699.40	68.22	1569.70	0.001	0.112	0.002
91	9.94	9.80	0.17024	83.4	0.00250	0.63	55.26	1.62	42.06	9244.43	5699.40	68.22	1669.44	0.001	0.112	0.002
92	9.80	9.67	0.17024	83.4	0.00250	0.63	55.89	1.62	42.06	9244.43	5699.40	68.22	1769.18	0.001	0.112	0.002
93	9.67	9.53	0.17024	83.4	0.00250	0.63	56.51	1.62	42.06	9244.43	5699.40	68.22	1868.92	0.001	0.112	0.002
94	9.53	9.40	0.17024	83.4	0.00250	0.63	57.14	1.62	42.06	9244.43	5699.40	68.22	1968.66	0.001	0.112	0.002
95	9.40	9.26	0.17024	83.4	0.00250	0.63	57.77	1.62	42.06	9244.43	5699.40	68.22	2068.40	0.001	0.112	0.002
96	9.26	9.13	0.17024	83.4	0.00250	0.63	58.40	1.62	42.06	9244.43	5699.40	68.22	2168.14	0.001	0.112	0.002
97	9.13	8.99	0.17024	83.4	0.00250	0.63	59.03	1.62	42.06	9244.43	5699.40	68.22	2267.88	0.001	0.112	0.002
98	8.99	8.86	0.17024	83.4	0.00250	0.63	59.66	1.62	42.06	9244.43	5699.40	68.22	2367.62	0.001	0.112	0.002
99	8.86	8.72	0.17024	83.4	0.00250	0.63	60.28	1.62	42.06	9244.43	5699.40	68.22	2467.36	0.001	0.112	0.002
TOT AVG					0.0025		12.57		1.62	42.06	184888.55	113988.01				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECAT 1/da	BOD1 SEIT 1/da	ABOD1 DECAT 1/da	BOD1 HYDR 1/da	BOD2 DECAT 1/da	BOD2 SEIT 1/da	ABOD2 DECAT 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SEIT 1/da	NH3-N DECAT 1/da	NH3-N SRCE *	DENIT RATE 1/da	ORG-P HYDR 1/da	ORG-P SEIT 1/da	SRCE *	PHYTO PROD **	PERIP PROD **	COLI DECAT 1/da	NCM DECAT 1/da	NCM SEIT 1/da
80	11.295	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.51	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
81	11.159	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.51	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
82	11.024	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.51	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
83	10.888	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.51	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
84	10.753	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.51	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00

85	10.617	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.51	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
86	10.482	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.51	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
87	10.346	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.51	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
88	10.211	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.51	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
89	10.075	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.51	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
90	9.940	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.51	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
91	9.804	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.51	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
92	9.669	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.51	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
93	9.533	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.51	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
94	9.398	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.51	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
95	9.262	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.51	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
96	9.127	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.51	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
97	8.991	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.51	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
98	8.856	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.51	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
99	8.720	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.51	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 0.43 0.05 0.05 0.00 0.00 0.00 0.05 0.00 0.56 0.14 0.05 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI #/100mL	NCM
80	11.295	18.50	0.12	13.58	252.64	7.99	5.85	0.00	6.85	0.00	1.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
81	11.159	18.50	0.12	13.58	252.64	8.10	6.11	0.00	7.11	0.00	1.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
82	11.024	18.50	0.12	13.58	252.64	8.17	6.35	0.00	7.35	0.00	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
83	10.888	18.50	0.12	13.58	252.64	8.23	6.58	0.00	7.58	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
84	10.753	18.50	0.12	13.58	252.64	8.26	6.79	0.00	7.79	0.00	1.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
85	10.617	18.50	0.12	13.58	252.64	8.28	6.99	0.00	7.99	0.00	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
86	10.482	18.50	0.12	13.58	252.64	8.29	7.18	0.00	8.18	0.00	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
87	10.346	18.50	0.12	13.58	252.64	8.29	7.36	0.00	8.36	0.00	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
88	10.211	18.50	0.12	13.58	252.64	8.29	7.53	0.00	8.53	0.00	1.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
89	10.075	18.50	0.12	13.58	252.64	8.28	7.69	0.00	8.69	0.00	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
90	9.940	18.50	0.12	13.58	252.64	8.27	7.84	0.00	8.84	0.00	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
91	9.804	18.50	0.12	13.58	252.64	8.25	7.98	0.00	8.98	0.00	1.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
92	9.669	18.50	0.12	13.58	252.64	8.24	8.12	0.00	9.12	0.00	1.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
93	9.533	18.50	0.12	13.58	252.64	8.22	8.24	0.00	9.24	0.00	1.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
94	9.398	18.50	0.12	13.58	252.64	8.20	8.36	0.00	9.36	0.00	1.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
95	9.262	18.50	0.12	13.58	252.64	8.19	8.47	0.00	9.47	0.00	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
96	9.127	18.50	0.12	13.58	252.64	8.17	8.58	0.00	9.58	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
97	8.991	18.50	0.12	13.58	252.64	8.15	8.68	0.00	9.68	0.00	2.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
98	8.856	18.50	0.12	13.58	252.64	8.14	8.78	0.00	9.78	0.00	2.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
99	8.720	18.50	0.12	13.58	252.63	8.12	8.89	0.00	9.89	0.00	2.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPLHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SETT 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SPC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m²
80	11.295	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
81	11.159	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
82	11.024	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
83	10.888	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

84	10.753	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
85	10.617	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
86	10.482	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
87	10.346	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
88	10.211	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
89	10.075	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
90	9.940	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
91	9.804	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
92	9.669	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
93	9.533	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
94	9.398	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
95	9.262	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
96	9.127	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
97	8.991	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
98	8.856	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
99	8.720	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
20 DEG C RATE				0.000 0.000 0.000 0.000											0.000 0.000 0.000												

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream GRAND BAYOU WINTER PROJECTION
 REACH NO. 9 LITTLE GRAND-UNNAMED CANAL 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
100	UPR RCH	0.17024	18.50	0.12	13.58	252.63	8.12	8.89	0.00	9.89	0.00	2.01	0.00	0.00	0.00	10.00	0.00	0.00
100	WSTLD	-0.00699	18.50	0.12	13.58	252.61	8.12	9.08	0.00	10.08	0.00	1.91	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s	
100	8.72	8.57	0.16325	83.4	0.00226	0.77	61.05	1.48	48.77	10811.87	7315.20	72.08	2613.81	0.001	0.094	0.002	
101	8.57	8.42	0.16325	83.4	0.00226	0.77	61.82	1.48	48.77	10811.87	7315.20	72.08	2760.26	0.001	0.094	0.002	
102	8.42	8.27	0.16325	83.4	0.00226	0.77	62.58	1.48	48.77	10811.87	7315.20	72.08	2906.71	0.001	0.094	0.002	
103	8.27	8.12	0.16325	83.4	0.00226	0.77	63.35	1.48	48.77	10811.87	7315.20	72.08	3053.16	0.001	0.094	0.002	
TOT						3.07											
AVG						0.0023	1.48	48.77	43247.46		29260.80		72.08				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECAF 1/da	BOD1 SEIT 1/da	ABOD1 DECAF 1/da	BOD1 HYDR 1/da	BOD2 DECAF 1/da	BOD2 SEIT 1/da	ABOD2 DECAF 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SEIT 1/da	NH3-N DECAF 1/da	NH3-N SRCE *	DENIT RATE 1/da	ORG-P HYDR 1/da	ORG-P SEIT 1/da	SRCE *	PHYTO PROD **	PERIP PROD **	COLI DECAF 1/da	NCM DECAF 1/da	NCM SEIT 1/da
100	8.570	9.36	0.46	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.65	0.65	0.65	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
101	8.420	9.36	0.46	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.65	0.65	0.65	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00

102	8.270	9.36	0.46	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.65	0.65	0.65	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
103	8.120	9.36	0.46	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.65	0.65	0.65	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE				0.47	0.05	0.05	0.00	0.00	0.00	0.05	0.00	0.71		0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m ²	COLI #/100mL	NCM	
100	8.570	18.50	0.12	13.58	252.61	8.12	9.08	0.00	10.08	0.00	1.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
101	8.420	18.50	0.12	13.58	252.50	8.12	9.25	0.00	10.25	0.00	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
102	8.270	18.50	0.12	13.56	251.99	8.12	9.37	0.00	10.37	0.00	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
103	8.120	18.50	0.12	13.46	249.63	8.07	9.22	0.00	10.22	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SEITP 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SPC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m ²
100	8.570	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
101	8.420	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
102	8.270	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
103	8.120	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
20 DEG C RATE									0.000	0.000	0.000	0.000									0.000	0.000	0.000			

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream GRAND BAYOU WINTER PROJECTION
 REACH NO. 10 UNNAMED CANAL-E GRAND BAYOU 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
104	UPR RCH	0.16325	18.50	0.12	13.46	249.63	8.07	9.22	0.00	10.22	0.00	1.64	0.00	0.00	0.00	10.00	0.00	0.00
104	WSTLD	0.02830	18.50	0.07	10.10	166.80	8.43	2.86	0.00	2.86	0.00	1.38	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCF EFF	ADVCTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPERSN m ² /s	MEAN VELO m/s
104	8.12	7.97	0.19155	85.8	0.00275	0.62	63.97	1.55	45.00	10183.50	6570.00	69.75	3283.11	0.001	0.119	0.003
105	7.97	7.83	0.19155	85.8	0.00275	0.62	64.58	1.55	45.00	10183.50	6570.00	69.75	3513.06	0.001	0.119	0.003
106	7.83	7.68	0.19155	85.8	0.00275	0.62	65.20	1.55	45.00	10183.50	6570.00	69.75	3743.01	0.001	0.119	0.003
107	7.68	7.54	0.19155	85.8	0.00275	0.62	65.81	1.55	45.00	10183.50	6570.00	69.75	3972.96	0.001	0.119	0.003

108	7.54	7.39	0.19155	85.8	0.00275	0.62	66.43	1.55	45.00	10183.50	6570.00	69.75	4202.91	0.001	0.119	0.003
109	7.39	7.24	0.19155	85.8	0.00275	0.62	67.04	1.55	45.00	10183.50	6570.00	69.75	4432.86	0.001	0.119	0.003
110	7.24	7.10	0.19155	85.8	0.00275	0.62	67.66	1.55	45.00	10183.50	6570.00	69.75	4662.81	0.001	0.119	0.003
111	7.10	6.95	0.19155	85.8	0.00275	0.62	68.27	1.55	45.00	10183.50	6570.00	69.75	4892.76	0.002	0.119	0.003
112	6.95	6.81	0.19155	85.8	0.00275	0.62	68.89	1.55	45.00	10183.50	6570.00	69.75	5122.71	0.002	0.119	0.003
113	6.81	6.66	0.19155	85.8	0.00275	0.62	69.50	1.55	45.00	10183.50	6570.00	69.75	5352.66	0.002	0.119	0.003
114	6.66	6.51	0.19155	85.8	0.00275	0.62	70.12	1.55	45.00	10183.50	6570.00	69.75	5582.61	0.002	0.119	0.003
115	6.51	6.37	0.19155	85.8	0.00275	0.62	70.73	1.55	45.00	10183.50	6570.00	69.75	5812.56	0.002	0.120	0.003
116	6.37	6.22	0.19155	85.8	0.00275	0.62	71.35	1.55	45.00	10183.50	6570.00	69.75	6042.51	0.002	0.121	0.003
117	6.22	6.08	0.19155	85.8	0.00275	0.62	71.97	1.55	45.00	10183.50	6570.00	69.75	6272.46	0.002	0.122	0.003
118	6.08	5.93	0.19155	85.8	0.00275	0.62	72.58	1.55	45.00	10183.50	6570.00	69.75	6502.41	0.002	0.124	0.003
119	5.93	5.78	0.19155	85.8	0.00275	0.62	73.20	1.55	45.00	10183.50	6570.00	69.75	6732.36	0.002	0.126	0.003
120	5.78	5.64	0.19155	85.8	0.00275	0.62	73.81	1.55	45.00	10183.50	6570.00	69.75	6962.31	0.002	0.128	0.003
121	5.64	5.49	0.19155	85.8	0.00275	0.62	74.43	1.55	45.00	10183.50	6570.00	69.75	7192.26	0.002	0.130	0.003
122	5.49	5.35	0.19155	85.8	0.00275	0.62	75.04	1.55	45.00	10183.50	6570.00	69.75	7422.21	0.002	0.132	0.003
123	5.35	5.20	0.19155	85.8	0.00275	0.62	75.66	1.55	45.00	10183.50	6570.00	69.75	7652.16	0.002	0.134	0.003

TOT 12.31 203670.00 131400.00
 AVG 0.0027 1.55 45.00 69.75

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAEER RATE	BOD1 DECA	BOD1 SEIT	ABOD1 DECA	BOD1 HYDR	BOD2 DECA	BOD2 SEIT	ABOD2 DECA	BKGD SOD	FULL SOD	CORR SOD	ORG-N HYDR	ORG-N SEIT	NH3-N DECA	NH3-N SRCE	DENIT RATE	ORG-P HYDR	ORG-P SEIT	PO4 SRCE	PHYTO PROD	PERIP PROD	COLI DECA	NCM DECA	NCM SEIT
104	7.974	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
105	7.828	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
106	7.682	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
107	7.536	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
108	7.390	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
109	7.244	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
110	7.098	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
111	6.952	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
112	6.806	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
113	6.660	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
114	6.514	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
115	6.368	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
116	6.222	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
117	6.076	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
118	5.930	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
119	5.784	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
120	5.638	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
121	5.492	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
122	5.346	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
123	5.200	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 0.45 0.05 0.05 0.00 0.00 0.00 0.05 0.00 2.08 0.09 0.05 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	ETOT-P mg/L	CHL A ug/L	PERIP g/m ²	COLI #/100mL	NCM
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104	7.974	18.50	0.11	13.07	239.96	7.77	7.99	0.00	8.99	0.00	1.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
105	7.828	18.50	0.11	13.07	239.96	7.52	7.54	0.00	8.54	0.00	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
106	7.682	18.50	0.11	13.07	239.96	7.33	7.11	0.00	8.11	0.00	1.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
107	7.536	18.50	0.11	13.07	239.96	7.20	6.71	0.00	7.71	0.00	1.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
108	7.390	18.50	0.11	13.07	239.96	7.10	6.33	0.00	7.33	0.00	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
109	7.244	18.50	0.11	13.07	239.96	7.03	5.98	0.00	6.98	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
110	7.098	18.50	0.11	13.07	239.96	6.99	5.64	0.00	6.64	0.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
111	6.952	18.50	0.11	13.07	239.96	6.97	5.32	0.00	6.32	0.00	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
112	6.806	18.50	0.11	13.07	239.96	6.96	5.02	0.00	6.02	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
113	6.660	18.50	0.11	13.07	239.96	6.96	4.74	0.00	5.74	0.00	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
114	6.514	18.50	0.11	13.07	239.96	6.97	4.47	0.00	5.47	0.00	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
115	6.368	18.50	0.11	13.07	239.96	6.99	4.22	0.00	5.22	0.00	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
116	6.222	18.50	0.11	13.07	239.96	7.01	3.98	0.00	4.98	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
117	6.076	18.50	0.11	13.07	239.96	7.03	3.76	0.00	4.76	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
118	5.930	18.50	0.11	13.07	239.96	7.05	3.54	0.00	4.54	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
119	5.784	18.50	0.11	13.07	239.96	7.08	3.34	0.00	4.34	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
120	5.638	18.50	0.11	13.07	239.96	7.11	3.15	0.00	4.15	0.00	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
121	5.492	18.50	0.11	13.07	239.96	7.13	2.98	0.00	3.98	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
122	5.346	18.50	0.11	13.07	239.96	7.16	2.81	0.00	3.81	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
123	5.200	18.50	0.11	13.07	239.96	7.19	2.64	0.00	3.64	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPLYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N	PHYT LIT	PHYT N	PHYT P	PHYT N&P	PHYT TOT	PHYT GROW	PHYT RESP	PHYT DEATH	PHYT SEITP	PHYT P/R	PHYTO µg/L	PERI N	PERI LIT	PERI N	PERI P	PERI N&P	PERI SPC	PERI TOT	PERI GROW	PERI RESP	PERI DEATH	PERI P/R	PERIP g/m²
				PREF	LIM	LIM	LIM	LIM	LIM	LIM	LIM	LIM	LIM	LIM	LIM	LIM	LIM	LIM	LIM	LIM	LIM	LIM	LIM	LIM	LIM	LIM	LIM
104	7.974	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
105	7.828	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
106	7.682	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
107	7.536	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
108	7.390	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
109	7.244	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
110	7.098	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
111	6.952	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
112	6.806	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
113	6.660	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
114	6.514	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
115	6.368	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
116	6.222	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
117	6.076	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
118	5.930	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
119	5.784	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
120	5.638	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
121	5.492	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
122	5.346	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	
123	5.200	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0	

20 DEG C RATE

0.000 0.000 0.000 0.000

0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
124	UPR RCH	0.19155	18.50	0.11	13.07	239.96	7.19	2.64	0.00	3.64	0.00	0.34	0.00	0.00	0.00	10.00	0.00	0.00
124	WSTILD	-0.08891	18.50	0.11	13.07	239.96	7.23	2.43	0.00	3.43	0.00	0.31	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCF EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPERSN m²/s	MEAN VELO m/s
124	5.20	5.01	0.10264	85.8	0.00148	1.49	77.14	1.62	42.95	13177.98	8159.74	69.36	8080.55	0.003	0.124	0.003
125	5.01	4.82	0.10264	85.8	0.00148	1.49	78.63	1.62	42.95	13177.98	8159.74	69.36	8508.94	0.003	0.129	0.003
126	4.82	4.63	0.10264	85.8	0.00148	1.49	80.12	1.62	42.95	13177.98	8159.74	69.36	8937.32	0.003	0.135	0.003
127	4.63	4.44	0.10264	85.8	0.00148	1.49	81.60	1.62	42.95	13177.98	8159.74	69.36	9365.71	0.003	0.141	0.003
128	4.44	4.25	0.10264	85.8	0.00148	1.49	83.09	1.62	42.95	13177.98	8159.74	69.36	9794.10	0.003	0.147	0.003
129	4.25	4.06	0.10264	85.8	0.00148	1.49	84.57	1.62	42.95	13177.98	8159.74	69.36	10222.48	0.003	0.153	0.003
130	4.06	3.87	0.10264	85.8	0.00148	1.49	86.06	1.62	42.95	13177.98	8159.74	69.36	10650.87	0.003	0.158	0.004
131	3.87	3.68	0.10264	85.8	0.00148	1.49	87.55	1.62	42.95	13177.98	8159.74	69.36	11079.26	0.004	0.164	0.004
132	3.68	3.49	0.10264	85.8	0.00148	1.49	89.03	1.62	42.95	13177.98	8159.74	69.36	11507.64	0.004	0.170	0.004
133	3.49	3.30	0.10264	85.8	0.00148	1.49	90.52	1.62	42.95	13177.98	8159.74	69.36	11936.03	0.004	0.176	0.004
134	3.30	3.11	0.10264	85.8	0.00148	1.49	92.00	1.62	42.95	13177.98	8159.74	69.36	12364.42	0.004	0.182	0.004
TOT AVG					0.0015	16.35		1.61	42.95	144957.77	89757.14	69.36				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD1 DECAT	BOD1 SEIT	ABOD1 DECAT	BOD1 HYDR	BOD2 DECAT	BOD2 SEIT	ABOD2 DECAT	BKGD SOD	FULL SOD	CORR SOD	ORG-N HYDR	ORG-N SEIT	NH3-N DECAT	NH3-N SRCE	DENIT RATE	ORG-P HYDR	ORG-P SEIT	PO4 SRCE	PHYTO PROD	PERIP PROD	COLI DECAT	NCM DECAT	NCM SEIT
124	5.010	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.87	1.87	1.87	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
125	4.820	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.87	1.87	1.87	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
126	4.630	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.87	1.87	1.87	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
127	4.440	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.87	1.87	1.87	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
128	4.250	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.87	1.87	1.87	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
129	4.060	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.87	1.87	1.87	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
130	3.870	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.87	1.87	1.87	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
131	3.680	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.87	1.87	1.87	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
132	3.490	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.87	1.87	1.87	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
133	3.300	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.87	1.87	1.87	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
134	3.110	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.87	1.87	1.87	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.43	0.06	0.05	0.00	0.00	0.00	0.05	0.00	2.05			0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00
* g/m²/d			**	mg/L/day																						

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	EIOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	EIOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI #/100mL	NCM
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124	5.010	18.50	0.11	13.07	239.96	7.23	2.43	0.00	3.43	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00
125	4.820	18.50	0.11	13.07	239.96	7.30	2.12	0.00	3.12	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00
126	4.630	18.50	0.11	13.07	239.96	7.35	1.85	0.00	2.85	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00
127	4.440	18.50	0.11	13.07	239.95	7.40	1.62	0.00	2.62	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00
128	4.250	18.50	0.11	13.07	239.94	7.44	1.42	0.00	2.42	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00
129	4.060	18.50	0.11	13.07	239.90	7.48	1.24	0.00	2.24	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00
130	3.870	18.50	0.11	13.06	239.81	7.51	1.09	0.00	2.09	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00
131	3.680	18.50	0.11	13.05	239.54	7.54	0.95	0.00	1.95	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00
132	3.490	18.50	0.11	13.01	238.84	7.56	0.85	0.00	1.85	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00
133	3.300	18.50	0.11	12.91	237.03	7.59	0.78	0.00	1.78	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00
134	3.110	18.50	0.11	12.67	232.44	7.61	0.78	0.00	1.78	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00

***** PHYTOPLANKTON AND PERIPLHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SETT 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SEC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m²
124	5.010	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
125	4.820	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
126	4.630	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
127	4.440	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
128	4.250	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
129	4.060	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
130	3.870	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
131	3.680	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
132	3.490	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
133	3.300	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
134	3.110	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream GRAND BAYOU WINTER PROJECTION
 REACH NO. 12 BAYOU ALCIDE-SITE GRB8 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
135	UPR RCH	0.10264	18.50	0.11	12.67	232.44	7.61	0.78	0.00	1.78	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.00
135	WSTLD	0.02830	18.50	0.07	8.80	160.11	8.43	2.87	0.00	2.87	0.00	1.23	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
135	3.11	2.96	0.13094	88.9	0.00137	1.22	93.23	1.73	55.00	13828.65	7975.00	95.37	12811.02	0.003	0.148	0.003
136	2.96	2.82	0.13094	88.9	0.00137	1.22	94.45	1.73	55.00	13828.65	7975.00	95.37	13257.62	0.003	0.153	0.003

135	2.965	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
136	2.820	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
137	2.675	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
138	2.530	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
139	2.385	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
140	2.240	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
141	2.095	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
142	1.950	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
143	1.805	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
144	1.660	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream GRAND BAYOU WINTER PROJECTION
 REACH NO. 13 SITE GRB8-LITTLE BAYOU LONG 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
145	UPR RCH	0.13094	18.50	0.10	12.12	222.17	7.73	0.53	0.00	1.53	0.00	0.37	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCF EFF	ADV/CIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
145	1.66	1.54	0.13094	88.9	0.00103	1.30	105.52	1.50	85.00	14662.50	9775.00	127.50	17514.66	0.003	0.131	0.003
146	1.54	1.43	0.13094	88.9	0.00103	1.30	106.82	1.50	85.00	14662.50	9775.00	127.50	18198.91	0.003	0.136	0.003
147	1.43	1.31	0.13094	88.9	0.00103	1.30	108.11	1.50	85.00	14662.50	9775.00	127.50	18883.16	0.003	0.141	0.003
148	1.31	1.20	0.13094	88.9	0.00103	1.30	109.41	1.50	85.00	14662.50	9775.00	127.50	19567.41	0.003	0.146	0.003
TOT AVG					0.0010	5.18		1.50	85.00	58650.00	39100.00	127.50				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD1 DECAY	BOD1 SEITT	ABOD1 DECAY	BOD1 HYDR	BOD2 DECAY	BOD2 SEITT	ABOD2 DECAY	BKGD SOD	FULL SOD	CORR SOD	ORG-N HYDR	ORG-N SEITT	NH3-N DECAY	NH3-N SRCE	DENIT RATE	ORG-P HYDR	ORG-P SEITT	PO4 SRCE	PHYTO PROD	PERIP PROD	COLI DECAY	NCM DECAY	NCM SEITT
145	1.545	9.36	0.45	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.27	1.27	1.27	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
146	1.430	9.36	0.45	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.27	1.27	1.27	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
147	1.315	9.36	0.45	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.27	1.27	1.27	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
148	1.200	9.36	0.45	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.27	1.27	1.27	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.47	0.05	0.05	0.00	0.00	0.00	0.05	0.00	1.40			0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI #/100mL	NCM
145	1.545	18.50	0.10	12.10	221.66	7.90	0.71	0.00	1.71	0.00	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
146	1.430	18.50	0.10	12.06	220.75	7.99	0.87	0.00	1.87	0.00	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
147	1.315	18.50	0.10	11.98	219.09	8.03	1.04	0.00	2.04	0.00	1.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
148	1.200	18.50	0.10	11.84	216.12	8.03	1.25	0.00	2.25	0.00	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPLHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SETT 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SPC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m²
145	1.545	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
146	1.430	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
147	1.315	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
148	1.200	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou Upstream GRAND BAYOU WINTER PROJECTION
 REACH NO. 14 L BAYOU LONG-LAKE VERRET 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
149	UPR RCH	0.13094	18.50	0.10	11.84	216.12	8.03	1.25	0.00	2.25	0.00	1.59	0.00	0.00	0.00	10.00	0.00	0.00
149	WSTLD	0.02830	18.50	0.07	9.00	153.60	8.43	2.89	0.00	2.89	0.00	0.97	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
149	1.20	1.08	0.15924	90.9	0.00085	1.63	111.04	1.23	152.40	22402.80	18288.00	186.69	20847.57	0.002	0.090	0.003
150	1.08	0.96	0.15924	90.9	0.00085	1.63	112.67	1.23	152.40	22402.80	18288.00	186.69	22127.73	0.003	0.096	0.003
151	0.96	0.84	0.15924	90.9	0.00085	1.63	114.30	1.23	152.40	22402.80	18288.00	186.69	23407.89	0.003	0.101	0.003
152	0.84	0.72	0.15924	90.9	0.00085	1.63	115.92	1.23	152.40	22402.80	18288.00	186.69	24688.05	0.003	0.106	0.003
153	0.72	0.60	0.15924	90.9	0.00085	1.63	117.55	1.23	152.40	22402.80	18288.00	186.69	25968.21	0.003	0.112	0.003
154	0.60	0.48	0.15924	90.9	0.00085	1.63	119.18	1.23	152.40	22402.80	18288.00	186.69	27248.38	0.003	0.117	0.003
155	0.48	0.36	0.15924	90.9	0.00085	1.63	120.81	1.23	152.40	22402.80	18288.00	186.69	28528.54	0.003	0.122	0.003
156	0.36	0.24	0.15924	90.9	0.00085	1.63	122.44	1.23	152.40	22402.80	18288.00	186.69	29808.70	0.004	0.128	0.004
157	0.24	0.12	0.15924	90.9	0.00085	1.63	124.07	1.23	152.40	22402.80	18288.00	186.69	31088.86	0.004	0.133	0.004
158	0.12	0.00	0.15924	90.9	0.00085	1.63	125.69	1.23	152.40	22402.80	18288.00	186.69	32369.02	0.004	0.138	0.004

TOT 16.28 224027.98 182880.00
 AVG 0.0009 1.23 152.40 186.69

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD1 DECAT	BOD1 SEITT	ABOD1 DECAT	BOD1 HYDR	BOD2 DECAT	BOD2 SEITT	ABOD2 DECAT	BKGD SOD	FULL SOD	CORR SOD	ORG-N HYDR	ORG-N SEITT	NH3-N DECAT	NH3-N SRCE	DENIT RATE	ORG-P HYDR	ORG-P SEITT	PO4 SRCE	PHYTO PROD	PERIP PROD	COLI DECAT	NCM DECAT	NCM SEITT	
149	1.080	9.36	0.55	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.23	1.23	1.23	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
150	0.960	9.36	0.55	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.23	1.23	1.23	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
151	0.840	9.36	0.55	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.23	1.23	1.23	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
152	0.720	9.36	0.55	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.23	1.23	1.23	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
153	0.600	9.36	0.55	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.23	1.23	1.23	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
154	0.480	9.36	0.55	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.23	1.23	1.23	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
155	0.360	9.36	0.55	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.23	1.23	1.23	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
156	0.240	9.36	0.55	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.23	1.23	1.23	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
157	0.120	9.37	0.55	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.23	1.23	1.23	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
158	0.000	9.37	0.55	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.23	1.23	1.23	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.57	0.06	0.05	0.00	0.00	0.00	0.05	0.00	1.35			0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
* g/m ² /d			** mg/L/day																								

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	ETOT-P mg/L	CHL A ug/L	PERIP g/m ²	COLI #/100mL	NCM	
149	1.080	18.50	0.10	11.58	210.40	8.01	1.57	0.00	2.57	0.00	1.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00
150	0.960	18.50	0.10	11.58	210.38	7.95	1.72	0.00	2.72	0.00	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00
151	0.840	18.50	0.10	11.57	210.34	7.89	1.84	0.00	2.84	0.00	2.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00	
152	0.720	18.50	0.10	11.54	210.27	7.84	1.94	0.00	2.94	0.00	2.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00	
153	0.600	18.50	0.10	11.50	210.12	7.81	2.02	0.00	3.02	0.00	2.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00	
154	0.480	18.50	0.10	11.43	209.85	7.79	2.05	0.00	3.05	0.00	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00	
155	0.360	18.50	0.10	11.29	209.36	7.79	2.02	0.00	3.02	0.00	2.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00	
156	0.240	18.50	0.10	11.05	208.49	7.84	1.88	0.00	2.88	0.00	2.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00	
157	0.120	18.50	0.09	10.64	206.98	7.96	1.53	0.00	2.53	0.00	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00	
158	0.000	18.50	0.09	9.92	204.38	8.20	0.77	0.00	1.77	0.00	1.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.0	0.00	

***** PHYTOPLANKTON AND PERIPLHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SEITT 1/da	PHYT P/R RATIO	PHYTO ug/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SPC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m ²
149	1.080	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
150	0.960	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
151	0.840	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
152	0.720	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
153	0.600	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
154	0.480	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
155	0.360	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
156	0.240	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
157	0.120	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

158 0.000 0.00 Inf 0.50 0.00 0.00 0.00 0.00 0.00 0.000 0.000 0.000 0.000 0.0 10.0 0.50 0.00 0.00 0.00 0.00 0.00 0.00 0.000 0.000 0.000 0.0 0.0
 20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

GRAND BAYOU WINTER PROJECTION
 09/17/07

STREAM SUMMARY REPORT: Grand Bayou Upstream

TRAVEL TIME = 125.69 DAYS
 MAXIMUM EFFLUENT = 90.87 PERCENT

FLOW = 0.02830 TO 0.19155 m³/s
 DISPERSION = 0.0715 TO 0.1914 m²/s
 VELOCITY = 0.00085 TO 0.00438 m/s
 DEPTH = 0.85 TO 1.73 m
 WIDTH = 12.19 TO 152.40 m

BOD DECAY = 0.05 TO 0.08 per day
 NH3 DECAY = 0.00 TO 0.00 per day
 SOD = 0.46 TO 1.91 g/m²/d
 NH3 SED SOURCE = 0.00 TO 0.00 g/m²/d
 PO4 SED SOURCE = 0.00 TO 0.00 g/m²/d
 REAERATION = 0.39 TO 0.80 per day
 BOD SETTLING = 0.05 TO 0.05 per day
 NBOD DECAY = 0.08 TO 0.12 per day
 NBOD SETTLING = 0.05 TO 0.05 per day

TEMPERATURE = 18.50 TO 18.50 deg C
 DISSOLVED OXYGEN = 6.73 TO 8.35 mg/L

GRAND BAYOU WINTER PROJECTION
 09/17/07

INPUT/OUTPUT LOADING SUMMARY

	FLOW m ³ /s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.02830	20.61	5.84	0.00	8.97	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
WASTELoads	0.22684	164.97	50.11	0.00	30.79	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWALS	-0.09590	-60.46	-24.15	0.00	-3.51	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER ENDRY	-0.15924	-112.87	-10.62	0.00	-15.54	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER ENDRY		8.77	-28.69	0.00	-41.98	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWIR ENDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	712.36	0.00	366.27			0.00				0.00
NATURAL REAERATION		1195.64										
DAM REAERATION		0.00										
SOD BACKGROUND		-1306.71										
BOD1 DECAY		-387.60	-387.60									
BOD1 SETTLING		0.00	-317.26									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		0.00		0.00								
BOD2 SETTLING		0.00		0.00								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-229.13			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SOURCE						0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOURCE									0.00			
PHYTOPLANKTON GROWTH/PHOTOSYNTHESIS		707.32				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXCRETION		0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTHESIS		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRETION		0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.25514	2097.32	768.32	0.00	406.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.25514	-2096.78	-768.32	0.00	-61.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	0.54	0.00	0.00	345.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....EXECUTION COMPLETED

Justifications

Grand Bayou Winter Projection

DATA TYPE 3 - PROGRAM CONSTANTS			
CONSTANT NAME	VALUE	UNITS	DATA SOURCE
DISPERSION EQUATION	3		Dispersion calibrated using measured values at two sites
TIDE HEIGHT	0.07	meters	Continuous Monitor data, site GRB9
KL MINIMUM	0.7	m/day	Louisiana Standard Practice
INHIBITION CONTROL VALUE	3		Louisiana Standard Practice
EFFECTIVE BOD DUE TO ALGAE	0.1	mg/L BOD /ug chl a/ day	BPJ and calibration
ALGAE OXYGEN PRODUCTION	0.05	mg O / ug chl a / day	BPJ and calibration
K2 MAXIMUM	25	1/day at 20 deg C	Louisiana Standard Practice
HYDRAULIC CALCULATION METHOD	2		Louisiana Standard Practice
SETTLING RATE UNITS	2		Louisiana Standard Practice

Grand Bayou Winter Projection

			DATA TYPE 8 - REACH IDENTIFICATION DATA			
Reach	ID	Name	Upstream River Kilometer	Downstream River Kilometer	Element Length, km	Data Source
1	GB	SITE GRB1-BAYOU SIGUR	23.53	23.44	0.0900	
2	GB	BAYOU SIGUR-MUDDY BAYOU	23.44	22.62	0.1640	
3	GB	MUDDY BAYOU-BAYOU CROUX (BYC1)	22.62	20.57	0.2050	
4	GB	B CROUX (BYC1)-B CROUX (BYC2)	20.57	18.29	0.1520	
5	GB	B CROUX (BYC2)-km 15.5	18.29	15.50	0.1550	
6	GB	km 15.5-km 13.0	15.50	13.00	0.1250	
7	GB	km 13.0-BAYOU CORNE	13.00	11.43	0.1570	
8	GB	B CORNE-LITTLE GRAND BAYOU	11.43	8.72	0.1355	
9	GB	LITTLE GRAND-UNNAMED CANAL	8.72	8.12	0.1500	
10	GB	UNNAMED CANAL-E GRAND BAYOU	8.12	5.20	0.1460	
11	GB	E GRAND BAYOU-BAYOU ALCIDE	5.20	3.11	0.1900	
12	GB	BAYOU ALCIDE-SITE GRB8	3.11	1.66	0.1450	
13	GB	SITE GRB8-LITTLE BAYOU LONG	1.66	1.20	0.1150	
14	GB	L BAYOU LONG-LAKE VERRET	1.20	0.00	0.1200	

Grand Bayou Winter Projection

Reach	Name	DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS			
		Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. "d"	Depth Exp. "e"	Depth Const. "f"	Data Source	Slope (unitless)	Data Source	Manning's "n"	Data Source
1	SITE GRB1-BAYOU SIGUR	0	0	12.192	Field Data, Site GRB1	0	0	0.853	Field Data, Site GRB1	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
2	BAYOU SIGUR-MUDDY BAYOU	0	0	16.500	Estimate of field data between Sites GRB1 and GRB2	0	0	0.900	Estimate of field data between Sites GRB1 and GRB2	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
3	MUDDY BAYOU-BAYOU CROUX (BYC1)	0	0	21.336	Field Data, Site GRB2	0	0	1.006	Field Data, Site GRB2	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
4	B CROUX (BYC1)-B CROUX (BYC2)	0	0	16.459	Field Data, Site GRB3	0	0	1.570	Field Data, Site GRB3	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
5	B CROUX (BYC2)-km 15.5	0	0	30.000	Estimate of field data between Sites GRB3 and GRB4	0	0	1.550	Estimate of field data between Sites GRB3 and GRB4	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
6	km 15.5-km 13.0	0	0	44.196	Field Data, Site GRB4	0	0	1.515	Field Data, Site GRB4	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
7	km 13.0-BAYOU CORNE	0	0	43.000	Estimate of field data between Sites GRB4 and GRB5	0	0	1.550	Estimate of field data between Sites GRB4 and GRB5	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
8	B CORNE-LITTLE GRAND BAYOU	0	0	42.062	Field Data, Site GRB5	0	0	1.622	Field Data, Site GRB5	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
9	LITTLE GRAND-UNNAMED CANAL	0	0	48.768	Field Data, Site GRB6	0	0	1.478	Field Data, Site GRB6	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
10	UNNAMED CANAL-E GRAND BAYOU	0	0	45.000	Estimate of field data between Sites GRB6 and GRB7	0	0	1.550	Estimate of field data between Sites GRB6 and GRB7	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
11	E GRAND BAYOU-BAYOU ALCIDE	0	0	42.946	Field Data, Site GRB7	0	0	1.615	Field Data, Site GRB7	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
12	BAYOU ALCIDE-SITE GRB8	0	0	55.000	Estimate of field data between Sites GRB7 and GRB8	0	0	1.734	Field Data, Site GRB8	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
13	SITE GRB8-LITTLE BAYOU LONG	0	0	85.000	Estimate of field data between Sites GRB8 and GRB9	0	0	1.500	Estimate of field data between Sites GRB8 and GRB9	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
14	L BAYOU LONG-LAKE VERRET	0	0	152.400	Field Data, Site GRB9	0	0	1.225	Field Data, Site GRB9	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook

Grand Bayou Winter Projection

Reach	Name	DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS				Data Source
		Tidal Range	Data Source	Dispersion Coeff. "a"	Dispersion Coeff. "b"	Dispersion Coeff. "c"	Dispersion Coeff. "d"	
1	SITE GRB1-BAYOU SIGUR	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
2	BAYOU SIGUR-MUDDY BAYOU	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
3	MUDDY BAYOU-BAYOU CROUX (BYC1)	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
4	B CROUX (BYC1)-B CROUX (BYC2)	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
5	B CROUX (BYC2)-km 15.5	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
6	km 15.5-km 13.0	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
7	km 13.0-BAYOU CORNE	0.10	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
8	B CORNE-LITTLE GRAND BAYOU	0.25	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
9	LITTLE GRAND-UNNAMED CANAL	0.29	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
10	UNNAMED CANAL-E GRAND BAYOU	0.50	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
11	E GRAND BAYOU-BAYOU ALCIDE	0.75	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
12	BAYOU ALCIDE-SITE GRB8	0.80	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
13	SITE GRB8-LITTLE BAYOU LONG	1.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
14	L BAYOU LONG-LAKE VERRET	1.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"

Grand Bayou Winter Projection

Reach	Name	DATA TYPE 11 - INITIAL CONDITIONS			DATA TYPE 11 - INITIAL CONDITIONS			
		Temp, deg C	Sal, ppt	DO, mg/l	Data Source	Chlorophyll a	Macrophytes	Data Source
1	SITE GRB1-BAYOU SIGUR	18.50	0.15	5.00	Salinity values from Calibration model. Temperature is winter critical temperature calculated from WQN site 82. DO is criteria value for subsegment.	10.00	0	Louisiana standard practice, reduction in nutrients will cause a reduction in algae.
2	BAYOU SIGUR-MUDDY BAYOU	18.50	0.14	5.00		10.00	0	
3	MUDDY BAYOU-BAYOU CROUX (BYC1)	18.50	0.11	5.00		10.00	0	
4	B CROUX (BYC1)-B CROUX (BYC2)	18.50	0.09	5.00		10.00	0	
5	B CROUX (BYC2)-km 15.5	18.50	0.09	5.00		10.00	0	
6	km 15.5-km 13.0	18.50	0.10	5.00		10.00	0	
7	km 13.0-BAYOU CORNE	18.50	0.08	5.00		10.00	0	
8	B CORNE-LITTLE GRAND BAYOU	18.50	0.07	5.00		10.00	0	
9	LITTLE GRAND-UNNAMED CANAL	18.50	0.07	5.00		10.00	0	
10	UNNAMED CANAL-E GRAND BAYOU	18.50	0.07	5.00		10.00	0	
11	E GRAND BAYOU-BAYOU ALCIDE	18.50	0.08	5.00		10.00	0	
12	BAYOU ALCIDE-SITE GRB8	18.50	0.08	5.00		10.00	0	
13	SITE GRB8-LITTLE BAYOU LONG	18.50	0.08	5.00		10.00	0	
14	L BAYOU LONG-LAKE VERRET	18.50	0.07	5.00		10.00	0	

Grand Bayou Winter Projection

REACH	NAME	DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS				DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS		DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS	
		K ₂ OPT	Data Source	BKGRND SOD, gmO ₂ /m ² /day at 20 deg C	Data Source	Aerobic BOD1 Dec Rate (1/day)	Data Source	BOD1 SETT RATE (1/day)	Data Source
1	SITE GRB1-BAYOU SIGUR	4	Owens-Edwards-Gibbs	0.506	TMDL Loading Spreadsheet	0.084	Mathematical interpolations of Lab bottle rates based on physical location in reference to Site locations.	0.05	LTP, BPJ and calibration
2	BAYOU SIGUR-MUDDY BAYOU	4	Owens-Edwards-Gibbs	0.742		0.081		0.05	LTP, BPJ and calibration
3	MUDDY BAYOU-BAYOU CROUX (BYC1)	4	Owens-Edwards-Gibbs	1.220		0.074		0.05	LTP, BPJ and calibration
4	B CROUX (BYC1)-B CROUX (BYC2)	4	Owens-Edwards-Gibbs	1.926		0.067		0.05	LTP, BPJ and calibration
5	B CROUX (BYC2)-km 15.5	4	Owens-Edwards-Gibbs	1.153		0.071		0.05	LTP, BPJ and calibration
6	km 15.5-km 13.0	4	Owens-Edwards-Gibbs	1.121		0.078		0.05	LTP, BPJ and calibration
7	km 13.0-BAYOU CORNE	4	Owens-Edwards-Gibbs	1.025		0.068		0.05	LTP, BPJ and calibration
8	B CORNE-LITTLE GRAND BAYOU	4	Owens-Edwards-Gibbs	0.557		0.054		0.05	LTP, BPJ and calibration
9	LITTLE GRAND-UNNAMED CANAL	4	Owens-Edwards-Gibbs	0.712		0.052		0.05	LTP, BPJ and calibration
10	UNNAMED CANAL-E GRAND BAYOU	4	Owens-Edwards-Gibbs	2.075		0.054		0.05	LTP, BPJ and calibration
11	E GRAND BAYOU-BAYOU ALCIDE	4	Owens-Edwards-Gibbs	2.050		0.057		0.05	LTP, BPJ and calibration
12	BAYOU ALCIDE-SITE GRB8	4	Owens-Edwards-Gibbs	2.100		0.055		0.05	LTP, BPJ and calibration
13	SITE GRB8-LITTLE BAYOU LONG	4	Owens-Edwards-Gibbs	1.398		0.055		0.05	LTP, BPJ and calibration
14	L BAYOU LONG-LAKE VERRET	4	Owens-Edwards-Gibbs	1.352		0.061		0.05	LTP, BPJ and calibration

Grand Bayou Winter Projection

DATA TYPE 13 - NITROGEN AND PHOSPHORUS COEFFICIENTS						
Reach	Name	NBOD decay rate, 1/day	NBOD settling rate, 1/day	Data Source	Settled Org-N conv. to ammonia benthos source rate	Data Source
1	SITE GRB1-BAYOU SIGUR	0.115	0.05	Mathematical interpolations of Lab bottle rates based on physical location in reference to Site locations.	1.00	
2	BAYOU SIGUR-MUDDY BAYOU	0.112	0.05		1.00	
3	MUDDY BAYOU-BAYOU CROUX (BYC1)	0.105	0.05		1.00	
4	B CROUX (BYC1)-B CROUX (BYC2)	0.099	0.05		1.00	
5	B CROUX (BYC2)-km 15.5	0.100	0.05		1.00	
6	km 15.5-km 13.0	0.104	0.05		1.00	
7	km 13.0-BAYOU CORNE	0.120	0.05		1.00	
8	B CORNE-LITTLE GRAND BAYOU	0.138	0.05		1.00	
9	LITTLE GRAND-UNNAMED CANAL	0.091	0.05		1.00	
10	UNNAMED CANAL-E GRAND BAYOU	0.094	0.05		1.00	
11	E GRAND BAYOU-BAYOU ALCIDE	0.098	0.05		1.00	
12	BAYOU ALCIDE-SITE GRB8	0.092	0.05		1.00	
13	SITE GRB8-LITTLE BAYOU LONG	0.091	0.05		1.00	
14	L BAYOU LONG-LAKE VERRET	0.097	0.05		1.00	

Grand Bayou Winter Projection

		DATA TYPE 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVE							
Reach	Reach Name	Incr. Outflow, m ³	Incr. Inflow, m ³	Data Source	Temp, deg C	Sal., ppt	Cons. Mat I Chlorides	Cons. Mat II Conductivity	Data Source
1	SITE GRB1-BAYOU SIGUR		0.000	Incremental flows reduced to zero to simulate dry, critical conditions.					
2	BAYOU SIGUR-MUDDY BAYOU		0.000						
3	MUDDY BAYOU-BAYOU CROUX (BYC1)		0.000						
4	B CROUX (BYC1)-B CROUX (BYC2)		0.000						
5	B CROUX (BYC2)-km 15.5		0.000						
6	km 15.5-km 13.0		0.000						
7	km 13.0-BAYOU CORNE		0.000						
8	B CORNE-LITTLE GRAND BAYOU		0.000						
9	LITTLE GRAND-UNNAMED CANAL		0.000						
10	UNNAMED CANAL-E GRAND BAYOU		0.000						
11	E GRAND BAYOU-BAYOU ALCIDE		0.000						
12	BAYOU ALCIDE-SITE GRB8		0.000						
13	SITE GRB8-LITTLE BAYOU LONG		0.000						
14	L BAYOU LONG-LAKE VERRET		0.000						

Grand Bayou Winter Projection

DATA TYPE 21 - HEADWATER DATA FOR DO, BOD, AND NITROGEN				
Headwater Name	Dissolved Oxygen, mg/L	UCBOD1, mg/l	NBOD, mg/l	Data Source
Grand Bayou	8.43	3.39	3.67	90% DO saturation and TMDL Loading Spreadsheet.

DATA TYPE 22 - HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES					
Headwater Name	Phosphorus, mg/L	Chlorophyll a, ug/L	Coliform, #/100 mL	Nonconservative Material	Date Source
Grand Bayou		10.0			Louisiana standard practice, reduction in nutrients will cause a reduction in algae.

Grand Bayou Winter Projection

DATA TYPE 24 - WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES							
Wasteload/ Withdrawal Name	EL #	Flow, cms	Temperature, deg C	Salinity	Conservative Material I Chlorides	Conservative Material II Conductivity	Data Source
Bayou Sigur	2	0.00283	18.5	0.17	15	345	Winter critical Flow and Temp. Survey data, Site BYS1
Muddy Bayou	7	0.00283	18.5	0.08	16.9	169.2	Winter critical Flow and Temp. Survey data, Site MB1
Bayou Crouix (BYC1)	17	0.00283	18.5	0.12	8.4	250.2	Winter critical Flow and Temp. Survey data, Site BYC1
Bayou Crouix (BYC2)	32	0.00283	18.5	0.14	17.4	269.8	Winter critical Flow and Temp. Survey data, Site BYC2
Gator Super Stop	62	0.00043	18.5	0.11	13.8	234.1	Permitted flow adjusted for MOS. Survey data, Site PST1
Chevron Pipe Line	63	0.00001	18.5	0.11	13.8	234.1	Permitted flow adjusted for MOS. Survey data, Site PST1
Bayou Corne	80	0.00283	18.5	0.07	10.2	154.13	Winter critical Flow and Temp. Survey data, Site BYCO1
Little Grand Bayou	100	-0.00087	18.5				Flow follows same % of total flow as from calibration.
Unnamed Canal	104	0.00283	18.5	0.07	10.1	166.8	Winter critical Flow and Temp. Survey data, Site UNC2
East Grand Bayou	124	-0.00964	18.5				Flow follows same % of total flow as from calibration.
Bayou Alcide	135	0.00283	18.5	0.07	8.8	160.11	Winter critical Flow and Temp. Survey data, Site BA1
Little Bayou Long	149	0.00283	18.5	0.07	9	153.6	Winter critical Flow and Temp. Survey data, Site LBL1

Grand Bayou Winter Projection

DATA TYPE 25 - WASTELOAD DATA FOR DO, BOD, AND NITROGEN						
Wasteload / Withdrawal Name	EL #	DO, mg/l	UCBOD1, mg/l	BOD decayed, percent	UNBOD, mg/l	Data Source
Bayou Sigur	2	8.43	3.65		4.05	Winter critical temp and TMDL Loading Spreadsheet
Muddy Bayou	7	8.43	0.51		0.00	Winter critical temp and TMDL Loading Spreadsheet
Bayou Crouix (BYC1)	17	8.43	3.00		1.45	Winter critical temp and TMDL Loading Spreadsheet
Bayou Crouix (BYC2)	32	8.43	3.34		2.51	Winter critical temp and TMDL Loading Spreadsheet
Gator Super Stop	62	2.00	69.00		64.50	Permit and application data
Chevron Pipe Line	63	2.00	103.50		64.50	Permit and application data
Bayou Corne	80	8.43	0.29		0.00	Winter critical temp and TMDL Loading Spreadsheet
Little Grand Bayou	100					Winter critical temp and TMDL Loading Spreadsheet
Unnamed Canal	104	8.43	2.86		1.38	Winter critical temp and TMDL Loading Spreadsheet
East Grand Bayou	124					Winter critical temp and TMDL Loading Spreadsheet
Bayou Alcide	135	8.43	2.87		1.23	Winter critical temp and TMDL Loading Spreadsheet
Little Bayou Long	149	8.43	2.89		0.97	Winter critical temp and TMDL Loading Spreadsheet

Grand Bayou Winter Projection

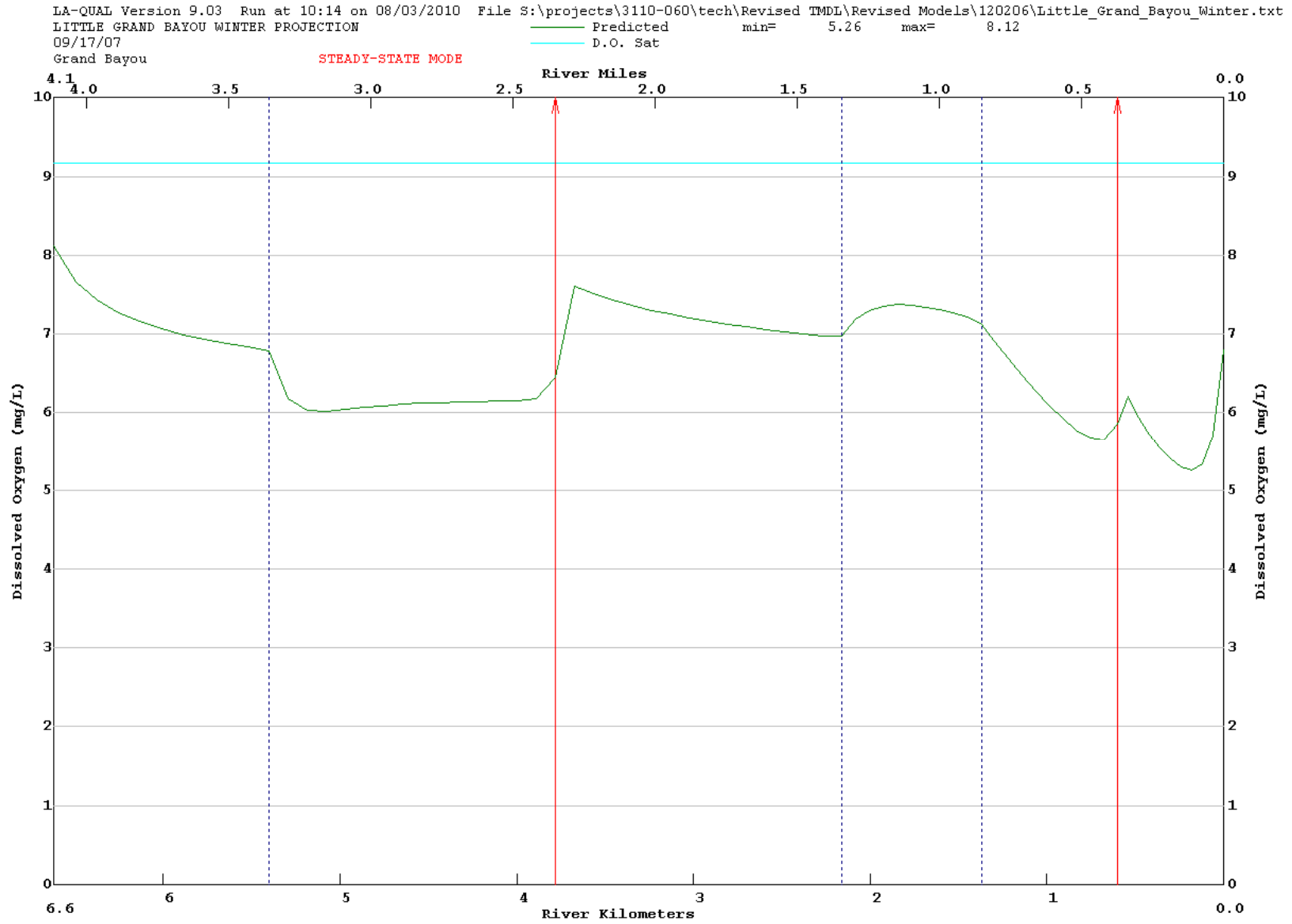
DATA TYPE 26 - WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES						
Wasteload/ Withdrawal Name	EL #	Phosphorus, mg/l	Chlorophyll-A, ug/L	Coliform, #/100 mL	Nonconservative Material	Data Source
Bayou Sigur	2		10.00			Louisiana standard practice, reduction in nutrients will cause a reduction in algae.
Muddy Bayou	7		10.00			
Bayou Crouix (BYC1)	17		10.00			
Bayou Crouix (BYC2)	32		10.00			
Gator Super Stop	62					
Chevron Pipe Line	63					
Bayou Corne	80		10.00			
Little Grand Bayou	100					
Unnamed Canal	104		10.00			
East Grand Bayou	124					
Bayou Alcide	135		10.00			
Little Bayou Long	149		10.00			

Grand Bayou Winter Projection

DATA TYPE 27 - LOWER BOUNDARY CONDITIONS			
Parameter	Value	Units	Data Source
TEMPERATURE	18.5	oCelcius	Winter critical temperature
SALINITY	0.09	ppt	Field and Lab data, Site LV1
CONSERVATIVE MATERIAL I CHLORIDES	9.3	mg/L	Field and Lab data, Site LV1
CONSERVATIVE MATERIAL II CONDUCTIVITY	202.14	mg/L	Field and Lab data, Site LV1
DISSOLVED OXYGEN	8.44	mg/L	90% DO saturation
BIOCHEMICAL OXYGEN DEMAND 1	0.29	mg/L	Field and Lab data, Site LV1
NBOD	0	mg/L	
PHOSPHORUS	0	mg/L	
CHLOROPHYLL A	10	ug/L	Louisiana standard practice, reduction in nutrients will cause a reduction in algae.
COLIFORM	0	#/100 mL	
NONCONSERVATIVE MATERIAL	0	mg/L	

Appendix D4 – Little Grand Bayou Winter Projection

Graphs



Input File

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CNTROL01      LITTLE GRAND BAYOU WINTER PROJECTION
CNTROL02      09/17/07
CNTROL12 YES  METRIC UNITS
ENDATA01
MODOPT01 NO  TEMPERATURE
MODOPT02 YES  SALINITY
MODOPT03 YES  CONSERVATIVE MATERIAL I = CHLORIDES           IN MG/L
MODOPT04 YES  CONSERVATIVE MATERIAL II = CONDUCTIVITY      IN MG/L
MODOPT05 YES  DISSOLVED OXYGEN
MODOPT06 YES  BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT07 NO   BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08 YES  NBOD OXYGEN DEMAND
MODOPT09 NO   PHOSPHORUS
MODOPT10 NO   CHLOROPHYLL A
MODOPT11 NO   MACROPHYTES
MODOPT12 NO   COLIFORM
MODOPT13 NO   NONCONSERVATIVE MATERIAL
ENDATA02
PROGRAM DISPERSION EQUATION           =      3
PROGRAM TIDE HEIGHT                   =     0.07
PROGRAM KL MINIMUM                    =     0.7
PROGRAM INHIBITION CONTROL VALUE     =     3.0
PROGRAM EFFECTIVE BOD DUE TO ALGAE   =     0.10
PROGRAM ALGAE OXYGEN PRODUCTION      =     0.05
PROGRAM K2 MAXIMUM                   =    25.0
PROGRAM HYDRAULIC CALCULATION METHOD  =     2.0
PROGRAM SETTLING RATE UNITS          =     2.0
ENDATA03
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
ENDATA04
ENDATA05
ENDATA06
ENDATA07
!Reach Identification Data
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
!   ***  -----*****-----*****-----*****-----*****
REACH ID   1  LG  GRAND BAYOU-RKM 5.40           6.62    5.40    0.122
REACH ID   2  LG  RKM 5.40-WESTFIELD CANAL      5.40    3.78    0.108
REACH ID   3  LG  WESTFIELD CANAL-RKM 2.16     3.78    2.16    0.108
REACH ID   4  LG  RKM 2.16-RKM 1.37           2.16    1.37    0.079
REACH ID   5  LG  RKM 1.37-WHITMEL CANAL       1.37    0.60    0.077
REACH ID   6  LG  WHITMEL CANAL-LAKE VERRET    0.60    0.00    0.060
ENDATA08
!Advective Hydraulic Coefficients
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
!   ***  -----*****-----*****-----*****-----*****
HYDR-1     1  0.0000 0.0000 14.844 0.000 0.000 0.607 0.0001 0.035
HYDR-1     2  0.0000 0.0000 20.000 0.000 0.000 0.625 0.0001 0.035
HYDR-1     3  0.0000 0.0000 27.737 0.000 0.000 0.640 0.0001 0.035
HYDR-1     4  0.0000 0.0000 29.000 0.000 0.000 0.900 0.0001 0.035
HYDR-1     5  0.0000 0.0000 45.000 0.000 0.000 1.100 0.0001 0.035
HYDR-1     6  0.0000 0.0000 66.142 0.000 0.000 1.375 0.0001 0.035
ENDATA09
!Dispersive Hydraulic Coefficients
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
!   ***  -----*****-----*****-----*****-----*****
HYDR-2     1  0.00  30.00  0.833  0.00  1.00
HYDR-2     2  0.00  30.00  0.833  0.00  1.00
HYDR-2     3  0.00  30.00  0.833  0.00  1.00
HYDR-2     4  0.00  30.00  0.833  0.00  1.00
HYDR-2     5  0.00  30.00  0.833  0.00  1.00
HYDR-2     6  0.00  30.00  0.833  0.00  1.00
ENDATA10
!Initial Conditions

```

```
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
  *** -----*****-----*****-----*****-----*****-----*****
INITIAL      1      19.55  0.07  5.00  0.000  0.000  0.00  10.00  00.00
INITIAL      2      19.55  0.07  5.00  0.000  0.000  0.00  10.00  00.00
INITIAL      3      19.55  0.08  5.00  0.000  0.000  0.00  10.00  00.00
INITIAL      4      19.55  0.07  5.00  0.000  0.000  0.00  10.00  00.00
INITIAL      5      19.55  0.07  5.00  0.000  0.000  0.00  10.00  00.00
INITIAL      6      19.55  0.07  5.00  0.000  0.000  0.00  10.00  00.00
ENDATA11
!-----1-----2-----3-----4-----5-----6-----7-----8-----9-----
0-
!234567890123456789012345678901234567890123456789012345678901234567890
1
!
  *** -----*****-----*****-----*****-----*****-----*****
-
COEF-1      1      4      0.00  0.000  0.000  0.940  0.064  0.05  0.05
COEF-1      2      4      0.00  0.000  0.000  1.679  0.056  0.05  0.05
COEF-1      3      4      0.00  0.000  0.000  1.096  0.058  0.05  0.05
COEF-1      4      4      0.00  0.000  0.000  0.385  0.057  0.05  0.05
COEF-1      5      4      0.00  0.000  0.000  0.070  0.064  0.05  0.05
COEF-1      6      4      0.00  0.000  0.000  0.070  0.082  0.05  0.05
ENDATA12
!Nitrogen and Phosphorus Coefficients
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
  *** -----*****-----*****-----*****-----*****-----*****
COEF-2      1      0.111  0.05  1.0  0.00  0.00  0.00  0.00
COEF-2      2      0.132  0.05  1.0  0.00  0.00  0.00  0.00
COEF-2      3      0.121  0.05  1.0  0.00  0.00  0.00  0.00
COEF-2      4      0.102  0.05  1.0  0.00  0.00  0.00  0.00
COEF-2      5      0.099  0.05  1.0  0.00  0.00  0.00  0.00
COEF-2      6      0.107  0.05  1.0  0.00  0.00  0.00  0.00
ENDATA13
!Algae and Macrophyte Coefficients
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
  *** -----*****-----*****-----*****-----*****-----*****
ENDATA14
!Coliform and Nonconservative Coefficients
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
  *** -----*****-----*****-----*****-----*****-----*****
ENDATA15
!Incremental Data for Flow, Temperature, Salinity, and Conservatives
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
  *** -----*****-----*****-----*****-----*****-----*****
ENDATA16
!Incremental Data for DO, BOD, and Nitrogen
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
  *** -----*****-----*****-----*****-----*****-----*****
ENDATA17
!Incremental Data for Phosphorus, Chlorophyll, Coliform and Nonconservatives
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
  *** -----*****-----*****-----*****-----*****-----*****
ENDATA18
!Nonpoint Source Data
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
  *** -----*****-----*****-----*****-----*****-----*****
NONPOINT    1      26.853  8.056
NONPOINT    2      36.764  7.353
NONPOINT    3      54.810  23.294
NONPOINT    4      57.750  19.250
NONPOINT    5      161.505  52.665
NONPOINT    6      176.173  66.946
ENDATA19
!Headwater Data for Flow, Temperature, Salinity, and Conservatives
```

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!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!      **** -----*****-----*****-----*****-----*****
HDWTR-1      1      Grand Bayou      0.      0.00699      18.50      0.12      13.58      252.62
ENDATA20
!Headwater Data for DO, BOD, and Nitrogen
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!      **** -----*****-----*****-----*****-----*****
HDWTR-2      1      8.12      9.08      1.91      0.000      0.00      0.000
ENDATA21
!Headwater Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!      **** -----*****-----*****-----*****
HDWTR-3      1      0.00      10.00      0.00      0.00
ENDATA22
!Junction Data
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!      **** -----*****-----*****-----*****
ENDATA23
!Wasteload Data for Flow, Temperature, Salinity, and Conservatives
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!      **** -----*****-----*****-----*****
WSTLD-1      26      WESTFIELD CANAL      0.0283      19.55      0.07      10.50      174.0
WSTLD-1      61      WHITMEL CANAL      0.0283      19.55      0.07      8.80      172.0
ENDATA24
!Wasteload Data for DO, BOD, and Nitrogen
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!      **** -----*****-----*****-----*****
WSTLD-2      26      8.26      3.107      0.0      2.770      0.00      0.0      0.00      0.000
WSTLD-2      61      8.26      3.250      0.0      2.470      0.00      0.0      0.00      0.000
ENDATA25
!Wasteload Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!      **** -----*****-----*****-----*****
WSTLD-3      26      0.00      10.00      0.00      0.00
WSTLD-3      61      0.00      10.00      0.00      0.00
ENDATA26
LOWER BC TEMPERATURE = 19.55
LOWER BC SALINITY = 0.07
LOWER BC CONSERVATIVE MATERIAL I = 9.20
LOWER BC CONSERVATIVE MATERIAL II = 171.00
LOWER BC DISSOLVED OXYGEN = 8.26
LOWER BC BOD1 BIOCHEMICAL OXYGEN DEMAND = 8.663
LOWER BC NBOD = 2.416
LOWER BC PHOSPHORUS = 0.00
LOWER BC CHLOROPHYLL A = 10.00
LOWER BC COLIFORM = 0.00
LOWER BC NONCONSERVATIVE MATERIAL = 0.00
ENDATA27
!DAM DATA
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!      **** -----*****-----*****-----*****
ENDATA28
!SENSIT BASEFLOW 30.0 -30.0
!SENSIT VELOCITY 30.0 -30.0
!SENSIT DEPTH 30.0 -30.0
!SENSIT DISPERSI 30.0 -30.0
!SENSIT REAERATI 30.0 -30.0
!SENSIT BOD DECA 30.0 -30.0
!SENSIT BOD SETT 30.0 -30.0
!SENSIT NBOD DEC 30.0 -30.0
!SENSIT NBOD SET 30.0 -30.0
!SENSIT BENTHAL 30.0 -30.0
!SENSIT TEMPERAT 2.0 -2.0
```

```
!SENSIT HDW FLOW 30.0 -30.0
!SENSIT HDW TEMP 2.0 -2.0
!SENSIT HDW DO 30.0 -30.0
!SENSIT HDW BOD 30.0 -30.0
!SENSIT HDW NBOD 30.0 -30.0
!SENSIT WSL FLOW 30.0 -30.0
!SENSIT WSL TEMP 2.0 -2.0
!SENSIT WSL DO 30.0 -30.0
!SENSIT WSL BOD 30.0 -30.0
!SENSIT WSL NBOD 30.0 -30.0
!SENSIT LBC TEMP 2.0 -2.0
!SENSIT LBC DO 30.0 -30.0
!SENSIT LBC BOD 30.0 -30.0
!SENSIT LBC NBOD 30.0 -30.0
!SENSIT NPS BOD 30.0 -30.0
!SENSIT NPS NBOD 30.0 -30.0
ENDATA29
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 6
PLOT RCH 1 2 3 4 5 6
ENDATA30
!OVERLAY 1 OVERLAY LGBProjection.TXT :REACHES 1-6
ENDATA31
```


Output File

LA-QUAL Version 8.11
 LA-QUAL Version 9.03
 Louisiana Department of Environmental Quality

Input file is S:\projects\3110-060\tech\Revised TMDL\Revised Models\120206\Little_Grand_Bayou_Winter.txt
 Running in steady-state mode using LA defaults
 Output produced at 10:20 on 06/25/2010

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE	CONTROL TITLES
TITLE01	LITTLE GRAND BAYOU WINTER PROJECTION
TITLE02	09/17/07
CONTROL12	YES METRIC UNITS
ENDATA01	

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE	MODEL OPTION		
MOOPT01	NO	TEMPERATURE	
MOOPT02	YES	SALINITY	
MOOPT03	YES	CONSERVATIVE MATERIAL I = CHLORIDES	IN MG/L
MOOPT04	YES	CONSERVATIVE MATERIAL II = CONDUCTIVITY	IN MG/L
MOOPT05	YES	DISSOLVED OXYGEN	
MOOPT06	YES	BOD1 BIOCHEMICAL OXYGEN DEMAND	
MOOPT07	NO	BOD2 BIOCHEMICAL OXYGEN DEMAND	
MOOPT08	YES	NBOD OXYGEN DEMAND	
MOOPT09	NO	PHOSPHORUS	
MOOPT10	NO	CHLOROPHYLL A	
MOOPT11	NO	MACROPHYTES	
MOOPT12	NO	COLIFORM	
MOOPT13	NO	NONCONSERVATIVE MATERIAL	
ENDATA02			

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
PROGRAM	DISPERSION EQUATION	= 3.00000 (values entered as a function of D,Q,Vmean)
PROGRAM	TIDE HEIGHT	= 0.07000 meters
PROGRAM	KL MINIMUM	= 0.70000 meters/day
PROGRAM	INHIBITION CONTROL VALUE	= 3.00000 (inhibit all rates but SOD)
PROGRAM	EFFECTIVE BOD DUE TO ALGAE	= 0.10000 mg/L BOD1 per ug/L chl a
PROGRAM	ALGAE OXYGEN PRODUCTION	= 0.05000 mg O/ug chl a/day
PROGRAM	K2 MAXIMUM	= 25.00000 per day
PROGRAM	HYDRAULIC CALCULATION METHOD	= 2.00000 (widths and depths)
PROGRAM	SETTLING RATE UNITS	= 2.00000 (values entered as per day)
ENDATA03		

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE	RATE CODE	THETA VALUE
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ENDATA04

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
-----------	-------------------------	-------

ENDATA05

\$\$\$ DATA TYPE 6 (PHYTOPLANKTON CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
-----------	-------------------------	-------

ENDATA06

\$\$\$ DATA TYPE 7 (PERIPHYTON CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
-----------	-------------------------	-------

ENDATA07

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN REACH km	END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM
REACH ID	1	LG	GRAND BAYOU-RKM 5.40	6.62	TO 5.40	0.1220	1.22	10	1	10
REACH ID	2	LG	RKM 5.40-WESTFIELD CANAL	5.40	TO 3.78	0.1080	1.62	15	11	25
REACH ID	3	LG	WESTFIELD CANAL-RKM 2.16	3.78	TO 2.16	0.1080	1.62	15	26	40
REACH ID	4	LG	RKM 2.16-RKM 1.37	2.16	TO 1.37	0.0790	0.79	10	41	50
REACH ID	5	LG	RKM 1.37-WHITMEL CANAL	1.37	TO 0.60	0.0770	0.77	10	51	60
REACH ID	6	LG	WHITMEL CANAL-LAKE VERRET	0.60	TO 0.00	0.0600	0.60	10	61	70

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1	1	LG	0.000	0.000	14.844	0.000	0.000	0.607	0.00010	0.035
HYDR-1	2	LG	0.000	0.000	20.000	0.000	0.000	0.625	0.00010	0.035
HYDR-1	3	LG	0.000	0.000	27.737	0.000	0.000	0.640	0.00010	0.035
HYDR-1	4	LG	0.000	0.000	29.000	0.000	0.000	0.900	0.00010	0.035
HYDR-1	5	LG	0.000	0.000	45.000	0.000	0.000	1.100	0.00010	0.035
HYDR-1	6	LG	0.000	0.000	66.142	0.000	0.000	1.375	0.00010	0.035

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"
HYDR	1	LG	0.00	30.000	0.833	0.000	1.000
HYDR	2	LG	0.00	30.000	0.833	0.000	1.000
HYDR	3	LG	0.00	30.000	0.833	0.000	1.000
HYDR	4	LG	0.00	30.000	0.833	0.000	1.000
HYDR	5	LG	0.00	30.000	0.833	0.000	1.000
HYDR	6	LG	0.00	30.000	0.833	0.000	1.000

ENDATA10

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD TYPE	REACH	ID	TEMP deg C	SALIN ppt	DO mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	PERIP g/m²	BOD1 mg/L	BOD2 mg/L	ORG-N mg/L	ORG-P mg/L	COLI #/100mL	NCM	CM-1 MG/L	CM-2 MG/L
INITIAL	1	LG	19.55	0.07	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	2	LG	19.55	0.07	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	3	LG	19.55	0.08	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	4	LG	19.55	0.07	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	5	LG	19.55	0.07	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INITIAL	6	LG	19.55	0.07	5.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ENDATA11

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD g/m²/d	AEROB BOD DECAY per day	BOD SETT per day	SETTLD SOD AVAIL frac	ANAER BOD DECAY per day	AEROB BOD2 DECAY per day	BOD2 SETT per day	ANAER BOD2 DECAY per day	BOD2 HYDR TO BOD1 per day
COEF-1	1	LG	4 OWENS <5 FPS	0.000	0.000	0.000	0.940	0.064	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	2	LG	4 OWENS <5 FPS	0.000	0.000	0.000	1.679	0.056	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	3	LG	4 OWENS <5 FPS	0.000	0.000	0.000	1.096	0.058	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	4	LG	4 OWENS <5 FPS	0.000	0.000	0.000	0.385	0.057	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	5	LG	4 OWENS <5 FPS	0.000	0.000	0.000	0.070	0.064	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	6	LG	4 OWENS <5 FPS	0.000	0.000	0.000	0.070	0.082	0.050	0.000	0.000	0.000	0.050	0.000	0.000

ENDATA12

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	NBOD DECA per day	NBOD SETT per day	SEITLD ORGN AVAIL frac	NH3 DECA per day	BKGRND NH3 SRCE g/m²/d	BKGRND PO4 SRCE g/m²/d	DENIT RATE per day	ORGP DECA per day	ORGP SETT per day	SEITLD ORGP AVAIL frac
COEF-2	1	LG	0.111	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	2	LG	0.132	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	3	LG	0.121	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	4	LG	0.102	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	5	LG	0.099	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	6	LG	0.107	0.050	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ENDATA13

\$\$\$ DATA TYPE 14 (ALGAE PHYTOPLANKTON AND PERIPHYTON COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	SECCHI DEPTH m	CHL A: ALGAE frac	PHYTO SETT per day	PHYTO DEATH per day	PHYTO GROW per day	PHYTO RESP per day	PERIP DEATH per day	PERIP GROW per day	PERIP RESP per day	BANK SHADING frac

ENDATA14

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	COLIFORM DIE-OFF per day	NCM DECAY per day	NCM SETT per day

ENDATA15

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW m ³ /s	INFLOW m ³ /s	TEMP deg C	SALIN ppt	CM-1 MG/L	CM-2 MG/L	IN/DIST	OUT/DIST
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ENDATA16

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	REACH	ID	DO mg/L	BOD1 mg/L	NBOD mg/L	mg/L	mg/L	BOD2 mg/L
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ENDATA17

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, PHYTOPLANKTON, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	PO4 mg/L	PHYTO CHL A µg/L	COLI #/100mL	NCM	ORGP mg/L
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ENDATA18

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH	ID	BOD1 kg/d	NBOD kg/d	COLI #/day	NCM	DO kg/d	BOD2 kg/d	ORG-P kg/d
NONPOINT	1	LG	26.85	8.06	0.00	0.00	0.00	0.00	0.00
NONPOINT	2	LG	36.76	7.35	0.00	0.00	0.00	0.00	0.00
NONPOINT	3	LG	54.81	23.29	0.00	0.00	0.00	0.00	0.00
NONPOINT	4	LG	57.75	19.25	0.00	0.00	0.00	0.00	0.00
NONPOINT	5	LG	161.51	52.67	0.00	0.00	0.00	0.00	0.00
NONPOINT	6	LG	176.17	66.95	0.00	0.00	0.00	0.00	0.00

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m ³ /s	FLOW cfs	TEMP deg C	SALIN ppt	CM-1 MG/L	CM-2 MG/L	HDW DISP EXCHG frac
HDWIR-1	1	Grand Bayou	0	0.00699	0.24682	18.50	0.12	13.580	252.620	0.000

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L	mg/L	mg/L	BOD2 mg/L
HDWIR-2	1	Grand Bayou	8.12	9.08	1.91	0.00	0.00	0.00

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, PHYTOPLANKTON, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PO4-P mg/L	PHYTO CHL A µg/L	COLI #/100mL	NCM	ORG-P mg/L
HDWIR-3	1	Grand Bayou	0.00	10.00	0.00	0.00	0.00

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	RIVER KILOM	NAME
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ENDATA23

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	RKILO	NAME	FLOW m³/s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-1 MG/L	CM-2 MG/L
WSTLD-1	26	3.78	WESTFIELD CANAL	0.02830	0.99929	0.646	19.55	0.07	10.500	174.000
WSTLD-1	61	0.60	WHITMEL CANAL	0.02830	0.99929	0.646	19.55	0.07	8.800	172.000

ENDATA24

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD FMVL	NBOD mg/L	SALIN mg/L	% NITRIF	BOD2 mg/L
WSTLD-2	26	WESTFIELD CANAL	8.26	3.11	0.00	2.77	0.00	0.00	0.00
WSTLD-2	61	WHITMEL CANAL	8.26	3.25	0.00	2.47	0.00	0.00	0.00

ENDATA25

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, PHYTOPLANTON, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PO4-P mg/L	PHYTO CHL A µg/L	COLI #/100mL	NCM	ORG-P mg/L
WSTLD-3	26	WESTFIELD CANAL	0.00	10.00	0.00	0.00	0.00
WSTLD-3	61	WHITMEL CANAL	0.00	10.00	0.00	0.00	0.00

ENDATA26

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENTRATION
LOWER BC	TEMPERATURE	= 19.550 deg C
LOWER BC	SALINITY	= 0.070 ppt
LOWER BC	CONSERVATIVE MATERIAL I	= 9.200 MG/L
LOWER BC	CONSERVATIVE MATERIAL II	= 171.000 MG/L
LOWER BC	DISSOLVED OXYGEN	= 8.260 mg/L
LOWER BC	BOD1 BIOCHEMICAL OXYGEN DEMAND	= 8.663 mg/L
LOWER BC	NBOD	= 2.416 mg/L
LOWER BC	PHOSPHORUS	= 0.000 mg/L
LOWER BC	CHLOROPHYLL A	= 10.000 µg/L
LOWER BC	COLIFORM	= 0.000 #/100 mL
LOWER BC	NONCONSERVATIVE MATERIAL	= 0.000

ENDATA27

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD TYPE	ELEMENT	NAME	EQN	"A"	"B"	"H"
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ENDATA28

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE PARAMETER COL 1 COL 2 COL 3 COL 4 COL 5 COL 6 COL 7 COL 8

ENDATA29

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

NUMBER OF PLOTS = 1
 NUMBER OF REACHES IN PLOT 1 = 6
 PLOT RCH 1 2 3 4 5 6
 ENDATA30

\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

ENDATA31

....NO ERRORS DETECTED IN INPUT DATA
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 2 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED
GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11

FINAL REPORT Grand Bayou
 REACH NO. 1 GRAND BAYOU-RKM 5.40

LITTLE GRAND BAYOU WINTER PROJECTION
 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
1	HDWIR	0.00699	18.50	0.12	13.58	252.62	8.12	8.08	0.00	9.08	0.00	1.91	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCP EFF	ADV/CIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
1	6.62	6.50	0.00699	0.0	0.00078	1.82	1.82	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.015	0.001
2	6.50	6.38	0.00699	0.0	0.00078	1.82	3.64	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.015	0.001
3	6.38	6.25	0.00699	0.0	0.00078	1.82	5.46	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.015	0.001
4	6.25	6.13	0.00699	0.0	0.00078	1.82	7.28	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.015	0.001
5	6.13	6.01	0.00699	0.0	0.00078	1.82	9.10	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.015	0.001
6	6.01	5.89	0.00699	0.0	0.00078	1.82	10.92	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.015	0.001
7	5.89	5.77	0.00699	0.0	0.00078	1.82	12.74	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.015	0.001
8	5.77	5.64	0.00699	0.0	0.00078	1.82	14.56	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.015	0.001
9	5.64	5.52	0.00699	0.0	0.00078	1.82	16.38	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.015	0.001
10	5.52	5.40	0.00699	0.0	0.00078	1.82	18.20	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.015	0.001
TOT						18.20				10992.58	18109.68					

AVG 0.0008 0.61 14.84 9.01

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD1 DECAT	BOD1 SEITP	ABOD1 DECAT	BOD1 HYDR	BOD2 DECAT	BOD2 SEITP	ABOD2 DECAT	BKGD SOD	FULL SOD	CORR SOD	ORG-N HYDR	ORG-N SEITP	NH3-N DECAT	NH3-N SRCE	DENIT RATE	ORG-P HYDR	ORG-P SEITP	PO4 SRCE	PHYTO PROD	PERIP PROD	COLI DECAT	NCM DECAT	NCM SEITP
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	1/da	1/da	*	**	**	1/da	1/da	1/da
1	6.498	9.17	1.14	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.91	0.91	0.91	0.11	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
2	6.376	9.17	1.14	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.91	0.91	0.91	0.11	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
3	6.254	9.17	1.14	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.91	0.91	0.91	0.11	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
4	6.132	9.17	1.14	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.91	0.91	0.91	0.11	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
5	6.010	9.17	1.14	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.91	0.91	0.91	0.11	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
6	5.888	9.17	1.14	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.91	0.91	0.91	0.11	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
7	5.766	9.17	1.14	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.91	0.91	0.91	0.11	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
8	5.644	9.17	1.14	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.91	0.91	0.91	0.11	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
9	5.522	9.17	1.14	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.91	0.91	0.91	0.11	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
10	5.400	9.17	1.14	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.91	0.91	0.91	0.11	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			1.15	0.06	0.05	0.00	0.00	0.00	0.05	0.00	0.94			0.11	0.05	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	BORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	BORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m ²	COLI #/100mL	NCM
1	6.498	19.55	0.12	13.58	252.62	7.66	10.65	0.00	11.65	0.00	2.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
2	6.376	19.55	0.12	13.58	252.62	7.43	12.50	0.00	13.50	0.00	3.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
3	6.254	19.55	0.12	13.58	252.62	7.27	14.04	0.00	15.04	0.00	3.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
4	6.132	19.55	0.12	13.58	252.62	7.15	15.32	0.00	16.32	0.00	3.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
5	6.010	19.55	0.12	13.58	252.62	7.06	16.39	0.00	17.39	0.00	3.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
6	5.888	19.55	0.12	13.58	252.62	6.99	17.29	0.00	18.29	0.00	4.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
7	5.766	19.55	0.12	13.58	252.62	6.93	18.03	0.00	19.03	0.00	4.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
8	5.644	19.55	0.12	13.58	252.62	6.88	18.65	0.00	19.65	0.00	4.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
9	5.522	19.55	0.12	13.58	252.62	6.84	19.16	0.00	20.16	0.00	4.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
10	5.400	19.55	0.12	13.58	252.62	6.78	19.50	0.00	20.50	0.00	4.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPLHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SEITP 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SPC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m ²
1	6.498	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
2	6.376	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
3	6.254	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
4	6.132	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
5	6.010	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
6	5.888	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
7	5.766	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
8	5.644	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
9	5.522	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
10	5.400	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou LITTLE GRAND BAYOU WINTER PROJECTION
 REACH NO. 2 RKM 5.40-WESTFIELD CANAL 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A ug/L	COLI #/100mL	NCM
11	UPR RCH	0.00699	19.55	0.12	13.58	252.62	6.78	19.50	0.00	20.50	0.00	4.37	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCF EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPERSN m²/s	MEAN VELO m/s
11	5.40	5.29	0.00699	0.0	0.00056	2.24	20.44	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.011	0.001
12	5.29	5.18	0.00699	0.0	0.00056	2.24	22.67	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.011	0.001
13	5.18	5.08	0.00699	0.0	0.00056	2.24	24.91	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.011	0.001
14	5.08	4.97	0.00699	0.0	0.00056	2.24	27.14	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.011	0.001
15	4.97	4.86	0.00699	0.0	0.00056	2.24	29.38	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.011	0.001
16	4.86	4.75	0.00699	0.0	0.00056	2.24	31.61	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.011	0.001
17	4.75	4.64	0.00699	0.0	0.00056	2.24	33.85	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.011	0.001
18	4.64	4.54	0.00699	0.0	0.00056	2.24	36.08	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.011	0.001
19	4.54	4.43	0.00699	0.0	0.00056	2.24	38.32	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.011	0.001
20	4.43	4.32	0.00699	0.0	0.00056	2.24	40.55	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.011	0.001
21	4.32	4.21	0.00699	0.0	0.00056	2.24	42.79	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.011	0.001
22	4.21	4.10	0.00699	0.0	0.00056	2.24	45.03	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.011	0.001
23	4.10	4.00	0.00699	0.0	0.00056	2.24	47.26	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.011	0.001
24	4.00	3.89	0.00699	0.0	0.00056	2.24	49.50	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.011	0.001
25	3.89	3.78	0.00699	0.0	0.00056	2.24	51.73	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.011	0.001
TOT AVG					0.0006	33.53		0.62	20.00	20250.00	32400.00	12.50				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECAT 1/da	BOD1 SEIT 1/da	ABOD1 DECAT 1/da	BOD1 HYDR 1/da	BOD2 DECAT 1/da	BOD2 SEIT 1/da	ABOD2 DECAT 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SEIT 1/da	NH3-N DECAT 1/da	NH3-N SRCE *	DENIT RATE 1/da	ORG-P HYDR 1/da	ORG-P SEIT 1/da	SRCE *	PHYTO PROD **	PERIP PROD **	COLI DECAT 1/da	NCM DECAT 1/da	NCM SEIT 1/da
11	5.292	9.17	1.11	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.63	1.63	1.63	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
12	5.184	9.17	1.11	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.63	1.63	1.63	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
13	5.076	9.17	1.11	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.63	1.63	1.63	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
14	4.968	9.17	1.11	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.63	1.63	1.63	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
15	4.860	9.17	1.11	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.63	1.63	1.63	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
16	4.752	9.17	1.11	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.63	1.63	1.63	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
17	4.644	9.17	1.11	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.63	1.63	1.63	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
18	4.536	9.17	1.11	0.05	0.05	0.00	0.00	0.00	0.00	0.00	1.63	1.63	1.63	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou
 REACH NO. 3 WESTFIELD CANAL-RKM 2.16

LITTLE GRAND BAYOU WINTER PROJECTION
 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
26	UPR RCH	0.00699	19.55	0.11	12.68	229.54	6.44	14.22	0.00	15.22	0.00	2.32	0.00	0.00	0.00	10.00	0.00	0.00
26	WSTLD	0.02830	19.55	0.07	10.50	174.00	8.26	3.11	0.00	3.11	0.00	2.77	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
26	3.78	3.67	0.03529	80.2	0.00199	0.63	52.36	0.64	27.74	1917.18	2995.60	17.75	0.00	0.000	0.041	0.002
27	3.67	3.56	0.03529	80.2	0.00199	0.63	52.99	0.64	27.74	1917.18	2995.60	17.75	0.00	0.000	0.041	0.002
28	3.56	3.46	0.03529	80.2	0.00199	0.63	53.62	0.64	27.74	1917.18	2995.60	17.75	0.00	0.000	0.041	0.002
29	3.46	3.35	0.03529	80.2	0.00199	0.63	54.25	0.64	27.74	1917.18	2995.60	17.75	0.00	0.000	0.041	0.002
30	3.35	3.24	0.03529	80.2	0.00199	0.63	54.88	0.64	27.74	1917.18	2995.60	17.75	0.00	0.000	0.041	0.002
31	3.24	3.13	0.03529	80.2	0.00199	0.63	55.50	0.64	27.74	1917.18	2995.60	17.75	0.00	0.000	0.041	0.002
32	3.13	3.02	0.03529	80.2	0.00199	0.63	56.13	0.64	27.74	1917.18	2995.60	17.75	0.00	0.000	0.041	0.002
33	3.02	2.92	0.03529	80.2	0.00199	0.63	56.76	0.64	27.74	1917.18	2995.60	17.75	0.00	0.000	0.041	0.002
34	2.92	2.81	0.03529	80.2	0.00199	0.63	57.39	0.64	27.74	1917.18	2995.60	17.75	0.00	0.000	0.041	0.002
35	2.81	2.70	0.03529	80.2	0.00199	0.63	58.02	0.64	27.74	1917.18	2995.60	17.75	0.00	0.000	0.041	0.002
36	2.70	2.59	0.03529	80.2	0.00199	0.63	58.65	0.64	27.74	1917.18	2995.60	17.75	0.00	0.000	0.041	0.002
37	2.59	2.48	0.03529	80.2	0.00199	0.63	59.28	0.64	27.74	1917.18	2995.60	17.75	0.00	0.000	0.041	0.002
38	2.48	2.38	0.03529	80.2	0.00199	0.63	59.91	0.64	27.74	1917.18	2995.60	17.75	0.00	0.000	0.041	0.002
39	2.38	2.27	0.03529	80.2	0.00199	0.63	60.53	0.64	27.74	1917.18	2995.60	17.75	0.00	0.000	0.041	0.002
40	2.27	2.16	0.03529	80.2	0.00199	0.63	61.16	0.64	27.74	1917.18	2995.60	17.75	0.00	0.000	0.041	0.002
TOT						9.43				28757.72	44933.95					
AVG					0.0020			0.64	27.74			17.75				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD1 DECAT	BOD1 SEIT1	ABOD1 DECAT	BOD1 HYDR	BOD2 DECAT	BOD2 SEIT1	ABOD2 DECAT	BKGD SOD	FULL SOD	CORR SOD	ORG-N HYDR	ORG-N SEIT1	NH3-N DECAT	NH3-N SRCE	DENIT RATE	ORG-P HYDR	ORG-P SEIT1	PO4 SRCE	PHYTO PROD	PERIP PROD	COLI DECAT	NCM DECAT	NCM SEIT1
26	3.672	9.17	1.08	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.07	1.07	1.07	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
27	3.564	9.17	1.08	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.07	1.07	1.07	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
28	3.456	9.17	1.08	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.07	1.07	1.07	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
29	3.348	9.17	1.08	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.07	1.07	1.07	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
30	3.240	9.17	1.08	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.07	1.07	1.07	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
31	3.132	9.17	1.08	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.07	1.07	1.07	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
32	3.024	9.17	1.08	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.07	1.07	1.07	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
33	2.916	9.17	1.08	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.07	1.07	1.07	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
34	2.808	9.17	1.08	0.06	0.05	0.00	0.00	0.00	0.00	0.00	1.07	1.07	1.07	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou
 REACH NO. 4 RKM 2.16-RKM 1.37

LITTLE GRAND BAYOU WINTER PROJECTION
 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A ug/L	COLI #/100mL	NCM
41	UPR RCH	0.03529	19.55	0.08	11.11	189.57	6.98	13.63	0.00	14.63	0.00	4.40	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCF EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPERSN m²/s	MEAN VELO m/s
41	2.16	2.08	0.03529	80.2	0.00135	0.68	61.84	0.90	29.00	2061.90	2291.00	26.10	0.00	0.000	0.037	0.001
42	2.08	2.00	0.03529	80.2	0.00135	0.68	62.52	0.90	29.00	2061.90	2291.00	26.10	0.00	0.000	0.037	0.001
43	2.00	1.92	0.03529	80.2	0.00135	0.68	63.19	0.90	29.00	2061.90	2291.00	26.10	0.00	0.000	0.037	0.001
44	1.92	1.84	0.03529	80.2	0.00135	0.68	63.87	0.90	29.00	2061.90	2291.00	26.10	0.00	0.000	0.037	0.001
45	1.84	1.77	0.03529	80.2	0.00135	0.68	64.54	0.90	29.00	2061.90	2291.00	26.10	0.00	0.000	0.037	0.001
46	1.77	1.69	0.03529	80.2	0.00135	0.68	65.22	0.90	29.00	2061.90	2291.00	26.10	0.00	0.000	0.037	0.001
47	1.69	1.61	0.03529	80.2	0.00135	0.68	65.90	0.90	29.00	2061.90	2291.00	26.10	0.00	0.000	0.037	0.001
48	1.61	1.53	0.03529	80.2	0.00135	0.68	66.57	0.90	29.00	2061.90	2291.00	26.10	0.00	0.000	0.037	0.001
49	1.53	1.45	0.03529	80.2	0.00135	0.68	67.25	0.90	29.00	2061.90	2291.00	26.10	0.00	0.000	0.037	0.001
50	1.45	1.37	0.03529	80.2	0.00135	0.68	67.93	0.90	29.00	2061.90	2291.00	26.10	0.00	0.000	0.037	0.001
TOT AVG					0.0014	6.76			0.90	29.00	20619.00	22910.00				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECAY 1/da	BOD1 SEITP 1/da	ABOD1 DECAY 1/da	BOD1 HYDR 1/da	BOD2 DECAY 1/da	BOD2 SEITP 1/da	ABOD2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SEITP 1/da	NH3-N SRCE 1/da	NH3-N RATE 1/da	DENIT HYDR 1/da	ORG-P SEITP 1/da	PO4 SRCE *	PHYTO PROD **	PERIP PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SEITP 1/da
41	2.081	9.17	0.77	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.37	0.37	0.37	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
42	2.002	9.17	0.77	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.37	0.37	0.37	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
43	1.923	9.17	0.77	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.37	0.37	0.37	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
44	1.844	9.17	0.77	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.37	0.37	0.37	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
45	1.765	9.17	0.77	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.37	0.37	0.37	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
46	1.686	9.17	0.77	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.37	0.37	0.37	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
47	1.607	9.17	0.77	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.37	0.37	0.37	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
48	1.528	9.17	0.77	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.37	0.37	0.37	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
49	1.449	9.17	0.77	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.37	0.37	0.37	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
50	1.370	9.17	0.77	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.37	0.37	0.37	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.78	0.06	0.05	0.00	0.00	0.00	0.05	0.00	0.38			0.10	0.05	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	EIOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	EIOT-P mg/L	CHL A ug/L	PERIP g/m ²	COLI #/100mL	NCM	
41	2.081	19.55	0.08	11.11	189.57	7.19	14.53	0.00	15.53	0.00	4.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
42	2.002	19.55	0.08	11.11	189.57	7.30	15.32	0.00	16.32	0.00	4.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
43	1.923	19.55	0.08	11.11	189.57	7.35	16.05	0.00	17.05	0.00	4.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
44	1.844	19.55	0.08	11.11	189.57	7.37	16.74	0.00	17.74	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
45	1.765	19.55	0.08	11.11	189.57	7.36	17.38	0.00	18.38	0.00	5.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
46	1.686	19.55	0.08	11.11	189.57	7.34	17.98	0.00	18.98	0.00	5.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
47	1.607	19.55	0.08	11.11	189.57	7.30	18.55	0.00	19.55	0.00	5.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
48	1.528	19.55	0.08	11.11	189.57	7.26	19.10	0.00	20.10	0.00	5.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
49	1.449	19.55	0.08	11.11	189.57	7.21	19.70	0.00	20.70	0.00	5.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
50	1.370	19.55	0.08	11.11	189.57	7.12	20.61	0.00	21.61	0.00	5.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00

***** PHYTOPLANKTON AND PERIPHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SETT 1/da	PHYT P/R RATIO	PHYTO ug/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SEC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m ²
41	2.081	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
42	2.002	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
43	1.923	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
44	1.844	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
45	1.765	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
46	1.686	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
47	1.607	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
48	1.528	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
49	1.449	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
50	1.370	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou LITTLE GRAND BAYOU WINTER PROJECTION
 REACH NO. 5 RKM 1.37-WHITMEL CANAL 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A ug/L	COLI #/100mL	NCM
51	UPR RCH	0.03529	19.55	0.08	11.11	189.57	7.12	20.61	0.00	21.61	0.00	5.74	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCF EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPERSN m ² /s	MEAN VELO m/s
51	1.37	1.29	0.03529	80.2	0.00071	1.25	69.18	1.10	45.00	3811.50	3465.00	49.50	0.00	0.000	0.023	0.001

51	1.293	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
52	1.216	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
53	1.139	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
54	1.062	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
55	0.985	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
56	0.908	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
57	0.831	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
58	0.754	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
59	0.677	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
60	0.600	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Grand Bayou LITTLE GRAND BAYOU WINTER PROJECTION
 REACH NO. 6 WHITMEL CANAL-LAKE VERRET 09/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
61	UPR RCH	0.03529	19.55	0.08	10.68	186.31	5.84	28.24	0.00	29.24	0.00	7.94	0.00	0.00	0.00	10.00	0.00	0.00
61	WSTLD	0.02830	19.55	0.07	8.80	172.00	8.26	3.25	0.00	3.25	0.00	2.47	0.00	0.00	0.00	10.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCF EFF	ADVCIV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPERSN m²/s	MEAN VELO m/s
61	0.60	0.54	0.06359	89.0	0.00070	0.99	81.42	1.38	66.14	5456.71	3968.52	90.95	0.00	0.000	0.027	0.001
62	0.54	0.48	0.06359	89.0	0.00070	0.99	82.41	1.38	66.14	5456.71	3968.52	90.95	0.00	0.000	0.027	0.001
63	0.48	0.42	0.06359	89.0	0.00070	0.99	83.41	1.38	66.14	5456.71	3968.52	90.95	0.00	0.000	0.027	0.001
64	0.42	0.36	0.06359	89.0	0.00070	0.99	84.40	1.38	66.14	5456.71	3968.52	90.95	0.00	0.000	0.027	0.001
65	0.36	0.30	0.06359	89.0	0.00070	0.99	85.39	1.38	66.14	5456.71	3968.52	90.95	0.00	0.000	0.027	0.001
66	0.30	0.24	0.06359	89.0	0.00070	0.99	86.39	1.38	66.14	5456.71	3968.52	90.95	0.00	0.000	0.027	0.001
67	0.24	0.18	0.06359	89.0	0.00070	0.99	87.38	1.38	66.14	5456.71	3968.52	90.95	0.00	0.000	0.027	0.001
68	0.18	0.12	0.06359	89.0	0.00070	0.99	88.37	1.38	66.14	5456.71	3968.52	90.95	0.00	0.000	0.027	0.001
69	0.12	0.06	0.06359	89.0	0.00070	0.99	89.36	1.38	66.14	5456.71	3968.52	90.95	0.00	0.000	0.027	0.001
70	0.06	0.00	0.06359	89.0	0.00070	0.99	90.36	1.38	66.14	5456.71	3968.52	90.95	0.00	0.000	0.027	0.001
TOT AVG					0.0007	9.93		1.38	66.14	54567.15	39685.20	90.95				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD1 DECAY	BOD1 SEITP	ABOD1 DECAY	BOD1 HYDR	BOD2 DECAY	BOD2 SEITP	ABOD2 DECAY	BKGD SOD	FULL SOD	CORR SOD	ORG-N HYDR	ORG-N SEITP	NH3-N DECAY	NH3-N SRCE	DENIT RATE	ORG-P HYDR	ORG-P SEITP	PO4 SRCE	PHYTO PROD	PERIP PROD	COLI DECAY	NCM DECAY	NCM SEITP	
61	0.540	9.17	0.50	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.07	0.07	0.07	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00

62	0.480	9.17	0.50	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.07	0.07	0.07	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00						
63	0.420	9.17	0.50	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.07	0.07	0.07	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00						
64	0.360	9.17	0.50	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.07	0.07	0.07	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00						
65	0.300	9.17	0.50	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.07	0.07	0.07	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00						
66	0.240	9.17	0.50	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.07	0.07	0.07	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00						
67	0.180	9.17	0.50	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.07	0.07	0.07	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00						
68	0.120	9.17	0.50	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.07	0.07	0.07	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00						
69	0.060	9.17	0.50	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.07	0.07	0.07	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00						
70	0.000	9.17	0.50	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.07	0.07	0.07	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00						
AVG 20 DEG C RATE			0.51	0.08	0.05	0.00	0.00	0.00	0.05	0.00	0.07			0.11	0.05	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00							
* g/m ² /d			** mg/L/day																													

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	CM-1 MG/L	CM-2 MG/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EBORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EBORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m ²	COLI #/100mL	NCM	
61	0.540	19.55	0.08	10.08	181.75	6.20	20.86	0.00	21.86	0.00	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
62	0.480	19.55	0.08	10.08	181.75	5.93	21.29	0.00	22.29	0.00	6.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
63	0.420	19.55	0.08	10.08	181.74	5.71	21.67	0.00	22.67	0.00	6.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
64	0.360	19.55	0.08	10.08	181.73	5.54	22.00	0.00	23.00	0.00	7.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
65	0.300	19.55	0.08	10.08	181.69	5.40	22.28	0.00	23.28	0.00	7.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
66	0.240	19.55	0.08	10.07	181.60	5.30	22.47	0.00	23.47	0.00	7.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
67	0.180	19.55	0.08	10.05	181.38	5.26	22.48	0.00	23.48	0.00	7.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
68	0.120	19.55	0.08	10.00	180.80	5.34	22.04	0.00	23.04	0.00	7.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
69	0.060	19.55	0.07	9.88	179.35	5.70	20.35	0.00	21.35	0.00	6.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00
70	0.000	19.55	0.07	9.58	175.67	6.80	15.18	0.00	16.18	0.00	4.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.0	0.0	0.	0.00	

***** PHYTOPLANKTON AND PERIPHYTON DATA *****

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SETT 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SEC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m ²
61	0.540	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
62	0.480	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
63	0.420	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
64	0.360	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
65	0.300	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
66	0.240	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
67	0.180	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
68	0.120	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
69	0.060	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
70	0.000	0.00	Inf	0.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	10.0	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

20 DEG C RATE 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

STREAM SUMMARY REPORT: Grand Bayou

TRAVEL TIME	=	90.36	DAYS
MAXIMUM EFFLUENT	=	89.01	PERCENT
FLOW	=	0.00699	TO 0.06359 m ³ /s
DISPERSION	=	0.0113	TO 0.0411 m ² /s
VELOCITY	=	0.00056	TO 0.00199 m/s
DEPTH	=	0.61	TO 1.38 m
WIDTH	=	14.84	TO 66.14 m
BOD DECAY	=	0.05	TO 0.08 per day
NH3 DECAY	=	0.00	TO 0.00 per day
SOD	=	0.07	TO 1.63 g/m ² /d
NH3 SED SOURCE	=	0.00	TO 0.00 g/m ² /d
PO4 SED SOURCE	=	0.00	TO 0.00 g/m ² /d
REAERATION	=	0.50	TO 1.14 per day
BOD SETTLING	=	0.05	TO 0.05 per day
NBOD DECAY	=	0.09	TO 0.13 per day
NBOD SETTLING	=	0.05	TO 0.05 per day
TEMPERATURE	=	19.55	TO 19.55 deg C
DISSOLVED OXYGEN	=	5.26	TO 7.66 mg/L

LITTLE GRAND BAYOU WINTER PROJECTION
 09/17/07

INPUT/OUTPUT LOADING SUMMARY

	FLOW m ³ /s	DO kg/d	BOD1 kg/d	BOD2 kg/d	NBOD kg/d	kg/d	kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.00699	4.90	4.88	0.00	1.15	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
WASTELoads	0.05660	40.39	15.54	0.00	12.81	0.00	0.00	0.00	0.00	0.00		0.00
WITHDRAWALS	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
FLOW THRU LOWER ENDRY	-0.06359	-37.36	-83.38	0.00	-27.12	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER ENDRY		10.46	-53.82	0.00	-18.05	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU HDWIR ENDRY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
NON-POINT INPUT		0.00	513.86	0.00	177.56			0.00				0.00
NATURAL REAERATION		353.86										
DAM REAERATION		0.00										
SOD BACKGROUND		-130.93										
BOD1 DECAY		-227.74	-227.74									
BOD1 SETTLING		0.00	-169.33									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		0.00		0.00								
BOD2 SETTLING		0.00		0.00								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
NBOD DECAY		-97.94			0.00	0.00						
NBOD SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		0.00				0.00	0.00					
NH3-N BACKGROUND SEDIMENT SOURCE						0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOURCE									0.00			
PHYTOPLANKTON GROWTH/PHOTOSYNTHESIS		84.88				0.00	0.00		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXCRETION		0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
PERIPHYTON GROWTH/PHOTOSYNTHESIS		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRETION		0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.06359	494.49	534.28	0.00	191.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.06359	-493.97	-534.28	0.00	-45.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	0.52	0.00	0.00	146.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00

....EXECUTION COMPLETED

Justifications

Little Grand Bayou Winter Projection

DATA TYPE 3 - PROGRAM CONSTANTS			
CONSTANT NAME	VALUE	UNITS	DATA SOURCE
DISPERSION EQUATION	3		Dispersion calibrated using measured values at two sites
TIDE HEIGHT	0.07	meters	Continuous Monitor data, site GRB9
KL MINIMUM	0.7	m/day	Louisiana Standard Practice
INHIBITION CONTROL VALUE	3		Louisiana Standard Practice
EFFECTIVE BOD DUE TO ALGAE	0.1	mg/L BOD /ug chl a/ day	BPJ and calibration
ALGAE OXYGEN PRODUCTION	0.05	mg O / ug chl a / day	BPJ and calibration
K2 MAXIMUM	25	1/day at 20 deg C	Louisiana Standard Practice
HYDRAULIC CALCULATION METHOD	2		Louisiana Standard Practice
SETTLING RATE UNITS	2		Louisiana Standard Practice

DATA TYPE 8 - REACH IDENTIFICATION DATA						
Reach	ID	Name	Upstream River Kilometer	Downstream River Kilometer	Element Length, km	Data Source
1	GB	GRAND BAYOU-RKM 5.40	6.62	5.40	0.1220	
2	GB	RKM 5.40-WESTFIELD CANAL	5.40	3.78	0.1080	
3	GB	WESTFIELD CANAL-RKM 2.16	3.78	2.16	0.1080	
4	GB	RKM 2.16-RKM 1.37	2.16	1.37	0.0790	
5	GB	RKM 1.37-WHITMEL CANAL	1.37	0.60	0.0770	
6	GB	WHITMEL CANAL-LAKE VERRET	0.60	0.00	0.0600	

Little Grand Bayou Winter Projection

Reach	Name	DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS			
		Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. "d"	Depth Exp. "e"	Depth Const. "f"	Data Source	Slope (unitless)	Data Source	Manning's "n"	Data Source
1	GRAND BAYOU-RKM 5.40	0	0	14.844	Field Data, Site LGBY1	0	0	0.607	Field Data, Site LGBY1	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
2	RKM 5.40-WESTFIELD CANAL	0	0	20.000	Estimate of field data between Sites LGBY1 and LGBY3	0	0	0.625	Estimate of field data between Sites LGBY1 and LGBY3	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
3	WESTFIELD CANAL-RKM 2.16	0	0	27.737	Field Data, Site LGBY3	0	0	0.640	Field Data, Site LGBY3	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
4	RKM 2.16-RKM 1.37	0	0	29.000	Field Data, Site LGBY4	0	0	0.900	Estimate of field data between Sites LGBY3, LGBY4 and LGBY5	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
5	RKM 1.37-WHITMEL CANAL	0	0	45.000	Estimate of field data between Sites LGBY4 and LGBY5	0	0	1.100	Estimate of field data between Sites LGBY3, LGBY4 and LGBY5	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook
6	WHITMEL CANAL-LAKE VERRET	0	0	66.142	Field Data, Site LGBY5	0	0	1.375	Field Data, Site LGBY5	0.0001	Estimated from USGS topography maps	0.035	Env. Eng. Exam Guide & Handbook

Reach	Name	DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS				Data Source
		Tidal Range	Data Source	Dispersion Coeff. "a"	Dispersion Coeff. "b"	Dispersion Coeff. "c"	Dispersion Coeff. "d"	
1	GRAND BAYOU-RKM 5.40	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
2	RKM 5.40-WESTFIELD CANAL	0.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
3	WESTFIELD CANAL-RKM 2.16	0.25	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
4	RKM 2.16-RKM 1.37	0.50	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
5	RKM 1.37-WHITMEL CANAL	0.75	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"
6	WHITMEL CANAL-LAKE VERRET	1.00	BPJ and Calibration	30.00	0.833	0	1	Calibration for "a", Equation 3 defaults for "b", "c" and "d"

Little Grand Bayou Winter Projection

Reach	Name	DATA TYPE 11 - INITIAL CONDITIONS				DATA TYPE 11 - INITIAL CONDITIONS		
		Temp, deg C	Sal, ppt	DO, mg/l	Data Source	Chlorophyll a	Macrophytes	Data Source
1	GRAND BAYOU-RKM 5.40	19.55	0.07	5.00	Salinity values from Calibration model. Temperature is winter critical temperature calculated from WQN site 980. DO is criteria value for subsegment.	10.00	0	Louisiana standard practice, reduction in nutrients will cause a reduction in algae.
2	RKM 5.40-WESTFIELD CANAL	19.55	0.07	5.00		10.00	0	
3	WESTFIELD CANAL-RKM 2.16	19.55	0.08	5.00		10.00	0	
4	RKM 2.16-RKM 1.37	19.55	0.07	5.00		10.00	0	
5	RKM 1.37-WHITMEL CANAL	19.55	0.07	5.00		10.00	0	
6	WHITMEL CANAL-LAKE VERRET	19.55	0.07	5.00		10.00	0	

REACH	NAME	DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS				DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS			DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS	
		K ₂ OPT	Data Source	BKGRND SOD, gmO ₂ /m ² /day at 20 deg C	Data Source	Aerobic BOD1 Dec Rate (1/day)	Data Source	BOD1 SETT RATE (1/day)	Data Source	
1	GRAND BAYOU-RKM 5.40	4	Owens-Edwards-Gibbs	0.940	TMDL Loading Spreadsheet	0.064	Mathematical interpolations of Lab bottle rates based on physical location in reference to Site locations.	0.05	LTP, BPJ and calibration	
2	RKM 5.40-WESTFIELD CANAL	4	Owens-Edwards-Gibbs	1.679		0.056		0.05	LTP, BPJ and calibration	
3	WESTFIELD CANAL-RKM 2.16	4	Owens-Edwards-Gibbs	1.096		0.058		0.05	LTP, BPJ and calibration	
4	RKM 2.16-RKM 1.37	4	Owens-Edwards-Gibbs	0.385		0.057		0.05	LTP, BPJ and calibration	
5	RKM 1.37-WHITMEL CANAL	4	Owens-Edwards-Gibbs	0.070		0.064		0.05	LTP, BPJ and calibration	
6	WHITMEL CANAL-LAKE VERRET	4	Owens-Edwards-Gibbs	0.070		0.082		0.05	LTP, BPJ and calibration	

Little Grand Bayou Winter Projection

DATA TYPE 13 - NITROGEN AND PHOSPHORUS COEFFICIENTS									
Reach	Name	NBOD decay rate, 1/day	NBOD settling rate, 1/day	Data Source	Settled Org-N conv. to ammonia benthos source rate	Data Source			
1	GRAND BAYOU-RKM 5.40	0.111	0.05	Mathematical interpolations of Lab bottle rates based on physical location in reference to Site locations.	1.00				
2	RKM 5.40-WESTFIELD CANAL	0.132	0.05		1.00				
3	WESTFIELD CANAL-RKM 2.16	0.121	0.05		1.00				
4	RKM 2.16-RKM 1.37	0.102	0.05		1.00				
5	RKM 1.37-WHITMEL CANAL	0.099	0.05		1.00				
6	WHITMEL CANAL-LAKE VERRET	0.107	0.05		1.00				
DATA TYPE 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVE									
Reach	Reach Name	Incr. Outflow, m ³	Incr. Inflow, m ³	Data Source	Temp, deg C	Sal., ppt	Cons. Mat I Chlorides	Cons. Mat II Conductivity	Data Source
1	GRAND BAYOU-RKM 5.40		0.000	Incremental flows reduced to zero to simulate dry, critical conditions.					
2	RKM 5.40-WESTFIELD CANAL		0.000						
3	WESTFIELD CANAL-RKM 2.16		0.000						
4	RKM 2.16-RKM 1.37		0.000						
5	RKM 1.37-WHITMEL CANAL		0.000						
6	WHITMEL CANAL-LAKE VERRET		0.000						

Little Grand Bayou Winter Projection

		DATA TYPE 19 - NONPOINT SOURCES			
Reach	Reach Name	Length of Reach, km	UCBOD1, kg/day	NBOD, kg/day	Data Source
1	GRAND BAYOU-RKM 5.40	1.22	26.85	8.06	TMDL Loading Spreadsheet
2	RKM 5.40-WESTFIELD CANAL	1.62	36.76	7.35	
3	WESTFIELD CANAL-RKM 2.16	1.62	54.81	23.29	
4	RKM 2.16-RKM 1.37	0.79	57.75	19.25	
5	RKM 1.37-WHITMEL CANAL	0.77	161.50	52.66	
6	WHITMEL CANAL-LAKE VERRET	0.60	176.17	66.95	

DATA TYPE 20 - HEADWATER DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES								
Headwater Name	Element No.	Logical Unit Number	Headwater Flow, cms	Temp, deg C	Salinity, ppt	Conservative Material I Chlorides	Conservative Material II Conductivity	Data Source
Grand Bayou	1		0.00699	18.5	0.12	13.58	252.62	Output from Grand Bayou winter projection.

DATA TYPE 21 - HEADWATER DATA FOR DO, BOD, AND NITROGEN				
Headwater Name	Dissolved Oxygen, mg/L	UCBOD1, mg/l	NBOD, mg/l	Data Source
Grand Bayou	8.12	9.08	1.91	Output from Grand Bayou winter projection.

Little Grand Bayou Winter Projection

DATA TYPE 22 - HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES					
Headwater Name	Phosphorus, mg/L	Chlorophyll a, ug/L	Coliform, #/100 mL	Nonconservative Material	Date Source
Grand Bayou		10			Output from Grand Bayou winter projection.

DATA TYPE 24 - WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES							
Wasteload / Withdrawal Name	EL #	Flow, cms	Temperature, deg C	Salinity	Conservative Material I Chlorides	Conservative Material II Conductivity	Data Source
Westfield Canal	26	0.0283	19.55	0.07	10.5	174	Winter critical flow and temperature. Survey data, Site WC1
Whitmeh Canal	61	0.0283	19.55	0.07	8.8	172	Winter critical flow and temperature. Survey data, Site WCL1

DATA TYPE 25 - WASTELOAD DATA FOR DO, BOD, AND NITROGEN							
Wasteload / Withdrawal Name	EL #	DO, mg/l	UCBOD1, mg/l	BOD decayed, percent	UNBOD, mg/l	Data Source	
Westfield Canal	26	8.26	3.11		2.77	90% DO saturation and TMDL Loading Spreadsheet	
Whitmeh Canal	61	8.26	3.25		2.47		

DATA TYPE 26 - WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES						
Wasteload / Withdrawal Name	EL #	Phosphorus, mg/L	Chlorophyll-A, ug/L	Coliform, #/100 mL	Nonconservative Material	Data Source
Westfield Canal	26		10			Louisiana standard practice, reduction in nutrients will cause a reduction in algae.
Whitmeh Canal	61		10			

Little Grand Bayou Winter Projection

DATA TYPE 27 - LOWER BOUNDARY CONDITIONS			
Parameter	Value	Units	Data Source
TEMPERATURE	19.55	oCelcius	Winter critical temperature
SALINITY	0.07	ppt	Field and Lab data, Site LV2
CONSERVATIVE MATERIAL I CHLORIDES	9.2	mg/L	Field and Lab data, Site LV2
CONSERVATIVE MATERIAL II CONDUCTIVITY	171	mg/L	Field and Lab data, Site LV2
DISSOLVED OXYGEN	8.26	mg/L	90% DO saturation
BIOCHEMICAL OXYGEN DEMAND 1	8.663	mg/L	Field and Lab data, Site LV2
NBOD	2.416	mg/L	Field and Lab data, Site LV2
PHOSPHORUS	0	mg/L	
CHLOROPHYLL A	10	ug/L	Louisiana standard practice, reduction in nutrients will cause a reduction in algae.
COLIFORM	0	#/100 mL	
NONCONSERVATIVE MATERIAL	0	mg/L	

Appendix E – Projection Model Development

Appendix E1 – Grand Bayou Summer Loading

Grand Bayou Summer Projection, Non-Point Benthic Load Input and TMDL Calculations: Subsegment 120206

Modeled water body: **GRAND BAYOU (SUBSEGMENT 120206)**

Shaded cells are input values for calculations. **MARGIN OF SAFETY (MOS) (%) = [MOG + MOU] = 20%**
 Values to be used in the projection models. Note: Margin of Safety applies only to Man-Made loads, not Background

Reach Number and Description	Calibration Model Values					Reduced Man-Made Loads											Projected Model Loads															
	Total Non-Point UCBOB	Total Non-Point UNBOD	SOD @ 20°C	Total Calb. Benthic Load (TCBL)	Reach Length	Proj. Model Avg. Reach Width	Proj. Temp.	Background Benthic Load	Effective Background Benthic Load	Man-Made Benthic Load	Background percentage reduction	Percentage Reduction of man-made sources	Reduced Background Benthic Load	Reduced Man-Made Benthic Load	Reduced TCBL adjusted for MOS	Reduced Total UCBOB Load	Reduced UNBOD Load	Reduced SOD Load at Projection Temp.	SOD @ 20°C	Total Non-Point UCBOB INPUTS	Non-Point UNBOD INPUTS	Total MOS at Projection Temp.	Non-Point UCBOB LA	Non-Point UNBOD LA	SOD LA at Projection Temp.							
	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	Kilo-meters	Meters	(deg Celcius)	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	%	%	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	kg O ₂ /day	kg O ₂ /day	kg O ₂ /day	g O ₂ / [(m ²)(day)]	kg O ₂ /day	kg O ₂ /day	kg O ₂ /day	kg O ₂ /day	kg O ₂ /day	kg O ₂ /day							
Reach 1--Site GRB1-Bayou Sigur	36.460	27.345	4.00	67.805	0.09	12.19	28.13	2.00	2.00	65.80	0%	89%	2.00	7.24	11.05	4.27	3.20	0.78	0.652	6.52	4.89	2.06	5.45	4.09	1.00							
Reach 2--Bayou Sigur-Muddy Bayou	11.086	7.021	4.10	22.208	0.82	16.50	28.13	2.00	2.00	20.21	0%	89%	2.00	2.22	4.78	15.01	9.51	9.26	0.882	32.28	20.44	8.45	28.52	18.06	17.60							
Reach 3--Muddy Bayou-Bayou Crouix (BYC1)	5.715	2.286	5.15	13.151	2.05	21.34	28.13	2.00	2.00	11.15	0%	89%	2.00	1.23	3.53	23.32	9.33	35.06	1.384	67.17	26.87	16.93	61.34	24.54	92.24							
Reach 4--B Crouix (BYC1)-B Crouix (BYC2)	0.000	0.719	4.00	4.719	2.28	16.46	28.13	2.00	2.00	2.72	0%	89%	2.00	0.30	2.37	0.00	1.71	15.88	2.012	0.00	13.58	4.40	0.00	13.15	122.03							
Reach 5--B Crouix (BYC2)-km 15.5	4.182	1.374	4.00	9.556	2.79	30.00	28.13	2.00	2.00	7.56	0%	89%	2.00	0.83	3.04	30.44	10.00	48.59	1.272	111.31	36.57	22.26	103.70	34.07	165.52							
Reach 6--km 15.5-km 13.0	3.846	1.195	3.65	8.691	2.50	44.20	28.13	2.00	2.00	6.69	0%	89%	2.00	0.74	2.92	35.99	11.18	56.99	1.226	142.79	44.35	26.04	133.80	41.56	211.87							
Reach 7--km 13.0-Bayou Corne	3.333	1.111	3.00	7.444	1.57	43.00	28.13	2.00	2.00	5.44	0%	89%	2.00	0.60	2.75	18.10	6.03	27.19	1.108	83.08	27.69	12.83	78.55	26.18	117.98							
Reach 8--B Corne-Little Grand Bayou	5.922	2.149	2.00	10.071	2.71	42.06	28.13	2.00	2.00	8.07	0%	89%	2.00	0.89	3.11	59.51	21.60	33.53	0.618	208.42	75.65	28.66	193.55	70.25	109.07							
Reach 9--Little Grand-Unnamed Canal	5.126	0.513	2.15	7.789	0.60	48.77	28.13	2.00	2.00	5.79	0%	89%	2.00	0.64	2.80	12.26	1.23	8.58	0.772	53.85	5.38	5.52	50.78	5.08	35.54							
Reach 10--Unnamed Canal-E Grand Bayou	0.000	0.000	2.75	2.750	2.92	45.00	28.13	2.00	2.00	0.75	0%	89%	2.00	0.08	2.10	0.00	0.00	18.09	2.103	0.00	0.00	4.52	0.00	0.00	456.60							
Reach 11--E Grand Bayou-Bayou Alcide	0.000	0.000	2.50	2.500	2.09	42.95	28.13	2.00	2.00	0.50	0%	89%	2.00	0.06	2.07	0.00	0.00	8.24	2.069	0.00	0.00	2.06	0.00	0.00	307.80							
Reach 12--Bayou Alcide-Site GRB8	0.000	0.000	3.00	3.000	1.45	55.00	28.13	2.00	2.00	1.00	0%	89%	2.00	0.11	2.14	0.00	0.00	14.64	2.138	0.00	0.00	3.66	0.00	0.00	280.78							
Reach 13--Site GRB8-Little Bayou Long	0.639	1.279	3.00	4.918	0.46	85.00	28.13	2.00	2.00	2.92	0%	89%	2.00	0.32	2.40	1.63	3.26	12.77	1.465	12.21	24.41	4.42	11.80	23.60	92.37							
Reach 14--L Bayou Long-Lake Verret	0.766	1.367	3.00	5.133	1.20	152.40	28.13	2.00	2.00	3.13	0%	89%	2.00	0.34	2.43	9.40	16.78	61.46	1.421	66.30	118.40	21.91	63.95	114.20	418.19							
Sub-Total										28.00				141.73			28.00	15.59	47.49		209.93	93.84	351.07				783.92	398.24	163.71	731.44	374.78	2428.57

Grand Bayou Summer TMDL calculations and Projection model calculations for Headwater / Tributary loads: Subsegment 120206

GRAND BAYOU (SUBSEGMENT 120206)

Shaded cells are input values for calculations. **MARGIN OF SAFETY (MOS) (%) = 20%**
 Values to be used in the projection models. **If modeling the nitrogen series, be sure that columns "H" & "R" are clear of all values.**

Headwater / Tributary Description and Reach #	Headwater / Tributary Load Determinations																
	FROM CALIBRATION			BACKGROUND VALUES				Percent reduction of Man-Made loads	Reduced Background Loads		Reduced Man-Made Loads		PROJECTION VALUES		Total MOS (kg O ₂ /day)	Total CBOD LA (kg O ₂ /day)	Total NBOD LA (kg O ₂ /day)
	Seasonal Critical flow (cms)	Total UCBOB (mg O ₂ /L)	Total UNBOD (mg O ₂ /L)	Background UCBOB conc. (mg O ₂ /L)	Background UNBOD conc. (mg O ₂ /L)	Background % Reduction	Total reduced Background UCBOB load (kg O ₂ /day)		Reduced Background UNBOD load (kg O ₂ /day)	Reduced UCBOB load (kg O ₂ /day)	Reduced UNBOD load (kg O ₂ /day)	Projection UCBOB input conc. (mg O ₂ /L)	Projection UNBOD input conc. (mg O ₂ /L)				
Grand Bayou	0.00283	10.72	3.67	2.57	5.44	0%	89%	0.63	0.90	0.22	0.00	3.69	3.67	0.05	0.85	0.90	
Bayou Sigur	0.00283	13.41	4.05	2.57	5.44	0%	89%	0.63	0.99	0.29	0.00	4.06	4.05	0.07	0.92	0.99	
Muddy Bayou	0.00283	0.51	0.00	2.57	5.44	0%	89%	0.12	0.00	0.00	0.00	0.51	0.00	0.00	0.12	0.00	
Bayou Crouix (BYC1)	0.00283	6.91	1.45	2.57	5.44	0%	89%	0.63	0.35	0.12	0.00	3.17	1.45	0.03	0.75	0.35	
Bayou Crouix (BYC2)	0.00283	10.31	2.51	2.57	5.44	0%	89%	0.63	0.61	0.21	0.00	3.63	2.51	0.05	0.84	0.61	
Bayou Corne	0.00283	0.29	0.00	2.57	5.44	0%	89%	0.07	0.00	0.00	0.00	0.29	0.00	0.00	0.07	0.00	
Unnamed Canal	0.00283	5.48	1.38	2.57	5.44	0%	89%	0.63	0.34	0.08	0.00	2.97	1.38	0.02	0.71	0.34	
Bayou Alcide	0.00283	5.54	1.23	2.57	5.44	0%	89%	0.63	0.30	0.08	0.00	2.98	1.23	0.02	0.71	0.30	
Little Bayou Long	0.00283	5.77	0.97	2.57	5.44	0%	89%	0.63	0.24	0.09	0.00	3.01	0.97	0.02	0.71	0.24	
SUB-TOTAL TMDL LOADING								4.59	3.73	1.08	0.00			0.27	5.67	3.73	

Grand Bayou Summer TMDL Calculations for Point Source loads: Subsegment 120206

GRAND BAYOU (SUBSEGMENT 120206)

Input data into the shaded cells.

Point Source Loading Calculations																							
Permit	Pt. Source / Facility Description and Reach #	Receiving Stream	Included in the Projection Model (Yes/No)	Anticipated design flow (cms)	Flow with MOS (cms)	Proposed Permit Limits				UCBOD				UNBOD				Sub-Total of Point Source Phosphorus Loads			Sub-Total of Point Source BOD Loads		
						CBOD ₅ (mg/l)	NH ₃ N (mg/l)	PHOSPHORUS (mg/L)	MOS (%)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/MOS Load (kg/day)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/MOS Load (kg/day)	Loads (kg/day)	WLA (kg/day)	Reserve/MOS Load (kg/day)	Loads (kg/day)	WLA (kg/day)	Reserve/MOS (kg/day)
				A	A1 = A/(1-E)	B	C	D	E	F = 2.3 x B	G = (86.4)(A1)(E)	H = (1-E) x G	I = (E)(G)	J = 4.3 x C	K = (86.4)(A1)(J)	L = (1-E) x K	M = (D)(K)	N = 86.4(A1)(D)	O = (1-E) x N	P = E x N	G + K + N	H + L + O	I + M + P
LAG541081	Gator Super Stop	Grand Bayou	Yes	0.00034	0.00043	30.0	15.0		20%	69.00	2.53	2.03	0.51	64.50	2.37	1.89	0.47	0.00	0.00	0.00	4.90	3.92	0.98
LAG531936	Chevron Pipe Line Co - Napoleonville Storage Facility	Grand Bayou	Yes	0.00001	0.00001	45.0	15.0		20%	103.50	0.12	0.10	0.02	64.50	0.07	0.06	0.01	0.00	0.00	0.00	0.19	0.16	0.04
LA0001295	Cora Texas Manufacturing Co	Grand Bayou	No	0.56956	0.71196	10.0	5.0		20%	23.00	1414.80	1131.84	282.96	21.50	1322.53	1058.02	264.51	0.00	0.00	0.00	2737.32	2189.86	547.46
LA0007382	Lula Westfield LLC - Lula Raw Sugar Factory	Grand Bayou	No	0.09201	0.11501	10.0	5.0		20%	23.00	228.55	182.84	45.71	21.50	213.64	170.91	42.73	0.00	0.00	0.00	442.19	353.75	88.44
LA0107212	Texas Eastern Transmission LP - White Castle Compressor Station	Grand Bayou	No	0.00001	0.00001	45.0	15.0		20%	103.50	0.08	0.06	0.02	64.50	0.05	0.04	0.01	0.00	0.00	0.00	0.13	0.10	0.03
LAG480530	Southern Natural Gas Co - White Castle Compressor Station	Grand Bayou	No	0.00001	0.00001	45.0	15.0		20%	103.50	0.07	0.05	0.01	64.50	0.04	0.03	0.01	0.00	0.00	0.00	0.11	0.09	0.02
LAG531262	Gulf South Pipeline Co LP - Rodrigue Compressor Station	Grand Bayou	No	0.00001	0.00001	45.0	15.0		20%	103.50	0.06	0.04	0.01	64.50	0.03	0.03	0.01	0.00	0.00	0.00	0.09	0.07	0.02
LAG531692	Acadian Gas Storage Facility	Grand Bayou	No	0.00000	0.00000	45.0	15.0		20%	103.50	0.03	0.03	0.01	64.50	0.02	0.02	0.00	0.00	0.00	0.00	0.05	0.04	0.01
LAG540036	Bayou Corne Sewer Co Inc - Sportmans Paradise Subdivision	Grand Bayou	No	0.00067	0.00083	30.0	15.0		20%	69.00	4.96	3.97	0.99	64.50	4.64	3.71	0.93	0.00	0.00	0.00	9.60	7.68	1.92
LAG540954	Assumption Parish Police Jury	Grand Bayou	No	0.00063	0.00078	30.0	15.0		20%	69.00	4.67	3.74	0.93	64.50	4.37	3.49	0.87	0.00	0.00	0.00	9.04	7.23	1.81
LAG541191	No Problem Raceway Park LLC	Grand Bayou	No	0.00105	0.00131	30.0	15.0		20%	69.00	7.79	6.23	1.56	64.50	7.28	5.82	1.46	0.00	0.00	0.00	15.07	12.05	3.01
LAG541616	Lowery Elementary School	Grand Bayou	No	0.00039	0.00049	30.0	15.0		20%	69.00	2.94	2.35	0.59	64.50	2.74	2.20	0.55	0.00	0.00	0.00	5.68	4.54	1.14
SUB-TOTAL Loads											1,666.59	1,333.27	333.32		1,557.79	1,246.23	311.56	0.00	0.00	0.00	3,224.38	2,579.50	644.88

(1) - Load(kg/day) = 86.4 x Ultimate Conc.(mg/l) x Modeled Flow(cms)
 (2) - [UCBOD conc. = CBOD5(mg/l) x 2.3] and [UNBOD conc. = NH3N(mg/l) x 4.3]

Appendix E2 – Little Grand Bayou Summer Loading

Little Grand Bayou Summer Projection, Non-Point Benthic Load Input and TMDL Calculations: Subsegment 120206

Modeled water body: **LITTLE GRAND BAYOU (SUBSEGMENT 120206)**

Shaded cells are input values for calculations. **MARGIN OF SAFETY (MOS) (%) = [MOG + MOU] = 20%**

Values to be used in the projection models. Note: Margin of Safety applies only to Man-Made loads, not Background loads.

Reach Number and Description	Calibration Model Values												Reduced Man-Made Loads			Projected Model Loads									
	Total Non-Point UCBOB	Total Non-Point UNBOD	SOD @ 20°C	Total Calb. Benthic Load (TCBL)	Reach Length	Proj. Model Avg. Reach Width	Proj. Temp.	Background Benthic Load	Effective Background Benthic Load	Man-Made Benthic Load	Background percentage reduction	Percentage Reduction of man-made sources	Reduced Background Benthic Load	Reduced Man-Made Benthic Load	Reduced TCBL adjusted for MOS	Reduced Total UCBOB Load	Reduced UNBOD Load	Reduced SOD Load at Projection Temp.	SOD @ 20°C	Total Non-Point UCBOB INPUTS	Non-Point UNBOD INPUTS	Total MOS at Projection Temp.	Non-Point UCBOB LA	Non-Point UNBOD LA	SOD LA at Projection Temp.
	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	Kilo-meters	Meters	(deg Celcius)	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	%	%	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	kg O ₂ /day	kg O ₂ /day	kg O ₂ /day	g O ₂ / [(m ²)(day)]	kg O ₂ /day	kg O ₂ /day	kg O ₂ /day	kg O ₂ /day	kg O ₂ /day	kg O ₂ /day
Reach 1--Grand Bayou-RKM 5.40	5.523	1.657	3.50	10.680	1.22	14.84	28.81	2.00	2.00	8.68	0%	89%	2.00	0.95	3.19	8.94	2.68	9.87	1.047	29.90	8.97	5.37	27.67	8.30	30.53
Reach 2--RKM 5.40-Westfield Canal	4.630	0.926	6.85	12.406	1.62	20.00	28.81	2.00	2.00	10.41	0%	89%	2.00	1.14	3.43	13.84	2.77	35.66	1.894	41.48	8.30	13.07	38.02	7.60	97.98
Reach 3--Westfield Canal-RKM 2.16	4.450	1.891	4.00	10.342	1.62	27.74	28.81	2.00	2.00	8.34	0%	89%	2.00	0.92	3.15	17.75	7.54	27.78	1.217	60.86	25.87	13.27	56.42	23.98	88.32
Reach 4--RKM 2.16-RKM 1.37	13.095	4.365	2.00	19.460	0.79	29.00	28.81	2.00	2.00	17.46	0%	89%	2.00	1.92	4.40	29.61	9.87	7.88	0.452	67.84	22.61	11.84	60.44	20.15	16.08
Reach 5--RKM 1.37-Whitmel Canal	33.189	10.823	0.50	44.512	0.77	45.00	28.81	2.00	2.00	42.51	0%	89%	2.00	4.68	7.85	120.82	39.40	3.17	0.088	202.69	66.10	40.85	172.49	56.25	4.53
Reach 6--Whitmel Canal-Lake Verret	31.499	11.970	0.50	43.968	0.60	66.14	28.81	2.00	2.00	41.97	0%	89%	2.00	4.62	7.77	131.25	49.87	3.63	0.088	220.92	83.95	46.19	188.10	71.48	5.20
Sub-Total									12.00	129.37			12.00	14.23	29.79	322.20	112.13	87.98		623.69	215.79	130.58	543.15	187.76	242.63

Little Grand Bayou Summer TMDL calculations and Projection model calculations for Headwater / Tributary loads: Subsegment 120206

LITTLE GRAND BAYOU (SUBSEGMENT 120206)

Shaded cells are input values for calculations. **MARGIN OF SAFETY (MOS) (%) = 20%**

Values to be used in the projection models. If modeling the nitrogen series, be sure that columns "H" & "R" are clear of all values.

Headwater / Tributary Load Determinations																
Headwater / Tributary Description and Reach #	FROM CALIBRATION BACKGROUND VALUES							Reduced Background Loads				Reduced Man-Made Loads		PROJECTION VALUES		
	Seasonal Critical flow (cms)	Total UCBOB (mg O ₂ /L)	Total UNBOD (mg O ₂ /L)	Background UCBOB conc. (mg O ₂ /L)	Background UNBOD conc. (mg O ₂ /L)	Background % Reduction	Percent reduction of Man-Made loads	Total reduced Background UCBOB load (kg O ₂ /day)	Reduced Background UNBOD load (kg O ₂ /day)	Reduced UCBOB load (kg O ₂ /day)	Reduced UNBOD load (kg O ₂ /day)	Projection UCBOB input conc. (mg O ₂ /L)	Projection UNBOD input conc. (mg O ₂ /L)	Total MOS (kg O ₂ /day)	Total CBOD LA (kg O ₂ /day)	Total NBOD LA (kg O ₂ /day)
Westfield Canal	0.00283	7.94	2.77	2.57	5.44	0%	89%	0.63	0.68	0.14	0.00	3.31	2.77	0.04	0.77	0.68
Whitmel Canal	0.00283	9.37	2.47	2.57	5.44	0%	89%	0.63	0.60	0.18	0.00	3.51	2.47	0.05	0.81	0.60
SUB-TOTAL TMDL LOADING								1.26	1.28	0.33	0.00			0.08	1.58	1.28

Little Grand Bayou Summer TMDL Calculations for Point Source loads: Subsegment 120206

LITTLE GRAND BAYOU (SUBSEGMENT 120206)

Input data into the shaded cells.

Point Source Loading Calculations																							
Permit	Pt. Source / Facility Description and Reach #	Receiving Stream	Included in the Projection Model (Yes/No)	Anticipate d/ design flow (cms)	Flow with MOS (cms)	Proposed Permit Limits				UCBOD				UNBOD				Sub-Total of Point Source Phosphorus Loads			Sub-Total of Point Source BOD Loads		
						CBOD ₅ (mg/l)	NH ₃ N (mg/l)	PHOSPHORUS (mg/L)	MOS (%)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/ MOS Load (kg/day)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/ MOS Load (kg/day)	Loads (kg/day)	WLA (kg/day)	Reserve/ MOS Load (kg/day)	Loads (kg/day)	WLA (kg/day)	Reserve/ MOS (kg/day)
				A	A1 = A/(1-E)	B	C	D	E	F = 2.3 x B	G = (86.4)(A1)(F)	H = (1-E) x G	I = (E)(G)	J = 4.3 x C	K = (86.4)(A1)(J)	L = (1-E) x K	M = (D)(K)	N = 86.4(A1)(D)	O = (1-E) x N	P = E x N	G + K + N	H + L + O	I + M + P
LA0000485	Lula Westfield LLC - Westfield Raw Sugar Factory	Little Grand Bayou	NO	0.19409	0.24261	10.0	5.0		20%	23.0	482	386	96	21.5	451	361	90	0	0	0	933	746	187
LAG541277	Grant Loop Community Sewer System	Little Grand Bayou	NO	0.00075	0.00094	30.0	15.0		20%	69.0	6	4	1	64.5	5	4	1	0	0	0	11	9	2
LAG531143	St Elizabeth School	Little Grand Bayou	NO	0.00018	0.00022	30.0	15.0		20%	69.0	1	1	0	64.5	1	1	0	0	0	0	3	2	1
SUB-TOTAL Loads											489.06	391.25	97.81		457.16	365.73	91.43	0.00	0.00	0.00	946.22	756.98	189.24

(1) - Load(kg/day) = 86.4 x Ultimate Conc.(mg/l) x Modeled Flow(cms)
 (2) - [UCBOD conc. = CBOD5(mg/l) x 2.3] and [UNBOD conc. = NH3N(mg/l) x 4.3]

Appendix E3 – Grand Bayou Winter Loading

Grand Bayou Winter Projection, Non-Point Benthic Load Input and TMDL Calculations: Subsegment 120206

Modeled stream or water body: **GRAND BAYOU (SUBSEGMENT 120206)**

Shaded cells are input values for calculations. **MARGIN OF SAFETY (MOS) (%) = [MOG + MOU] 20%**

Values to be used in the projection models.

Reach Number and Description	Calibration Model Values					Proj. Model Avg. Reach Width	Proj. Temp.	Background Benthic Load	Effective Background Benthic Load	Man-Made Benthic Load	Background percentage reduction	Percentage Reduction of man-made sources	Reduced Background Benthic Load	Reduced Man-Made Benthic Load	Reduced TCBL adjusted for MOS	Reduced Man-Made Loads			Projected Model Loads			SOD LA at Projection Temp.			
	Total Non-Point UCBOB	Total Non-Point UNBOD	SOD @ 20°C	Total Calb. Benthic Load (TCBL)	Reach Length											Reduced Total UCBOB Load	Reduced UNBOD Load	Reduced SOD Load at Projection Temp.	SOD @ 20°C	Total Non-Point UCBOB INPUTS	Non-Point UNBOD INPUTS		Total MOS at Projection Temp.	Non-Point UCBOB LA	Non-Point UNBOD LA
	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	Kilo-meters	Meters	(deg Celcius)	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	%	%	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	g O ₂ / [(m ²)(day)]	kg O ₂ /day	kg O ₂ /day	kg O ₂ /day	g O ₂ / [(m ²)(day)]	kg O ₂ /day	kg O ₂ /day	kg O ₂ /day	kg O ₂ /day	kg O ₂ /day	kg O ₂ /day
Reach 1--Site GRB1-Bayou Sigur	36.460	27.345	4.00	67.805	0.09	12.19	18.50	2.00	2.00	65.80	0%	92%	2.00	5.26	8.58	3.11	2.33	0.31	0.506	5.06	3.80	1.44	4.29	3.21	0.43
Reach 2--Bayou Sigur-Muddy Bayou	11.086	7.021	4.10	22.208	0.82	16.50	18.50	2.00	2.00	20.21	0%	92%	2.00	1.62	4.02	10.92	6.92	3.67	0.742	27.16	17.20	5.38	24.43	15.47	8.22
Reach 3--Muddy Bayou-Bayou Crouix(BYC1)	5.715	2.286	5.15	13.151	2.05	21.34	18.50	2.00	2.00	11.15	0%	92%	2.00	0.89	3.12	16.96	6.78	13.91	1.220	59.22	23.69	9.41	54.98	21.99	45.08
Reach 4--B Crouix(BYC1)-B Crouix(BYC2)	0.000	0.719	4.00	4.719	2.28	16.46	18.50	2.00	2.00	2.72	0%	92%	2.00	0.22	2.27	0.00	1.24	6.30	1.926	0.00	13.00	1.89	0.00	12.69	64.18
Reach 5--B Crouix(BYC2)-km 15.5	4.182	1.374	4.00	9.556	2.79	30.00	18.50	2.00	2.00	7.56	0%	92%	2.00	0.60	2.76	22.14	7.27	19.27	1.153	100.93	33.16	12.17	95.40	31.34	83.03
Reach 6--km 15.5-km 13.0	3.846	1.195	3.65	8.691	2.50	44.20	18.50	2.00	2.00	6.69	0%	92%	2.00	0.54	2.67	26.18	8.13	22.60	1.121	130.52	40.54	14.23	123.98	38.51	107.05
Reach 7--km 13.0-Bayou Corne	3.333	1.111	3.00	7.444	1.57	43.00	18.50	2.00	2.00	5.44	0%	92%	2.00	0.44	2.54	13.16	4.39	10.78	1.025	76.91	25.64	7.08	73.62	24.54	60.29
Reach 8--B Corne-Little Grand Bayou	5.922	2.149	2.00	10.071	2.71	42.06	18.50	2.00	2.00	8.07	0%	92%	2.00	0.65	2.81	43.28	15.71	13.30	0.557	188.14	68.29	18.07	177.32	64.36	54.49
Reach 9--Little Grand-Unnamed Canal	5.126	0.513	2.15	7.789	0.60	48.77	18.50	2.00	2.00	5.79	0%	92%	2.00	0.46	2.58	8.92	0.89	3.40	0.712	49.67	4.97	3.30	47.44	4.74	18.10
Reach 10--Unnamed Canal-E Grand Bayou	0.000	0.000	2.75	2.750	2.92	45.00	18.50	2.00	2.00	0.75	0%	92%	2.00	0.06	2.08	0.00	0.00	7.17	2.075	0.00	0.00	1.79	0.00	0.00	246.29
Reach 11--E Grand Bayou-Bayou Alcide	0.000	0.000	2.50	2.500	2.09	42.95	18.50	2.00	2.00	0.50	0%	92%	2.00	0.04	2.05	0.00	0.00	3.27	2.050	0.00	0.00	0.82	0.00	0.00	166.62
Reach 12--Bayou Alcide-Site GRB8	0.000	0.000	3.00	3.000	1.45	55.00	18.50	2.00	2.00	1.00	0%	92%	2.00	0.08	2.10	0.00	0.00	5.80	2.100	0.00	0.00	1.45	0.00	0.00	150.93
Reach 13--Site GRB8-Little Bayou Long	0.639	1.279	3.00	4.918	0.46	85.00	18.50	2.00	2.00	2.92	0%	92%	2.00	0.23	2.29	1.19	2.37	5.07	1.398	11.65	23.30	2.16	11.35	22.71	48.47
Reach 14--L Bayou Long-Lake Verret	0.766	1.367	3.00	5.133	1.20	152.40	18.50	2.00	2.00	3.13	0%	92%	2.00	0.25	2.31	6.84	12.21	24.37	1.352	63.10	112.68	10.85	61.39	109.62	218.89
Sub-Total									28.00	141.73			28.00	11.34	42.17	152.68	68.24	139.22		712.35	366.25	90.04	674.18	349.19	1272.05

Grand Bayou Winter TMDL calculations and Projection model calculations for Headwater / Tributary loads: Subsegment 120206

GRAND BAYOU (SUBSEGMENT 120206)

Shaded cells are input values for calculations. **MARGIN OF SAFETY (MOS) (%) = 20%**

Values to be used in the projection models. **If modeling the nitrogen series, be sure that columns "H" & "R" are clear of all values.**

Headwater / Tributary Description and Reach #	FROM CALIBRATION							BACKGROUND VALUES				Reduced Background Loads		Reduced Man-Made Loads		PROJECTION VALUES		Total MOS (kg O ₂ /day)	Total CBOD LA (kg O ₂ /day)	Total NBOD LA (kg O ₂ /day)
	Seasonal Critical flow (cms)	Total UCBOB (mg O ₂ /L)	Total UNBOD (mg O ₂ /L)	Background UCBOB conc. (mg O ₂ /L)	Background UNBOD conc. (mg O ₂ /L)	Background % Reduction	Percent reduction of Man-Made loads	Total reduced Background UCBOB load (kg O ₂ /day)	Reduced Background UNBOD load (kg O ₂ /day)	Reduced UCBOB load (kg O ₂ /day)	Reduced UNBOD load (kg O ₂ /day)	Projection UCBOB input conc. (mg O ₂ /L)	Projection UNBOD input conc. (mg O ₂ /L)							
Grand Bayou	0.02830	10.72	3.67	2.57	5.44	0%	92%	6.28	8.96	1.59	0.00	3.39	3.67	0.40	7.88	8.96				
Bayou Sigur	0.02830	13.41	4.05	2.57	5.44	0%	92%	6.28	9.91	2.12	0.00	3.65	4.05	0.53	8.40	9.91				
Muddy Bayou	0.02830	0.51	0.00	2.57	5.44	0%	92%	1.24	0.00	0.00	0.00	0.51	0.00	0.00	1.24	0.00				
Bayou Crouix (BYC1)	0.02830	6.91	1.45	2.57	5.44	0%	92%	6.28	3.53	0.85	0.00	3.00	1.45	0.21	7.13	3.53				
Bayou Crouix (BYC2)	0.02830	10.31	2.51	2.57	5.44	0%	92%	6.28	6.15	1.51	0.00	3.34	2.51	0.38	7.80	6.15				
Bayou Corne	0.02830	0.29	0.00	2.57	5.44	0%	92%	0.70	0.00	0.00	0.00	0.29	0.00	0.00	0.70	0.00				
Unnamed Canal	0.02830	5.48	1.38	2.57	5.44	0%	92%	6.28	3.37	0.57	0.00	2.86	1.38	0.14	6.85	3.37				
Bayou Alcide	0.02830	5.54	1.23	2.57	5.44	0%	92%	6.28	3.00	0.58	0.00	2.87	1.23	0.15	6.86	3.00				
Little Bayou Long	0.02830	5.77	0.97	2.57	5.44	0%	92%	6.28	2.36	0.63	0.00	2.89	0.97	0.16	6.91	2.36				
SUB-TOTAL TMDL LOADING								45.93	37.28	7.85	0.00			1.96	53.79	37.28				

Grand Bayou Winter TMDL Calculations for Point Source loads: Subsegment 120206

GRAND BAYOU (SUBSEGMENT 120206)

Input data into the shaded cells.

Point Source Loading Calculations																							
Permit	Pt. Source / Facility Description and Reach #	Receiving Stream	Included in the Projection Model (Yes/No)	Anticipate d/ design flow (cms)	Flow with MOS (cms)	Proposed Permit Limits				UCBOD				UNBOD				Sub-Total of Point Source Phosphorus Loads			Sub-Total of Point Source BOD Loads		
						CBOD ₅ (mg/l)	NH ₃ N (mg/l)	PHOSPHORUS (mg/L)	MOS (%)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/ MOS Load (kg/day)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/ MOS Load (kg/day)	Loads (kg/day)	WLA (kg/day)	Reserve/ MOS Load (kg/day)	Loads (kg/day)	WLA (kg/day)	Reserve/ MOS (kg/day)
				A	A1 = A/(1-E)	B	C	D	E	F = 2.3 x B	G = (86.4)(A1)(E)	H = (1-E) x G	I = (E)(G)	J = 4.3 x C	K = (86.4)(A1)(J)	L = (1-E) x K	M = (D)(K)	N = 86.4(A1)(D)	O = (1-E) x N	P = E x N	G + K + N	H + L + O	I + M + P
LAG541081	Gator Super Stop	Grand Bayou	Yes	0.00034	0.00043	30.0	15.0		20%	69.00	2.53	2.03	0.51	64.50	2.37	1.89	0.47	0.00	0.00	0.00	4.90	3.92	0.98
LAG531936	Chevron Pipe Line Co - Napoleonville Storage Facility	Grand Bayou	Yes	0.00001	0.00001	45.0	15.0		20%	103.50	0.12	0.10	0.02	64.50	0.07	0.06	0.01	0.00	0.00	0.00	0.19	0.16	0.04
LA0001295	Cora Texas Manufacturing Co	Grand Bayou	No	0.56956	0.71196	10.0	5.0		20%	23.00	1414.80	1131.84	282.96	21.50	1322.53	1058.02	264.51	0.00	0.00	0.00	2737.32	2189.86	547.46
LA0007382	Lula Westfield LLC - Lula Raw Sugar Factory	Grand Bayou	No	0.09201	0.11501	10.0	5.0		20%	23.00	228.55	182.84	45.71	21.50	213.64	170.91	42.73	0.00	0.00	0.00	442.19	353.75	88.44
LA0107212	Texas Eastern Transmission LP - White Castle Compressor Station	Grand Bayou	No	0.00001	0.00001	45.0	15.0		20%	103.50	0.08	0.06	0.02	64.50	0.05	0.04	0.01	0.00	0.00	0.00	0.13	0.10	0.03
LAG480530	Southern Natural Gas Co - White Castle Compressor Station	Grand Bayou	No	0.00001	0.00001	45.0	15.0		20%	103.50	0.07	0.05	0.01	64.50	0.04	0.03	0.01	0.00	0.00	0.00	0.11	0.09	0.02
LAG531262	Gulf South Pipeline Co LP - Rodrigue Compressor Station	Grand Bayou	No	0.00001	0.00001	45.0	15.0		20%	103.50	0.06	0.04	0.01	64.50	0.03	0.03	0.01	0.00	0.00	0.00	0.09	0.07	0.02
LAG531692	Acadian Gas Storage Facility	Grand Bayou	No	0.00000	0.00000	45.0	15.0		20%	103.50	0.03	0.03	0.01	64.50	0.02	0.02	0.00	0.00	0.00	0.00	0.05	0.04	0.01
LAG540036	Bayou Corne Sewer Co Inc - Sportmans Paradise Subdivision	Grand Bayou	No	0.00067	0.00083	30.0	15.0		20%	69.00	4.96	3.97	0.99	64.50	4.64	3.71	0.93	0.00	0.00	0.00	9.60	7.68	1.92
LAG540954	Assumption Parish Police Jury	Grand Bayou	No	0.00063	0.00078	30.0	15.0		20%	69.00	4.67	3.74	0.93	64.50	4.37	3.49	0.87	0.00	0.00	0.00	9.04	7.23	1.81
LAG541191	No Problem Raceway Park LLC	Grand Bayou	No	0.00105	0.00131	30.0	15.0		20%	69.00	7.79	6.23	1.56	64.50	7.28	5.82	1.46	0.00	0.00	0.00	15.07	12.05	3.01
LAG541616	Lowery Elementary School	Grand Bayou	No	0.00039	0.00049	30.0	15.0		20%	69.00	2.94	2.35	0.59	64.50	2.74	2.20	0.55	0.00	0.00	0.00	5.68	4.54	1.14
SUB-TOTAL Loads										1,666.59	1,333.27	333.32		1,557.79	1,246.23	311.56	0.00	0.00	0.00	3,224.38	2,579.50	644.88	

(1) - Load(kg/day) = 86.4 x Ultimate Conc.(mg/l) x Modeled Flow(cms)
 (2) - [UCBOD conc. = CBOD₅(mg/l) x 2.3] and [UNBOD conc. = NH₃N(mg/l) x 4.3]

Appendix E4 – Little Grand Bayou Winter Loading

Little Grand Bayou Winter Projection, Non-Point Benthic Load Input and TMDL Calculations: Subsegment 120206

Modeled water body: **LITTLE GRAND BAYOU (SUBSEGMENT 120206)**

Shaded cells are input values for calculations. **MARGIN OF SAFETY (MOS) (%) = [MOG + MOU] = 20%**

Values to be used in the projection models.

Reach Number and Description	Calibration Model Values					Proj. Model Avg. Reach Width	Proj. Temp.	Background Benthic Load	Effective Background Benthic Load	Man-Made Benthic Load	Background percentage reduction	Percentage Reduction of man-made sources	Reduced Man-Made Loads			Projected Model Loads			Total MOS at Projection Temp.	Non-Point UCBLA	Non-Point UNBOD LA	SOD LA at Projection Temp.			
	Total Non-Point UCBLD	Total Non-Point UNBOD	SOD @ 20°C	Total Calb. Benthic Load (TCBL)	Reach Length								Reduced Total UCBLD Load	Reduced UNBOD Load	Reduced SOD Load at Projection Temp.	SOD @ 20°C	Total Non-Point UCBLD INPUTS	Non-Point UNBOD INPUTS							
	g O ₂ / [(m ³)(day)]	g O ₂ / [(m ³)(day)]	g O ₂ / [(m ³)(day)]	g O ₂ / [(m ³)(day)]	Kilo-meters								kg O ₂ /day	kg O ₂ /day	kg O ₂ /day	g O ₂ / [(m ³)(day)]	kg O ₂ /day	kg O ₂ /day							
Reach 1--Grand Bayou-RKM 5.40	5.523	1.657	3.50	10.680	1.22	14.84	19.55	2.00	2.00	8.68	0%	92%	2.00	0.69	2.87	6.50	1.95	4.00	0.940	26.85	8.06	3.11	25.23	7.57	15.54
Reach 2--RKM 5.40-Westfield Canal	4.630	0.926	6.85	12.406	1.62	20.00	19.55	2.00	2.00	10.41	0%	92%	2.00	0.83	3.04	10.07	2.01	14.48	1.679	36.76	7.35	6.64	34.25	6.85	49.26
Reach 3--Westfield Canal-RKM 2.16	4.450	1.891	4.00	10.342	1.62	27.74	19.55	2.00	2.00	8.34	0%	92%	2.00	0.67	2.83	12.91	5.48	11.28	1.096	54.81	23.29	7.42	51.58	21.92	45.07
Reach 4--RKM 2.16-RKM 1.37	13.095	4.365	2.00	19.460	0.79	29.00	19.55	2.00	2.00	17.46	0%	92%	2.00	1.40	3.75	21.53	7.18	3.20	0.385	57.75	19.25	7.98	52.37	17.46	7.77
Reach 5--RKM 1.37-Whitmel Canal	33.189	10.823	0.50	44.512	0.77	45.00	19.55	2.00	2.00	42.51	0%	92%	2.00	3.40	6.25	87.87	28.65	1.29	0.070	161.50	52.66	29.45	139.54	45.50	2.04
Reach 6--Whitmel Canal-Lake Verret	31.499	11.970	0.50	43.968	0.60	66.14	19.55	2.00	2.00	41.97	0%	92%	2.00	3.36	6.20	95.45	36.27	1.47	0.070	176.17	66.95	33.30	152.31	57.88	2.35
Sub-Total									12.00	129.37			12.00	10.35	24.94	234.32	81.55	35.71		513.86	177.56	87.90	455.27	157.18	122.03

Little Grand Bayou Winter TMDL calculations and Projection model calculations for Headwater / Tributary loads: Subsegment 120206

LITTLE GRAND BAYOU (SUBSEGMENT 120206)

Shaded cells are input values for calculations. **MARGIN OF SAFETY (MOS) (%) = 20%**

Values to be used in the projection models. **If modeling the nitrogen series, be sure that columns "H" & "R" are clear of all values**

Headwater / Tributary Load Determinations																	
Headwater / Tributary Description and Reach #	FROM CALIBRATION			BACKGROUND VALUES				Percent reduction of Man-Made loads	Reduced Background Loads		Reduced Man-Made Loads		PROJECTION VALUES		Total MOS (kg O ₂ /day)	Total CBOD LA (kg O ₂ /day)	Total NBOD LA (kg O ₂ /day)
	Seasonal Critical flow (cms)	Total UCBLD (mg O ₂ /L)	Total UNBOD (mg O ₂ /L)	Background UCBLD conc. (mg O ₂ /L)	Background UNBOD conc. (mg O ₂ /L)	Background % Reduction	Total reduced Background UCBLD load (kg O ₂ /day)		Reduced Background UNBOD load (kg O ₂ /day)	Reduced UCBLD load (kg O ₂ /day)	Reduced UNBOD load (kg O ₂ /day)	Projection UCBLD input conc. (mg O ₂ /L)	Projection UNBOD input conc. (mg O ₂ /L)				
Westfield Canal	0.02830	7.94	2.77	2.57	5.44	0%	92%	6.28	6.77	1.05	0.00	3.11	2.77	0.26	7.33	6.77	
Whitmel Canal	0.02830	9.37	2.47	2.57	5.44	0%	92%	6.28	6.04	1.33	0.00	3.25	2.47	0.33	7.61	6.04	
SUB-TOTAL TMDL LOADING								12.57	12.81	2.38	0.00			0.60	14.95	12.81	

Little Grand Bayou Winter TMDL Calculations for Point Source loads: Subsegment 120206

LITTLE GRAND BAYOU (SUBSEGMENT 120206)

Input data into the shaded cells.

Point Source Loading Calculations																							
Permit	Pt. Source / Facility Description and Reach #	Receiving Stream	Included in the Projection Model (Yes/No)	Anticipated/design flow (cms)	Flow with MOS (cms)	Proposed Permit Limits				UCBOD				UNBOD				Sub-Total of Point Source Phosphorus Loads			Sub-Total of Point Source BOD Loads		
						CBOD ₅ (mg/l)	NH ₃ N (mg/l)	PHOSPHORUS (mg/L)	MOS (%)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/MOS Load (kg/day)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/MOS Load (kg/day)	Loads (kg/day)	WLA (kg/day)	Reserve/MOS Load (kg/day)	Loads (kg/day)	WLA (kg/day)	Reserve/MOS (kg/day)
				A	A1 = A/(1-E)	B	C	D	E	F = 2.3 x B	G = (86.4)(A1)(F)	H = (1-E) x G	I = (E)(G)	J = 4.3 x C	K = (86.4)(A1)(J)	L = (1-E) x K	M = (D)(K)	N = 86.4(A1)(D)	O = (1-E) x N	P = E x N	G + K + N	H + L + O	I + M + P
LA0000485	Lula Westfield LLC - Westfield Raw Sugar Factory	Little Grand Bayou	NO	0.19409	0.24261	10.0	5.0		20%	23.0	482	386	96	21.5	451	361	90	0	0	0	933	746	187
LAG541277	Grant Loop Community Sewer System	Little Grand Bayou	NO	0.00075	0.00094	30.0	15.0		20%	69.0	6	4	1	64.5	5	4	1	0	0	0	11	9	2
LAG531143	St Elizabeth School	Little Grand Bayou	NO	0.00018	0.00022	30.0	15.0		20%	69.0	1	1	0	64.5	1	1	0	0	0	0	3	2	1
SUB-TOTAL Loads											489.06	391.25	97.81		457.16	365.73	91.43	0.00	0.00	0.00	946.22	756.98	189.24

(1) - Load(kg/day) = 86.4 x Ultimate Conc.(mg/l) x Modeled Flow(cms)
 (2) - [UCBOD conc. = CBOD5(mg/l) x 2.3] and [UNBOD conc. = NH3N(mg/l) x 4.3]

Appendix F – Survey Data Measurements and Analysis Results

Appendix F1 – Water Quality Data

Grand Bayou and Little Grand Bayou (Subsegment 120206) Insitu Report										
SITE ID NUMBER	Date	Time	DEPTH, m	TEMPERATURE, deg C	DISSOLVED OXYGEN CONCENTRATION, mg/L	DISSOLVED OXYGEN PERCENT SATURATION	pH, Standard Units	SPECIFIC CONDUCTANCE, umhos/cm	SECCHI DISK DEPTH, inches	SALINITY, ug/L
GRB1	23-Jun-04	11:10:00 AM	1	27.00	3.60	45.9	8.14	300.8	12	0.15
BYS1	23-Jun-04	10:45:00 AM	1	28.42	2.45	31.5	7.96	345.0	24	0.17
MB1	23-Jun-04	8:20:00 AM	1	27.10	2.20	27.7	7.40	171.4	24	0.08
GRB2	23-Jun-04	9:40:00 AM	1	27.55	2.45	30.7	7.64	208.0	9	0.10
BYC1	23-Jun-04	1:05:00 PM	1	28.18	2.48	31.8	7.32	250.2		0.12
GRB3	23-Jun-04	9:40:00 AM	1	27.88	2.63	33.6	7.28	210.3	18	0.10
BYC2	23-Jun-04	12:40:00 PM	1	28.60	2.75	35.4	7.27	296.8		0.14
PST1	23-Jun-04	8:10:00 AM	0.15	27.17	2.11	26.3	7.29	234.1		0.11
GRB4	23-Jun-04	12:10:00 PM	1	27.54	1.98	25.5	7.00	195.8	12	0.09
BYCO1	23-Jun-04	12:47:00 PM	1	26.99	2.54	31.2	6.85	143.3	48	0.06
GRB5	23-Jun-04	11:40:00 AM	1	27.36	2.56	32.2	6.89	154.5		0.07
LGBY1	23-Jun-04	10:55:00 AM	0.3	27.95	2.92	36.9	6.94	167.2		0.07
GRB6	23-Jun-04	10:00:00 AM	1	27.68	2.42	30.7	6.92	166.5	30	0.07
UNC2	23-Jun-04	9:30:00 AM	0.5	27.93	3.47	44.2	7.03	166.8		0.07
EGB1	23-Jun-04	12:30:00 PM	1	28.29	3.16	40.6	6.98	170.7	24	0.08
GRB7	23-Jun-04	11:45:00 AM	1	28.50	3.58	46.1	6.94	171.8	30	0.08
BA1	23-Jun-04	11:15:00 AM	1	27.72	2.49	31.7	6.96	164.9	42	0.07
GRB8	23-Jun-04	10:25:00 AM	1	28.74	3.43	44.5	6.85	169.7	30	0.08
LBL1	23-Jun-04	10:00:00 AM	1	28.27	1.86	23.8	6.94	153.6	48	0.07
GRB9	23-Jun-04	9:20:00 AM	1	28.63	3.27	42.4	6.91	166.9	24	0.07
LV1	23-Jun-04	8:15:00 AM	1	28.49	2.50	32.3	6.89	199.4	18	0.09
LGBY2	23-Jun-04	9:15:00 AM	0.5	26.58	0.60	7.5	6.77	166.8	36	0.07
WC1	23-Jun-04	9:45:00 AM	0.5	26.62	1.84	26.5	6.79	163.3		0.07
LGBY3	23-Jun-04	10:10:00 AM	1	27.46	1.77	22.4	6.83	174.5		0.08
LGBY4	23-Jun-04	10:30:00 AM	0.5	27.50	2.22	27.9	6.93	170.0	36	0.08
WCL1	23-Jun-04	12:10:00 PM	1	28.73	2.90	37.0	7.04	162.6		0.07
LGBY5	23-Jun-04	11:30:00 AM	1	28.25	2.63	33.2	6.98	163.8		0.07
LV2	23-Jun-04	11:10:00 AM	1	30.10	7.70	99.0	8.78	166.6	15	0.07

Grand Bayou/Little Grand Subsegment 120206 WQ Lab Report																
SITE ID NUMBER	Date	Time	Chloride, mg/L	Sulfate, mg/L	Hardness, mg/L	Alkalinity	Specific Conductance, mg/L	Sodium, mg/L	TOC, mg/L	TP, mg/L	TDS, mg/L	TSS, mg/L	Ammonia-Nitrogen, mg/L	Nitrate+Nitrite Nitrogen, mg/L	TKN, mg/L	Chl A, mg/L
GRB1	23-Jun-04	11:10:00 AM	13.6	3.9	131.0	133.0	299		9.4	0.73	192	30	0.23	0.13	1.58	64.6
BYS1	23-Jun-04	10:45:00 AM	15.0	4.5	143.0	154.0	342		8.9	0.82	216	37	0.17	ND	1.37	78.1
MB1	23-Jun-04	8:20:00 AM	16.9	1.6	65.9	65.0	181		10.2	0.21	121	8	ND	ND	0.51	
GRB2	23-Jun-04	9:40:00 AM	16.5	2.2	90.2	83.9	212		10.8	0.47	133	25	0.15	ND	2.06	
BYC1	23-Jun-04	1:05:00 PM	8.4	2.7	117.0	116.0	250		7.1	0.39	155	5	ND	ND	0.78	
GRB3	23-Jun-04	9:40:00 AM	14.2	2.4	90.6	85.5	215		10.8	0.58	157	38	0.24	ND	1.37	47.4
BYC2	23-Jun-04	12:40:00 PM	17.4	2.7	122.0	129.0	296		9.4	0.68	187	7	0.25	ND	0.93	
PST1	23-Jun-04	8:10:00 AM	13.8	4.2	99.8	95.2	237		10.2	0.76	152	14	0.13	ND	1	
GRB4	23-Jun-04	12:10:00 PM	14.5	2.5	89.6	86.0	216		10.6	0.61	147	19	0.23	0.07	2.36	31.8
BYCO1	23-Jun-04	12:47:00 PM	10.2	3.0	63.9	63.2	164		8.9	0.22	107	ND	ND	0.07	0.2	6.6
GRB5	23-Jun-04	11:40:00 AM	10.9	2.8	67.4	67.1	171		9.8	0.31	111	6	0.12	0.07	0.83	
LGBY1	23-Jun-04	10:55:00 AM	11.7	2.8	74.5	74.3	186		10.1	0.38	123	8.5	0.14	0.07	0.79	
GRB6	23-Jun-04	10:00:00 AM	11.8	2.6	75.3	75.0	187		10.3	0.41	119	9	0.18	0.08	0.89	19.7
UNC2	23-Jun-04	9:30:00 AM	10.1	7.2	78.3	74.3	193		8.5	0.22	124	5	ND	0.06	0.56	
EGB1	23-Jun-04	12:30:00 PM	10.9	3.9	74.1	73.5	185		9.6	0.35	117	5	ND	0.06	0.92	
GRB7	23-Jun-04	11:45:00 AM	10.7	3.6	76.8	75.4	188		9.1	0.33	120	9.5	ND	ND	0.73	16.9
BA1	23-Jun-04	11:15:00 AM	8.8	5.2	75.1	73.3	183		8.5	0.25	167	ND	ND	0.05	0.5	23.8
GRB8	23-Jun-04	10:25:00 AM	10.0	3.6	75.7	75.6	187		9.2	0.34	120	8	ND	ND	0.81	
LBL1	23-Jun-04	10:00:00 AM	9.0	2.7	68.5	69.4	171		9.2	0.27	129	ND	ND	ND	0.53	
GRB9	23-Jun-04	9:20:00 AM	9.6	4.0	76.1	75.0	184		9.2	0.34	118	8	ND	ND	0.73	24.1
LV1	23-Jun-04	8:15:00 AM	9.3	11.4	94.1	84.5	218		7.5	0.26	142	18.5	0.12	0.43	0.76	
LGBY2	23-Jun-04	9:15:00 AM	10.5	1.9	67.0	68.1	173		10.4	0.84	113	ND	0.23	ND	0.82	15
WC1	23-Jun-04	9:45:00 AM	10.5	3.1	66.4	65.9	174		8.6	0.91	127		ND	0.09	0.71	
LGBY3	23-Jun-04	10:10:00 AM	11.0	2.2	68.2	69.8	181		9.8	0.98	127	5	0.13	0.06	1	
LGBY4	23-Jun-04	10:30:00 AM	10.3	2.3	67.8	68.1	175		10.0	0.80	121	4	0.11	0.08	1.12	14.8
WCL1	23-Jun-04	12:10:00 PM	8.8	3.6	67.9	68.1	172		8.3	0.33	106	15	ND	0.05	0.9	
LGBY5	23-Jun-04	11:30:00 AM	9.2	3.3	68.6	67.8	171		8.5	0.52	111	7	ND	0.07	0.97	
LV2	23-Jun-04	11:10:00 AM	8.9	4.9	72.0	NR	NR		8.1	0.34	113	26	ND	ND	1.37	130

Chart of Interpolations

Site	River Kilometer	Salinity	Chlorides	Conductivity	Temp	DO	Chlorophyll A	BOD	BOD Decay	NBOD	NBOD Decay
GRB1	23.530	0.15	13.60	300.80	27.00	3.60	64.60	10.722	0.084	3.666	0.115
GRB2	21.340	0.10	16.50	208.00	27.55	2.45		10.158	0.073	2.487	0.104
GRB3	18.880	0.09	14.20	198.94	27.97	2.84	47.40	8.790	0.065	2.501	0.097
GRB4	13.980	0.10	14.50	220.01	27.99	2.60	31.80	10.443	0.079	2.633	0.104
GRB5	11.140	0.07	10.90	154.50	27.36	2.56		5.614	0.061	1.165	0.129
GRB6	8.420	0.07	11.80	166.50	27.94	3.33	19.70	6.297	0.052	1.324	0.091
GRB7	4.220	0.08	10.70	171.80	28.28	3.60	16.90	5.784	0.057	1.035	0.098
GRB8	1.660	0.08	10.00	169.70	28.74	3.43		5.685	0.054	0.975	0.089
GRB9	0.220	0.07	9.60	159.56	28.66	3.35	24.10	6.534	0.063	1.239	0.100
Reach 1	23.485	0.15	13.66	298.89	27.01	3.58	64.43	10.710	0.084	3.642	0.115
Reach 2	23.030	0.14	18.08	214.22	27.26	2.18	62.75	10.593	0.081	3.397	0.112
Reach 3	21.595	0.11	16.16	218.81	27.49	2.58	57.44	10.224	0.074	2.624	0.105
Reach 4	19.430	0.09	14.71	200.97	27.88	2.75	49.43	9.096	0.067	2.498	0.099
Reach 5	16.895	0.09	14.32	207.48	27.98	2.74	41.08	9.460	0.071	2.554	0.100
Reach 6	14.250	0.10	14.48	218.85	27.99	2.61	32.66	10.352	0.078	2.626	0.104
Reach 7	12.215	0.08	12.26	179.30	27.60	2.58	27.96	7.442	0.068	1.721	0.120
Reach 8	10.075	0.07	11.25	159.20	27.59	2.86	23.30	3.803	0.054	0.615	0.138
Reach 9	8.420	0.07	11.80	166.50	27.94	3.33	19.70	6.297	0.052	1.324	0.091
Reach 10	6.660	0.07	11.34	168.72	28.08	3.44	18.53	6.082	0.054	1.203	0.094
Reach 11	4.155	0.08	10.68	171.75	28.29	3.60	17.02	5.776	0.057	1.031	0.098
Reach 12	2.385	0.08	10.20	170.29	28.61	3.48	20.20	5.713	0.055	0.992	0.092
Reach 13	1.430	0.08	9.94	168.08	28.73	3.42	21.92	5.821	0.055	1.017	0.091
Reach 14	0.600	0.07	9.71	162.24	28.68	3.37	23.42	6.310	0.061	1.169	0.097

Site	River Kilometer	Salinity	Chlorides	Conductivity	Temp	DO	Chlorophyll A	BOD	BOD Decay	NBOD	NBOD Decay
LGBY1	6.50	0.07	11.70	186.00	27.95	2.92		6.815	0.067	1.455	0.104
LGBY2	4.28	0.07	10.50	173.00	26.40	0.07	15.00	6.851	0.054	1.354	0.137
LGBY3	2.44	0.08	11.00	181.00	27.46	1.77		6.352	0.060	1.527	0.115
LGBY4	1.33	0.07	10.30	175.00	27.60	2.59	14.80	6.007	0.055	1.471	0.094
LGBY5	0.18	0.07	9.20	171.00	28.84	3.55		8.663	0.085	2.416	0.109
Reach 1	6.01	0.07	11.44	183.13	27.61	2.29	15.12	6.823	0.064	1.433	0.111
Reach 2	4.59	0.07	10.67	174.82	26.62	0.47	15.02	6.846	0.056	1.368	0.132
Reach 3	2.97	0.08	10.86	178.70	27.15	1.28	14.91	6.496	0.058	1.477	0.121
Reach 4	1.77	0.07	10.57	177.35	27.55	2.27	14.83	6.142	0.057	1.493	0.102
Reach 5	0.99	0.07	9.97	173.80	27.97	2.88	14.78	6.804	0.064	1.755	0.099
Reach 6	0.30	0.07	9.31	171.42	28.71	3.45	14.73	8.386	0.082	2.317	0.107

Site Number	Lab ID	Lab Sample Type	Analysis Name	Result	Units	MDL	Analysis Set Up	Analysis Read Date	Date Nitrates Sampled
GRB1	AG15629	TRG	TSS	30.0	ppm	4.00	6/24/2004	6/28/2004	
GRB1	AG15629	TRG	TDS	192	ppm	10.00	6/24/2004	6/25/2004	
GRB1	AG15629	TRG	Alkalinity	133	ppm	2.0	6/28/2004	6/28/2004	
GRB1	AG15629	TRG	Turbidity	31	NTU	1.00	6/24/2004	6/24/2004	
GRB1	AG15629	TRG	Specific Conductance	299	umhos/cm	10.0	6/28/2004	6/28/2004	
GRB1	AG15629	TRG	True Color	30	PCU	5.00	6/24/2004	6/24/2004	
GRB1	AG15629	TRG	Chloride, Ion Chromatograph	13.6	ppm	1.3	6/28/2004	6/28/2004	
GRB1	AG15629	TRG	Sulfate	3.9	ppm	1.3	6/28/2004	6/28/2004	
GRB1	AG15630	TRG	Hardness	131	ppm	5.0	7/2/2004	7/2/2004	
GRB1	AG15630	TRG	Nitrate+Nitrite Nitrogen	0.13	ppm	0.05	7/2/2004	7/2/2004	
GRB1	AG15630	TRG	TP	0.73	ppm	0.05	6/29/2004	6/29/2004	
GRB1	AG15630	TRG	TKN	1.58	ppm	0.10	6/29/2004	6/29/2004	
GRB1	AG15630	TRG	Ammonia-Nitrogen	0.23	ppm	0.10	6/30/2004	6/30/2004	
GRB1	AG15631	TRG	TOC	9.4	ppm	2.00	7/7/2004	7/8/2004	
GRB1	AG15632	TRG	pH, Ultimate BOD survey	8.5	pH units	0.01	8/23/2004	8/23/2004	
GRB1	AG15632	TRG	TOC (60 Day BOD)	11.3	ppm	2.0	9/10/2004	9/11/2004	
GRB1	AG15632	TRG	TKN (60 Day BOD)	0.43	ppm	0.1	9/14/2004	9/14/2004	
GRB1	AG15632	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
GRB1	AG15632	TRG	NO2NO3 - Reading 1	0.05	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
GRB1	AG15632	TRG	NO2NO3 - Reading 2	0.06	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
GRB1	AG15632	TRG	NO2NO3 - Reading 3	0.16	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
GRB1	AG15632	TRG	NO2NO3 - Reading 4	0.38	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
GRB1	AG15632	TRG	NO2NO3 - Reading 5	0.50	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
GRB1	AG15632	TRG	NO2NO3 - Reading 6	0.59	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
GRB1	AG15632	TRG	NO2NO3 - Reading 7	0.65	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
GRB1	AG15632	TRG	NO2NO3 - Reading 8	0.72	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
GRB1	AG15632	TRG	NO2NO3 - Reading 9	0.78	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
GRB1	AG15632	TRG	NO2NO3 - Reading 10	0.89	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
GRB1	AG15632	TRG	NO2NO3 - Final	0.76	ppm	0.05	9/14/2004	9/14/2004	8/23/2004

GRB1	AG15632	TRG	Non-Filtered BOD 60 - Reading 1	1.3	ppm	2.0	6/24/2004	6/25/2004	
GRB1	AG15632	TRG	Non-Filtered BOD 60 - Reading 2	4.0	ppm	2.0	6/24/2004	6/28/2004	
GRB1	AG15632	TRG	Non-Filtered BOD 60 - Reading 3	5.4	ppm	2.0	6/24/2004	6/30/2004	
GRB1	AG15632	TRG	Non-Filtered BOD 60 - Reading 4	7.3	ppm	2.0	6/24/2004	7/2/2004	
GRB1	AG15632	TRG	Non-Filtered BOD 60 - Reading 5	8.9	ppm	2.0	6/24/2004	7/5/2004	
GRB1	AG15632	TRG	Non-Filtered BOD 60 - Reading 6	10.0	ppm	2.0	6/24/2004	7/9/2004	
GRB1	AG15632	TRG	Non-Filtered BOD 60 - Reading 7	11.0	ppm	2.0	6/24/2004	7/14/2004	
GRB1	AG15632	TRG	Non-Filtered BOD 60 - Reading 8	12.5	ppm	2.0	6/24/2004	7/23/2004	
GRB1	AG15632	TRG	Non-Filtered BOD 60 - Reading 9	13.7	ppm	2.0	6/24/2004	8/3/2004	
GRB1	AG15632	TRG	Non-Filtered BOD 60 - Reading 10	14.5	ppm	2.0	6/24/2004	8/13/2004	
GRB1	AG15632	TRG	Non-Filtered BOD 60 - Final	15.2	ppm	2.0	6/24/2004	8/23/2004	
GRB1	AG15633	TRG	Volume of sample, Chlorophyll A (raw)	250	ml	0.0	7/8/2004	7/8/2004	
GRB1	AG15633	TRG	Chlorophyll A (calculated)	64.6	ug/L	0.0	7/8/2004	7/9/2004	
GRB1	AG15633	TRG	Chlorophyll A (raw)	1616	ug/L	0.0	7/8/2004	7/9/2004	
GRB2	AG15634	TRG	TSS	25.0	ppm	4.00	6/24/2004	6/28/2004	
GRB2	AG15634	TRG	TDS	133	ppm	10.00	6/24/2004	6/25/2004	
GRB2	AG15634	TRG	Alkalinity	83.9	ppm	2.0	6/28/2004	6/28/2004	
GRB2	AG15634	TRG	Turbidity	75	NTU	1.00	6/24/2004	6/24/2004	
GRB2	AG15634	TRG	Specific Conductance	212	umhos/cm	10.0	6/28/2004	6/28/2004	
GRB2	AG15634	TRG	True Color	50	PCU	5.00	6/24/2004	6/24/2004	
GRB2	AG15634	TRG	Chloride, Ion Chromatograph	16.5	ppm	1.3	6/28/2004	6/28/2004	
GRB2	AG15634	TRG	Sulfate	2.2	ppm	1.3	6/28/2004	6/28/2004	
GRB2	AG15635	TRG	Hardness	90.2	ppm	5.0	7/2/2004	7/2/2004	
GRB2	AG15635	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	0.05	7/2/2004	7/2/2004	
GRB2	AG15635	TRG	TP	0.47	ppm	0.05	6/29/2004	6/29/2004	
GRB2	AG15635	TRG	TKN	2.06	ppm	0.10	6/29/2004	6/29/2004	
GRB2	AG15635	TRG	Ammonia-Nitrogen	0.15	ppm	0.10	6/30/2004	6/30/2004	
GRB2	AG15636	TRG	TOC	10.8	ppm	2.00	7/7/2004	7/8/2004	
GRB2	AG15637	TRG	pH, Ultimate BOD survey	8.0	pH units	0.01	8/23/2004	8/23/2004	
GRB2	AG15637	TRG	TOC (60 Day BOD)	11.5	ppm	2.0	9/10/2004	9/11/2004	
GRB2	AG15637	TRG	TKN (60 Day BOD)	0.58	ppm	0.1	9/14/2004	9/14/2004	
GRB2	AG15637	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
GRB2	AG15637	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004

GRB2	AG15637	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
GRB2	AG15637	TRG	NO2NO3 - Reading 3	0.08	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
GRB2	AG15637	TRG	NO2NO3 - Reading 4	0.21	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
GRB2	AG15637	TRG	NO2NO3 - Reading 5	0.29	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
GRB2	AG15637	TRG	NO2NO3 - Reading 6	0.36	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
GRB2	AG15637	TRG	NO2NO3 - Reading 7	0.44	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
GRB2	AG15637	TRG	NO2NO3 - Reading 8	0.48	ppm	0.05	7/1/2004	7/1/2004	7/23/2004
GRB2	AG15637	TRG	NO2NO3 - Reading 9	0.53	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
GRB2	AG15637	TRG	NO2NO3 - Reading 10	0.59	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
GRB2	AG15637	TRG	NO2NO3 - Final	0.51	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
GRB2	AG15637	TRG	Non-Filtered BOD 60 - Reading 1	1.1	ppm	2.0	6/24/2004	6/25/2004	
GRB2	AG15637	TRG	Non-Filtered BOD 60 - Reading 2	3.3	ppm	2.0	6/24/2004	6/28/2004	
GRB2	AG15637	TRG	Non-Filtered BOD 60 - Reading 3	4.6	ppm	2.0	6/24/2004	6/30/2004	
GRB2	AG15637	TRG	Non-Filtered BOD 60 - Reading 4	5.9	ppm	2.0	6/24/2004	7/2/2004	
GRB2	AG15637	TRG	Non-Filtered BOD 60 - Reading 5	7.0	ppm	2.0	6/24/2004	7/5/2004	
GRB2	AG15637	TRG	Non-Filtered BOD 60 - Reading 6	8.1	ppm	2.0	6/24/2004	7/9/2004	
GRB2	AG15637	TRG	Non-Filtered BOD 60 - Reading 7	9.1	ppm	2.0	6/24/2004	7/14/2004	
GRB2	AG15637	TRG	Non-Filtered BOD 60 - Reading 8	10.4	ppm	2.0	6/24/2004	7/23/2004	
GRB2	AG15637	TRG	Non-Filtered BOD 60 - Reading 9	11.7	ppm	2.0	6/24/2004	8/3/2004	
GRB2	AG15637	TRG	Non-Filtered BOD 60 - Reading 10	12.6	ppm	2.0	6/24/2004	8/13/2004	
GRB2	AG15637	TRG	Non-Filtered BOD 60 - Final	13.4	ppm	2.0	6/24/2004	8/23/2004	
GRB3	AG15638	TRG	TSS	38.0	ppm	4.00	6/24/2004	6/28/2004	
GRB3	AG15638	TRG	TDS	157	ppm	10.00	6/24/2004	6/25/2004	
GRB3	AG15638	TRG	Alkalinity	85.5	ppm	2.0	6/28/2004	6/28/2004	
GRB3	AG15638	TRG	Turbidity	36	NTU	1.00	6/24/2004	6/24/2004	
GRB3	AG15638	TRG	Specific Conductance	215	umhos/cm	10.0	6/28/2004	6/28/2004	
GRB3	AG15638	TRG	True Color	50	PCU	5.00	6/24/2004	6/24/2004	
GRB3	AG15638	TRG	Chloride, Ion Chromatograph	14.2	ppm	1.3	6/28/2004	6/28/2004	
GRB3	AG15638	TRG	Sulfate	2.4	ppm	1.3	6/28/2004	6/28/2004	
GRB3	AG15639	TRG	Hardness	90.6	ppm	5.0	7/2/2004	7/2/2004	
GRB3	AG15639	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	0.05	7/2/2004	7/2/2004	
GRB3	AG15639	TRG	TP	0.58	ppm	0.05	6/29/2004	6/29/2004	
GRB3	AG15639	TRG	TKN	1.37	ppm	0.10	6/29/2004	6/29/2004	

GRB3	AG15639	TRG	Ammonia-Nitrogen	0.24	ppm	0.10	6/30/2004	6/30/2004	
GRB3	AG15640	TRG	TOC	10.8	ppm	2.00	7/7/2004	7/8/2004	
GRB3	AG15641	TRG	pH, Ultimate BOD survey	8.0	pH units	0.01	8/23/2004	8/23/2004	
GRB3	AG15641	TRG	TOC (60 Day BOD)	9.9	ppm	2.0	9/10/2004	9/11/2004	
GRB3	AG15641	TRG	TKN (60 Day BOD)	0.45	ppm	0.1	9/14/2004	9/14/2004	
GRB3	AG15641	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
GRB3	AG15641	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
GRB3	AG15641	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
GRB3	AG15641	TRG	NO2NO3 - Reading 3	0.06	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
GRB3	AG15641	TRG	NO2NO3 - Reading 4	0.23	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
GRB3	AG15641	TRG	NO2NO3 - Reading 5	0.31	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
GRB3	AG15641	TRG	NO2NO3 - Reading 6	0.35	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
GRB3	AG15641	TRG	NO2NO3 - Reading 7	0.40	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
GRB3	AG15641	TRG	NO2NO3 - Reading 8	0.47	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
GRB3	AG15641	TRG	NO2NO3 - Reading 9	0.52	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
GRB3	AG15641	TRG	NO2NO3 - Reading 10	0.62	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
GRB3	AG15641	TRG	NO2NO3 - Final	0.51	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
GRB3	AG15641	TRG	Non-Filtered BOD 60 - Reading 1	0.8	ppm	2.0	6/24/2004	6/25/2004	
GRB3	AG15641	TRG	Non-Filtered BOD 60 - Reading 2	2.5	ppm	2.0	6/24/2004	6/28/2004	
GRB3	AG15641	TRG	Non-Filtered BOD 60 - Reading 3	3.6	ppm	2.0	6/24/2004	6/30/2004	
GRB3	AG15641	TRG	Non-Filtered BOD 60 - Reading 4	5.0	ppm	2.0	6/24/2004	7/2/2004	
GRB3	AG15641	TRG	Non-Filtered BOD 60 - Reading 5	6.1	ppm	2.0	6/24/2004	7/5/2004	
GRB3	AG15641	TRG	Non-Filtered BOD 60 - Reading 6	6.9	ppm	2.0	6/24/2004	7/9/2004	
GRB3	AG15641	TRG	Non-Filtered BOD 60 - Reading 7	7.7	ppm	2.0	6/24/2004	7/14/2004	
GRB3	AG15641	TRG	Non-Filtered BOD 60 - Reading 8	9.0	ppm	2.0	6/24/2004	7/23/2004	
GRB3	AG15641	TRG	Non-Filtered BOD 60 - Reading 9	10.1	ppm	2.0	6/24/2004	8/3/2004	
GRB3	AG15641	TRG	Non-Filtered BOD 60 - Reading 10	11.1	ppm	2.0	6/24/2004	8/13/2004	
GRB3	AG15641	TRG	Non-Filtered BOD 60 - Final	11.9	ppm	2.0	6/24/2004	8/23/2004	
GRB3	AG15642	TRG	Chlorophyll A (raw)	1184	ug/L	0.0	7/8/2004	7/9/2004	
GRB3	AG15642	TRG	Chlorophyll A (calculated)	47.4	ug/L	0.0	7/8/2004	7/9/2004	
GRB3	AG15642	TRG	Volume of sample, Chlorophyll A (raw)	250	ml	0.0	7/8/2004	7/8/2004	
GRB4	AG15643	TRG	TSS	19.0	ppm	4.00	6/24/2004	6/28/2004	
GRB4	AG15643	TRG	TDS	147	ppm	10.00	6/24/2004	6/25/2004	

GRB4	AG15643	TRG	Alkalinity	86.0	ppm	2.0	6/28/2004	6/28/2004	
GRB4	AG15643	TRG	Turbidity	36	NTU	1.00	6/24/2004	6/24/2004	
GRB4	AG15643	TRG	Specific Conductance	216	umhos/cm	10.0	6/28/2004	6/28/2004	
GRB4	AG15643	TRG	True Color	50	PCU	5.00	6/24/2004	6/24/2004	
GRB4	AG15643	TRG	Chloride, Ion Chromatograph	14.5	ppm	1.3	6/28/2004	6/28/2004	
GRB4	AG15643	TRG	Sulfate	2.5	ppm	1.3	6/28/2004	6/28/2004	
GRB4	AG15644	TRG	Hardness	89.6	ppm	5.0	7/2/2004	7/2/2004	
GRB4	AG15644	TRG	Nitrate+Nitrite Nitrogen	0.07	ppm	0.05	7/2/2004	7/2/2004	
GRB4	AG15644	TRG	TP	0.61	ppm	0.05	6/29/2004	6/29/2004	
GRB4	AG15644	TRG	TKN	2.36	ppm	0.10	6/29/2004	6/29/2004	
GRB4	AG15644	TRG	Ammonia-Nitrogen	0.23	ppm	0.10	6/30/2004	6/30/2004	
GRB4	AG15645	TRG	TOC	10.6	ppm	2.00	7/7/2004	7/8/2004	
GRB4	AG15646	TRG	pH, Ultimate BOD survey	8.0	pH units	0.01	8/23/2004	8/23/2004	
GRB4	AG15646	TRG	TOC (60 Day BOD)	11.3	ppm	2.0	9/10/2004	9/11/2004	
GRB4	AG15646	TRG	TKN (60 Day BOD)	0.36	ppm	0.1	9/14/2004	9/14/2004	
GRB4	AG15646	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
GRB4	AG15646	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
GRB4	AG15646	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
GRB4	AG15646	TRG	NO2NO3 - Reading 3	0.12	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
GRB4	AG15646	TRG	NO2NO3 - Reading 4	0.26	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
GRB4	AG15646	TRG	NO2NO3 - Reading 5	0.34	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
GRB4	AG15646	TRG	NO2NO3 - Reading 6	0.38	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
GRB4	AG15646	TRG	NO2NO3 - Reading 7	0.44	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
GRB4	AG15646	TRG	NO2NO3 - Reading 8	0.49	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
GRB4	AG15646	TRG	NO2NO3 - Reading 9	0.56	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
GRB4	AG15646	TRG	NO2NO3 - Reading 10	0.66	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
GRB4	AG15646	TRG	NO2NO3 - Final	0.54	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
GRB4	AG15646	TRG	Non-Filtered BOD 60 - Reading 1	1.0	ppm	2.0	6/24/2004	6/25/2004	
GRB4	AG15646	TRG	Non-Filtered BOD 60 - Reading 2	3.4	ppm	2.0	6/24/2004	6/28/2004	
GRB4	AG15646	TRG	Non-Filtered BOD 60 - Reading 3	4.9	ppm	2.0	6/24/2004	6/30/2004	
GRB4	AG15646	TRG	Non-Filtered BOD 60 - Reading 4	6.5	ppm	2.0	6/24/2004	7/2/2004	
GRB4	AG15646	TRG	Non-Filtered BOD 60 - Reading 5	7.7	ppm	2.0	6/24/2004	7/5/2004	
GRB4	AG15646	TRG	Non-Filtered BOD 60 - Reading 6	8.7	ppm	2.0	6/24/2004	7/9/2004	

GRB4	AG15646	TRG	Non-Filtered BOD 60 - Reading 7	9.7	ppm	2.0	6/24/2004	7/14/2004	
GRB4	AG15646	TRG	Non-Filtered BOD 60 - Reading 8	11.0	ppm	2.0	6/24/2004	7/23/2004	
GRB4	AG15646	TRG	Non-Filtered BOD 60 - Reading 9	12.2	ppm	2.0	8/6/2004	8/3/2004	
GRB4	AG15646	TRG	Non-Filtered BOD 60 - Reading 10	13.1	ppm	2.0	6/24/2004	8/13/2004	
GRB4	AG15646	TRG	Non-Filtered BOD 60 - Final	13.9	ppm	2.0	6/24/2004	8/23/2004	
GRB4	AG15647	TRG	Volume of sample, Chlorophyll A (raw)	250	ml	0.0	7/8/2004	7/8/2004	
GRB4	AG15647	TRG	Chlorophyll A (calculated)	31.8	ug/L	0.0	7/8/2004	7/9/2004	
GRB4	AG15647	TRG	Chlorophyll A (raw)	796	ug/L	0.0	7/8/2004	7/9/2004	
GRB5	AG15648	TRG	TSS	6.0	ppm	4.00	6/24/2004	6/28/2004	
GRB5	AG15648	TRG	TDS	111	ppm	10.00	6/24/2004	6/25/2004	
GRB5	AG15648	TRG	Alkalinity	67.1	ppm	2.0	6/28/2004	6/28/2004	
GRB5	AG15648	TRG	Turbidity	7.9	NTU	1.00	6/24/2004	6/24/2004	
GRB5	AG15648	TRG	Specific Conductance	171	umhos/cm	10.0	6/28/2004	6/28/2004	
GRB5	AG15648	TRG	True Color	50	PCU	5.00	6/24/2004	6/24/2004	
GRB5	AG15648	TRG	Chloride, Ion Chromatograph	10.9	ppm	1.3	6/28/2004	6/28/2004	
GRB5	AG15648	TRG	Sulfate	2.8	ppm	1.3	6/28/2004	6/28/2004	
GRB5	AG15649	TRG	Hardness	67.4	ppm	5.0	7/2/2004	7/2/2004	
GRB5	AG15649	TRG	Nitrate+Nitrite Nitrogen	0.07	ppm	0.05	7/2/2004	7/2/2004	
GRB5	AG15649	TRG	TP	0.31	ppm	0.05	6/29/2004	6/29/2004	
GRB5	AG15649	TRG	TKN	0.83	ppm	0.10	6/29/2004	6/29/2004	
GRB5	AG15649	TRG	Ammonia-Nitrogen	0.12	ppm	0.10	6/30/2004	6/30/2004	
GRB5	AG15650	TRG	TOC	9.8	ppm	2.00	7/7/2004	7/8/2004	
GRB5	AG15651	TRG	pH, Ultimate BOD survey	7.9	pH units	0.01	8/23/2004	8/23/2004	
GRB5	AG15651	TRG	TOC (60 Day BOD)	9.6	ppm	2.0	9/10/2004	9/11/2004	
GRB5	AG15651	TRG	TKN (60 Day BOD)	0.24	ppm	0.1	9/14/2004	9/14/2004	
GRB5	AG15651	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
GRB5	AG15651	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
GRB5	AG15651	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
GRB5	AG15651	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
GRB5	AG15651	TRG	NO2NO3 - Reading 4	ND	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
GRB5	AG15651	TRG	NO2NO3 - Reading 5	0.09	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
GRB5	AG15651	TRG	NO2NO3 - Reading 6	0.15	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
GRB5	AG15651	TRG	NO2NO3 - Reading 7	0.18	ppm	0.05	7/27/2004	7/27/2004	7/14/2004

GRB5	AG15651	TRG	NO2NO3 - Reading 8	0.22	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
GRB5	AG15651	TRG	NO2NO3 - Reading 9	0.25	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
GRB5	AG15651	TRG	NO2NO3 - Reading 10	0.28	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
GRB5	AG15651	TRG	NO2NO3 - Final	0.26	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
GRB5	AG15651	TRG	Non-Filtered BOD 60 - Reading 1	0.6	ppm	2.0	6/24/2004	6/25/2004	
GRB5	AG15651	TRG	Non-Filtered BOD 60 - Reading 2	1.6	ppm	2.0	6/24/2004	6/28/2004	
GRB5	AG15651	TRG	Non-Filtered BOD 60 - Reading 3	2.0	ppm	2.0	6/24/2004	6/30/2004	
GRB5	AG15651	TRG	Non-Filtered BOD 60 - Reading 4	2.5	ppm	2.0	6/24/2004	7/2/2004	
GRB5	AG15651	TRG	Non-Filtered BOD 60 - Reading 5	3.3	ppm	2.0	6/24/2004	7/5/2004	
GRB5	AG15651	TRG	Non-Filtered BOD 60 - Reading 6	3.9	ppm	2.0	6/24/2004	7/9/2004	
GRB5	AG15651	TRG	Non-Filtered BOD 60 - Reading 7	4.5	ppm	2.0	6/24/2004	7/14/2004	
GRB5	AG15651	TRG	Non-Filtered BOD 60 - Reading 8	5.3	ppm	2.0	6/24/2004	7/23/2004	
GRB5	AG15651	TRG	Non-Filtered BOD 60 - Reading 9	6.1	ppm	2.0	8/6/2004	8/3/2004	
GRB5	AG15651	TRG	Non-Filtered BOD 60 - Reading 10	6.6	ppm	2.0	6/24/2004	8/13/2004	
GRB5	AG15651	TRG	Non-Filtered BOD 60 - Final	7.1	ppm	2.0	6/24/2004	8/23/2004	
LGBY1	AG15652	TRG	TSS	8.5	ppm	4.00	6/24/2004	6/28/2004	
LGBY1	AG15652	TRG	TDS	123	ppm	10.00	6/24/2004	6/25/2004	
LGBY1	AG15652	TRG	Alkalinity	74.3	ppm	2.0	6/28/2004	6/28/2004	
LGBY1	AG15652	TRG	Turbidity	10	NTU	1.00	6/24/2004	6/24/2004	
LGBY1	AG15652	TRG	Specific Conductance	186	umhos/cm	10.0	6/28/2004	6/28/2004	
LGBY1	AG15652	TRG	True Color	48	PCU	5.00	6/24/2004	6/24/2004	
LGBY1	AG15652	TRG	Chloride, Ion Chromatograph	11.7	ppm	1.3	6/28/2004	6/28/2004	
LGBY1	AG15652	TRG	Sulfate	2.8	ppm	1.3	6/28/2004	6/28/2004	
LGBY1	AG15653	TRG	Hardness	74.5	ppm	5.0	7/2/2004	7/2/2004	
LGBY1	AG15653	TRG	Nitrate+Nitrite Nitrogen	0.07	ppm	0.05	7/2/2004	7/2/2004	
LGBY1	AG15653	TRG	TP	0.38	ppm	0.05	6/29/2004	6/29/2004	
LGBY1	AG15653	TRG	TKN	0.79	ppm	0.10	6/29/2004	6/29/2004	
LGBY1	AG15653	TRG	Ammonia-Nitrogen	0.14	ppm	0.10	7/2/2004	7/2/2004	
LGBY1	AG15654	TRG	TOC	10.1	ppm	2.00	7/7/2004	7/8/2004	
LGBY1	AG15655	TRG	pH, Ultimate BOD survey	8.0	pH units	0.01	8/23/2004	8/23/2004	
LGBY1	AG15655	TRG	TOC (60 Day BOD)	10.3	ppm	2.0	9/10/2004	9/11/2004	
LGBY1	AG15655	TRG	TKN (60 Day BOD)	0.18	ppm	0.1	9/14/2004	9/14/2004	
LGBY1	AG15655	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004

LGBY1	AG15655	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
LGBY1	AG15655	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
LGBY1	AG15655	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
LGBY1	AG15655	TRG	NO2NO3 - Reading 4	ND	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
LGBY1	AG15655	TRG	NO2NO3 - Reading 5	0.13	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
LGBY1	AG15655	TRG	NO2NO3 - Reading 6	0.19	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
LGBY1	AG15655	TRG	NO2NO3 - Reading 7	0.21	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
LGBY1	AG15655	TRG	NO2NO3 - Reading 8	0.26	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
LGBY1	AG15655	TRG	NO2NO3 - Reading 9	0.31	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
LGBY1	AG15655	TRG	NO2NO3 - Reading 10	0.35	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
LGBY1	AG15655	TRG	NO2NO3 - Final	0.30	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
LGBY1	AG15655	TRG	Non-Filtered BOD 60 - Reading 1	0.7	ppm	2.0	6/24/2004	6/25/2004	
LGBY1	AG15655	TRG	Non-Filtered BOD 60 - Reading 2	2.1	ppm	2.0	6/24/2004	6/28/2004	
LGBY1	AG15655	TRG	Non-Filtered BOD 60 - Reading 3	2.6	ppm	2.0	6/24/2004	6/30/2004	
LGBY1	AG15655	TRG	Non-Filtered BOD 60 - Reading 4	3.2	ppm	2.0	6/24/2004	7/2/2004	
LGBY1	AG15655	TRG	Non-Filtered BOD 60 - Reading 5	4.2	ppm	2.0	6/24/2004	7/5/2004	
LGBY1	AG15655	TRG	Non-Filtered BOD 60 - Reading 6	4.9	ppm	2.0	6/24/2004	7/9/2004	
LGBY1	AG15655	TRG	Non-Filtered BOD 60 - Reading 7	5.6	ppm	2.0	6/24/2004	7/14/2004	
LGBY1	AG15655	TRG	Non-Filtered BOD 60 - Reading 8	6.6	ppm	2.0	6/24/2004	7/23/2004	
LGBY1	AG15655	TRG	Non-Filtered BOD 60 - Reading 9	7.5	ppm	2.0	8/6/2004	8/3/2004	
LGBY1	AG15655	TRG	Non-Filtered BOD 60 - Reading 10	8.1	ppm	2.0	6/24/2004	8/13/2004	
LGBY1	AG15655	TRG	Non-Filtered BOD 60 - Final	8.7	ppm	2.0	6/24/2004	8/23/2004	
GRB6	AG15656	TRG	TSS	9.0	ppm	4.00	6/24/2004	6/28/2004	
GRB6	AG15656	TRG	TDS	119	ppm	10.00	6/24/2004	6/25/2004	
GRB6	AG15656	TRG	Alkalinity	75.0	ppm	2.0	6/28/2004	6/28/2004	
GRB6	AG15656	TRG	Turbidity	9.4	NTU	1.00	6/24/2004	6/24/2004	
GRB6	AG15656	TRG	Specific Conductance	187	umhos/cm	10.0	6/28/2004	6/28/2004	
GRB6	AG15656	TRG	True Color	45	PCU	5.00	6/24/2004	6/24/2004	
GRB6	AG15656	TRG	Chloride, Ion Chromatograph	11.8	ppm	1.3	6/28/2004	6/28/2004	
GRB6	AG15656	TRG	Sulfate	2.6	ppm	1.3	6/28/2004	6/28/2004	
GRB6	AG15657	TRG	Hardness	75.3	ppm	5.0	7/2/2004	7/2/2004	
GRB6	AG15657	TRG	Nitrate+Nitrite Nitrogen	0.08	ppm	0.05	7/2/2004	7/2/2004	
GRB6	AG15657	TRG	TP	0.41	ppm	0.05	6/29/2004	6/29/2004	

GRB6	AG15657	TRG	TKN	0.89	ppm	0.10	6/29/2004	6/29/2004	
GRB6	AG15657	TRG	Ammonia-Nitrogen	0.18	ppm	0.10	7/1/2004	7/1/2004	
GRB6	AG15658	TRG	TOC	10.3	ppm	2.00	7/7/2004	7/8/2004	
GRB6	AG15659	TRG	pH, Ultimate BOD survey	7.9	pH units	0.01	8/23/2004	8/23/2004	
GRB6	AG15659	TRG	TOC (60 Day BOD)	9.5	ppm	2.0	9/10/2004	9/11/2004	
GRB6	AG15659	TRG	TKN (60 Day BOD)	0.29	ppm	0.1	9/14/2004	9/14/2004	
GRB6	AG15659	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
GRB6	AG15659	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
GRB6	AG15659	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
GRB6	AG15659	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
GRB6	AG15659	TRG	NO2NO3 - Reading 4	0.05	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
GRB6	AG15659	TRG	NO2NO3 - Reading 5	0.13	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
GRB6	AG15659	TRG	NO2NO3 - Reading 6	0.17	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
GRB6	AG15659	TRG	NO2NO3 - Reading 7	0.20	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
GRB6	AG15659	TRG	NO2NO3 - Reading 8	0.24	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
GRB6	AG15659	TRG	NO2NO3 - Reading 9	0.27	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
GRB6	AG15659	TRG	NO2NO3 - Reading 10	0.32	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
GRB6	AG15659	TRG	NO2NO3 - Final	0.27	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
GRB6	AG15659	TRG	Non-Filtered BOD 60 - Reading 1	0.4	ppm	2.0	6/24/2004	6/25/2004	
GRB6	AG15659	TRG	Non-Filtered BOD 60 - Reading 2	1.5	ppm	2.0	6/24/2004	6/28/2004	
GRB6	AG15659	TRG	Non-Filtered BOD 60 - Reading 3	2.0	ppm	2.0	6/24/2004	6/30/2004	
GRB6	AG15659	TRG	Non-Filtered BOD 60 - Reading 4	2.6	ppm	2.0	6/24/2004	7/2/2004	
GRB6	AG15659	TRG	Non-Filtered BOD 60 - Reading 5	3.5	ppm	2.0	6/24/2004	7/5/2004	
GRB6	AG15659	TRG	Non-Filtered BOD 60 - Reading 6	4.1	ppm	2.0	6/24/2004	7/9/2004	
GRB6	AG15659	TRG	Non-Filtered BOD 60 - Reading 7	4.7	ppm	2.0	6/24/2004	7/14/2004	
GRB6	AG15659	TRG	Non-Filtered BOD 60 - Reading 8	5.6	ppm	2.0	6/24/2004	7/23/2004	
GRB6	AG15659	TRG	Non-Filtered BOD 60 - Reading 9	6.6	ppm	2.0	8/6/2004	8/3/2004	
GRB6	AG15659	TRG	Non-Filtered BOD 60 - Reading 10	7.2	ppm	2.0	6/24/2004	8/13/2004	
GRB6	AG15659	TRG	Non-Filtered BOD 60 - Final	7.7	ppm	2.0	6/24/2004	8/23/2004	
GRB6	AG15660	TRG	Volume of sample, Chlorophyll A (raw)	250	ml	0.0	7/8/2004	7/8/2004	
GRB6	AG15660	TRG	Chlorophyll A (raw)	492	ug/L	0.0	7/8/2004	7/9/2004	
GRB6	AG15660	TRG	Chlorophyll A (calculated)	19.7	ug/L	0.0	7/8/2004	7/9/2004	
EGB1	AG15661	TRG	TSS	5.0	ppm	4.00	6/24/2004	6/28/2004	

EGB1	AG15661	TRG	TDS	117	ppm	10.00	6/24/2004	6/25/2004	
EGB1	AG15661	TRG	Alkalinity	73.5	ppm	2.0	6/28/2004	6/28/2004	
EGB1	AG15661	TRG	Turbidity	8.0	NTU	1.00	6/24/2004	6/24/2004	
EGB1	AG15661	TRG	Specific Conductance	185	umhos/cm	10.0	6/28/2004	6/28/2004	
EGB1	AG15661	TRG	True Color	45	PCU	5.00	6/24/2004	6/24/2004	
EGB1	AG15661	TRG	Chloride, Ion Chromatograph	10.9	ppm	1.3	6/28/2004	6/28/2004	
EGB1	AG15661	TRG	Sulfate	3.9	ppm	1.3	6/28/2004	6/28/2004	
EGB1	AG15662	TRG	Hardness	74.1	ppm	5.0	7/2/2004	7/2/2004	
EGB1	AG15662	TRG	Nitrate+Nitrite Nitrogen	0.06	ppm	0.05	7/2/2004	7/2/2004	
EGB1	AG15662	TRG	TP	0.35	ppm	0.05	6/29/2004	6/29/2004	
EGB1	AG15662	TRG	TKN	0.92	ppm	0.10	6/29/2004	6/29/2004	
EGB1	AG15662	TRG	Ammonia-Nitrogen	ND	ppm	0.10	7/1/2004	7/1/2004	
EGB1	AG15663	TRG	TOC	9.6	ppm	2.00	7/7/2004	7/8/2004	
EGB1	AG15664	TRG	pH, Ultimate BOD survey	7.9	pH units	0.01	8/23/2004	8/23/2004	
EGB1	AG15664	TRG	TOC (60 Day BOD)	9.3	ppm	2.0	9/10/2004	9/11/2004	
EGB1	AG15664	TRG	TKN (60 Day BOD)	0.26	ppm	0.1	9/14/2004	9/14/2004	
EGB1	AG15664	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
EGB1	AG15664	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
EGB1	AG15664	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
EGB1	AG15664	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
EGB1	AG15664	TRG	NO2NO3 - Reading 4	ND	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
EGB1	AG15664	TRG	NO2NO3 - Reading 5	0.09	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
EGB1	AG15664	TRG	NO2NO3 - Reading 6	0.16	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
EGB1	AG15664	TRG	NO2NO3 - Reading 7	0.17	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
EGB1	AG15664	TRG	NO2NO3 - Reading 8	0.23	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
EGB1	AG15664	TRG	NO2NO3 - Reading 9	0.29	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
EGB1	AG15664	TRG	NO2NO3 - Reading 10	0.30	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
EGB1	AG15664	TRG	NO2NO3 - Final	0.26	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
EGB1	AG15664	TRG	Non-Filtered BOD 60 - Reading 1	0.7	ppm	2.0	6/24/2004	6/25/2004	
EGB1	AG15664	TRG	Non-Filtered BOD 60 - Reading 2	2.0	ppm	2.0	6/24/2004	6/28/2004	
EGB1	AG15664	TRG	Non-Filtered BOD 60 - Reading 3	2.4	ppm	2.0	6/24/2004	6/30/2004	
EGB1	AG15664	TRG	Non-Filtered BOD 60 - Reading 4	3.2	ppm	2.0	6/24/2004	7/2/2004	
EGB1	AG15664	TRG	Non-Filtered BOD 60 - Reading 5	4.1	ppm	2.0	6/24/2004	7/5/2004	

EGB1	AG15664	TRG	Non-Filtered BOD 60 - Reading 6	4.7	ppm	2.0	6/24/2004	7/9/2004	
EGB1	AG15664	TRG	Non-Filtered BOD 60 - Reading 7	5.3	ppm	2.0	6/24/2004	7/14/2004	
EGB1	AG15664	TRG	Non-Filtered BOD 60 - Reading 8	6.3	ppm	2.0	6/24/2004	7/23/2004	
EGB1	AG15664	TRG	Non-Filtered BOD 60 - Reading 9	7.1	ppm	2.0	8/6/2004	8/3/2004	
EGB1	AG15664	TRG	Non-Filtered BOD 60 - Reading 10	7.6	ppm	2.0	6/24/2004	8/13/2004	
EGB1	AG15664	TRG	Non-Filtered BOD 60 - Final	8.2	ppm	2.0	6/24/2004	8/23/2004	
GRB7	AG15665	TRG	TSS	9.5	ppm	4.00	6/28/2004	6/29/2004	
GRB7	AG15665	TRG	TDS	120	ppm	10.00	6/24/2004	6/25/2004	
GRB7	AG15665	TRG	Alkalinity	75.4	ppm	2.0	6/28/2004	6/28/2004	
GRB7	AG15665	TRG	Turbidity	8.5	NTU	1.00	6/24/2004	6/24/2004	
GRB7	AG15665	TRG	Specific Conductance	188	umhos/cm	10.0	6/28/2004	6/28/2004	
GRB7	AG15665	TRG	True Color	48	PCU	5.00	6/24/2004	6/24/2004	
GRB7	AG15665	TRG	Chloride, Ion Chromatograph	10.7	ppm	1.3	6/28/2004	6/28/2004	
GRB7	AG15665	TRG	Sulfate	3.6	ppm	1.3	6/28/2004	6/28/2004	
GRB7	AG15666	TRG	Hardness	76.8	ppm	5.0	7/2/2004	7/2/2004	
GRB7	AG15666	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	0.05	7/2/2004	7/2/2004	
GRB7	AG15666	TRG	TP	0.33	ppm	0.05	6/29/2004	6/29/2004	
GRB7	AG15666	TRG	TKN	0.73	ppm	0.10	6/29/2004	6/29/2004	
GRB7	AG15666	TRG	Ammonia-Nitrogen	ND	ppm	0.10	7/1/2004	7/1/2004	
GRB7	AG15667	TRG	TOC	9.1	ppm	2.00	7/7/2004	7/8/2004	
GRB7	AG15668	TRG	pH, Ultimate BOD survey	7.9	pH units	0.01	8/23/2004	8/23/2004	
GRB7	AG15668	TRG	TOC (60 Day BOD)	9.5	ppm	2.0	9/10/2004	9/11/2004	
GRB7	AG15668	TRG	TKN (60 Day BOD)	0.33	ppm	0.1	9/14/2004	9/14/2004	
GRB7	AG15668	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
GRB7	AG15668	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
GRB7	AG15668	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
GRB7	AG15668	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
GRB7	AG15668	TRG	NO2NO3 - Reading 4	ND	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
GRB7	AG15668	TRG	NO2NO3 - Reading 5	0.07	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
GRB7	AG15668	TRG	NO2NO3 - Reading 6	0.13	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
GRB7	AG15668	TRG	NO2NO3 - Reading 7	0.15	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
GRB7	AG15668	TRG	NO2NO3 - Reading 8	0.18	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
GRB7	AG15668	TRG	NO2NO3 - Reading 9	0.22	ppm	0.05	8/18/2004	8/18/2004	8/3/2004

GRB7	AG15668	TRG	NO2NO3 - Reading 10	0.25	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
GRB7	AG15668	TRG	NO2NO3 - Final	0.21	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
GRB7	AG15668	TRG	Non-Filtered BOD 60 - Reading 1	0.5	ppm	2.0	6/24/2004	6/25/2004	
GRB7	AG15668	TRG	Non-Filtered BOD 60 - Reading 2	1.6	ppm	2.0	6/24/2004	6/28/2004	
GRB7	AG15668	TRG	Non-Filtered BOD 60 - Reading 3	1.9	ppm	2.0	6/24/2004	6/30/2004	
GRB7	AG15668	TRG	Non-Filtered BOD 60 - Reading 4	2.4	ppm	2.0	6/24/2004	7/2/2004	
GRB7	AG15668	TRG	Non-Filtered BOD 60 - Reading 5	3.2	ppm	2.0	6/24/2004	7/5/2004	
GRB7	AG15668	TRG	Non-Filtered BOD 60 - Reading 6	3.7	ppm	2.0	6/24/2004	7/9/2004	
GRB7	AG15668	TRG	Non-Filtered BOD 60 - Reading 7	4.3	ppm	2.0	6/24/2004	7/14/2004	
GRB7	AG15668	TRG	Non-Filtered BOD 60 - Reading 8	5.1	ppm	2.0	6/24/2004	7/23/2004	
GRB7	AG15668	TRG	Non-Filtered BOD 60 - Reading 9	6.0	ppm	2.0	8/6/2004	8/3/2004	
GRB7	AG15668	TRG	Non-Filtered BOD 60 - Reading 10	6.5	ppm	2.0	6/24/2004	8/13/2004	
GRB7	AG15668	TRG	Non-Filtered BOD 60 - Final	7.0	ppm	2.0	6/24/2004	8/23/2004	
GRB7	AG15669	TRG	Chlorophyll A (calculated)	16.9	ug/L	0.0	7/8/2004	7/9/2004	
GRB7	AG15669	TRG	Volume of sample, Chlorophyll A (raw)	250	ml	0.0	7/8/2004	7/8/2004	
GRB7	AG15669	TRG	Chlorophyll A (raw)	422	ug/L	0.0	7/8/2004	7/9/2004	
GRB8	AG15670	TRG	TSS	8.0	ppm	4.00	6/24/2004	6/28/2004	
GRB8	AG15670	TRG	TDS	120	ppm	10.00	6/24/2004	6/25/2004	
GRB8	AG15670	TRG	Alkalinity	75.6	ppm	2.0	6/28/2004	6/28/2004	
GRB8	AG15670	TRG	Turbidity	6.8	NTU	1.00	6/24/2004	6/24/2004	
GRB8	AG15670	TRG	Specific Conductance	187	umhos/cm	10.0	6/28/2004	6/28/2004	
GRB8	AG15670	TRG	True Color	45	PCU	5.00	6/24/2004	6/24/2004	
GRB8	AG15670	TRG	Chloride, Ion Chromatograph	10.0	ppm	1.3	6/28/2004	6/28/2004	
GRB8	AG15670	TRG	Sulfate	3.6	ppm	1.3	6/28/2004	6/28/2004	
GRB8	AG15671	TRG	Hardness	75.7	ppm	5.0	7/2/2004	7/2/2004	
GRB8	AG15671	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	0.05	7/2/2004	7/2/2004	
GRB8	AG15671	TRG	TP	0.34	ppm	0.05	6/29/2004	6/29/2004	
GRB8	AG15671	TRG	TKN	0.81	ppm	0.10	6/29/2004	6/29/2004	
GRB8	AG15671	TRG	Ammonia-Nitrogen	ND	ppm	0.10	7/1/2004	7/1/2004	
GRB8	AG15672	TRG	TOC	9.2	ppm	2.00	7/7/2004	7/8/2004	
GRB8	AG15673	TRG	pH, Ultimate BOD survey	7.9	pH units	0.01	8/23/2004	8/23/2004	
GRB8	AG15673	TRG	TOC (60 Day BOD)	8.9	ppm	2.0	9/10/2004	9/11/2004	
GRB8	AG15673	TRG	TKN (60 Day BOD)	0.42	ppm	0.1	9/14/2004	9/14/2004	

GRB8	AG15673	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
GRB8	AG15673	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
GRB8	AG15673	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
GRB8	AG15673	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
GRB8	AG15673	TRG	NO2NO3 - Reading 4	ND	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
GRB8	AG15673	TRG	NO2NO3 - Reading 5	0.06	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
GRB8	AG15673	TRG	NO2NO3 - Reading 6	0.12	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
GRB8	AG15673	TRG	NO2NO3 - Reading 7	0.13	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
GRB8	AG15673	TRG	NO2NO3 - Reading 8	0.17	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
GRB8	AG15673	TRG	NO2NO3 - Reading 9	0.20	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
GRB8	AG15673	TRG	NO2NO3 - Reading 10	0.23	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
GRB8	AG15673	TRG	NO2NO3 - Final	0.20	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
GRB8	AG15673	TRG	Non-Filtered BOD 60 - Reading 1	0.4	ppm	2.0	6/24/2004	6/25/2004	
GRB8	AG15673	TRG	Non-Filtered BOD 60 - Reading 2	1.5	ppm	2.0	6/24/2004	6/28/2004	
GRB8	AG15673	TRG	Non-Filtered BOD 60 - Reading 3	1.8	ppm	2.0	6/24/2004	6/30/2004	
GRB8	AG15673	TRG	Non-Filtered BOD 60 - Reading 4	2.2	ppm	2.0	6/24/2004	7/2/2004	
GRB8	AG15673	TRG	Non-Filtered BOD 60 - Reading 5	3.0	ppm	2.0	6/24/2004	7/5/2004	
GRB8	AG15673	TRG	Non-Filtered BOD 60 - Reading 6	3.6	ppm	2.0	6/24/2004	7/9/2004	
GRB8	AG15673	TRG	Non-Filtered BOD 60 - Reading 7	4.1	ppm	2.0	6/24/2004	7/14/2004	
GRB8	AG15673	TRG	Non-Filtered BOD 60 - Reading 8	5.0	ppm	2.0	6/24/2004	7/23/2004	
GRB8	AG15673	TRG	Non-Filtered BOD 60 - Reading 9	5.8	ppm	2.0	8/6/2004	8/3/2004	
GRB8	AG15673	TRG	Non-Filtered BOD 60 - Reading 10	6.3	ppm	2.0	6/24/2004	8/13/2004	
GRB8	AG15673	TRG	Non-Filtered BOD 60 - Final	6.8	ppm	2.0	6/24/2004	8/23/2004	
GRB9	AG15674	TRG	TSS	8.0	ppm	4.00	6/24/2004	6/28/2004	
GRB9	AG15674	TRG	TDS	118	ppm	10.00	6/25/2004	6/29/2004	
GRB9	AG15674	TRG	Alkalinity	75.0	ppm	2.0	6/28/2004	6/28/2004	
GRB9	AG15674	TRG	Turbidity	6.4	NTU	1.00	6/24/2004	6/24/2004	
GRB9	AG15674	TRG	Specific Conductance	184	umhos/cm	10.0	6/28/2004	6/28/2004	
GRB9	AG15674	TRG	True Color	40	PCU	5.00	6/24/2004	6/24/2004	
GRB9	AG15674	TRG	Chloride, Ion Chromatograph	9.6	ppm	1.3	6/28/2004	6/28/2004	
GRB9	AG15674	TRG	Sulfate	4.0	ppm	1.3	6/28/2004	6/28/2004	
GRB9	AG15675	TRG	Hardness	76.1	ppm	5.0	7/2/2004	7/2/2004	
GRB9	AG15675	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	0.05	7/2/2004	7/2/2004	

GRB9	AG15675	TRG	TP	0.34	ppm	0.05	6/29/2004	6/29/2004	
GRB9	AG15675	TRG	TKN	0.73	ppm	0.10	6/29/2004	6/29/2004	
GRB9	AG15675	TRG	Ammonia-Nitrogen	ND	ppm	0.10	7/1/2004	7/1/2004	
GRB9	AG15676	TRG	TOC	9.2	ppm	2.00	7/7/2004	7/8/2004	
GRB9	AG15677	TRG	pH, Ultimate BOD survey	7.8	pH units	0.01	8/23/2004	8/23/2004	
GRB9	AG15677	TRG	TOC (60 Day BOD)	8.5	ppm	2.0	9/10/2004	9/11/2004	
GRB9	AG15677	TRG	TKN (60 Day BOD)	0.42	ppm	0.1	9/14/2004	9/14/2004	
GRB9	AG15677	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
GRB9	AG15677	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
GRB9	AG15677	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
GRB9	AG15677	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
GRB9	AG15677	TRG	NO2NO3 - Reading 4	ND	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
GRB9	AG15677	TRG	NO2NO3 - Reading 5	0.10	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
GRB9	AG15677	TRG	NO2NO3 - Reading 6	0.16	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
GRB9	AG15677	TRG	NO2NO3 - Reading 7	0.17	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
GRB9	AG15677	TRG	NO2NO3 - Reading 8	0.23	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
GRB9	AG15677	TRG	NO2NO3 - Reading 9	0.26	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
GRB9	AG15677	TRG	NO2NO3 - Reading 10	0.30	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
GRB9	AG15677	TRG	NO2NO3 - Final	0.25	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
GRB9	AG15677	TRG	Non-Filtered BOD 60 - Reading 1	0.5	ppm	2.0	6/24/2004	6/25/2004	
GRB9	AG15677	TRG	Non-Filtered BOD 60 - Reading 2	1.9	ppm	2.0	6/24/2004	6/28/2004	
GRB9	AG15677	TRG	Non-Filtered BOD 60 - Reading 3	2.4	ppm	2.0	6/24/2004	6/30/2004	
GRB9	AG15677	TRG	Non-Filtered BOD 60 - Reading 4	3.0	ppm	2.0	6/24/2004	7/2/2004	
GRB9	AG15677	TRG	Non-Filtered BOD 60 - Reading 5	3.8	ppm	2.0	6/24/2004	7/5/2004	
GRB9	AG15677	TRG	Non-Filtered BOD 60 - Reading 6	4.5	ppm	2.0	6/24/2004	7/9/2004	
GRB9	AG15677	TRG	Non-Filtered BOD 60 - Reading 7	5.1	ppm	2.0	6/24/2004	7/14/2004	
GRB9	AG15677	TRG	Non-Filtered BOD 60 - Reading 8	6.2	ppm	2.0	6/24/2004	7/23/2004	
GRB9	AG15677	TRG	Non-Filtered BOD 60 - Reading 9	7.1	ppm	2.0	8/6/2004	8/3/2004	
GRB9	AG15677	TRG	Non-Filtered BOD 60 - Reading 10	7.5	ppm	2.0	6/24/2004	8/13/2004	
GRB9	AG15677	TRG	Non-Filtered BOD 60 - Final	8.1	ppm	2.0	6/24/2004	8/23/2004	
GRB9	AG15678	TRG	Volume of sample, Chlorophyll A (raw)	250	ml	0.0	7/8/2004	7/8/2004	
GRB9	AG15678	TRG	Chlorophyll A (calculated)	24.1	ug/L	0.0	7/8/2004	7/9/2004	
GRB9	AG15678	TRG	Chlorophyll A (raw)	602	ug/L	0.0	7/8/2004	7/9/2004	

Site Number	Lab ID	Lab Sample Type	Analysis Name	Result	Units	MDL	Analysis Set Up	Analysis Read	Date Nitrates Sampled
LV1	AG15687	FB	TSS	ND	ppm	4.00	6/24/2004	6/28/2004	
LV1	AG15687	FB	TDS	ND	ppm	10.00	6/25/2004	6/29/2004	
LV1	AG15687	FB	Alkalinity	ND	ppm	2.0	6/28/2004	6/28/2004	
LV1	AG15687	FB	Turbidity	ND	NTU	1.00	6/24/2004	6/24/2004	
LV1	AG15687	FB	Specific Conductance	ND	umhos/cm	10.0	6/28/2004	6/28/2004	
LV1	AG15687	FB	True Color	ND	PCU	5.00	6/24/2004	6/24/2004	
LV1	AG15687	FB	Chloride, Ion Chromatograph	ND	ppm	1.25	7/1/2004	7/1/2004	
LV1	AG15687	FB	Sulfate	ND	ppm	1.25	7/1/2004	7/1/2004	
LV1	AG15688	FB	Hardness	ND	ppm	5.0	7/2/2004	7/2/2004	
LV1	AG15688	FB	Nitrate+Nitrite Nitrogen	ND	ppm	0.05	7/2/2004	7/2/2004	
LV1	AG15688	FB	TP	0.07	ppm	0.05	6/29/2004	6/29/2004	
LV1	AG15688	FB	TKN	0.14	ppm	0.10	7/7/2004	7/7/2004	
LV1	AG15688	FB	Ammonia-Nitrogen	ND	ppm	0.10	7/1/2004	7/1/2004	
LV1	AG15689	FB	TOC	ND	ppm	2.00	7/7/2004	7/8/2004	
LV1	AG15690	FB	pH, Ultimate BOD survey	7.9	pH units	0.01	8/23/2004	8/23/2004	
LV1	AG15690	FB	TOC (60 Day BOD)	ND	ppm	2.0	9/10/2004	9/11/2004	
LV1	AG15690	FB	TKN (60 Day BOD)	ND	ppm	0.1	9/14/2004	9/14/2004	
LV1	AG15690	FB	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
LV1	AG15690	FB	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
LV1	AG15690	FB	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
LV1	AG15690	FB	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
LV1	AG15690	FB	NO2NO3 - Reading 4	ND	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
LV1	AG15690	FB	NO2NO3 - Reading 5	ND	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
LV1	AG15690	FB	NO2NO3 - Reading 6	ND	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
LV1	AG15690	FB	NO2NO3 - Reading 7	ND	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
LV1	AG15690	FB	NO2NO3 - Reading 8	ND	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
LV1	AG15690	FB	NO2NO3 - Reading 9	ND	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
LV1	AG15690	FB	NO2NO3 - Reading 10	ND	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
LV1	AG15690	FB	NO2NO3 - Final	ND	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
LV1	AG15690	FB	Non-Filtered BOD 60 - Reading 1	0.1	ppm	2.0	6/24/2004	6/24/2004	
LV1	AG15690	FB	Non-Filtered BOD 60 - Reading 2	0.2	ppm	2.0	6/24/2004	6/24/2004	

LV1	AG15690	FB	Non-Filtered BOD 60 - Reading 3	0.1	ppm	2.0	6/24/2004	6/24/2004	
LV1	AG15690	FB	Non-Filtered BOD 60 - Reading 4	0.2	ppm	2.0	6/24/2004	6/24/2004	
LV1	AG15690	FB	Non-Filtered BOD 60 - Reading 5	0.2	ppm	2.0	6/24/2004	6/24/2004	
LV1	AG15690	FB	Non-Filtered BOD 60 - Reading 6	0.3	ppm	2.0	6/24/2004	6/24/2004	
LV1	AG15690	FB	Non-Filtered BOD 60 - Reading 7	0.3	ppm	2.0	6/24/2004	6/24/2004	
LV1	AG15690	FB	Non-Filtered BOD 60 - Reading 8	0.4	ppm	2.0	6/24/2004	6/24/2004	
LV1	AG15690	FB	Non-Filtered BOD 60 - Reading 9	0.4	ppm	2.0	8/6/2004	6/24/2004	
LV1	AG15690	FB	Non-Filtered BOD 60 - Reading 10	0.4	ppm	2.0	6/24/2004	6/24/2004	
LV1	AG15690	FB	Non-Filtered BOD 60 - Final	0.5	ppm	2.0	6/24/2004	6/24/2004	
LV1	AG15691	TRG	TSS	18.5	ppm	4.00	6/28/2004	6/29/2004	
LV1	AG15691	TRG	TDS	142	ppm	10.00	6/25/2004	6/29/2004	
LV1	AG15691	TRG	Alkalinity	84.5	ppm	2.0	6/28/2004	6/28/2004	
LV1	AG15691	TRG	Turbidity	16.6	NTU	1.00	6/24/2004	6/24/2004	
LV1	AG15691	TRG	Specific Conductance	218	umhos/cm	10.0	6/28/2004	6/28/2004	
LV1	AG15691	TRG	True Color	35	PCU	5.00	6/24/2004	6/24/2004	
LV1	AG15691	TRG	Chloride, Ion Chromatograph	9.3	ppm	1.3	6/28/2004	6/28/2004	
LV1	AG15691	TRG	Sulfate	11.4	ppm	1.3	6/28/2004	6/28/2004	
LV1	AG15692	TRG	Hardness	94.1	ppm	5.0	7/2/2004	7/2/2004	
LV1	AG15692	TRG	Nitrate+Nitrite Nitrogen	0.43	ppm	0.05	7/2/2004	7/2/2004	
LV1	AG15692	TRG	TP	0.26	ppm	0.05	6/29/2004	6/29/2004	
LV1	AG15692	TRG	TKN	0.76	ppm	0.10	6/29/2004	6/29/2004	
LV1	AG15692	TRG	Ammonia-Nitrogen	0.12	ppm	0.10	7/1/2004	7/1/2004	
LV1	AG15693	TRG	TOC	7.5	ppm	2.00	7/7/2004	7/8/2004	
LV1	AG15694	TRG	pH, Ultimate BOD survey	8.0	pH units	0.01	8/23/2004	8/23/2004	
LV1	AG15694	TRG	TOC (60 Day BOD)	7.4	ppm	2.0	9/10/2004	9/11/2004	
LV1	AG15694	TRG	TKN (60 Day BOD)	0.26	ppm	0.1	9/14/2004	9/14/2004	
LV1	AG15694	TRG	NO2NO3 - Initial Reading	0.30	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
LV1	AG15694	TRG	NO2NO3 - Reading 1	0.32	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
LV1	AG15694	TRG	NO2NO3 - Reading 2	0.39	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
LV1	AG15694	TRG	NO2NO3 - Reading 3	0.40	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
LV1	AG15694	TRG	NO2NO3 - Reading 4	0.48	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
LV1	AG15694	TRG	NO2NO3 - Reading 5	0.49	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
LV1	AG15694	TRG	NO2NO3 - Reading 6	0.51	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
LV1	AG15694	TRG	NO2NO3 - Reading 7	0.54	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
LV1	AG15694	TRG	NO2NO3 - Reading 8	0.60	ppm	0.05	8/10/2004	8/10/2004	7/23/2004

LV1	AG15694	TRG	NO2NO3 - Reading 9	0.63	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
LV1	AG15694	TRG	NO2NO3 - Reading 10	0.74	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
LV1	AG15694	TRG	NO2NO3 - Final	0.60	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
LV1	AG15694	TRG	Non-Filtered BOD 60 - Reading 1	0.4	ppm	2.0	6/24/2004	6/25/2004	
LV1	AG15694	TRG	Non-Filtered BOD 60 - Reading 2	1.5	ppm	2.0	6/24/2004	6/28/2004	
LV1	AG15694	TRG	Non-Filtered BOD 60 - Reading 3	2.0	ppm	2.0	6/24/2004	6/30/2004	
LV1	AG15694	TRG	Non-Filtered BOD 60 - Reading 4	2.4	ppm	2.0	6/24/2004	7/2/2004	
LV1	AG15694	TRG	Non-Filtered BOD 60 - Reading 5	2.9	ppm	2.0	6/24/2004	7/5/2004	
LV1	AG15694	TRG	Non-Filtered BOD 60 - Reading 6	3.5	ppm	2.0	6/24/2004	7/9/2004	
LV1	AG15694	TRG	Non-Filtered BOD 60 - Reading 7	4.1	ppm	2.0	6/24/2004	7/14/2004	
LV1	AG15694	TRG	Non-Filtered BOD 60 - Reading 8	4.8	ppm	2.0	6/24/2004	7/23/2004	
LV1	AG15694	TRG	Non-Filtered BOD 60 - Reading 9	5.5	ppm	2.0	8/6/2004	8/3/2004	
LV1	AG15694	TRG	Non-Filtered BOD 60 - Reading 10	6.0	ppm	2.0	6/24/2004	8/13/2004	
LV1	AG15694	TRG	Non-Filtered BOD 60 - Final	6.4	ppm	2.0	6/24/2004	8/23/2004	
LV1	AG15695	FD	TSS	17.5	ppm	4.00	6/28/2004	6/29/2004	
LV1	AG15695	FD	TDS	149	ppm	10.00	6/25/2004	6/29/2004	
LV1	AG15695	FD	Alkalinity	83.5	ppm	2.0	6/28/2004	6/28/2004	
LV1	AG15695	FD	Turbidity	17.2	NTU	1.00	6/24/2004	6/24/2004	
LV1	AG15695	FD	Specific Conductance	218	umhos/cm	10.0	6/28/2004	6/28/2004	
LV1	AG15695	FD	True Color	35	PCU	5.00	6/24/2004	6/24/2004	
LV1	AG15695	FD	Chloride, Ion Chromatograph	9.4	ppm	1.3	6/28/2004	6/28/2004	
LV1	AG15695	FD	Sulfate	11.4	ppm	1.3	6/28/2004	6/28/2004	
LV1	AG15696	FD	Hardness	93.7	ppm	5.0	7/2/2004	7/2/2004	
LV1	AG15696	FD	Nitrate+Nitrite Nitrogen	0.44	ppm	0.05	7/2/2004	7/2/2004	
LV1	AG15696	FD	TP	0.27	ppm	0.05	6/29/2004	6/29/2004	
LV1	AG15696	FD	TKN	0.70	ppm	0.10	6/29/2004	6/29/2004	
LV1	AG15696	FD	Ammonia-Nitrogen	0.17	ppm	0.10	7/1/2004	7/1/2004	
LV1	AG15697	FD	TOC	7.3	ppm	2.00	7/7/2004	7/8/2004	
LV1	AG15698	FD	pH, Ultimate BOD survey	8.0	pH units	0.01	8/23/2004	8/23/2004	
LV1	AG15698	FD	TOC (60 Day BOD)	7.1	ppm	2.0	9/10/2004	9/11/2004	
LV1	AG15698	FD	TKN (60 Day BOD)	0.24	ppm	0.1	9/14/2004	9/14/2004	
LV1	AG15698	FD	NO2NO3 - Initial Reading	0.28	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
LV1	AG15698	FD	NO2NO3 - Reading 1	0.32	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
LV1	AG15698	FD	NO2NO3 - Reading 2	0.39	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
LV1	AG15698	FD	NO2NO3 - Reading 3	0.39	ppm	0.05	7/9/2004	7/9/2004	6/30/2004

LV1	AG15698	FD	NO2NO3 - Reading 4	0.48	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
LV1	AG15698	FD	NO2NO3 - Reading 5	0.49	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
LV1	AG15698	FD	NO2NO3 - Reading 6	0.52	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
LV1	AG15698	FD	NO2NO3 - Reading 7	0.56	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
LV1	AG15698	FD	NO2NO3 - Reading 8	0.61	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
LV1	AG15698	FD	NO2NO3 - Reading 9	0.63	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
LV1	AG15698	FD	NO2NO3 - Reading 10	0.72	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
LV1	AG15698	FD	NO2NO3 - Final	0.61	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
LV1	AG15698	FD	Non-Filtered BOD 60 - Reading 1	0.4	ppm	2.0	6/24/2004	6/25/2004	
LV1	AG15698	FD	Non-Filtered BOD 60 - Reading 2	1.5	ppm	2.0	6/24/2004	6/28/2004	
LV1	AG15698	FD	Non-Filtered BOD 60 - Reading 3	2.0	ppm	2.0	6/24/2004	6/30/2004	
LV1	AG15698	FD	Non-Filtered BOD 60 - Reading 4	2.5	ppm	2.0	6/24/2004	7/2/2004	
LV1	AG15698	FD	Non-Filtered BOD 60 - Reading 5	2.9	ppm	2.0	6/24/2004	7/5/2004	
LV1	AG15698	FD	Non-Filtered BOD 60 - Reading 6	3.5	ppm	2.0	6/24/2004	7/9/2004	
LV1	AG15698	FD	Non-Filtered BOD 60 - Reading 7	4.2	ppm	2.0	6/24/2004	7/14/2004	
LV1	AG15698	FD	Non-Filtered BOD 60 - Reading 8	4.9	ppm	2.0	6/24/2004	7/23/2004	
LV1	AG15698	FD	Non-Filtered BOD 60 - Reading 9	5.4	ppm	2.0	8/6/2004	8/3/2004	
LV1	AG15698	FD	Non-Filtered BOD 60 - Reading 10	5.9	ppm	2.0	6/24/2004	8/13/2004	
LV1	AG15698	FD	Non-Filtered BOD 60 - Final	6.4	ppm	2.0	6/24/2004	8/23/2004	
LGBY2	AG15699	TRG	TSS	ND	ppm	4.00	6/24/2004	6/28/2004	
LGBY2	AG15699	TRG	TDS	113	ppm	10.00	6/25/2004	6/29/2004	
LGBY2	AG15699	TRG	Alkalinity	68.1	ppm	2.0	6/28/2004	6/28/2004	
LGBY2	AG15699	TRG	Turbidity	3.7	NTU	1.00	6/24/2004	6/24/2004	
LGBY2	AG15699	TRG	Specific Conductance	173	umhos/cm	10.0	6/28/2004	6/28/2004	
LGBY2	AG15699	TRG	True Color	50	PCU	5.00	6/24/2004	6/24/2004	
LGBY2	AG15699	TRG	Chloride, Ion Chromatograph	10.5	ppm	1.3	6/28/2004	6/28/2004	
LGBY2	AG15699	TRG	Sulfate	1.9	ppm	1.3	6/28/2004	6/28/2004	
LGBY2	AG15700	TRG	Hardness	67.0	ppm	5.0	7/2/2004	7/2/2004	
LGBY2	AG15700	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	0.05	7/2/2004	7/2/2004	
LGBY2	AG15700	TRG	TP	0.84	ppm	0.05	6/29/2004	6/29/2004	
LGBY2	AG15700	TRG	TKN	0.82	ppm	0.10	6/29/2004	6/29/2004	
LGBY2	AG15700	TRG	Ammonia-Nitrogen	0.23	ppm	0.10	7/1/2004	7/1/2004	
LGBY2	AG15701	TRG	TOC	10.4	ppm	2.00	7/7/2004	7/8/2004	
LGBY2	AG15702	TRG	pH, Ultimate BOD survey	7.8	pH units	0.01	8/23/2004	8/23/2004	
LGBY2	AG15702	TRG	TOC (60 Day BOD)	9.4	ppm	2.0	9/10/2004	9/11/2004	

LGBY2	AG15702	TRG	TKN (60 Day BOD)	0.13	ppm	0.1	9/14/2004	9/14/2004	
LGBY2	AG15702	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
LGBY2	AG15702	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
LGBY2	AG15702	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
LGBY2	AG15702	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
LGBY2	AG15702	TRG	NO2NO3 - Reading 4	ND	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
LGBY2	AG15702	TRG	NO2NO3 - Reading 5	ND	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
LGBY2	AG15702	TRG	NO2NO3 - Reading 6	0.16	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
LGBY2	AG15702	TRG	NO2NO3 - Reading 7	0.20	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
LGBY2	AG15702	TRG	NO2NO3 - Reading 8	0.25	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
LGBY2	AG15702	TRG	NO2NO3 - Reading 9	0.29	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
LGBY2	AG15702	TRG	NO2NO3 - Reading 10	0.32	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
LGBY2	AG15702	TRG	NO2NO3 - Final	0.29	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
LGBY2	AG15702	TRG	Non-Filtered BOD 60 - Reading 1	0.1	ppm	2.0	6/24/2004	6/25/2004	
LGBY2	AG15702	TRG	Non-Filtered BOD 60 - Reading 2	1.5	ppm	2.0	6/24/2004	6/28/2004	
LGBY2	AG15702	TRG	Non-Filtered BOD 60 - Reading 3	2.0	ppm	2.0	6/24/2004	6/30/2004	
LGBY2	AG15702	TRG	Non-Filtered BOD 60 - Reading 4	2.5	ppm	2.0	6/24/2004	7/2/2004	
LGBY2	AG15702	TRG	Non-Filtered BOD 60 - Reading 5	3.2	ppm	2.0	6/24/2004	7/5/2004	
LGBY2	AG15702	TRG	Non-Filtered BOD 60 - Reading 6	4.6	ppm	2.0	6/24/2004	7/9/2004	
LGBY2	AG15702	TRG	Non-Filtered BOD 60 - Reading 7	5.4	ppm	2.0	6/24/2004	7/14/2004	
LGBY2	AG15702	TRG	Non-Filtered BOD 60 - Reading 8	6.4	ppm	2.0	6/24/2004	7/23/2004	
LGBY2	AG15702	TRG	Non-Filtered BOD 60 - Reading 9	7.2	ppm	2.0	8/6/2004	8/3/2004	
LGBY2	AG15702	TRG	Non-Filtered BOD 60 - Reading 10	7.7	ppm	2.0	6/24/2004	8/13/2004	
LGBY2	AG15702	TRG	Non-Filtered BOD 60 - Final	8.3	ppm	2.0	6/24/2004	8/23/2004	
LGBY2	AG15703	TRG	Chlorophyll A (calculated)	15.0	ug/L	0.0	7/8/2004	7/9/2004	
LGBY2	AG15703	TRG	Chlorophyll A (raw)	374	ug/L	0.0	7/8/2004	7/9/2004	
LGBY2	AG15703	TRG	Volume of sample, Chlorophyll A (raw)	250	ml	0.0	7/8/2004	7/8/2004	
LGBY3	AG15704	TRG	TSS	5.0	ppm	4.00	6/24/2004	6/28/2004	
LGBY3	AG15704	TRG	TDS	127	ppm	10.00	6/25/2004	6/29/2004	
LGBY3	AG15704	TRG	Alkalinity	69.8	ppm	2.0	6/28/2004	6/28/2004	
LGBY3	AG15704	TRG	Turbidity	6.4	NTU	1.00	6/24/2004	6/24/2004	
LGBY3	AG15704	TRG	Specific Conductance	181	umhos/cm	10.0	6/28/2004	6/28/2004	
LGBY3	AG15704	TRG	True Color	45	PCU	5.00	6/24/2004	6/24/2004	
LGBY3	AG15704	TRG	Chloride, Ion Chromatograph	11.0	ppm	1.3	6/28/2004	6/28/2004	
LGBY3	AG15704	TRG	Sulfate	2.2	ppm	1.3	6/28/2004	6/28/2004	

LGBY3	AG15705	TRG	Hardness	68.2	ppm	5.0	7/2/2004	7/2/2004	
LGBY3	AG15705	TRG	Nitrate+Nitrite Nitrogen	0.06	ppm	0.05	7/2/2004	7/2/2004	
LGBY3	AG15705	TRG	TP	0.98	ppm	0.05	6/29/2004	6/29/2004	
LGBY3	AG15705	TRG	TKN	1.00	ppm	0.10	6/29/2004	6/29/2004	
LGBY3	AG15705	TRG	Ammonia-Nitrogen	0.13	ppm	0.10	7/1/2004	7/1/2004	
LGBY3	AG15706	TRG	TOC	9.8	ppm	2.00	7/7/2004	7/8/2004	
LGBY3	AG15707	TRG	pH, Ultimate BOD survey	7.8	pH units	0.01	8/23/2004	8/23/2004	
LGBY3	AG15707	TRG	TOC (60 Day BOD)	8.4	ppm	2.0	9/10/2004	9/11/2004	
LGBY3	AG15707	TRG	TKN (60 Day BOD)	0.53	ppm	0.1	9/14/2004	9/14/2004	
LGBY3	AG15707	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
LGBY3	AG15707	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
LGBY3	AG15707	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
LGBY3	AG15707	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
LGBY3	AG15707	TRG	NO2NO3 - Reading 4	ND	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
LGBY3	AG15707	TRG	NO2NO3 - Reading 5	0.13	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
LGBY3	AG15707	TRG	NO2NO3 - Reading 6	0.20	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
LGBY3	AG15707	TRG	NO2NO3 - Reading 7	0.23	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
LGBY3	AG15707	TRG	NO2NO3 - Reading 8	0.30	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
LGBY3	AG15707	TRG	NO2NO3 - Reading 9	0.32	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
LGBY3	AG15707	TRG	NO2NO3 - Reading 10	0.36	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
LGBY3	AG15707	TRG	NO2NO3 - Final	0.32	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
LGBY3	AG15707	TRG	Non-Filtered BOD 60 - Reading 1	0.7	ppm	2.0	6/24/2004	6/25/2004	
LGBY3	AG15707	TRG	Non-Filtered BOD 60 - Reading 2	1.8	ppm	2.0	6/24/2004	6/28/2004	
LGBY3	AG15707	TRG	Non-Filtered BOD 60 - Reading 3	2.3	ppm	2.0	6/24/2004	6/30/2004	
LGBY3	AG15707	TRG	Non-Filtered BOD 60 - Reading 4	2.8	ppm	2.0	6/24/2004	7/2/2004	
LGBY3	AG15707	TRG	Non-Filtered BOD 60 - Reading 5	3.7	ppm	2.0	6/24/2004	7/5/2004	
LGBY3	AG15707	TRG	Non-Filtered BOD 60 - Reading 6	4.5	ppm	2.0	6/24/2004	7/9/2004	
LGBY3	AG15707	TRG	Non-Filtered BOD 60 - Reading 7	5.2	ppm	2.0	6/24/2004	7/14/2004	
LGBY3	AG15707	TRG	Non-Filtered BOD 60 - Reading 8	6.1	ppm	2.0	6/24/2004	7/23/2004	
LGBY3	AG15707	TRG	Non-Filtered BOD 60 - Reading 9	7.0	ppm	2.0	8/6/2004	8/3/2004	
LGBY3	AG15707	TRG	Non-Filtered BOD 60 - Reading 10	7.7	ppm	2.0	6/24/2004	8/13/2004	
LGBY3	AG15707	TRG	Non-Filtered BOD 60 - Final	8.2	ppm	2.0	6/24/2004	8/23/2004	
LGBY4	AG15708	TRG	TSS	4.0	ppm	4.00	6/24/2004	6/28/2004	
LGBY4	AG15708	TRG	TDS	121	ppm	10.00	6/25/2004	6/29/2004	
LGBY4	AG15708	TRG	Alkalinity	68.1	ppm	2.0	6/28/2004	6/28/2004	

LGBY4	AG15708	TRG	Turbidity	5.5	NTU	1.00	6/24/2004	6/24/2004	
LGBY4	AG15708	TRG	Specific Conductance	175	umhos/cm	10.0	6/28/2004	6/28/2004	
LGBY4	AG15708	TRG	True Color	40	PCU	5.00	6/24/2004	6/24/2004	
LGBY4	AG15708	TRG	Chloride, Ion Chromatograph	10.3	ppm	1.3	6/28/2004	6/28/2004	
LGBY4	AG15708	TRG	Sulfate	2.3	ppm	1.3	6/28/2004	6/28/2004	
LGBY4	AG15709	TRG	Hardness	67.8	ppm	5.0	7/2/2004	7/2/2004	
LGBY4	AG15709	TRG	Nitrate+Nitrite Nitrogen	0.08	ppm	0.05	7/2/2004	7/2/2004	
LGBY4	AG15709	TRG	TP	0.80	ppm	0.05	6/29/2004	6/29/2004	
LGBY4	AG15709	TRG	TKN	1.12	ppm	0.10	6/29/2004	6/29/2004	
LGBY4	AG15709	TRG	Ammonia-Nitrogen	0.11	ppm	0.10	7/1/2004	7/1/2004	
LGBY4	AG15710	TRG	TOC	10.0	ppm	2.00	7/7/2004	7/8/2004	
LGBY4	AG15711	TRG	pH, Ultimate BOD survey	7.8	pH units	0.01	8/23/2004	8/23/2004	
LGBY4	AG15711	TRG	TOC (60 Day BOD)	8.1	ppm	2.0	9/10/2004	9/11/2004	
LGBY4	AG15711	TRG	TKN (60 Day BOD)	0.41	ppm	0.1	9/14/2004	9/14/2004	
LGBY4	AG15711	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
LGBY4	AG15711	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
LGBY4	AG15711	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
LGBY4	AG15711	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
LGBY4	AG15711	TRG	NO2NO3 - Reading 4	0.05	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
LGBY4	AG15711	TRG	NO2NO3 - Reading 5	0.13	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
LGBY4	AG15711	TRG	NO2NO3 - Reading 6	0.20	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
LGBY4	AG15711	TRG	NO2NO3 - Reading 7	0.22	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
LGBY4	AG15711	TRG	NO2NO3 - Reading 8	0.27	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
LGBY4	AG15711	TRG	NO2NO3 - Reading 9	0.32	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
LGBY4	AG15711	TRG	NO2NO3 - Reading 10	0.34	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
LGBY4	AG15711	TRG	NO2NO3 - Final	0.30	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
LGBY4	AG15711	TRG	Non-Filtered BOD 60 - Reading 1	0.6	ppm	2.0	6/24/2004	6/25/2004	
LGBY4	AG15711	TRG	Non-Filtered BOD 60 - Reading 2	1.6	ppm	2.0	6/24/2004	6/28/2004	
LGBY4	AG15711	TRG	Non-Filtered BOD 60 - Reading 3	2.0	ppm	2.0	6/24/2004	6/30/2004	
LGBY4	AG15711	TRG	Non-Filtered BOD 60 - Reading 4	2.5	ppm	2.0	6/24/2004	7/2/2004	
LGBY4	AG15711	TRG	Non-Filtered BOD 60 - Reading 5	3.5	ppm	2.0	6/24/2004	7/5/2004	
LGBY4	AG15711	TRG	Non-Filtered BOD 60 - Reading 6	4.2	ppm	2.0	6/24/2004	7/9/2004	
LGBY4	AG15711	TRG	Non-Filtered BOD 60 - Reading 7	4.8	ppm	2.0	6/24/2004	7/14/2004	
LGBY4	AG15711	TRG	Non-Filtered BOD 60 - Reading 8	5.8	ppm	2.0	6/24/2004	7/23/2004	
LGBY4	AG15711	TRG	Non-Filtered BOD 60 - Reading 9	6.5	ppm	2.0	8/6/2004	8/3/2004	

LGBY4	AG15711	TRG	Non-Filtered BOD 60 - Reading 10	7.1	ppm	2.0	6/24/2004	8/13/2004	
LGBY4	AG15711	TRG	Non-Filtered BOD 60 - Final	7.7	ppm	2.0	6/24/2004	8/23/2004	
LGBY5	AG15712	TRG	TSS	7.0	ppm	4.00	6/24/2004	6/28/2004	
LGBY5	AG15712	TRG	TDS	111	ppm	10.00	6/25/2004	6/29/2004	
LGBY5	AG15712	TRG	Alkalinity	67.8	ppm	2.0	6/28/2004	6/28/2004	
LGBY5	AG15712	TRG	Turbidity	8.3	NTU	1.00	6/24/2004	6/24/2004	
LGBY5	AG15712	TRG	Specific Conductance	171	umhos/cm	10.0	6/28/2004	6/28/2004	
LGBY5	AG15712	TRG	True Color	45	PCU	5.00	6/24/2004	6/24/2004	
LGBY5	AG15712	TRG	Chloride, Ion Chromatograph	9.2	ppm	1.3	6/28/2004	6/28/2004	
LGBY5	AG15712	TRG	Sulfate	3.3	ppm	1.3	6/28/2004	6/28/2004	
LGBY5	AG15713	TRG	Hardness	68.6	ppm	5.0	7/2/2004	7/2/2004	
LGBY5	AG15713	TRG	Nitrate+Nitrite Nitrogen	0.07	ppm	0.05	7/2/2004	7/2/2004	
LGBY5	AG15713	TRG	TP	0.52	ppm	0.05	6/29/2004	6/29/2004	
LGBY5	AG15713	TRG	TKN	0.97	ppm	0.10	6/29/2004	6/29/2004	
LGBY5	AG15713	TRG	Ammonia-Nitrogen	ND	ppm	0.10	7/1/2004	7/1/2004	
LGBY5	AG15714	TRG	TOC	8.5	ppm	2.00	7/7/2004	7/8/2004	
LGBY5	AG15715	TRG	pH, Ultimate BOD survey	7.8	pH units	0.01	8/23/2004	8/23/2004	
LGBY5	AG15715	TRG	TOC (60 Day BOD)	7.7	ppm	2.0	9/10/2004	9/11/2004	
LGBY5	AG15715	TRG	TKN (60 Day BOD)	0.35	ppm	0.1	9/14/2004	9/14/2004	
LGBY5	AG15715	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
LGBY5	AG15715	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
LGBY5	AG15715	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
LGBY5	AG15715	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
LGBY5	AG15715	TRG	NO2NO3 - Reading 4	0.07	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
LGBY5	AG15715	TRG	NO2NO3 - Reading 5	0.22	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
LGBY5	AG15715	TRG	NO2NO3 - Reading 6	0.35	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
LGBY5	AG15715	TRG	NO2NO3 - Reading 7	0.38	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
LGBY5	AG15715	TRG	NO2NO3 - Reading 8	0.46	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
LGBY5	AG15715	TRG	NO2NO3 - Reading 9	0.52	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
LGBY5	AG15715	TRG	NO2NO3 - Reading 10	0.58	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
LGBY5	AG15715	TRG	NO2NO3 - Final	0.49	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
LGBY5	AG15715	TRG	Non-Filtered BOD 60 - Reading 1	1.0	ppm	2.0	6/24/2004	6/25/2004	
LGBY5	AG15715	TRG	Non-Filtered BOD 60 - Reading 2	3.1	ppm	2.0	6/24/2004	6/28/2004	
LGBY5	AG15715	TRG	Non-Filtered BOD 60 - Reading 3	4.0	ppm	2.0	6/24/2004	6/30/2004	
LGBY5	AG15715	TRG	Non-Filtered BOD 60 - Reading 4	4.9	ppm	2.0	6/24/2004	7/2/2004	

LGBY5	AG15715	TRG	Non-Filtered BOD 60 - Reading 5	6.3	ppm	2.0	6/24/2004	7/5/2004	
LGBY5	AG15715	TRG	Non-Filtered BOD 60 - Reading 6	7.3	ppm	2.0	6/24/2004	7/9/2004	
LGBY5	AG15715	TRG	Non-Filtered BOD 60 - Reading 7	8.3	ppm	2.0	6/24/2004	7/14/2004	
LGBY5	AG15715	TRG	Non-Filtered BOD 60 - Reading 8	9.5	ppm	2.0	6/24/2004	7/23/2004	
LGBY5	AG15715	TRG	Non-Filtered BOD 60 - Reading 9	10.5	ppm	2.0	8/6/2004	8/3/2004	
LGBY5	AG15715	TRG	Non-Filtered BOD 60 - Reading 10	11.2	ppm	2.0	6/24/2004	8/13/2004	
LGBY5	AG15715	TRG	Non-Filtered BOD 60 - Final	11.8	ppm	2.0	6/24/2004	8/23/2004	
LV2	AG15716	TRG	TSS	26.0	ppm	4.00	6/28/2004	6/29/2004	
LV2	AG15716	TRG	TDS	113	ppm	10.00	6/25/2004	6/29/2004	
LV2	AG15716	TRG	Alkalinity	NR	ppm	2.00	6/29/2004	6/29/2004	
LV2	AG15716	TRG	Turbidity	21	NTU	1.00	6/24/2004	6/24/2004	
LV2	AG15716	TRG	Specific Conductance	NR	umhos/cm	10.0	6/29/2004	6/29/2004	
LV2	AG15716	TRG	True Color	45	PCU	5.00	6/24/2004	6/24/2004	
LV2	AG15716	TRG	Chloride, Ion Chromatograph	8.9	ppm	1.3	6/28/2004	6/28/2004	
LV2	AG15716	TRG	Sulfate	4.9	ppm	1.3	6/28/2004	6/28/2004	
LV2	AG15717	TRG	Hardness	72.0	ppm	5.0	7/2/2004	7/2/2004	
LV2	AG15717	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	0.05	7/2/2004	7/2/2004	
LV2	AG15717	TRG	TP	0.34	ppm	0.05	6/29/2004	6/29/2004	
LV2	AG15717	TRG	TKN	1.37	ppm	0.10	6/29/2004	6/29/2004	
LV2	AG15717	TRG	Ammonia-Nitrogen	ND	ppm	0.10	7/1/2004	7/1/2004	
LV2	AG15718	TRG	TOC	8.1	ppm	2.00	7/7/2004	7/8/2004	
LV2	AG15719	TRG	pH, Ultimate BOD survey	7.8	pH units	0.01	8/23/2004	8/23/2004	
LV2	AG15719	TRG	TOC (60 Day BOD)	7.4	ppm	2.0	9/10/2004	9/11/2004	
LV2	AG15719	TRG	TKN (60 Day BOD)	0.44	ppm	0.1	9/14/2004	9/14/2004	
LV2	AG15719	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
LV2	AG15719	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
LV2	AG15719	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
LV2	AG15719	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
LV2	AG15719	TRG	NO2NO3 - Reading 4	0.08	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
LV2	AG15719	TRG	NO2NO3 - Reading 5	0.39	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
LV2	AG15719	TRG	NO2NO3 - Reading 6	0.51	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
LV2	AG15719	TRG	NO2NO3 - Reading 7	0.62	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
LV2	AG15719	TRG	NO2NO3 - Reading 8	0.71	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
LV2	AG15719	TRG	NO2NO3 - Reading 9	0.82	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
LV2	AG15719	TRG	NO2NO3 - Reading 10	1.01	ppm	0.05	9/3/2004	9/3/2004	8/13/2004

LV2	AG15719	TRG	NO2NO3 - Final	0.84	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
LV2	AG15719	TRG	Non-Filtered BOD 60 - Reading 1	1.9	ppm	2.0	6/24/2004	6/25/2004	
LV2	AG15719	TRG	Non-Filtered BOD 60 - Reading 2	6.2	ppm	2.0	6/24/2004	6/28/2004	
LV2	AG15719	TRG	Non-Filtered BOD 60 - Reading 3	8.3	ppm	2.0	6/24/2004	6/30/2004	
LV2	AG15719	TRG	Non-Filtered BOD 60 - Reading 4	10.0	ppm	2.0	6/24/2004	7/2/2004	
LV2	AG15719	TRG	Non-Filtered BOD 60 - Reading 5	13.1	ppm	2.0	6/24/2004	7/5/2004	
LV2	AG15719	TRG	Non-Filtered BOD 60 - Reading 6	15.1	ppm	2.0	6/24/2004	7/9/2004	
LV2	AG15719	TRG	Non-Filtered BOD 60 - Reading 7	16.5	ppm	2.0	6/24/2004	7/14/2004	
LV2	AG15719	TRG	Non-Filtered BOD 60 - Reading 8	18.0	ppm	2.0	6/24/2004	7/23/2004	
LV2	AG15719	TRG	Non-Filtered BOD 60 - Reading 9	19.5	ppm	2.0	8/6/2004	8/3/2004	
LV2	AG15719	TRG	Non-Filtered BOD 60 - Reading 10	20.7	ppm	2.0	6/24/2004	8/13/2004	
LV2	AG15719	TRG	Non-Filtered BOD 60 - Final	21.4	ppm	2.0	6/24/2004	8/23/2004	
LV2	AG15720	TRG	Chlorophyll A (raw)	3248	ug/L	0.0	7/8/2004	7/9/2004	
LV2	AG15720	TRG	Chlorophyll A (calculated)	130	ug/L	0.0	7/8/2004	7/9/2004	
LV2	AG15720	TRG	Volume of sample, Chlorophyll A (raw)	250	ml	0.0	7/8/2004	7/8/2004	
BYS1	AG15721	TRG	TSS	37.0	ppm	4.00	6/24/2004	6/28/2004	
BYS1	AG15721	TRG	TDS	216	ppm	10.00	6/25/2004	6/29/2004	
BYS1	AG15721	TRG	Alkalinity	154	ppm	2.0	6/28/2004	6/28/2004	
BYS1	AG15721	TRG	Turbidity	25	NTU	1.00	6/24/2004	6/24/2004	
BYS1	AG15721	TRG	Specific Conductance	342	umhos/cm	10.0	6/28/2004	6/28/2004	
BYS1	AG15721	TRG	True Color	30	PCU	5.00	6/24/2004	6/24/2004	
BYS1	AG15721	TRG	Chloride, Ion Chromatograph	15.0	ppm	1.3	6/28/2004	6/28/2004	
BYS1	AG15721	TRG	Sulfate	4.5	ppm	1.3	6/28/2004	6/28/2004	
BYS1	AG15722	TRG	Hardness	143	ppm	5.0	7/2/2004	7/2/2004	
BYS1	AG15722	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	0.05	7/2/2004	7/2/2004	
BYS1	AG15722	TRG	TP	0.82	ppm	0.05	6/29/2004	6/29/2004	
BYS1	AG15722	TRG	TKN	1.37	ppm	0.10	6/29/2004	6/29/2004	
BYS1	AG15722	TRG	Ammonia-Nitrogen	0.17	ppm	0.10	7/1/2004	7/1/2004	
BYS1	AG15723	TRG	TOC	8.9	ppm	2.00	7/7/2004	7/8/2004	
BYS1	AG15724	TRG	pH, Ultimate BOD survey	8.3	pH units	0.01	8/23/2004	8/23/2004	
BYS1	AG15724	TRG	TOC (60 Day BOD)	18.0	ppm	2.0	9/10/2004	9/11/2004	
BYS1	AG15724	TRG	TKN (60 Day BOD)	0.63	ppm	0.1	9/15/2004	9/15/2004	
BYS1	AG15724	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
BYS1	AG15724	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
BYS1	AG15724	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004

BYS1	AG15724	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
BYS1	AG15724	TRG	NO2NO3 - Reading 4	0.22	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
BYS1	AG15724	TRG	NO2NO3 - Reading 5	0.47	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
BYS1	AG15724	TRG	NO2NO3 - Reading 6	0.61	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
BYS1	AG15724	TRG	NO2NO3 - Reading 7	0.68	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
BYS1	AG15724	TRG	NO2NO3 - Reading 8	0.78	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
BYS1	AG15724	TRG	NO2NO3 - Reading 9	0.87	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
BYS1	AG15724	TRG	NO2NO3 - Reading 10	0.99	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
BYS1	AG15724	TRG	NO2NO3 - Final	0.84	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
BYS1	AG15724	TRG	Non-Filtered BOD 60 - Reading 1	1.7	ppm	2.0	6/24/2004	6/25/2004	
BYS1	AG15724	TRG	Non-Filtered BOD 60 - Reading 2	5.0	ppm	2.0	6/24/2004	6/28/2004	
BYS1	AG15724	TRG	Non-Filtered BOD 60 - Reading 3	6.6	ppm	2.0	6/24/2004	6/30/2004	
BYS1	AG15724	TRG	Non-Filtered BOD 60 - Reading 4	8.4	ppm	2.0	6/24/2004	7/2/2004	
BYS1	AG15724	TRG	Non-Filtered BOD 60 - Reading 5	10.9	ppm	2.0	6/24/2004	7/5/2004	
BYS1	AG15724	TRG	Non-Filtered BOD 60 - Reading 6	12.3	ppm	2.0	6/24/2004	7/9/2004	
BYS1	AG15724	TRG	Non-Filtered BOD 60 - Reading 7	13.6	ppm	2.0	6/24/2004	7/14/2004	
BYS1	AG15724	TRG	Non-Filtered BOD 60 - Reading 8	15.4	ppm	2.0	6/24/2004	7/23/2004	
BYS1	AG15724	TRG	Non-Filtered BOD 60 - Reading 9	16.8	ppm	2.0	8/6/2004	8/3/2004	
BYS1	AG15724	TRG	Non-Filtered BOD 60 - Reading 10	17.8	ppm	2.0	6/24/2004	8/13/2004	
BYS1	AG15724	TRG	Non-Filtered BOD 60 - Final	18.6	ppm	2.0	6/24/2004	8/23/2004	
BYS1	AG15725	TRG	Chlorophyll A (calculated)	78.1	ug/L	0.0	7/8/2004	7/9/2004	
BYS1	AG15725	TRG	Volume of sample, Chlorophyll A (raw)	250	ml	0.0	7/8/2004	7/8/2004	
BYS1	AG15725	TRG	Chlorophyll A (raw)	1952	ug/L	0.0	7/8/2004	7/9/2004	
MB1	AG15726	FB	TSS	ND	ppm	4.00	6/24/2004	6/28/2004	
MB1	AG15726	FB	TDS	ND	ppm	10.00	6/25/2004	6/29/2004	
MB1	AG15726	FB	Alkalinity	ND	ppm	2.0	6/28/2004	6/28/2004	
MB1	AG15726	FB	Turbidity	ND	NTU	1.00	6/24/2004	6/24/2004	
MB1	AG15726	FB	Specific Conductance	ND	umhos/cm	10.0	6/28/2004	6/28/2004	
MB1	AG15726	FB	True Color	ND	PCU	5.00	6/24/2004	6/24/2004	
MB1	AG15726	FB	Chloride, Ion Chromatograph	ND	ppm	1.25	7/1/2004	7/1/2004	
MB1	AG15726	FB	Sulfate	ND	ppm	1.25	7/1/2004	7/1/2004	
MB1	AG15727	FB	Hardness	ND	ppm	5.0	7/2/2004	7/2/2004	
MB1	AG15727	FB	Nitrate+Nitrite Nitrogen	ND	ppm	0.05	7/2/2004	7/2/2004	
MB1	AG15727	FB	TP	0.06	ppm	0.05	7/7/2004	7/7/2004	
MB1	AG15727	FB	TKN	ND	ppm	0.10	7/7/2004	7/7/2004	

MB1	AG15727	FB	Ammonia-Nitrogen	ND	ppm	0.10	7/1/2004	7/1/2004	
MB1	AG15728	FB	TOC	ND	ppm	2.00	7/7/2004	7/8/2004	
MB1	AG15729	FB	pH, Ultimate BOD survey	7.5	pH units	0.01	8/23/2004	8/23/2004	
MB1	AG15729	FB	TOC (60 Day BOD)	ND	ppm	2.0	9/10/2004	9/11/2004	
MB1	AG15729	FB	TKN (60 Day BOD)	ND	ppm	0.1	9/15/2004	9/15/2004	
MB1	AG15729	FB	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
MB1	AG15729	FB	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
MB1	AG15729	FB	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
MB1	AG15729	FB	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
MB1	AG15729	FB	NO2NO3 - Reading 4	ND	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
MB1	AG15729	FB	NO2NO3 - Reading 5	ND	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
MB1	AG15729	FB	NO2NO3 - Reading 6	ND	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
MB1	AG15729	FB	NO2NO3 - Reading 7	ND	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
MB1	AG15729	FB	NO2NO3 - Reading 8	ND	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
MB1	AG15729	FB	NO2NO3 - Reading 9	ND	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
MB1	AG15729	FB	NO2NO3 - Reading 10	ND	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
MB1	AG15729	FB	NO2NO3 - Final	ND	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
MB1	AG15729	FB	Non-Filtered BOD 60 - Reading 1	0.3	ppm	2.0	6/24/2004	6/25/2004	
MB1	AG15729	FB	Non-Filtered BOD 60 - Reading 2	0.3	ppm	2.0	6/24/2004	6/28/2004	
MB1	AG15729	FB	Non-Filtered BOD 60 - Reading 3	0.3	ppm	2.0	6/24/2004	6/30/2004	
MB1	AG15729	FB	Non-Filtered BOD 60 - Reading 4	0.3	ppm	2.0	6/24/2004	7/2/2004	
MB1	AG15729	FB	Non-Filtered BOD 60 - Reading 5	0.3	ppm	2.0	6/24/2004	7/5/2004	
MB1	AG15729	FB	Non-Filtered BOD 60 - Reading 6	0.4	ppm	2.0	6/24/2004	7/9/2004	
MB1	AG15729	FB	Non-Filtered BOD 60 - Reading 7	0.4	ppm	2.0	6/24/2004	7/14/2004	
MB1	AG15729	FB	Non-Filtered BOD 60 - Reading 8	0.4	ppm	2.0	6/24/2004	7/23/2004	
MB1	AG15729	FB	Non-Filtered BOD 60 - Reading 9	0.6	ppm	2.0	8/6/2004	8/3/2004	
MB1	AG15729	FB	Non-Filtered BOD 60 - Reading 10	0.5	ppm	2.0	6/24/2004	8/13/2004	
MB1	AG15729	FB	Non-Filtered BOD 60 - Final	0.6	ppm	2.0	6/24/2004	8/23/2004	
MB1	AG15730	TRG	TSS	8.0	ppm	4.00	6/24/2004	6/28/2004	
MB1	AG15730	TRG	TDS	121	ppm	10.00	6/25/2004	6/29/2004	
MB1	AG15730	TRG	Alkalinity	65.0	ppm	2.0	6/28/2004	6/28/2004	
MB1	AG15730	TRG	Turbidity	12	NTU	1.00	6/24/2004	6/24/2004	
MB1	AG15730	TRG	Specific Conductance	181	umhos/cm	10.0	6/28/2004	6/28/2004	
MB1	AG15730	TRG	True Color	50	PCU	5.00	6/24/2004	6/24/2004	
MB1	AG15730	TRG	Chloride, Ion Chromatograph	16.9	ppm	1.3	6/28/2004	6/28/2004	

MB1	AG15730	TRG	Sulfate	1.6	ppm	1.3	6/28/2004	6/28/2004	
MB1	AG15731	TRG	Hardness	65.9	ppm	5.0	7/2/2004	7/2/2004	
MB1	AG15731	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	0.05	7/2/2004	7/2/2004	
MB1	AG15731	TRG	TP	0.21	ppm	0.05	7/7/2004	7/7/2004	
MB1	AG15731	TRG	TKN	0.51	ppm	0.10	7/7/2004	7/7/2004	
MB1	AG15731	TRG	Ammonia-Nitrogen	ND	ppm	0.10	7/1/2004	7/1/2004	
MB1	AG15732	TRG	TOC	10.2	ppm	2.00	7/7/2004	7/8/2004	
MB1	AG15733	TRG	pH, Ultimate BOD survey	7.2	pH units	0.01	8/23/2004	8/23/2004	
MB1	AG15733	TRG	TOC (60 Day BOD)	9.2	ppm	2.0	9/10/2004	9/11/2004	
MB1	AG15733	TRG	TKN (60 Day BOD)	0.36	ppm	0.1	9/15/2004	9/15/2004	
MB1	AG15733	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
MB1	AG15733	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
MB1	AG15733	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
MB1	AG15733	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
MB1	AG15733	TRG	NO2NO3 - Reading 4	ND	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
MB1	AG15733	TRG	NO2NO3 - Reading 5	0.13	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
MB1	AG15733	TRG	NO2NO3 - Reading 6	0.17	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
MB1	AG15733	TRG	NO2NO3 - Reading 7	0.17	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
MB1	AG15733	TRG	NO2NO3 - Reading 8	0.22	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
MB1	AG15733	TRG	NO2NO3 - Reading 9	0.26	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
MB1	AG15733	TRG	NO2NO3 - Reading 10	0.29	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
MB1	AG15733	TRG	NO2NO3 - Final	0.25	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
MB1	AG15733	TRG	Non-Filtered BOD 60 - Reading 1	0.6	ppm	2.0	6/24/2004	6/25/2004	
MB1	AG15733	TRG	Non-Filtered BOD 60 - Reading 2	1.4	ppm	2.0	6/24/2004	6/28/2004	
MB1	AG15733	TRG	Non-Filtered BOD 60 - Reading 3	2.0	ppm	2.0	6/24/2004	6/30/2004	
MB1	AG15733	TRG	Non-Filtered BOD 60 - Reading 4	2.4	ppm	2.0	6/24/2004	7/2/2004	
MB1	AG15733	TRG	Non-Filtered BOD 60 - Reading 5	3.1	ppm	2.0	6/24/2004	7/5/2004	
MB1	AG15733	TRG	Non-Filtered BOD 60 - Reading 6	3.7	ppm	2.0	6/24/2004	7/9/2004	
MB1	AG15733	TRG	Non-Filtered BOD 60 - Reading 7	4.2	ppm	2.0	6/24/2004	7/14/2004	
MB1	AG15733	TRG	Non-Filtered BOD 60 - Reading 8	5.1	ppm	2.0	6/24/2004	7/23/2004	
MB1	AG15733	TRG	Non-Filtered BOD 60 - Reading 9	6.1	ppm	2.0	8/6/2004	8/3/2004	
MB1	AG15733	TRG	Non-Filtered BOD 60 - Reading 10	6.8	ppm	2.0	6/24/2004	8/13/2004	
MB1	AG15733	TRG	Non-Filtered BOD 60 - Final	7.4	ppm	2.0	6/24/2004	8/23/2004	
MB1	AG15747	FD	TSS	10.0	ppm	4.00	6/24/2004	6/28/2004	
MB1	AG15747	FD	TDS	125	ppm	10.00	6/25/2004	6/29/2004	

MB1	AG15747	FD	Alkalinity	65.2	ppm	2.0	6/28/2004	6/28/2004	
MB1	AG15747	FD	Turbidity	12	NTU	1.00	6/24/2004	6/24/2004	
MB1	AG15747	FD	Specific Conductance	181	umhos/cm	10.0	6/28/2004	6/28/2004	
MB1	AG15747	FD	True Color	50	PCU	5.00	6/24/2004	6/24/2004	
MB1	AG15747	FD	Chloride, Ion Chromatograph	16.8	ppm	1.3	6/28/2004	6/28/2004	
MB1	AG15747	FD	Sulfate	1.6	ppm	1.3	6/28/2004	6/28/2004	
MB1	AG15748	FD	Hardness	66.3	ppm	5.0	7/2/2004	7/2/2004	
MB1	AG15748	FD	Nitrate+Nitrite Nitrogen	ND	ppm	0.05	7/2/2004	7/2/2004	
MB1	AG15748	FD	TP	0.23	ppm	0.05	7/7/2004	7/7/2004	
MB1	AG15748	FD	TKN	0.47	ppm	0.10	7/7/2004	7/7/2004	
MB1	AG15748	FD	Ammonia-Nitrogen	ND	ppm	0.10	7/1/2004	7/1/2004	
MB1	AG15749	FD	TOC	10.2	ppm	2.00	7/7/2004	7/8/2004	
MB1	AG15750	FD	pH, Ultimate BOD survey	7.4	pH units	0.01	8/23/2004	8/23/2004	
MB1	AG15750	FD	TOC (60 Day BOD)	9.4	ppm	2.0	9/10/2004	9/11/2004	
MB1	AG15750	FD	TKN (60 Day BOD)	0.41	ppm	0.1	9/15/2004	9/15/2004	
MB1	AG15750	FD	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
MB1	AG15750	FD	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
MB1	AG15750	FD	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
MB1	AG15750	FD	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
MB1	AG15750	FD	NO2NO3 - Reading 4	ND	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
MB1	AG15750	FD	NO2NO3 - Reading 5	0.10	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
MB1	AG15750	FD	NO2NO3 - Reading 6	0.18	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
MB1	AG15750	FD	NO2NO3 - Reading 7	0.17	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
MB1	AG15750	FD	NO2NO3 - Reading 8	0.21	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
MB1	AG15750	FD	NO2NO3 - Reading 9	0.26	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
MB1	AG15750	FD	NO2NO3 - Reading 10	0.29	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
MB1	AG15750	FD	NO2NO3 - Final	0.25	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
MB1	AG15750	FD	Non-Filtered BOD 60 - Reading 1	0.6	ppm	2.0	6/24/2004	6/25/2004	
MB1	AG15750	FD	Non-Filtered BOD 60 - Reading 2	1.2	ppm	2.0	6/24/2004	6/28/2004	
MB1	AG15750	FD	Non-Filtered BOD 60 - Reading 3	1.7	ppm	2.0	6/24/2004	6/30/2004	
MB1	AG15750	FD	Non-Filtered BOD 60 - Reading 4	2.1	ppm	2.0	6/24/2004	7/2/2004	
MB1	AG15750	FD	Non-Filtered BOD 60 - Reading 5	2.8	ppm	2.0	6/24/2004	7/5/2004	
MB1	AG15750	FD	Non-Filtered BOD 60 - Reading 6	3.4	ppm	2.0	6/24/2004	7/9/2004	
MB1	AG15750	FD	Non-Filtered BOD 60 - Reading 7	4.0	ppm	2.0	6/24/2004	7/14/2004	
MB1	AG15750	FD	Non-Filtered BOD 60 - Reading 8	4.8	ppm	2.0	6/24/2004	7/23/2004	

MB1	AG15750	FD	Non-Filtered BOD 60 - Reading 9	5.6	ppm	2.0	8/6/2004	8/3/2004	
MB1	AG15750	FD	Non-Filtered BOD 60 - Reading 10	6.4	ppm	2.0	6/24/2004	8/13/2004	
MB1	AG15750	FD	Non-Filtered BOD 60 - Final	6.9	ppm	2.0	6/24/2004	8/23/2004	
BYC1	AG15751	TRG	TSS	5.0	ppm	4.00	6/24/2004	6/28/2004	
BYC1	AG15751	TRG	TDS	155	ppm	10.00	6/25/2004	6/29/2004	
BYC1	AG15751	TRG	Alkalinity	116	ppm	2.0	6/28/2004	6/28/2004	
BYC1	AG15751	TRG	Turbidity	11	NTU	1.00	6/24/2004	6/24/2004	
BYC1	AG15751	TRG	Specific Conductance	250	umhos/cm	10.0	6/28/2004	6/28/2004	
BYC1	AG15751	TRG	True Color	25	PCU	5.00	6/24/2004	6/24/2004	
BYC1	AG15751	TRG	Chloride, Ion Chromatograph	8.4	ppm	1.3	6/28/2004	6/28/2004	
BYC1	AG15751	TRG	Sulfate	2.7	ppm	1.3	6/28/2004	6/28/2004	
BYC1	AG15752	TRG	Hardness	117	ppm	5.0	7/2/2004	7/2/2004	
BYC1	AG15752	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	0.05	7/2/2004	7/2/2004	
BYC1	AG15752	TRG	TP	0.39	ppm	0.05	7/7/2004	7/7/2004	
BYC1	AG15752	TRG	TKN	0.78	ppm	0.10	7/7/2004	7/7/2004	
BYC1	AG15752	TRG	Ammonia-Nitrogen	ND	ppm	0.10	7/1/2004	7/1/2004	
BYC1	AG15753	TRG	TOC	7.1	ppm	2.00	7/7/2004	7/8/2004	
BYC1	AG15754	TRG	pH, Ultimate BOD survey	8.0	pH units	0.01	8/23/2004	8/23/2004	
BYC1	AG15754	TRG	TOC (60 Day BOD)	5.6	ppm	2.0	9/10/2004	9/11/2004	
BYC1	AG15754	TRG	TKN (60 Day BOD)	0.30	ppm	0.1	9/15/2004	9/15/2004	
BYC1	AG15754	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
BYC1	AG15754	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
BYC1	AG15754	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
BYC1	AG15754	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
BYC1	AG15754	TRG	NO2NO3 - Reading 4	ND	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
BYC1	AG15754	TRG	NO2NO3 - Reading 5	0.06	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
BYC1	AG15754	TRG	NO2NO3 - Reading 6	0.12	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
BYC1	AG15754	TRG	NO2NO3 - Reading 7	0.18	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
BYC1	AG15754	TRG	NO2NO3 - Reading 8	0.22	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
BYC1	AG15754	TRG	NO2NO3 - Reading 9	0.23	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
BYC1	AG15754	TRG	NO2NO3 - Reading 10	0.34	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
BYC1	AG15754	TRG	NO2NO3 - Final	0.29	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
BYC1	AG15754	TRG	Non-Filtered BOD 60 - Reading 1	0.8	ppm	2.0	6/24/2004	6/25/2004	
BYC1	AG15754	TRG	Non-Filtered BOD 60 - Reading 2	2.2	ppm	2.0	6/24/2004	6/28/2004	
BYC1	AG15754	TRG	Non-Filtered BOD 60 - Reading 3	2.7	ppm	2.0	6/24/2004	6/30/2004	

BYC1	AG15754	TRG	Non-Filtered BOD 60 - Reading 4	3.1	ppm	2.0	6/24/2004	7/2/2004	
BYC1	AG15754	TRG	Non-Filtered BOD 60 - Reading 5	3.9	ppm	2.0	6/24/2004	7/5/2004	
BYC1	AG15754	TRG	Non-Filtered BOD 60 - Reading 6	4.7	ppm	2.0	6/24/2004	7/9/2004	
BYC1	AG15754	TRG	Non-Filtered BOD 60 - Reading 7	5.5	ppm	2.0	6/24/2004	7/14/2004	
BYC1	AG15754	TRG	Non-Filtered BOD 60 - Reading 8	6.6	ppm	2.0	6/24/2004	7/23/2004	
BYC1	AG15754	TRG	Non-Filtered BOD 60 - Reading 9	7.6	ppm	2.0	8/6/2004	8/3/2004	
BYC1	AG15754	TRG	Non-Filtered BOD 60 - Reading 10	8.1	ppm	2.0	6/24/2004	8/13/2004	
BYC1	AG15754	TRG	Non-Filtered BOD 60 - Final	8.6	ppm	2.0	6/24/2004	8/23/2004	
BYC2	AG15755	TRG	TSS	7.0	ppm	4.00	6/24/2004	6/28/2004	
BYC2	AG15755	TRG	TDS	187	ppm	10.00	6/25/2004	6/29/2004	
BYC2	AG15755	TRG	Alkalinity	129	ppm	2.0	6/28/2004	6/28/2004	
BYC2	AG15755	TRG	Turbidity	7.0	NTU	1.00	6/24/2004	6/24/2004	
BYC2	AG15755	TRG	Specific Conductance	296	umhos/cm	10.0	6/28/2004	6/28/2004	
BYC2	AG15755	TRG	True Color	45	PCU	5.00	6/24/2004	6/24/2004	
BYC2	AG15755	TRG	Chloride, Ion Chromatograph	17.4	ppm	1.3	6/29/2004	6/29/2004	
BYC2	AG15755	TRG	Sulfate	2.7	ppm	1.3	6/29/2004	6/29/2004	
BYC2	AG15756	TRG	Hardness	122	ppm	5.0	7/2/2004	7/2/2004	
BYC2	AG15756	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	0.05	7/2/2004	7/2/2004	
BYC2	AG15756	TRG	TP	0.68	ppm	0.05	7/7/2004	7/7/2004	
BYC2	AG15756	TRG	TKN	0.93	ppm	0.10	7/7/2004	7/7/2004	
BYC2	AG15756	TRG	Ammonia-Nitrogen	0.25	ppm	0.10	7/1/2004	7/1/2004	
BYC2	AG15757	TRG	TOC	9.4	ppm	2.00	7/7/2004	7/8/2004	
BYC2	AG15758	TRG	pH, Ultimate BOD survey	8.1	pH units	0.01	8/23/2004	8/23/2004	
BYC2	AG15758	TRG	TOC (60 Day BOD)	7.7	ppm	2.0	9/10/2004	9/11/2004	
BYC2	AG15758	TRG	TKN (60 Day BOD)	0.38	ppm	0.1	9/15/2004	9/15/2004	
BYC2	AG15758	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
BYC2	AG15758	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
BYC2	AG15758	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
BYC2	AG15758	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
BYC2	AG15758	TRG	NO2NO3 - Reading 4	0.05	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
BYC2	AG15758	TRG	NO2NO3 - Reading 5	0.21	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
BYC2	AG15758	TRG	NO2NO3 - Reading 6	0.34	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
BYC2	AG15758	TRG	NO2NO3 - Reading 7	0.40	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
BYC2	AG15758	TRG	NO2NO3 - Reading 8	0.48	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
BYC2	AG15758	TRG	NO2NO3 - Reading 9	0.52	ppm	0.05	8/18/2004	8/18/2004	8/3/2004

BYC2	AG15758	TRG	NO2NO3 - Reading 10	0.61	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
BYC2	AG15758	TRG	NO2NO3 - Final	0.51	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
BYC2	AG15758	TRG	Non-Filtered BOD 60 - Reading 1	1.2	ppm	2.0	6/24/2004	6/25/2004	
BYC2	AG15758	TRG	Non-Filtered BOD 60 - Reading 2	3.4	ppm	2.0	6/24/2004	6/28/2004	
BYC2	AG15758	TRG	Non-Filtered BOD 60 - Reading 3	4.4	ppm	2.0	6/24/2004	6/30/2004	
BYC2	AG15758	TRG	Non-Filtered BOD 60 - Reading 4	5.3	ppm	2.0	6/24/2004	7/2/2004	
BYC2	AG15758	TRG	Non-Filtered BOD 60 - Reading 5	6.9	ppm	2.0	6/24/2004	7/5/2004	
BYC2	AG15758	TRG	Non-Filtered BOD 60 - Reading 6	8.2	ppm	2.0	6/24/2004	7/9/2004	
BYC2	AG15758	TRG	Non-Filtered BOD 60 - Reading 7	9.4	ppm	2.0	6/24/2004	7/14/2004	
BYC2	AG15758	TRG	Non-Filtered BOD 60 - Reading 8	10.8	ppm	2.0	6/24/2004	7/23/2004	
BYC2	AG15758	TRG	Non-Filtered BOD 60 - Reading 9	12.0	ppm	2.0	8/6/2004	8/3/2004	
BYC2	AG15758	TRG	Non-Filtered BOD 60 - Reading 10	12.8	ppm	2.0	6/24/2004	8/13/2004	
BYC2	AG15758	TRG	Non-Filtered BOD 60 - Final	13.5	ppm	2.0	6/24/2004	8/23/2004	
PST1	AG15759	TRG	TSS	14.0	ppm	4.00	6/24/2004	6/28/2004	
PST1	AG15759	TRG	TDS	152	ppm	10.00	6/25/2004	6/29/2004	
PST1	AG15759	TRG	Alkalinity	95.2	ppm	2.0	6/28/2004	6/28/2004	
PST1	AG15759	TRG	Turbidity	24	NTU	1.00	6/24/2004	6/24/2004	
PST1	AG15759	TRG	Specific Conductance	237	umhos/cm	10.0	6/28/2004	6/28/2004	
PST1	AG15759	TRG	True Color	50	PCU	5.00	6/24/2004	6/24/2004	
PST1	AG15759	TRG	Chloride, Ion Chromatograph	13.8	ppm	1.3	6/28/2004	6/28/2004	
PST1	AG15759	TRG	Sulfate	4.2	ppm	1.3	6/28/2004	6/28/2004	
PST1	AG15760	TRG	Hardness	99.8	ppm	5.0	7/2/2004	7/2/2004	
PST1	AG15760	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	0.05	7/2/2004	7/2/2004	
PST1	AG15760	TRG	TP	0.76	ppm	0.05	7/7/2004	7/7/2004	
PST1	AG15760	TRG	TKN	1.00	ppm	0.10	7/7/2004	7/7/2004	
PST1	AG15760	TRG	Ammonia-Nitrogen	0.13	ppm	0.10	7/1/2004	7/1/2004	
PST1	AG15761	TRG	TOC	10.2	ppm	2.00	7/7/2004	7/8/2004	
PST1	AG15762	TRG	pH, Ultimate BOD survey	7.7	pH units	0.01	8/23/2004	8/23/2004	
PST1	AG15762	TRG	TOC (60 Day BOD)	9.2	ppm	2.0	9/10/2004	9/11/2004	
PST1	AG15762	TRG	TKN (60 Day BOD)	0.63	ppm	0.1	9/15/2004	9/15/2004	
PST1	AG15762	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
PST1	AG15762	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
PST1	AG15762	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
PST1	AG15762	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
PST1	AG15762	TRG	NO2NO3 - Reading 4	0.11	ppm	0.05	7/9/2004	7/9/2004	7/2/2004

PST1	AG15762	TRG	NO2NO3 - Reading 5	0.22	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
PST1	AG15762	TRG	NO2NO3 - Reading 6	0.29	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
PST1	AG15762	TRG	NO2NO3 - Reading 7	0.30	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
PST1	AG15762	TRG	NO2NO3 - Reading 8	0.38	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
PST1	AG15762	TRG	NO2NO3 - Reading 9	0.46	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
PST1	AG15762	TRG	NO2NO3 - Reading 10	0.51	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
PST1	AG15762	TRG	NO2NO3 - Final	0.43	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
PST1	AG15762	TRG	Non-Filtered BOD 60 - Reading 1	1.0	ppm	2.0	6/24/2004	6/25/2004	
PST1	AG15762	TRG	Non-Filtered BOD 60 - Reading 2	3.4	ppm	2.0	6/24/2004	6/28/2004	
PST1	AG15762	TRG	Non-Filtered BOD 60 - Reading 3	4.5	ppm	2.0	6/24/2004	6/30/2004	
PST1	AG15762	TRG	Non-Filtered BOD 60 - Reading 4	5.7	ppm	2.0	6/24/2004	7/2/2004	
PST1	AG15762	TRG	Non-Filtered BOD 60 - Reading 5	6.8	ppm	2.0	6/24/2004	7/5/2004	
PST1	AG15762	TRG	Non-Filtered BOD 60 - Reading 6	7.8	ppm	2.0	6/24/2004	7/9/2004	
PST1	AG15762	TRG	Non-Filtered BOD 60 - Reading 7	8.7	ppm	2.0	6/24/2004	7/14/2004	
PST1	AG15762	TRG	Non-Filtered BOD 60 - Reading 8	10.2	ppm	2.0	6/24/2004	7/23/2004	
PST1	AG15762	TRG	Non-Filtered BOD 60 - Reading 9	11.6	ppm	2.0	8/6/2004	8/3/2004	
PST1	AG15762	TRG	Non-Filtered BOD 60 - Reading 10	12.4	ppm	2.0	6/24/2004	8/13/2004	
PST1	AG15762	TRG	Non-Filtered BOD 60 - Final	13.1	ppm	2.0	6/24/2004	8/23/2004	
BYCO1	AG15763	FB	TSS	ND	ppm	4.00	6/24/2004	6/28/2004	
BYCO1	AG15763	FB	TDS	ND	ppm	10.00	6/25/2004	6/29/2004	
BYCO1	AG15763	FB	Alkalinity	ND	ppm	2.0	6/28/2004	6/28/2004	
BYCO1	AG15763	FB	Turbidity	ND	NTU	1.00	6/24/2004	6/24/2004	
BYCO1	AG15763	FB	Specific Conductance	ND	umhos/cm	10.0	6/28/2004	6/28/2004	
BYCO1	AG15763	FB	True Color	ND	PCU	5.00	6/24/2004	6/24/2004	
BYCO1	AG15763	FB	Chloride, Ion Chromatograph	ND	ppm	1.25	7/1/2004	7/1/2004	
BYCO1	AG15763	FB	Sulfate	ND	ppm	1.25	7/1/2004	7/1/2004	
BYCO1	AG15764	FB	Hardness	ND	ppm	5.0	7/2/2004	7/2/2004	
BYCO1	AG15764	FB	Nitrate+Nitrite Nitrogen	ND	ppm	0.05	7/2/2004	7/2/2004	
BYCO1	AG15764	FB	TP	0.08	ppm	0.05	7/7/2004	7/7/2004	
BYCO1	AG15764	FB	TKN	ND	ppm	0.10	7/7/2004	7/7/2004	
BYCO1	AG15764	FB	Ammonia-Nitrogen	ND	ppm	0.10	7/1/2004	7/1/2004	
BYCO1	AG15765	FB	TOC	ND	ppm	2.00	7/7/2004	7/8/2004	
BYCO1	AG15766	FB	pH, Ultimate BOD survey	8.0	pH units	0.01	8/23/2004	8/23/2004	
BYCO1	AG15766	FB	TOC (60 Day BOD)	ND	ppm	2.0	9/10/2004	9/11/2004	
BYCO1	AG15766	FB	TKN (60 Day BOD)	ND	ppm	0.1	9/15/2004	9/15/2004	

BYCO1	AG15766	FB	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
BYCO1	AG15766	FB	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
BYCO1	AG15766	FB	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
BYCO1	AG15766	FB	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
BYCO1	AG15766	FB	NO2NO3 - Reading 4	ND	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
BYCO1	AG15766	FB	NO2NO3 - Reading 5	ND	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
BYCO1	AG15766	FB	NO2NO3 - Reading 6	ND	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
BYCO1	AG15766	FB	NO2NO3 - Reading 7	ND	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
BYCO1	AG15766	FB	NO2NO3 - Reading 8	ND	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
BYCO1	AG15766	FB	NO2NO3 - Reading 9	ND	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
BYCO1	AG15766	FB	NO2NO3 - Reading 10	ND	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
BYCO1	AG15766	FB	NO2NO3 - Final	ND	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
BYCO1	AG15766	FB	Non-Filtered BOD 60 - Reading 1	0.2	ppm	2.0	6/24/2004	6/25/2004	
BYCO1	AG15766	FB	Non-Filtered BOD 60 - Reading 2	0.2	ppm	2.0	6/24/2004	6/28/2004	
BYCO1	AG15766	FB	Non-Filtered BOD 60 - Reading 3	0.2	ppm	2.0	6/24/2004	6/30/2004	
BYCO1	AG15766	FB	Non-Filtered BOD 60 - Reading 4	0.3	ppm	2.0	6/24/2004	7/2/2004	
BYCO1	AG15766	FB	Non-Filtered BOD 60 - Reading 5	0.3	ppm	2.0	6/24/2004	7/5/2004	
BYCO1	AG15766	FB	Non-Filtered BOD 60 - Reading 6	0.3	ppm	2.0	6/24/2004	7/9/2004	
BYCO1	AG15766	FB	Non-Filtered BOD 60 - Reading 7	0.3	ppm	2.0	6/24/2004	7/14/2004	
BYCO1	AG15766	FB	Non-Filtered BOD 60 - Reading 8	0.4	ppm	2.0	6/24/2004	7/23/2004	
BYCO1	AG15766	FB	Non-Filtered BOD 60 - Reading 9	0.2	ppm	2.0	6/24/2004	8/3/2004	
BYCO1	AG15766	FB	Non-Filtered BOD 60 - Reading 10	0.3	ppm	2.0	6/24/2004	8/13/2004	
BYCO1	AG15766	FB	Non-Filtered BOD 60 - Final	0.3	ppm	2.0	6/24/2004	8/23/2004	
BYCO1	AG15767	TRG	TSS	ND	ppm	4.00	6/24/2004	6/28/2004	
BYCO1	AG15767	TRG	TDS	107	ppm	10.00	6/25/2004	6/29/2004	
BYCO1	AG15767	TRG	Alkalinity	63.2	ppm	2.0	6/28/2004	6/28/2004	
BYCO1	AG15767	TRG	Turbidity	4.4	NTU	1.00	6/24/2004	6/24/2004	
BYCO1	AG15767	TRG	Specific Conductance	164	umhos/cm	10.0	6/28/2004	6/28/2004	
BYCO1	AG15767	TRG	True Color	50	PCU	5.00	6/24/2004	6/24/2004	
BYCO1	AG15767	TRG	Chloride, Ion Chromatograph	10.2	ppm	1.3	6/28/2004	6/28/2004	
BYCO1	AG15767	TRG	Sulfate	3.0	ppm	1.3	6/28/2004	6/28/2004	
BYCO1	AG15768	TRG	Hardness	63.9	ppm	5.0	7/2/2004	7/2/2004	
BYCO1	AG15768	TRG	Nitrate+Nitrite Nitrogen	0.07	ppm	0.05	7/2/2004	7/2/2004	
BYCO1	AG15768	TRG	TP	0.22	ppm	0.05	7/14/2004	7/14/2004	
BYCO1	AG15768	TRG	TKN	0.20	ppm	0.10	7/7/2004	7/7/2004	

BYCO1	AG15768	TRG	Ammonia-Nitrogen	ND	ppm	0.10	7/1/2004	7/1/2004	
BYCO1	AG15769	TRG	TOC	8.9	ppm	2.00	7/7/2004	7/8/2004	
BYCO1	AG15770	TRG	pH, Ultimate BOD survey	7.8	pH units	0.01	8/23/2004	8/23/2004	
BYCO1	AG15770	TRG	TOC (60 Day BOD)	7.8	ppm	2.0	9/10/2004	9/11/2004	
BYCO1	AG15770	TRG	TKN (60 Day BOD)	0.64	ppm	0.1	9/15/2004	9/15/2004	
BYCO1	AG15770	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
BYCO1	AG15770	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
BYCO1	AG15770	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
BYCO1	AG15770	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
BYCO1	AG15770	TRG	NO2NO3 - Reading 4	ND	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
BYCO1	AG15770	TRG	NO2NO3 - Reading 5	0.08	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
BYCO1	AG15770	TRG	NO2NO3 - Reading 6	0.13	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
BYCO1	AG15770	TRG	NO2NO3 - Reading 7	0.15	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
BYCO1	AG15770	TRG	NO2NO3 - Reading 8	0.19	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
BYCO1	AG15770	TRG	NO2NO3 - Reading 9	0.21	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
BYCO1	AG15770	TRG	NO2NO3 - Reading 10	0.24	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
BYCO1	AG15770	TRG	NO2NO3 - Final	0.20	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
BYCO1	AG15770	TRG	Non-Filtered BOD 60 - Reading 1	0.6	ppm	2.0	6/24/2004	6/25/2004	
BYCO1	AG15770	TRG	Non-Filtered BOD 60 - Reading 2	1.4	ppm	2.0	6/24/2004	6/28/2004	
BYCO1	AG15770	TRG	Non-Filtered BOD 60 - Reading 3	1.7	ppm	2.0	6/24/2004	6/30/2004	
BYCO1	AG15770	TRG	Non-Filtered BOD 60 - Reading 4	2.1	ppm	2.0	6/24/2004	7/2/2004	
BYCO1	AG15770	TRG	Non-Filtered BOD 60 - Reading 5	2.6	ppm	2.0	6/24/2004	7/5/2004	
BYCO1	AG15770	TRG	Non-Filtered BOD 60 - Reading 6	3.2	ppm	2.0	6/24/2004	7/9/2004	
BYCO1	AG15770	TRG	Non-Filtered BOD 60 - Reading 7	3.6	ppm	2.0	6/24/2004	7/14/2004	
BYCO1	AG15770	TRG	Non-Filtered BOD 60 - Reading 8	4.4	ppm	2.0	6/24/2004	7/23/2004	
BYCO1	AG15770	TRG	Non-Filtered BOD 60 - Reading 9	5.0	ppm	2.0	8/6/2004	8/3/2004	
BYCO1	AG15770	TRG	Non-Filtered BOD 60 - Reading 10	5.5	ppm	2.0	6/24/2004	8/13/2004	
BYCO1	AG15770	TRG	Non-Filtered BOD 60 - Final	6.0	ppm	2.0	6/24/2004	8/23/2004	
BYCO1	AG15771	TRG	Chlorophyll A (calculated)	6.6	ug/L	0.0	7/8/2004	7/9/2004	
BYCO1	AG15771	TRG	Volume of sample, Chlorophyll A (raw)	250	ml	0.0	7/8/2004	7/8/2004	
BYCO1	AG15771	TRG	Chlorophyll A (raw)	164	ug/L	0.0	7/8/2004	7/9/2004	
BYCO1	AG15772	FD	TSS	5.0	ppm	4.00	6/28/2004	6/29/2004	
BYCO1	AG15772	FD	TDS	106	ppm	10.00	6/25/2004	6/29/2004	
BYCO1	AG15772	FD	Alkalinity	63.1	ppm	2.0	6/28/2004	6/28/2004	
BYCO1	AG15772	FD	Turbidity	4.5	NTU	1.00	6/24/2004	6/24/2004	

BYCO1	AG15772	FD	Specific Conductance	164	umhos/cm	10.0	6/28/2004	6/28/2004	
BYCO1	AG15772	FD	True Color	55	PCU	5.00	6/24/2004	6/24/2004	
BYCO1	AG15772	FD	Chloride, Ion Chromatograph	10.2	ppm	1.3	6/28/2004	6/28/2004	
BYCO1	AG15772	FD	Sulfate	2.9	ppm	1.3	6/28/2004	6/28/2004	
BYCO1	AG15773	FD	Hardness	64.2	ppm	5.0	7/2/2004	7/2/2004	
BYCO1	AG15773	FD	Nitrate+Nitrite Nitrogen	0.07	ppm	0.05	7/2/2004	7/2/2004	
BYCO1	AG15773	FD	TP	0.23	ppm	0.05	7/14/2004	7/14/2004	
BYCO1	AG15773	FD	TKN	0.28	ppm	0.10	7/7/2004	7/7/2004	
BYCO1	AG15773	FD	Ammonia-Nitrogen	ND	ppm	0.10	7/1/2004	7/1/2004	
BYCO1	AG15774	FD	TOC	8.9	ppm	2.00	7/7/2004	7/8/2004	
BYCO1	AG15775	FD	pH, Ultimate BOD survey	7.7	pH units	0.01	8/23/2004	8/23/2004	
BYCO1	AG15775	FD	TOC (60 Day BOD)	8.0	ppm	2.0	9/10/2004	9/11/2004	
BYCO1	AG15775	FD	TKN (60 Day BOD)	0.54	ppm	0.1	9/15/2004	9/15/2004	
BYCO1	AG15775	FD	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
BYCO1	AG15775	FD	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
BYCO1	AG15775	FD	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
BYCO1	AG15775	FD	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
BYCO1	AG15775	FD	NO2NO3 - Reading 4	ND	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
BYCO1	AG15775	FD	NO2NO3 - Reading 5	0.09	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
BYCO1	AG15775	FD	NO2NO3 - Reading 6	0.15	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
BYCO1	AG15775	FD	NO2NO3 - Reading 7	0.15	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
BYCO1	AG15775	FD	NO2NO3 - Reading 8	0.19	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
BYCO1	AG15775	FD	NO2NO3 - Reading 9	0.21	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
BYCO1	AG15775	FD	NO2NO3 - Reading 10	0.24	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
BYCO1	AG15775	FD	NO2NO3 - Final	0.20	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
BYCO1	AG15775	FD	Non-Filtered BOD 60 - Reading 1	0.6	ppm	2.0	6/24/2004	6/25/2004	
BYCO1	AG15775	FD	Non-Filtered BOD 60 - Reading 2	1.4	ppm	2.0	6/24/2004	6/28/2004	
BYCO1	AG15775	FD	Non-Filtered BOD 60 - Reading 3	1.6	ppm	2.0	6/24/2004	6/30/2004	
BYCO1	AG15775	FD	Non-Filtered BOD 60 - Reading 4	2.0	ppm	2.0	6/24/2004	7/2/2004	
BYCO1	AG15775	FD	Non-Filtered BOD 60 - Reading 5	2.5	ppm	2.0	6/24/2004	7/5/2004	
BYCO1	AG15775	FD	Non-Filtered BOD 60 - Reading 6	3.0	ppm	2.0	6/24/2004	7/9/2004	
BYCO1	AG15775	FD	Non-Filtered BOD 60 - Reading 7	3.5	ppm	2.0	6/24/2004	7/14/2004	
BYCO1	AG15775	FD	Non-Filtered BOD 60 - Reading 8	4.2	ppm	2.0	6/24/2004	7/23/2004	
BYCO1	AG15775	FD	Non-Filtered BOD 60 - Reading 9	4.9	ppm	2.0	8/6/2004	8/3/2004	
BYCO1	AG15775	FD	Non-Filtered BOD 60 - Reading 10	5.4	ppm	2.0	6/24/2004	8/13/2004	

BYCO1	AG15775	FD	Non-Filtered BOD 60 - Final	5.9	ppm	2.0	6/24/2004	8/23/2004	
UNC2	AG15776	TRG	TSS	5.0	ppm	4.00	6/24/2004	6/28/2004	
UNC2	AG15776	TRG	TDS	124	ppm	10.00	6/25/2004	6/29/2004	
UNC2	AG15776	TRG	Alkalinity	74.3	ppm	2.0	6/28/2004	6/28/2004	
UNC2	AG15776	TRG	Turbidity	4.5	NTU	1.00	6/24/2004	6/24/2004	
UNC2	AG15776	TRG	Specific Conductance	193	umhos/cm	10.0	6/28/2004	6/28/2004	
UNC2	AG15776	TRG	True Color	40	PCU	5.00	6/24/2004	6/24/2004	
UNC2	AG15776	TRG	Chloride, Ion Chromatograph	10.1	ppm	1.3	6/28/2004	6/28/2004	
UNC2	AG15776	TRG	Sulfate	7.2	ppm	1.3	6/28/2004	6/28/2004	
UNC2	AG15777	TRG	Hardness	78.3	ppm	5.0	7/2/2004	7/2/2004	
UNC2	AG15777	TRG	Nitrate+Nitrite Nitrogen	0.06	ppm	0.05	7/2/2004	7/2/2004	
UNC2	AG15777	TRG	TP	0.22	ppm	0.05	7/7/2004	7/7/2004	
UNC2	AG15777	TRG	TKN	0.56	ppm	0.10	7/7/2004	7/7/2004	
UNC2	AG15777	TRG	Ammonia-Nitrogen	ND	ppm	0.10	7/1/2004	7/1/2004	
UNC2	AG15778	TRG	TOC	8.5	ppm	2.00	7/7/2004	7/8/2004	
UNC2	AG15779	TRG	pH, Ultimate BOD survey	8.0	pH units	0.01	8/23/2004	8/23/2004	
UNC2	AG15779	TRG	TOC (60 Day BOD)	7.2	ppm	2.0	9/10/2004	9/11/2004	
UNC2	AG15779	TRG	TKN (60 Day BOD)	0.36	ppm	0.1	9/15/2004	9/15/2004	
UNC2	AG15779	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
UNC2	AG15779	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
UNC2	AG15779	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
UNC2	AG15779	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
UNC2	AG15779	TRG	NO2NO3 - Reading 4	ND	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
UNC2	AG15779	TRG	NO2NO3 - Reading 5	0.08	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
UNC2	AG15779	TRG	NO2NO3 - Reading 6	0.14	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
UNC2	AG15779	TRG	NO2NO3 - Reading 7	0.19	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
UNC2	AG15779	TRG	NO2NO3 - Reading 8	0.25	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
UNC2	AG15779	TRG	NO2NO3 - Reading 9	0.28	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
UNC2	AG15779	TRG	NO2NO3 - Reading 10	0.32	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
UNC2	AG15779	TRG	NO2NO3 - Final	0.28	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
UNC2	AG15779	TRG	Non-Filtered BOD 60 - Reading 1	0.8	ppm	2.0	6/24/2004	6/25/2004	
UNC2	AG15779	TRG	Non-Filtered BOD 60 - Reading 2	2.1	ppm	2.0	6/24/2004	6/28/2004	
UNC2	AG15779	TRG	Non-Filtered BOD 60 - Reading 3	2.5	ppm	2.0	6/24/2004	6/30/2004	
UNC2	AG15779	TRG	Non-Filtered BOD 60 - Reading 4	2.9	ppm	2.0	6/24/2004	7/2/2004	
UNC2	AG15779	TRG	Non-Filtered BOD 60 - Reading 5	3.6	ppm	2.0	6/24/2004	7/5/2004	

UNC2	AG15779	TRG	Non-Filtered BOD 60 - Reading 6	4.3	ppm	2.0	6/24/2004	7/9/2004	
UNC2	AG15779	TRG	Non-Filtered BOD 60 - Reading 7	4.9	ppm	2.0	6/24/2004	7/14/2004	
UNC2	AG15779	TRG	Non-Filtered BOD 60 - Reading 8	5.9	ppm	2.0	6/24/2004	7/23/2004	
UNC2	AG15779	TRG	Non-Filtered BOD 60 - Reading 9	6.4	ppm	2.0	8/6/2004	8/3/2004	
UNC2	AG15779	TRG	Non-Filtered BOD 60 - Reading 10	6.9	ppm	2.0	6/24/2004	8/13/2004	
UNC2	AG15779	TRG	Non-Filtered BOD 60 - Final	7.3	ppm	2.0	6/24/2004	8/23/2004	
BA1	AG15780	TRG	TSS	ND	ppm	4.00	6/24/2004	6/28/2004	
BA1	AG15780	TRG	TDS	167	ppm	10.00	6/25/2004	6/29/2004	
BA1	AG15780	TRG	Alkalinity	73.3	ppm	2.0	6/28/2004	6/28/2004	
BA1	AG15780	TRG	Turbidity	3.6	NTU	1.00	6/24/2004	6/24/2004	
BA1	AG15780	TRG	Specific Conductance	183	umhos/cm	10.0	6/28/2004	6/28/2004	
BA1	AG15780	TRG	True Color	55	PCU	5.00	6/24/2004	6/24/2004	
BA1	AG15780	TRG	Chloride, Ion Chromatograph	8.8	ppm	1.3	6/30/2004	6/30/2004	
BA1	AG15780	TRG	Sulfate	5.2	ppm	1.3	6/30/2004	6/30/2004	
BA1	AG15781	TRG	Hardness	75.1	ppm	5.0	7/2/2004	7/2/2004	
BA1	AG15781	TRG	Nitrate+Nitrite Nitrogen	0.05	ppm	0.05	7/2/2004	7/2/2004	
BA1	AG15781	TRG	TP	0.25	ppm	0.05	7/7/2004	7/7/2004	
BA1	AG15781	TRG	TKN	0.50	ppm	0.10	7/7/2004	7/7/2004	
BA1	AG15781	TRG	Ammonia-Nitrogen	ND	ppm	0.10	7/1/2004	7/1/2004	
BA1	AG15782	TRG	TOC	8.5	ppm	2.00	7/7/2004	7/8/2004	
BA1	AG15783	TRG	pH, Ultimate BOD survey	7.7	pH units	0.01	8/23/2004	8/23/2004	
BA1	AG15783	TRG	TOC (60 Day BOD)	7.2	ppm	2.0	9/10/2004	9/11/2004	
BA1	AG15783	TRG	TKN (60 Day BOD)	0.40	ppm	0.1	9/15/2004	9/15/2004	
BA1	AG15783	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
BA1	AG15783	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
BA1	AG15783	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
BA1	AG15783	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
BA1	AG15783	TRG	NO2NO3 - Reading 4	ND	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
BA1	AG15783	TRG	NO2NO3 - Reading 5	0.09	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
BA1	AG15783	TRG	NO2NO3 - Reading 6	0.16	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
BA1	AG15783	TRG	NO2NO3 - Reading 7	0.18	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
BA1	AG15783	TRG	NO2NO3 - Reading 8	0.23	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
BA1	AG15783	TRG	NO2NO3 - Reading 9	0.25	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
BA1	AG15783	TRG	NO2NO3 - Reading 10	0.30	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
BA1	AG15783	TRG	NO2NO3 - Final	0.25	ppm	0.05	9/14/2004	9/14/2004	8/23/2004

BA1	AG15783	TRG	Non-Filtered BOD 60 - Reading 1	0.7	ppm	2.0	6/24/2004	6/25/2004	
BA1	AG15783	TRG	Non-Filtered BOD 60 - Reading 2	1.9	ppm	2.0	6/24/2004	6/28/2004	
BA1	AG15783	TRG	Non-Filtered BOD 60 - Reading 3	2.3	ppm	2.0	6/24/2004	6/30/2004	
BA1	AG15783	TRG	Non-Filtered BOD 60 - Reading 4	2.8	ppm	2.0	6/24/2004	7/2/2004	
BA1	AG15783	TRG	Non-Filtered BOD 60 - Reading 5	3.5	ppm	2.0	6/24/2004	7/5/2004	
BA1	AG15783	TRG	Non-Filtered BOD 60 - Reading 6	4.1	ppm	2.0	6/24/2004	7/9/2004	
BA1	AG15783	TRG	Non-Filtered BOD 60 - Reading 7	4.7	ppm	2.0	6/24/2004	7/14/2004	
BA1	AG15783	TRG	Non-Filtered BOD 60 - Reading 8	5.5	ppm	2.0	6/24/2004	7/23/2004	
BA1	AG15783	TRG	Non-Filtered BOD 60 - Reading 9	6.2	ppm	2.0	8/6/2004	8/3/2004	
BA1	AG15783	TRG	Non-Filtered BOD 60 - Reading 10	6.7	ppm	2.0	6/24/2004	8/13/2004	
BA1	AG15783	TRG	Non-Filtered BOD 60 - Final	7.3	ppm	2.0	6/24/2004	8/23/2004	
BA1	AG15784	TRG	Chlorophyll A (calculated)	23.8	ug/L	0.0	7/8/2004	7/9/2004	
BA1	AG15784	TRG	Volume of sample, Chlorophyll A (raw)	250	ml	0.0	7/8/2004	7/8/2004	
BA1	AG15784	TRG	Chlorophyll A (raw)	596	ug/L	0.0	7/8/2004	7/9/2004	
LBL1	AG15785	TRG	TSS	ND	ppm	4.00	6/24/2004	6/28/2004	
LBL1	AG15785	TRG	TDS	129	ppm	10.00	6/25/2004	6/29/2004	
LBL1	AG15785	TRG	Alkalinity	69.4	ppm	2.0	6/28/2004	6/28/2004	
LBL1	AG15785	TRG	Turbidity	2.4	NTU	1.00	6/24/2004	6/24/2004	
LBL1	AG15785	TRG	Specific Conductance	171	umhos/cm	10.0	6/28/2004	6/28/2004	
LBL1	AG15785	TRG	True Color	45	PCU	5.00	6/24/2004	6/24/2004	
LBL1	AG15785	TRG	Chloride, Ion Chromatograph	9.0	ppm	1.3	6/30/2004	6/30/2004	
LBL1	AG15785	TRG	Sulfate	2.7	ppm	1.3	6/30/2004	6/30/2004	
LBL1	AG15786	TRG	Hardness	68.5	ppm	5.0	7/2/2004	7/2/2004	
LBL1	AG15786	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	0.05	7/2/2004	7/2/2004	
LBL1	AG15786	TRG	TP	0.27	ppm	0.05	7/7/2004	7/7/2004	
LBL1	AG15786	TRG	TKN	0.53	ppm	0.10	7/7/2004	7/7/2004	
LBL1	AG15786	TRG	Ammonia-Nitrogen	ND	ppm	0.10	7/1/2004	7/1/2004	
LBL1	AG15787	TRG	TOC	9.2	ppm	2.00	7/7/2004	7/8/2004	
LBL1	AG15788	TRG	pH, Ultimate BOD survey	7.8	pH units	0.01	8/23/2004	8/23/2004	
LBL1	AG15788	TRG	TOC (60 Day BOD)	7.9	ppm	2.0	9/10/2004	9/11/2004	
LBL1	AG15788	TRG	TKN (60 Day BOD)	0.46	ppm	0.1	9/15/2004	9/15/2004	
LBL1	AG15788	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
LBL1	AG15788	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
LBL1	AG15788	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
LBL1	AG15788	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004

LBL1	AG15788	TRG	NO2NO3 - Reading 4	ND	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
LBL1	AG15788	TRG	NO2NO3 - Reading 5	ND	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
LBL1	AG15788	TRG	NO2NO3 - Reading 6	0.07	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
LBL1	AG15788	TRG	NO2NO3 - Reading 7	0.13	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
LBL1	AG15788	TRG	NO2NO3 - Reading 8	0.16	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
LBL1	AG15788	TRG	NO2NO3 - Reading 9	0.20	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
LBL1	AG15788	TRG	NO2NO3 - Reading 10	0.22	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
LBL1	AG15788	TRG	NO2NO3 - Final	0.20	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
LBL1	AG15788	TRG	Non-Filtered BOD 60 - Reading 1	0.7	ppm	2.0	6/24/2004	6/25/2004	
LBL1	AG15788	TRG	Non-Filtered BOD 60 - Reading 2	1.9	ppm	2.0	6/24/2004	6/28/2004	
LBL1	AG15788	TRG	Non-Filtered BOD 60 - Reading 3	2.2	ppm	2.0	6/24/2004	6/30/2004	
LBL1	AG15788	TRG	Non-Filtered BOD 60 - Reading 4	2.5	ppm	2.0	6/24/2004	7/2/2004	
LBL1	AG15788	TRG	Non-Filtered BOD 60 - Reading 5	3.2	ppm	2.0	6/24/2004	7/5/2004	
LBL1	AG15788	TRG	Non-Filtered BOD 60 - Reading 6	3.9	ppm	2.0	6/24/2004	7/9/2004	
LBL1	AG15788	TRG	Non-Filtered BOD 60 - Reading 7	4.6	ppm	2.0	6/24/2004	7/14/2004	
LBL1	AG15788	TRG	Non-Filtered BOD 60 - Reading 8	5.5	ppm	2.0	6/24/2004	7/23/2004	
LBL1	AG15788	TRG	Non-Filtered BOD 60 - Reading 9	6.1	ppm	2.0	8/6/2004	8/3/2004	
LBL1	AG15788	TRG	Non-Filtered BOD 60 - Reading 10	6.6	ppm	2.0	6/24/2004	8/13/2004	
LBL1	AG15788	TRG	Non-Filtered BOD 60 - Final	7.1	ppm	2.0	6/24/2004	8/23/2004	
WC1	AG15789	FB	TSS	15.0	ppm	4.00	6/24/2004	6/28/2004	
WC1	AG15789	TRG	TDS	127	ppm	10.00	6/25/2004	6/29/2004	
WC1	AG15789	TRG	Alkalinity	65.9	ppm	2.0	6/28/2004	6/28/2004	
WC1	AG15789	TRG	Turbidity	40	NTU	1.00	6/24/2004	6/24/2004	
WC1	AG15789	TRG	Specific Conductance	174	umhos/cm	10.0	6/28/2004	6/28/2004	
WC1	AG15789	TRG	True Color	50	PCU	5.00	6/24/2004	6/24/2004	
WC1	AG15789	TRG	Chloride, Ion Chromatograph	10.5	ppm	1.3	6/30/2004	6/30/2004	
WC1	AG15789	TRG	Sulfate	3.1	ppm	1.3	6/30/2004	6/30/2004	
WC1	AG15790	TRG	Hardness	66.4	ppm	5.0	7/2/2004	7/2/2004	
WC1	AG15790	TRG	Nitrate+Nitrite Nitrogen	0.09	ppm	0.05	7/2/2004	7/2/2004	
WC1	AG15790	TRG	TP	0.91	ppm	0.05	7/7/2004	7/7/2004	
WC1	AG15790	TRG	TKN	0.71	ppm	0.10	7/7/2004	7/7/2004	
WC1	AG15790	TRG	Ammonia-Nitrogen	ND	ppm	0.10	7/1/2004	7/1/2004	
WC1	AG15791	TRG	TOC	8.6	ppm	2.00	7/7/2004	7/8/2004	
WC1	AG15792	TRG	pH, Ultimate BOD survey	7.8	pH units	0.01	8/23/2004	8/23/2004	
WC1	AG15792	TRG	TOC (60 Day BOD)	8.7	ppm	2.0	9/10/2004	9/11/2004	

WC1	AG15792	TRG	TKN (60 Day BOD)	0.35	ppm	0.1	9/15/2004	9/15/2004	
WC1	AG15792	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
WC1	AG15792	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
WC1	AG15792	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
WC1	AG15792	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
WC1	AG15792	TRG	NO2NO3 - Reading 4	0.07	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
WC1	AG15792	TRG	NO2NO3 - Reading 5	0.22	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
WC1	AG15792	TRG	NO2NO3 - Reading 6	0.35	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
WC1	AG15792	TRG	NO2NO3 - Reading 7	0.40	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
WC1	AG15792	TRG	NO2NO3 - Reading 8	0.51	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
WC1	AG15792	TRG	NO2NO3 - Reading 9	0.58	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
WC1	AG15792	TRG	NO2NO3 - Reading 10	0.66	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
WC1	AG15792	TRG	NO2NO3 - Final	0.55	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
WC1	AG15792	TRG	Non-Filtered BOD 60 - Reading 1	1.2	ppm	2.0	6/24/2004	6/25/2004	
WC1	AG15792	TRG	Non-Filtered BOD 60 - Reading 2	2.9	ppm	2.0	6/24/2004	6/28/2004	
WC1	AG15792	TRG	Non-Filtered BOD 60 - Reading 3	3.6	ppm	2.0	6/24/2004	6/30/2004	
WC1	AG15792	TRG	Non-Filtered BOD 60 - Reading 4	4.4	ppm	2.0	6/24/2004	7/2/2004	
WC1	AG15792	TRG	Non-Filtered BOD 60 - Reading 5	5.8	ppm	2.0	6/24/2004	7/5/2004	
WC1	AG15792	TRG	Non-Filtered BOD 60 - Reading 6	7.0	ppm	2.0	6/24/2004	7/9/2004	
WC1	AG15792	TRG	Non-Filtered BOD 60 - Reading 7	8.0	ppm	2.0	6/24/2004	7/14/2004	
WC1	AG15792	TRG	Non-Filtered BOD 60 - Reading 8	9.1	ppm	2.0	6/24/2004	7/23/2004	
WC1	AG15792	TRG	Non-Filtered BOD 60 - Reading 9	10.1	ppm	2.0	8/6/2004	8/3/2004	
WC1	AG15792	TRG	Non-Filtered BOD 60 - Reading 10	10.8	ppm	2.0	6/24/2004	8/13/2004	
WC1	AG15792	TRG	Non-Filtered BOD 60 - Final	11.3	ppm	2.0	6/24/2004	8/23/2004	
WCL1	AG15793	TRG	TSS	15.0	ppm	4.00	6/24/2004	6/28/2004	
WCL1	AG15793	TRG	TDS	106	ppm	10.00	6/25/2004	6/29/2004	
WCL1	AG15793	TRG	Alkalinity	68.1	ppm	2.0	6/28/2004	6/28/2004	
WCL1	AG15793	TRG	Turbidity	13	NTU	1.00	6/24/2004	6/24/2004	
WCL1	AG15793	TRG	Specific Conductance	172	umhos/cm	10.0	6/28/2004	6/28/2004	
WCL1	AG15793	TRG	True Color	45	PCU	5.00	6/24/2004	6/24/2004	
WCL1	AG15793	TRG	Chloride, Ion Chromatograph	8.8	ppm	1.3	6/30/2004	6/30/2004	
WCL1	AG15793	TRG	Sulfate	3.6	ppm	1.3	6/30/2004	6/30/2004	
WCL1	AG15794	TRG	Hardness	67.9	ppm	5.0	7/2/2004	7/2/2004	
WCL1	AG15794	TRG	Nitrate+Nitrite Nitrogen	0.05	ppm	0.05	7/2/2004	7/2/2004	
WCL1	AG15794	TRG	TP	0.33	ppm	0.05	7/7/2004	7/7/2004	

WCL1	AG15794	TRG	TKN	0.90	ppm	0.10	7/7/2004	7/7/2004	
WCL1	AG15794	TRG	Ammonia-Nitrogen	ND	ppm	0.10	7/1/2004	7/1/2004	
WCL1	AG15795	TRG	TOC	8.3	ppm	2.00	7/7/2004	7/8/2004	
WCL1	AG15796	TRG	pH, Ultimate BOD survey	7.8	pH units	0.01	8/23/2004	8/23/2004	
WCL1	AG15796	TRG	TOC (60 Day BOD)	7.3	ppm	2.0	9/10/2004	9/11/2004	
WCL1	AG15796	TRG	TKN (60 Day BOD)	0.53	ppm	0.1	9/15/2004	9/15/2004	
WCL1	AG15796	TRG	NO2NO3 - Initial Reading	ND	ppm	0.05	7/9/2004	7/9/2004	6/24/2004
WCL1	AG15796	TRG	NO2NO3 - Reading 1	ND	ppm	0.05	7/9/2004	7/9/2004	6/25/2004
WCL1	AG15796	TRG	NO2NO3 - Reading 2	ND	ppm	0.05	7/9/2004	7/9/2004	6/28/2004
WCL1	AG15796	TRG	NO2NO3 - Reading 3	ND	ppm	0.05	7/9/2004	7/9/2004	6/30/2004
WCL1	AG15796	TRG	NO2NO3 - Reading 4	0.09	ppm	0.05	7/9/2004	7/9/2004	7/2/2004
WCL1	AG15796	TRG	NO2NO3 - Reading 5	0.24	ppm	0.05	7/27/2004	7/27/2004	7/5/2004
WCL1	AG15796	TRG	NO2NO3 - Reading 6	0.36	ppm	0.05	7/27/2004	7/27/2004	7/9/2004
WCL1	AG15796	TRG	NO2NO3 - Reading 7	0.38	ppm	0.05	7/27/2004	7/27/2004	7/14/2004
WCL1	AG15796	TRG	NO2NO3 - Reading 8	0.46	ppm	0.05	8/10/2004	8/10/2004	7/23/2004
WCL1	AG15796	TRG	NO2NO3 - Reading 9	0.52	ppm	0.05	8/18/2004	8/18/2004	8/3/2004
WCL1	AG15796	TRG	NO2NO3 - Reading 10	0.60	ppm	0.05	9/3/2004	9/3/2004	8/13/2004
WCL1	AG15796	TRG	NO2NO3 - Final	0.51	ppm	0.05	9/14/2004	9/14/2004	8/23/2004
WCL1	AG15796	TRG	Non-Filtered BOD 60 - Reading 1	1.2	ppm	2.0	6/24/2004	6/25/2004	
WCL1	AG15796	TRG	Non-Filtered BOD 60 - Reading 2	3.4	ppm	2.0	6/24/2004	6/28/2004	
WCL1	AG15796	TRG	Non-Filtered BOD 60 - Reading 3	4.4	ppm	2.0	6/24/2004	6/30/2004	
WCL1	AG15796	TRG	Non-Filtered BOD 60 - Reading 4	5.4	ppm	2.0	6/24/2004	7/2/2004	
WCL1	AG15796	TRG	Non-Filtered BOD 60 - Reading 5	7.1	ppm	2.0	6/24/2004	7/5/2004	
WCL1	AG15796	TRG	Non-Filtered BOD 60 - Reading 6	8.1	ppm	2.0	6/24/2004	7/9/2004	
WCL1	AG15796	TRG	Non-Filtered BOD 60 - Reading 7	9.1	ppm	2.0	6/24/2004	7/14/2004	
WCL1	AG15796	TRG	Non-Filtered BOD 60 - Reading 8	10.4	ppm	2.0	6/24/2004	7/23/2004	
WCL1	AG15796	TRG	Non-Filtered BOD 60 - Reading 9	11.3	ppm	2.0	8/6/2004	8/3/2004	
WCL1	AG15796	TRG	Non-Filtered BOD 60 - Reading 10	12.0	ppm	2.0	6/24/2004	8/13/2004	
WCL1	AG15796	TRG	Non-Filtered BOD 60 - Final	12.5	ppm	2.0	6/24/2004	8/23/2004	
LGBY4	AG17170	TRG	Chlorophyll A (raw)	371	ug/L	0.0	7/8/2004	7/9/2004	
LGBY4	AG17170	TRG	Chlorophyll A (calculated)	14.8	ug/L	0.0	7/8/2004	7/9/2004	
LGBY4	AG17170	TRG	Volume of sample, Chlorophyll A (raw)	250	ml	0.0	7/8/2004	7/8/2004	

Appendix F2 – Cross Sections and Discharge Measurements

Grand Bayou

Grand Bayou 120206								
Field Data Summary -- Discharges and Cross Sections								
Site #	Width (ft)	Width (m)	Depth (ft)	Depth (m)	Drogue Velocity (ft/s)	Flow (cfs) (note 1)	Flow (cms)	Tape Down (ft)
GRB1	40.00	12.192	2.80	0.853	0.000	0.000	0.000	
BYS1	86.00	26.213	6.46	1.969	0.000	0.000	0.000	
MB1	77.00	23.470	5.97	1.820	0.013	3.586	0.102	
GRB2	70.00	21.336	3.30	1.006	0.198	27.443	0.777	
BYC1	39.00	11.887	3.41	1.039			0.000	
GRB3	54.00	16.459	5.15	1.570		23.210	0.657	
BYC2	44.00	13.411	3.60	1.097			0.000	
GRB4	145.00	44.196	4.97	1.515		31.728	0.898	
BYCO1						68.157	1.930	
GRB5	138.00	42.062	5.32	1.622	0.224	98.671	2.794	
LGBY1	48.70	14.844	1.99	0.607	0.085	4.943	0.140	
GRB6	160.00	48.768	4.85	1.478	0.083	38.645	1.094	
UNC2						142.244	4.028	
EGB1	145.00	44.196	3.10	0.945	0.498	134.392	3.806	
GRB7	140.90	42.946	5.30	1.615	0.366	163.991	4.644	
BA1						105.383	2.984	
GRB8	201.70	61.478	5.69	1.734	0.423	291.279	8.248	
LBL1	70.00	44.196	3.39	2.771	0.175	24.973	0.707	
GRB9	500.00	152.400	4.02	1.225	0.226	272.556	7.718	

Note 1: If a drogue velocity is given, flow is calculated as Width * Depth * Velocity * 0.6. The 0.6 factor is to account for the changing velocity profile in a representative cross section.

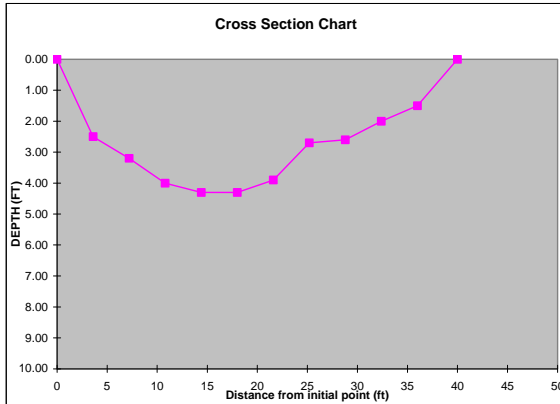
Grand Bayou 120206 Flow Input for calibration		Calculation	Flow (cms)	Flow Balance (cms)
Headwater		Minimum flow	0.00100	0.00100
Incremental Inflow	Reach 1	Estimation of flow between headwaters and site GRB2	0.10000	0.10100
Incremental Inflow	Reach 2	Estimation of flow between headwaters and site GRB2	0.35000	0.45100
Tributary	Muddy Bayou	Flow measurement at MB1	0.10200	0.55300
Incremental Inflow	Reach 3	Estimation of flow between headwaters and site GRB2	0.35000	0.90300
Incremental Outflow	Reach 4	Estimation of flow between sites GRB2 and GRB3	-0.35000	0.55300
Incremental Inflow	Reach 5	Estimation of flow between sites GRB3 and GRB4	0.20000	0.75300
Incremental Inflow	Reach 6		0.20000	0.95300
Discharger	Gator Super Stop	Permitted flow	0.00034	0.95334
Incremental Outflow	Reach 7	Estimation of flow between sites GRB4 and GRB5	-0.15000	0.80334
Tributary	Bayou Corne	Flow measurement at BYCO1	1.93000	2.73334
Incremental Inflow	Reach 8	Estimation of flow between sites GRB5 and GRB7	0.65000	3.38334
Distributary	Little Grand Bayou	Flow measurement at LGBY1	-0.14000	3.24334
Incremental Inflow	Reach 9	Estimation of flow between sites GRB5 and GRB7	0.25000	3.49334
Tributary	Unnamed Canal	Flow measurement at UNC2	4.02800	7.52134
Incremental Inflow	Reach 10	Estimation of flow between sites GRB5 and GRB7	0.65000	8.17134
Distributary	East Grand Bayou	Flow measurement at EGB1	-3.80600	4.36534
Incremental Inflow	Reach 11	Estimation of flow between sites GRB5 and GRB7	0.65000	5.01534
Tributary	Bayou Alcide	Flow measurement at BA1	2.98400	7.99934
Incremental Inflow	Reach 12	Estimation of flow between sites GRB7 and GRB8	0.25000	8.24934
Incremental Inflow	Reach 13	Estimation of flow between sites GRB8 and GRB9	-0.65000	7.59934
Distributary	Little Bayou Long	Flow measurement at LBL1	0.70700	8.30634
Incremental Inflow	Reach 14	Estimation of flow between sites GRB8 and GRB9	-0.65000	7.65634

STREAM CROSS-SECTION SPREADSHEET

Site Number: GRB1 Subsegment: 120206 Waterbody: Grand Bayou
 Site Description: _____
 Type of Equipment: Fathometer Hydrotrac Manual
 Initial Bank: RDB LDB
 Tapedown: _____
 Gauge Height: _____
 Date: 6/22/2004

WIDTH ¹ (ft):	40.00
AREA ² (ft ²):	111.90
AVG. DEPTH ³ (ft):	2.80

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	0.0	1.80	0.00	0.00	
2	3.6	3.60	2.50	9.00	8.04%
3	7.2	3.60	3.20	11.52	10.29%
4	10.8	3.60	4.00	14.40	12.87%
5	14.4	3.60	4.30	15.48	13.83%
6	18.0	3.60	4.30	15.48	13.83%
7	21.6	3.60	3.90	14.04	12.55%
8	25.2	3.60	2.70	9.72	8.69%
9	28.8	3.60	2.60	9.36	8.36%
10	32.4	3.60	2.00	7.20	6.43%
11	36.0	3.80	1.50	5.70	5.09%
12	40.0	2.00	0.00	0.00	0.00%
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40					
Total		40.00		111.90	100.00%



Data Collection Crew		Boffy, Savant		Office Data Work	
Measurement made by:	Savant	Data Inputted by / Date:	Boffy/ 7/7/04		
Notetaker/Recorder:		Data Input Checked by / Date:	Savant/ 7/7/04		
Other:					

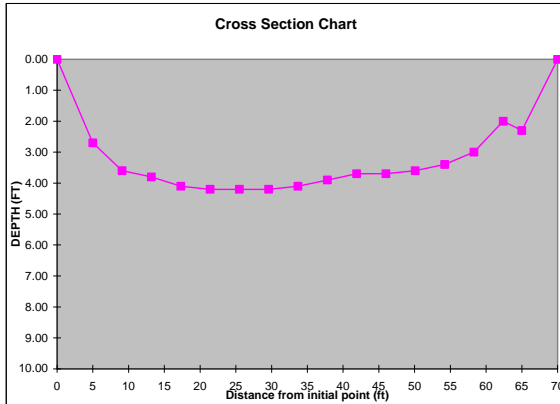
- Note 1: WIDTH (ft) = sum of the width column
- Note 2: AREA (sq.ft.) = sum of the area column
- Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
- Note 4: Width of element
- Note 5: Area=Width*Depth for element
- Note 6: Percent area = element area/total area x 100%
- Note 7: Percent area should be less than 10% as per USGS standard.
- Note 8: Blank fields are cleared from all calculations.
- Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: GRB2 Subsegment: 120206 Waterbody: Grand Bayou
 Site Description: _____
 Type of Equipment: Fathometer Hydrotrac Manual
 Initial Bank: RDB LDB
 Tapedown: _____
 Gauge Height: _____
 Date: 6/22/2004

WIDTH ¹ (ft):	70.00
AREA ² (ft ²):	230.68
AVG. DEPTH ³ (ft):	3.30

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	0.0	2.50	0.00	0.00	
2	5.0	4.55	2.70	12.29	5.33%
3	9.1	4.10	3.60	14.76	6.40%
4	13.2	4.10	3.80	15.58	6.75%
5	17.3	4.10	4.10	16.81	7.29%
6	21.4	4.10	4.20	17.22	7.47%
7	25.5	4.10	4.20	17.22	7.47%
8	29.6	4.10	4.20	17.22	7.47%
9	33.7	4.10	4.10	16.81	7.29%
10	37.8	4.10	3.90	15.99	6.93%
11	41.9	4.10	3.70	15.17	6.58%
12	46.0	4.10	3.70	15.17	6.58%
13	50.1	4.10	3.60	14.76	6.40%
14	54.2	4.10	3.40	13.94	6.04%
15	58.3	4.10	3.00	12.30	5.33%
16	62.4	3.35	2.00	6.70	2.90%
17	65.0	3.80	2.30	8.74	3.79%
18	70.0	2.50	0.00	0.00	0.00%
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37					
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39					
40					
Total		70.00		230.68	100.00%



Data Collection Crew		Boffy Savant		Office Data Work	
Measurement made by:	Savant	Data Inputted by / Date:	Boffy/7/7/04	Data Input Checked by / Date:	Savant/7/7/04
Notetaker/Recorder:					
Other:					

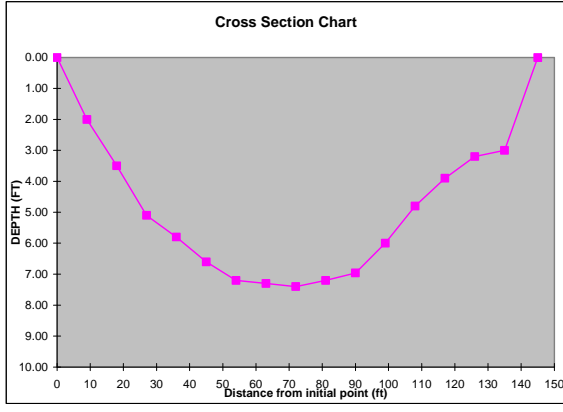
- Note 1: WIDTH (ft) = sum of the width column
- Note 2: AREA (sq.ft.) = sum of the area column
- Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
- Note 4: Width of element
- Note 5: Area=Width*Depth for element
- Note 6: Percent area = element area/total area x 100%
- Note 7: Percent area should be less than 10% as per USGS standard.
- Note 8: Blank fields are cleared from all calculations.
- Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: GRB4 Subsegment: 120206 Waterbody: Grand Bayou
 Site Description: At Hwy. 70 on south side of bridge
 Type of Equipment: Fathometer Hydrotrac Manual
 Initial Bank: RDB LDB
 Tapedown: _____
 Gauge Height: _____
 Date: 6/22/2004

WIDTH ¹ (ft):	145.00
AREA ² (ft ²):	721.14
AVG. DEPTH ³ (ft):	4.97

Subsegment	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6,7}
1	0.0	4.50	0.00	0.00	
2	9.0	9.00	2.00	18.00	2.50%
3	18.0	9.00	3.50	31.50	4.37%
4	27.0	9.00	5.10	45.90	6.36%
5	36.0	9.00	5.80	52.20	7.24%
6	45.0	9.00	6.60	59.40	8.24%
7	54.0	9.00	7.20	64.80	8.99%
8	63.0	9.00	7.30	65.70	9.11%
9	72.0	9.00	7.40	66.60	9.24%
10	81.0	9.00	7.20	64.80	8.99%
11	90.0	9.00	6.96	62.64	8.69%
12	99.0	9.00	6.00	54.00	7.49%
13	108.0	9.00	4.80	43.20	5.99%
14	117.0	9.00	3.90	35.10	4.87%
15	126.0	9.00	3.20	28.80	3.99%
16	135.0	9.50	3.00	28.50	3.95%
17	145.0	5.00	0.00	0.00	0.00%
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23					
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37					
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39					
40					
Total	145.00			721.14	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	Earles	Data Inputted by / Date:	Guy LaFleur 7/6/04
Notetaker/Recorder:	Dickinson	Data Input Checked by / Date:	
Other:	LaFleur		

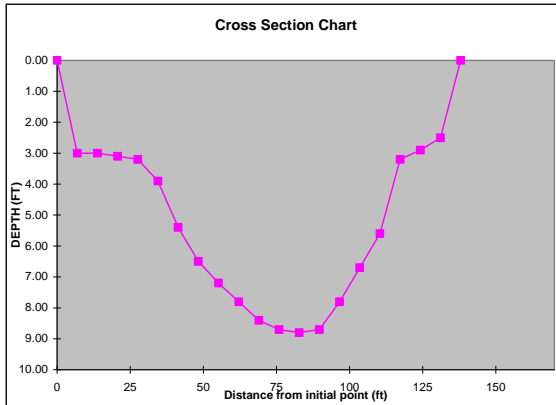
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- Note 4: Width of element
- Note 5: Area=Width*Depth for element
- Note 6: Percent area = element area/total area x 100%
- Note 7: Percent area should be less than 10% as per USGS standard.
- Note 8: Blank fields are cleared from all calculations.
- Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: GRB5 Subsegment: 120206 Waterbody: Grand Bayou
 Site Description: Midway between Bayou Corne and 1st Unnaed Canal
 Type of Equipment: Fathometer Hydrotrac Manual
 Initial Bank: RDB LDB
 Tapedown: NA
 Gauge Height: NA
 Date: 6/22/2004

WIDTH ¹ (ft):	138.00
AREA ² (ft ²):	734.16
AVG. DEPTH (ft):	5.32

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	0.0	3.45	0.00	0.00	
2	6.9	6.90	3.00	20.70	2.82%
3	13.8	6.90	3.00	20.70	2.82%
4	20.7	6.90	3.10	21.39	2.91%
5	27.6	6.90	3.20	22.08	3.01%
6	34.5	6.90	3.90	26.91	3.67%
7	41.4	6.90	5.40	37.26	5.08%
8	48.3	6.90	6.50	44.85	6.11%
9	55.2	6.90	7.20	49.68	6.77%
10	62.1	6.90	7.80	53.82	7.33%
11	69.0	6.90	8.40	57.96	7.89%
12	75.9	6.90	8.70	60.03	8.18%
13	82.8	6.90	8.80	60.72	8.27%
14	89.7	6.90	8.70	60.03	8.18%
15	96.6	6.90	7.80	53.82	7.33%
16	103.5	6.90	6.70	46.23	6.30%
17	110.4	6.90	5.60	38.64	5.26%
18	117.3	6.90	3.20	22.08	3.01%
19	124.2	6.90	2.90	20.01	2.73%
20	131.1	6.90	2.50	17.25	2.35%
21	138.0	3.45	0.00	0.00	0.00%
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40					
Total		138.00		734.16	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	Earles	Data Inputted by / Date:	Dickinson 7/5/04
Notetaker/Recorder:	Dickinson	Data Input Checked by / Date:	
Other:	Lafleur		

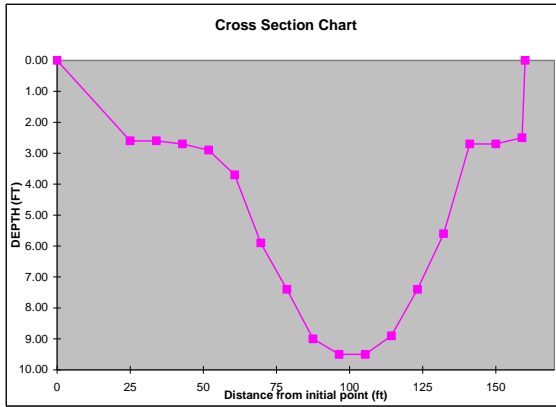
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- Note 4: Width of element
- Note 5: Area=Width*Depth for element
- Note 6: Percent area = element area/total area x 100%
- Note 7: Percent area should be less than 10% as per USGS standard.
- Note 8: Blank fields are cleared from all calculations.
- Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: GRB6 Subsegment: 120206 Waterbody: Grand Bayou
 Site Description: Between Little Grand Bayou and 2nd Unnamed Canal
 Type of Equipment: Fathometer Hydrotrac Manual
 Initial Bank: RDB LDB
 Tapedown: NA
 Gauge Height: NA
 Date: 6/22/2004

WIDTH ⁴ (ft):	160.00
AREA ⁵ (sq.ft.):	775.45
AVG. DEPTH ⁶ (ft):	4.85

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	0.0	12.50	0.00	0.00	
2	25.0	16.97	2.60	44.11	5.69%
3	33.9	8.93	2.60	23.22	2.99%
4	42.9	8.93	2.70	24.11	3.11%
5	51.8	8.93	2.90	25.90	3.34%
6	60.7	8.93	3.70	33.04	4.26%
7	69.7	8.93	5.90	52.69	6.79%
8	78.6	8.93	7.40	66.08	8.52%
9	87.5	8.93	9.00	80.37	10.36%
10	96.4	8.93	9.50	84.84	10.94%
11	105.4	8.93	9.50	84.84	10.94%
12	114.3	8.93	8.90	79.48	10.25%
13	123.2	8.93	7.40	66.08	8.52%
14	132.2	8.93	5.60	50.01	6.45%
15	141.1	8.93	2.70	24.11	3.11%
16	150.0	8.93	2.70	24.11	3.11%
17	159.0	4.99	2.50	12.48	1.61%
18	160.0	0.53	0.00	0.00	0.00%
19					
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40					
Total	160.00			775.45	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	Earles	Data Inputted by / Date:	Dickinson 7/5/04
Notetaker/Recorder:	Dickinson	Data Input Checked by / Date:	
Other:	Laflaur		

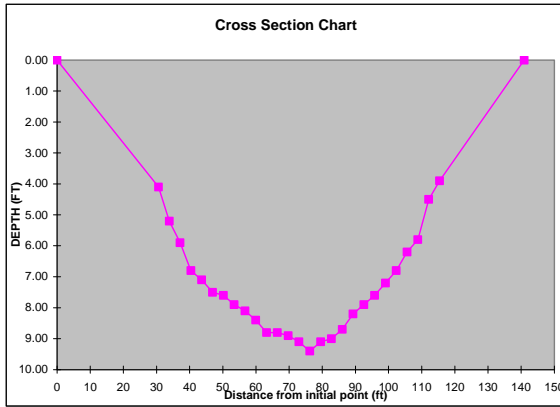
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- Note 4: Width of element
- Note 5: Area=Width*Depth for element
- Note 6: Percent area = element area/total area x 100%
- Note 7: Percent area should be less than 10% as per USGS standard.
- Note 8: Blank fields are cleared from all calculations.
- Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: GRB 7 Subsegment: 120206 Waterbody: Grand Bayou
 Site Description: B/t East Grand Bayou & Bayou Alcide
 Type of Equipment: Fathometer Hydrotrac Manual
 Initial Bank: RDB LDB
 Tapedown: N/A
 Gauge Height: N/A
 Date: 6/22/2004

WIDTH ¹ (ft):	140.90
AREA ² (sq.ft.):	746.60
AVG. DEPTH (ft):	5.30

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	0.0	15.30	0.00	0.00	
2	30.6	16.93	4.10	69.41	9.30%
3	33.9	3.26	5.20	16.95	2.27%
4	37.1	3.26	5.90	19.23	2.58%
5	40.4	3.26	6.80	22.17	2.97%
6	43.6	3.26	7.10	23.15	3.10%
7	46.9	3.26	7.50	24.45	3.27%
8	50.2	3.26	7.60	24.78	3.32%
9	53.4	3.26	7.90	25.75	3.45%
10	56.7	3.26	8.10	26.41	3.54%
11	59.9	3.26	8.40	27.38	3.67%
12	63.2	3.26	8.80	28.69	3.84%
13	66.5	3.26	8.80	28.69	3.84%
14	69.7	3.26	8.90	29.01	3.89%
15	73.0	3.26	9.10	29.67	3.97%
16	76.2	3.26	9.40	30.64	4.10%
17	79.5	3.26	9.10	29.67	3.97%
18	82.8	3.26	9.00	29.34	3.93%
19	86.0	3.26	8.70	28.36	3.80%
20	89.3	3.26	8.20	26.73	3.58%
21	92.5	3.26	7.90	25.75	3.45%
22	95.8	3.26	7.60	24.78	3.32%
23	99.1	3.26	7.20	23.47	3.14%
24	102.3	3.26	6.80	22.17	2.97%
25	105.6	3.26	6.20	20.21	2.71%
26	108.8	3.26	5.80	18.91	2.53%
27	112.1	3.26	4.50	14.67	1.96%
28	115.4	14.40	3.90	56.16	7.52%
29	140.9	12.77	0.00	0.00	0.00%
30					
31					
32					
33					
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35					
36					
37					
38					
39					
40					
Total		140.90		746.60	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	KM Jones	Data Inputted by / Date:	C. Schwartzburg / 7-7-04
Notetaker/Recorder:	C. Schwartzburg	Data Input Checked by / Date:	KM Jones / 7-7-04
Other:			

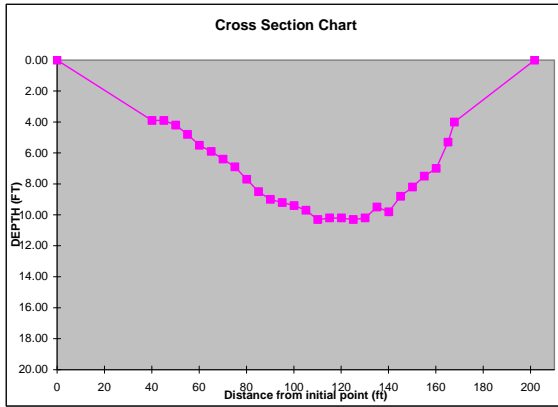
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- Note 4: Width of element
- Note 5: Area=Width*Depth for element
- Note 6: Percent area = element area/total area x 100%
- Note 7: Percent area should be less than 10% as per USGS standard.
- Note 8: Blank fields are cleared from all calculations.
- Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: GRB 8 Subsegment: 120206 Waterbody: Grand Bayou
 Site Description: Upstream from confluence w/ Little Bayou Long
 Type of Equipment: Fathometer Hydrotrac Manual
 Initial Bank: RDB LDB
 Tapedown: N/A
 Gauge Height: N/A
 Date: 6/22/2004

WIDTH ¹ (ft):	201.70
AREA ² (ft ²):	1147.05
AVG. DEPTH ³ (ft):	5.69

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	0.0	20.05	0.00	0.00	
2	40.1	22.55	3.90	87.95	7.67%
3	45.1	5.00	3.90	19.50	1.70%
4	50.1	5.00	4.20	21.00	1.83%
5	55.1	5.00	4.80	24.00	2.09%
6	60.1	5.00	5.50	27.50	2.40%
7	65.1	5.00	5.90	29.50	2.57%
8	70.1	5.00	6.40	32.00	2.79%
9	75.1	5.00	6.90	34.50	3.01%
10	80.1	5.00	7.70	38.50	3.36%
11	85.1	5.00	8.50	42.50	3.71%
12	90.1	5.00	9.00	45.00	3.92%
13	95.1	5.00	9.20	46.00	4.01%
14	100.1	5.00	9.40	47.00	4.10%
15	105.1	5.00	9.70	48.50	4.23%
16	110.1	5.00	10.30	51.50	4.49%
17	115.1	5.00	10.20	51.00	4.45%
18	120.1	5.00	10.20	51.00	4.45%
19	125.1	5.00	10.30	51.50	4.49%
20	130.1	5.00	10.20	51.00	4.45%
21	135.1	5.00	9.50	47.50	4.14%
22	140.1	5.00	9.80	49.00	4.27%
23	145.1	5.00	8.80	44.00	3.84%
24	150.1	5.00	8.20	41.00	3.57%
25	155.1	5.00	7.50	37.50	3.27%
26	160.1	5.00	7.00	35.00	3.05%
27	165.1	3.85	5.30	20.41	1.78%
28	167.8	18.30	4.00	73.20	6.38%
29	201.7	16.95	0.00	0.00	0.00%
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
Total		201.70		1147.05	100.00%



Data Collection Crew	Office Data Work
Measurement made by: _____	Data Inputted by / Date: _____
Notetaker/Recorder: _____	Data Input Checked by / Date: _____
Other: _____	

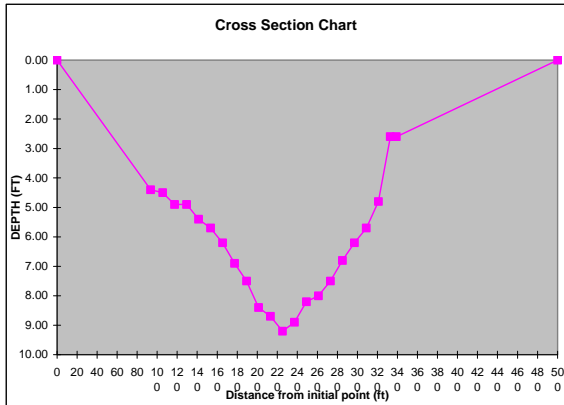
- Note 1: WIDTH (ft) = sum of the width column
- Note 2: AREA (sq.ft.) = sum of the area column
- Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
- Note 4: Width of element
- Note 5: Area=Width*Depth for element
- Note 6: Percent area = element area/total area x 100%
- Note 7: Percent area should be less than 10% as per USGS standard.
- Note 8: Blank fields are cleared from all calculations.
- Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: GRB 9 Subsegment: 120206 Waterbody: Grand Bayou
 Site Description: Upstream of Lake Verret
 Type of Equipment: Fathometer Hydrotrac Manual
 Initial Bank: RDB LDB
 Tapedown: N/A
 Gauge Height: N/A
 Date: 6/22/2004

WIDTH ¹ (ft):	500.00
AREA ² (sq.ft.):	2009.70
AVG. DEPTH ³ (ft):	4.02

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	0.0	46.75	0.00	0.00	
2	93.5	52.74	4.40	232.03	11.55%
3	105.5	11.97	4.50	53.87	2.68%
4	117.4	11.97	4.90	58.65	2.92%
5	129.4	11.97	4.90	58.65	2.92%
6	141.4	11.97	5.40	64.64	3.22%
7	153.4	11.97	5.70	68.23	3.39%
8	165.3	11.97	6.20	74.21	3.69%
9	177.3	11.97	6.90	82.59	4.11%
10	189.3	11.97	7.50	89.78	4.47%
11	201.2	11.97	8.40	100.55	5.00%
12	213.2	11.97	8.70	104.14	5.18%
13	225.2	11.97	9.20	110.12	5.48%
14	237.1	11.97	8.90	106.53	5.30%
15	249.1	11.97	8.20	98.15	4.88%
16	261.1	11.97	8.00	95.76	4.76%
17	273.1	11.97	7.50	89.78	4.47%
18	285.0	11.97	6.80	81.40	4.05%
19	297.0	11.97	6.20	74.21	3.69%
20	309.0	11.97	5.70	68.23	3.39%
21	320.9	11.97	4.80	57.46	2.86%
22	332.9	9.04	2.60	23.49	1.17%
23	339.0	83.55	2.60	217.23	10.81%
24	500.0	80.50	0.00	0.00	0.00%
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
Total		500.00		2009.70	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	KM Jones	Data Inputted by / Date:	C. Schwartzburg / 7-7-04
Notetaker/Recorder:	C. Schwartzburg	Data Input Checked by / Date:	KM Jones / 7-7-04
Other:			

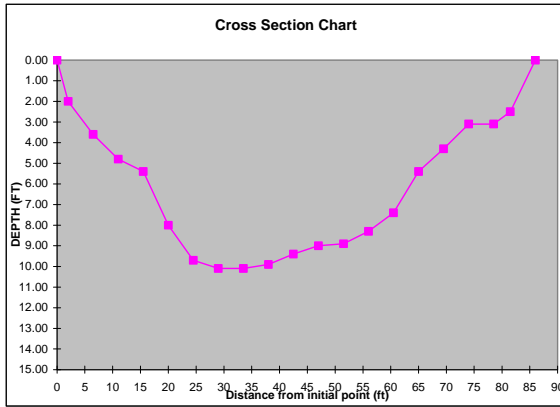
- Note 1: WIDTH (ft) = sum of the width column
- Note 2: AREA (sq.ft.) = sum of the area column
- Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
- Note 4: Width of element
- Note 5: Area=Width*Depth for element
- Note 6: Percent area = element area/total area x 100%
- Note 7: Percent area should be less than 10% as per USGS standard.
- Note 8: Blank fields are cleared from all calculations.
- Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: BYS1 Subsegment: 120206 Waterbody: Bayou Sigur
 Site Description: _____
 Type of Equipment: Fathometer Hydrotrac Manual
 Initial Bank: RDB LDB
 Tapedown: _____
 Gauge Height: _____
 Date: 6/22/2004

WIDTH ¹ (ft):	86.00
AREA ² (sq.ft.):	555.80
AVG. DEPTH (ft):	6.46

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	0.0	1.0	0.00	0.00	
2	2.0	3.25	2.00	6.50	1.17%
3	6.5	4.50	3.60	16.20	2.91%
4	11.0	4.50	4.80	21.60	3.89%
5	15.5	4.50	5.40	24.30	4.37%
6	20.0	4.50	8.00	36.00	6.48%
7	24.5	4.50	9.70	43.65	7.85%
8	29.0	4.50	10.10	45.45	8.18%
9	33.5	4.50	10.10	45.45	8.18%
10	38.0	4.50	9.90	44.55	8.02%
11	42.5	4.50	9.40	42.30	7.61%
12	47.0	4.50	9.00	40.50	7.29%
13	51.5	4.50	8.90	40.05	7.21%
14	56.0	4.50	8.30	37.35	6.72%
15	60.5	4.50	7.40	33.30	5.99%
16	65.0	4.50	5.40	24.30	4.37%
17	69.5	4.50	4.30	19.35	3.48%
18	74.0	4.50	3.10	13.95	2.51%
19	78.5	3.75	3.10	11.63	2.09%
20	81.5	3.75	2.50	9.38	1.69%
21	86.0	2.25	0.00	0.00	0.00%
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
Total		86.00		555.80	100.00%



Data Collection Crew	Boffy, Savant	Office Data Work	
Measurement made by:	Savant	Data Input by / Date:	Boffy/7/7/04
Notetaker/Recorder:		Data Input Checked by / Date:	Savant/7/7/04
Other:			

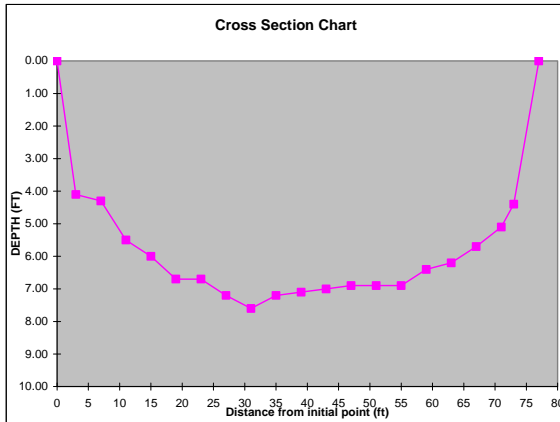
- Note 1: WIDTH (ft) = sum of the width column
- Note 2: AREA (sq.ft.) = sum of the area column
- Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
- Note 4: Width of element
- Note 5: Area=Width*Depth for element
- Note 6: Percent area = element area/total area x 100%
- Note 7: Percent area should be less than 10% as per USGS standard.
- Note 8: Blank fields are cleared from all calculations.
- Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: MB1 Subsegment: 120206 Waterbody: Muddy Bayou
 Site Description: _____
 Type of Equipment: Fathometer Hydrotrac Manual
 Initial Bank: RDB LDB
 Tapedown: _____
 Gauge Height: _____
 Date: 6/22/2004

WIDTH ¹ (ft):	77.00
AREA ² (ft ²):	460.05
AVG. DEPTH ³ (ft):	5.97

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	0.0	1.50	0.00	0.00	
2	3.0	3.50	4.10	14.35	3.12%
3	7.0	4.00	4.30	17.20	3.74%
4	11.0	4.00	5.50	22.00	4.78%
5	15.0	4.00	6.00	24.00	5.22%
6	19.0	4.00	6.70	26.80	5.83%
7	23.0	4.00	6.70	26.80	5.83%
8	27.0	4.00	7.20	28.80	6.26%
9	31.0	4.00	7.60	30.40	6.61%
10	35.0	4.00	7.20	28.80	6.26%
11	39.0	4.00	7.10	28.40	6.17%
12	43.0	4.00	7.00	28.00	6.09%
13	47.0	4.00	6.90	27.60	6.00%
14	51.0	4.00	6.90	27.60	6.00%
15	55.0	4.00	6.90	27.60	6.00%
16	59.0	4.00	6.40	25.60	5.56%
17	63.0	4.00	6.20	24.80	5.39%
18	67.0	4.00	5.70	22.80	4.96%
19	71.0	3.00	5.10	15.30	3.33%
20	73.0	3.00	4.40	13.20	2.87%
21	77.0	2.00	0.00	0.00	0.00%
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
Total		77.00		460.05	100.00%



Data Collection Crew	Boffy, Savant	Office Data Work	
Measurement made by:	Savant	Data Inputted by / Date:	Boffy/7/7/04
Notetaker/Recorder:		Data Input Checked by / Date:	Savant/7/7/04
Other:			

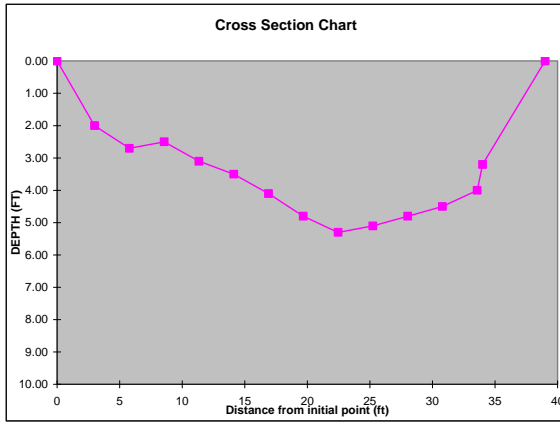
- Note 1: WIDTH (ft) = sum of the width column
- Note 2: AREA (sq.ft.) = sum of the area column
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- Note 4: Width of element
- Note 5: Area=Width*Depth for element
- Note 6: Percent area = element area/total area x 100%
- Note 7: Percent area should be less than 10% as per USGS standard.
- Note 8: Blank fields are cleared from all calculations.
- Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: BYC1 Subsegment: 120206 Waterbody: Bayou Crouix
 Site Description: _____
 Type of Equipment: Fathometer Hydrotrac Manual
 Initial Bank: RDB LDB
 Tapedown: _____
 Gauge Height: _____
 Date: 6/22/2004

WIDTH ¹ (ft):	39.00
AREA ² (ft ²):	133.16
AVG. DEPTH ³ (ft):	3.41

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	0.0	1.50	0.00	0.00	
2	3.0	2.89	2.00	5.78	4.34%
3	5.8	2.78	2.70	7.51	5.64%
4	8.6	2.78	2.50	6.95	5.22%
5	11.3	2.78	3.10	8.62	6.47%
6	14.1	2.78	3.50	9.73	7.31%
7	16.9	2.78	4.10	11.40	8.56%
8	19.7	2.78	4.80	13.34	10.02%
9	22.5	2.78	5.30	14.73	11.06%
10	25.2	2.78	5.10	14.18	10.65%
11	28.0	2.78	4.80	13.34	10.02%
12	30.8	2.78	4.50	12.51	9.39%
13	33.6	1.60	4.00	6.40	4.81%
14	34.0	2.71	3.20	8.67	6.51%
15	39.0	2.50	0.00	0.00	0.00%
16					
17					
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37					
38					
39					
40					
Total		39.00		133.16	100.00%



Data Collection Crew	Boffy, Savant	Office Data Work
Measurement made by:	Savant	Data Inputted by / Date: Boffy/7/7/04
Notetaker/Recorder:		Data Input Checked by / Date: Savant/7/7/04
Other:		

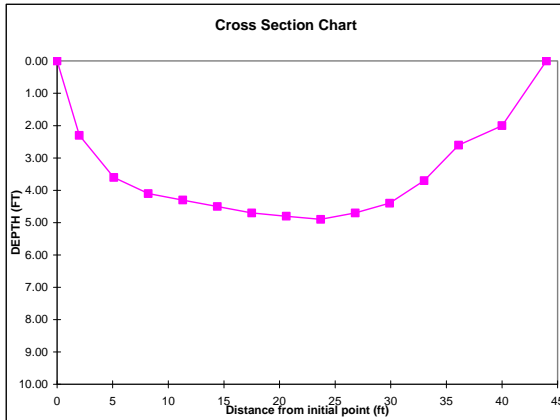
- Note 1: WIDTH (ft) = sum of the width column
- Note 2: AREA (sq.ft.) = sum of the area column
- Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
- Note 4: Width of element
- Note 5: Area=Width*Depth for element
- Note 6: Percent area = element area/total area x 100%
- Note 7: Percent area should be less than 10% as per USGS standard.
- Note 8: Blank fields are cleared from all calculations.
- Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: BYC2 Subsegment: 120206 Waterbody: Bayou Crouix
 Site Description: _____
 Type of Equipment: Fathometer Hydrotrac Manual
 Initial Bank: RDB LDB
 Tapedown: _____
 Gauge Height: _____
 Date: 6/22/2004

WIDTH ¹ (ft):	44.00
AREA ² (ft ²):	158.34
AVG. DEPTH ³ (ft):	3.60

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	0.0	1.00	0.00	0.00	
2	2.0	2.55	2.30	5.87	3.70%
3	5.1	3.10	3.60	11.16	7.05%
4	8.2	3.10	4.10	12.71	8.03%
5	11.3	3.10	4.30	13.33	8.42%
6	14.4	3.10	4.50	13.95	8.81%
7	17.5	3.10	4.70	14.57	9.20%
8	20.6	3.10	4.80	14.88	9.40%
9	23.7	3.10	4.90	15.19	9.59%
10	26.8	3.10	4.70	14.57	9.20%
11	29.9	3.10	4.40	13.64	8.61%
12	33.0	3.10	3.70	11.47	7.24%
13	36.1	3.50	2.60	9.10	5.75%
14	40.0	3.95	2.00	7.90	4.99%
15	44.0	2.00	0.00	0.00	0.00%
16					
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39					
40					
Total		44.00		158.34	100.00%



Data Collection Crew	Office Data Work
Measurement made by: _____	Data Inputted by / Date: _____
Notetaker/Recorder: _____	Data Input Checked by / Date: _____
Other: _____	

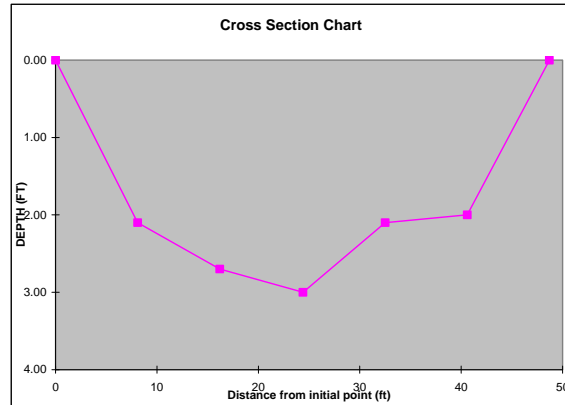
- Note 1: WIDTH (ft) = sum of the width column
- Note 2: AREA (sq.ft.) = sum of the area column
- Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
- Note 4: Width of element
- Note 5: Area=Width*Depth for element
- Note 6: Percent area = element area/total area x 100%
- Note 7: Percent area should be less than 10% as per USGS standard.
- Note 8: Blank fields are cleared from all calculations.
- Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: LGBY1 Subsegment: 120206 Waterbody: Little Grand Bayou
 Site Description: Just below confluence with Grand Bayou
 Type of Equipment: Fathometer Hydrotrac Manual
 Initial Bank: RDB LDB
 Tapedown: NA
 Gauge Height: NA
 Date: 6/22/2004

WIDTH ⁴ (ft):	48.70
AREA ⁵ (sq.ft.):	96.68
AVG. DEPTH ^{6&7} (ft):	1.99

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	0.0	4.05	0.00	0.00	
2	8.1	8.10	2.10	17.01	17.60%
3	16.2	8.15	2.70	22.01	22.76%
4	24.4	8.15	3.00	24.45	25.29%
5	32.5	8.10	2.10	17.01	17.60%
6	40.6	8.10	2.00	16.20	16.76%
7	48.7	4.05	0.00	0.00	0.00%
8					
9					
10					
11					
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36					
37					
38					
39					
40					
Total		48.70		96.68	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	Earles	Data Inputted by / Date:	Dickinson
Notetaker/Recorder:	Dickinson	Data Input Checked by / Date:	
Other:	Lafleur		

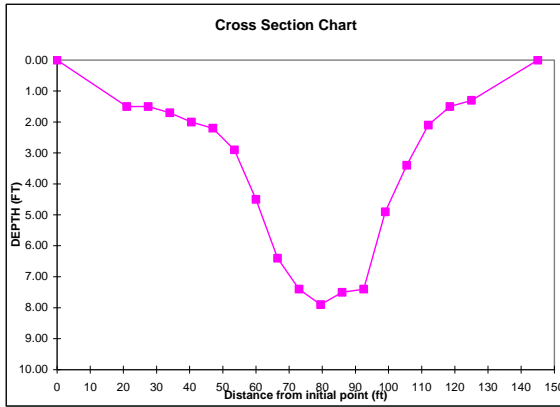
- Note 1: WIDTH (ft) = sum of the width column
- Note 2: AREA (sq.ft.) = sum of the area column
- Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
- Note 4: Width of element
- Note 5: Area=Width*Depth for element
- Note 6: Percent area = element area/total area x 100%
- Note 7: Percent area should be less than 10% as per USGS standard.
- Note 8: Blank fields are cleared from all calculations.
- Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: EGB1 Subsegment: 120206 Waterbody: East Grand Bayou
 Site Description: Just off from Grand Bayou main channel
 Type of Equipment: Fathometer Hydrotrac Manual
 Initial Bank: RDB LDB
 Tapedown: N/A
 Gauge Height: N/A
 Date: 11/3/2005

WIDTH ¹ (ft):	145.00
AREA ² (sq.ft.):	449.30
AVG. DEPTH ³ (ft):	3.10

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	0.0	10.50	0.00	0.00	
2	21.0	13.75	1.50	20.63	4.59%
3	27.5	6.50	1.50	9.75	2.17%
4	34.0	6.50	1.70	11.05	2.46%
5	40.5	6.50	2.00	13.00	2.89%
6	47.0	6.50	2.20	14.30	3.18%
7	53.5	6.50	2.90	18.85	4.20%
8	60.0	6.50	4.50	29.25	6.51%
9	66.5	6.50	6.40	41.60	9.26%
10	73.0	6.50	7.40	48.10	10.71%
11	79.5	6.50	7.90	51.35	11.43%
12	86.0	6.50	7.50	48.75	10.85%
13	92.5	6.50	7.40	48.10	10.71%
14	99.0	6.50	4.90	31.85	7.09%
15	105.5	6.50	3.40	22.10	4.92%
16	112.0	6.50	2.10	13.65	3.04%
17	118.5	6.50	1.50	9.75	2.17%
18	125.0	13.25	1.30	17.23	3.83%
19	145.0	10.00	0.00	0.00	0.00%
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
Total	145.00			449.30	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	R. Brignac	Data Inputted by / Date:	C. Schwartzburg / 11/4/05
Notetaker/Recorder:	C. Schwartzburg	Data Input Checked by / Date:	E. Garner / 11/4/05
Other:	E. Garner		

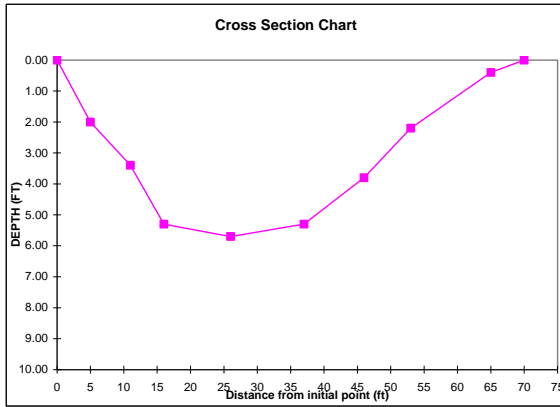
- Note 1: WIDTH (ft) = sum of the width column
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- Note 4: Width of element
- Note 5: Area=Width*Depth for element
- Note 6: Percent area = element area/total area x 100%
- Note 7: Percent area should be less than 10% as per USGS standard.
- Note 8: Blank fields are cleared from all calculations.
- Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: LBL1 Subsegment: 120206 Waterbody: Little Bayou Long
 Site Description: Just above confluence w/ Grand Bayou
 Type of Equipment: Fathometer Hydrotrac Manual
 Initial Bank: RDB LDB
 Tapedown: N/A
 Gauge Height: N/A
 Date: 11/3/2005

WIDTH ¹ (ft):	70.00
AREA ² (ft ²):	237.00
AVG. DEPTH ³ (ft):	3.39

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	0.0	2.50	0.00	0.00	
2	5.0	5.50	2.00	11.00	4.64%
3	11.0	5.50	3.40	18.70	7.89%
4	16.0	7.50	5.30	39.75	16.77%
5	26.0	10.50	5.70	59.85	25.25%
6	37.0	10.00	5.30	53.00	22.36%
7	46.0	8.00	3.80	30.40	12.83%
8	53.0	9.50	2.20	20.90	8.82%
9	65.0	8.50	0.40	3.40	1.43%
10	70.0	2.50	0.00	0.00	0.00%
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
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25					
26					
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31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
Total	70.00			237.00	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	R. Brignac	Data Inputted by / Date:	C. Schwartzburg / 11/4/05
Notetaker/Recorder:	C. Schwartzburg	Data Input Checked by / Date:	E. Garner / 11/4/05
Other:	E. Garner		

- Note 1: WIDTH (ft) = sum of the width column
- Note 2: AREA (sq.ft.) = sum of the area column
- Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
- Note 4: Width of element
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- Note 6: Percent area = element area/total area x 100%
- Note 7: Percent area should be less than 10% as per USGS standard.
- Note 8: Blank fields are cleared from all calculations.
- Note 9: The cross sections are taken at areas representative of the stream.

Little Grand Bayou

Little Grand Bayou 120206								
Field Data Summary -- Discharges and Cross Sections								
Site #	Width (ft)	Width (m)	Depth (ft)	Depth (m)	Drogue Velocity (ft/s)	Flow (cfs) (note 1)	Flow (cms)	Tape Down (ft)
LGBY1	48.7	14.844	1.99	0.607	0.085	4.952	0.14023	
LGBY2		0.000		0.000				
WC1		0.000		0.000		5.706	0.16158	
LGBY3	91.0	27.737	2.10	0.640	0.402	46.076	1.30474	
LGBY4	96.0	29.261	3.20	0.975	0.454	83.627	2.36804	
WCL1	39.0	11.887	1.98	0.604	0.254	11.755	0.33285	
LGBY5	217.0	66.142	4.51	1.375		175.105	4.95842	
LV2		0.000		0.000				

Note 1: If a drogue velocity is given, flow is calculated as Width * Depth * Velocity * 0.6. The 0.6 factor is to account for the changing velocity profile in a representative cross section.

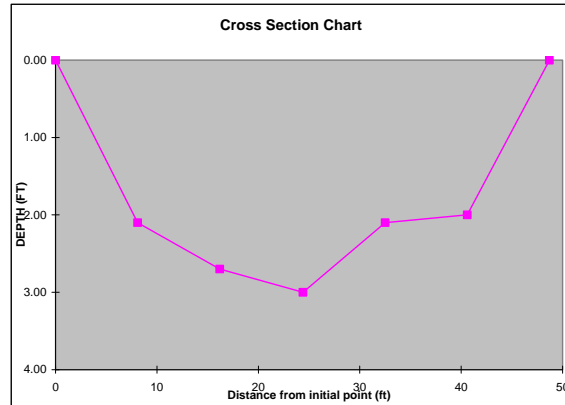
Little Grand Bayou 120206 Flow Input for calibration		Calculation	Flow (cms)	Flow Balance (cms)
Headwater		Flow measurement at site LGBY1	0.14000	0.14000
Incremental Inflow	Reach 1	Estimation of flow between headwaters and site LGBY3	0.20000	0.34000
Incremental Inflow	Reach 2	Estimation of flow between headwaters and site LGBY3	0.30000	0.64000
Tributary	Westfield Canal	Flow measurement at site WC1	0.16158	0.80158
Incremental Inflow	Reach 3	Estimation of flow between headwaters and site LGBY3	0.65000	1.45158
Incremental Inflow	Reach 4	Estimation of flow between site LGBY3 and site LGBY4	0.85000	2.30158
Incremental Inflow	Reach 5	Estimation of flow between site LGBY4 and site LGBY5	1.50000	3.80158
Tributary	Whitmel Canal	Flow measurement at site WCL1	0.33300	4.13458
Incremental Inflow	Reach 6	Estimation of flow between site LGBY4 and site LGBY5	1.25000	5.38458

STREAM CROSS-SECTION SPREADSHEET

Site Number: LGBY1 Subsegment: 120206 Waterbody: Little Grand Bayou
 Site Description: Just below confluence with Grand Bayou
 Type of Equipment: Fathometer Hydrotrac Manual
 Initial Bank: RDB LDB
 Tapedown: NA
 Gauge Height: NA
 Date: 6/22/2004

WIDTH ⁴ (ft):	48.70
AREA ⁵ (sq.ft.):	96.68
AVG. DEPTH ^{6&7} (ft):	1.99

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	0.0	4.05	0.00	0.00	
2	8.1	8.10	2.10	17.01	17.60%
3	16.2	8.15	2.70	22.01	22.76%
4	24.4	8.15	3.00	24.45	25.29%
5	32.5	8.10	2.10	17.01	17.60%
6	40.6	8.10	2.00	16.20	16.76%
7	48.7	4.05	0.00	0.00	0.00%
8					
9					
10					
11					
12					
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14					
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29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
Total		48.70		96.68	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	Earles	Data Input by / Date:	Dickinson
Notetaker/Recorder:	Dickinson	Data Input Checked by / Date:	
Other:	Lafleur		

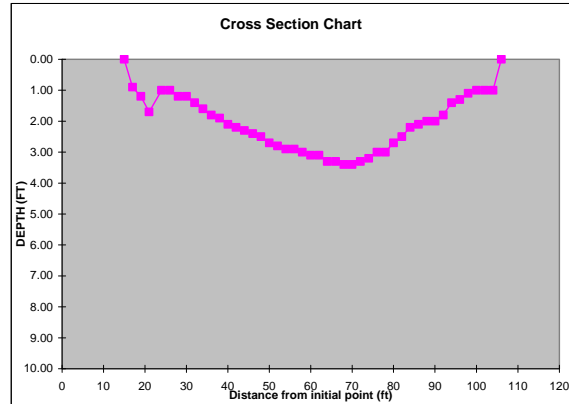
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- Note 7: Percent area should be less than 10% as per USGS standard.
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- Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: LGBY3 Subsegment: 120206 Waterbody: Little Grand Bayou
 Site Description: Upstream of canal leading to E. Grand Bayou
 Type of Equipment: Fathometer Hydrotrac Manual
 Initial Bank: RDB LDB
 Tapedown: _____
 Gauge Height: _____
 Date: 9/9/2004

WIDTH ¹ (ft):	91.00
AREA ² (sq.ft.):	191.15
AVG. DEPTH ³ (ft):	2.10

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	15.0	1.00	0.00	0.00	0.00%
2	17.0	2.00	0.90	1.80	0.94%
3	19.0	2.00	1.20	2.40	1.26%
4	21.0	2.50	1.70	4.25	2.22%
5	24.0	2.50	1.00	2.50	1.31%
6	26.0	2.00	1.00	2.00	1.05%
7	28.0	2.00	1.20	2.40	1.26%
8	30.0	2.00	1.20	2.40	1.26%
9	32.0	2.00	1.40	2.80	1.46%
10	34.0	2.00	1.60	3.20	1.67%
11	36.0	2.00	1.80	3.60	1.88%
12	38.0	2.00	1.90	3.80	1.99%
13	40.0	2.00	2.10	4.20	2.20%
14	42.0	2.00	2.20	4.40	2.30%
15	44.0	2.00	2.30	4.60	2.41%
16	46.0	2.00	2.40	4.80	2.51%
17	48.0	2.00	2.50	5.00	2.62%
18	50.0	2.00	2.70	5.40	2.83%
19	52.0	2.00	2.80	5.60	2.93%
20	54.0	2.00	2.90	5.80	3.03%
21	56.0	2.00	2.90	5.80	3.03%
22	58.0	2.00	3.00	6.00	3.14%
23	60.0	2.00	3.10	6.20	3.24%
24	62.0	2.00	3.10	6.20	3.24%
25	64.0	2.00	3.30	6.60	3.45%
26	66.0	2.00	3.30	6.60	3.45%
27	68.0	2.00	3.40	6.80	3.56%
28	70.0	2.00	3.40	6.80	3.56%
29	72.0	2.00	3.30	6.60	3.45%
30	74.0	2.00	3.20	6.40	3.35%
31	76.0	2.00	3.00	6.00	3.14%
32	78.0	2.00	3.00	6.00	3.14%
33	80.0	2.00	2.70	5.40	2.83%
34	82.0	2.00	2.50	5.00	2.62%
35	84.0	2.00	2.20	4.40	2.30%
36	86.0	2.00	2.10	4.20	2.20%
37	88.0	2.00	2.00	4.00	2.09%
38	90.0	2.00	2.00	4.00	2.09%
39	92.0	2.00	1.80	3.60	1.88%
40	94.0	2.00	1.40	2.80	1.46%
41	96.0	2.00	1.30	2.60	1.36%
42	98.0	2.00	1.10	2.20	1.15%
43	100.0	2.00	1.00	2.00	1.05%
44	102.0	2.00	1.00	2.00	1.05%
45	104.0	2.00	1.00	2.00	1.05%
46	106.0	1.00	0.00	0.00	0.00%
Total		91.00		191.15	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	Jimbo, Butler, Fontenot	Data Inputted by / Date:	9/9/2004
Notetaker/Recorder:	Fontenot	Data Input Checked by / Date:	9/9/2004
Other:			Jimbo Earles

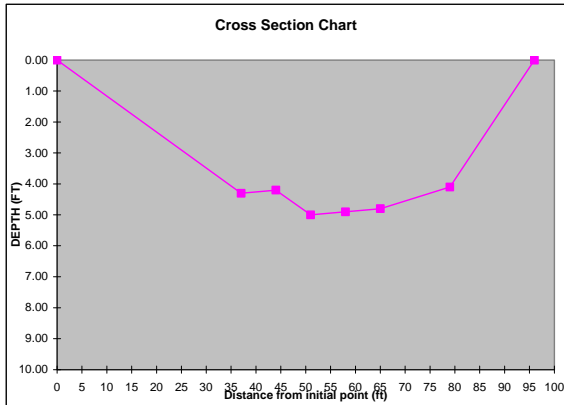
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- Note 5: Area=Width*Depth for element
- Note 6: Percent area = element area/total area x 100%
- Note 7: Percent area should be less than 10% as per USGS standard.
- Note 8: Blank fields are cleared from all calculations.
- Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: LGBY4 Subsegment: 120206 Waterbody: Little Grand Bayou
 Site Description: Little Grand Bayou @ Hwy 402 Boat Launch
 Type of Equipment: Fathometer Hydrotrac Manual
 Initial Bank: RDB LDB
 Tapedown: _____
 Gauge Height: _____
 Date: 6/22/2004

WIDTH ¹ (ft):	96.00
AREA ² (sq.ft.):	307.25
AVG. DEPTH ³ (ft):	3.20

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	0.0	18.50	0.00	0.00	
2	37.0	22.00	4.30	94.60	30.79%
3	44.0	7.00	4.20	29.40	9.57%
4	51.0	7.00	5.00	35.00	11.39%
5	58.0	7.00	4.90	34.30	11.16%
6	65.0	10.50	4.80	50.40	16.40%
7	79.0	15.50	4.10	63.55	20.68%
8	96.0	8.50	0.00	0.00	0.00%
9					
10					
11					
12					
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15					
16					
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24					
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28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
Total		96.00		307.25	100.00%



Data Collection Crew	Butler, Chuck Fotenot	Office Data Work	
Measurement made by:	Butler, Chuck Fotenot	Data Inputted by / Date:	Butler / 6/28/04
Notetaker/Recorder:	Butler, Chuck Fotenot	Data Input Checked by / Date:	Fotenot / 6/28/04
Other:			

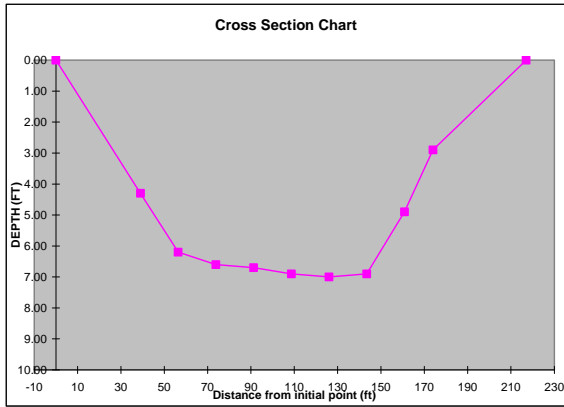
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- Note 5: Area=Width*Depth for element
- Note 6: Percent area = element area/total area x 100%
- Note 7: Percent area should be less than 10% as per USGS standard.
- Note 8: Blank fields are cleared from all calculations.
- Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: LGBY5 Subsegment: 120206 Waterbody: Little Grand Bayou
 Site Description: Just upstream of Lake Verret
 Type of Equipment: Fathometer Hydrotrac Manual
 Initial Bank: RDB LDB
 Tapedown: _____
 Gauge Height: _____
 Date: 6/22/2004

WIDTH ¹ (ft):	217.00
AREA ² (sq.ft.):	979.12
AVG. DEPTH ³ (ft):	4.51

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	0.0	19.50	0.00	0.00	
2	39.0	28.21	4.30	121.28	12.39%
3	56.4	17.41	6.20	107.94	11.02%
4	73.8	17.41	6.60	114.91	11.74%
5	91.2	17.41	6.70	116.65	11.91%
6	108.6	17.41	6.90	120.13	12.27%
7	126.1	17.41	7.00	121.87	12.45%
8	143.5	17.41	6.90	120.13	12.27%
9	160.9	15.27	4.90	74.82	7.64%
10	174.0	28.07	2.90	81.39	8.31%
11	217.0	21.50	0.00	0.00	0.00%
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
Total	217.00			979.12	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	Butler, Chuck Fotenot	Data Inputted by / Date:	Butler / 6/28/04
Notetaker/Recorder:	Butler, Chuck Fotenot	Data Input Checked by / Date:	Fontenot / 6/28/04
Other:			

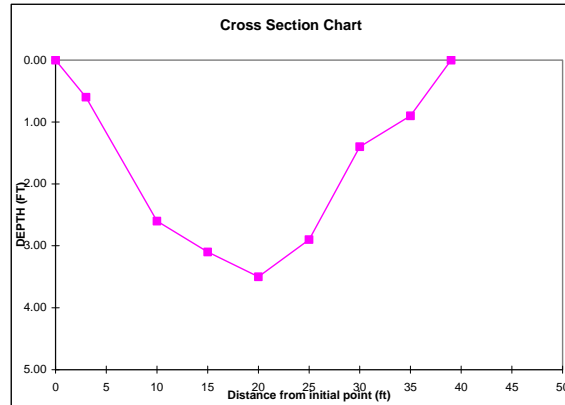
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- Note 5: Area=Width*Depth for element
- Note 6: Percent area = element area/total area x 100%
- Note 7: Percent area should be less than 10% as per USGS standard.
- Note 8: Blank fields are cleared from all calculations.
- Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: WCL1 Subsegment: 120206 Waterbody: Whitmel Canal
 Site Description: Just above confluence w/ Little Grand Bayou
 Type of Equipment: Fathometer Hydrotrac Manual
 Initial Bank: RDB LDB
 Tapedown: N/A
 Gauge Height: N/A
 Date: 11/3/2005

WIDTH ¹ (ft):	39.00
AREA ² (sq.ft.):	77.15
AVG. DEPTH ³ (ft):	1.98

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	0.0	1.50	0.00	0.00	
2	3.0	5.00	0.60	3.00	3.89%
3	10.0	6.00	2.60	15.60	20.22%
4	15.0	5.00	3.10	15.50	20.09%
5	20.0	5.00	3.50	17.50	22.68%
6	25.0	5.00	2.90	14.50	18.79%
7	30.0	5.00	1.40	7.00	9.07%
8	35.0	4.50	0.90	4.05	5.25%
9	39.0	2.00	0.00	0.00	0.00%
10					
11					
12					
13					
14					
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16					
17					
18					
19					
20					
21					
22					
23					
24					
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31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
Total		39.00		77.15	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	R. Brignac	Data Inputted by / Date:	C. Schwartzburg / 11/4/05
Notetaker/Recorder:	C. Schwartzburg	Data Input Checked by / Date:	E. Garner / 11/4/05
Other:	E. Garner		

- Note 1: WIDTH (ft) = sum of the width column
- Note 2: AREA (sq.ft.) = sum of the area column
- Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
- Note 4: Width of element
- Note 5: Area=Width*Depth for element
- Note 6: Percent area = element area/total area x 100%
- Note 7: Percent area should be less than 10% as per USGS standard.
- Note 8: Blank fields are cleared from all calculations.
- Note 9: The cross sections are taken at areas representative of the stream.

Appendix F3 – Field Notes

Grand Bayou & Little Grand Bayou Survey Report

Grand Bayou and Little Grand Bayou are located in the Terrebonne Basin in Iberville and Assumption parishes. Grand Bayou is approximately 15 miles long and Little Grand Bayou is approximately 4 miles long. The subsegment that was surveyed (120206) extends from Bayou Sigur to Lake Verret. The survey was conducted June 22-28, 2004. The majority of the land use along the bayou is forested wetlands. There is also some agriculture located in the upper reaches.

The Watershed Survey Group took water quality samples throughout the two bayous along with In-Situ readings. There were some measurable flows taken with the Acoustic Doppler, boatboards, and drogues. Three time of travel studies were conducted: 1) approximately 2-2.5 km upstream of Hwy 70; 2) midway between the 2nd unnamed canal and East Grand Bayou; and 3) between Westfield Canal and the Canal leading to East Grand Bayou. Fifteen continuous monitors were deployed during the survey. Of the fifteen, two (GRB9 and LGBY5) were set out to log for a week. GPS readings were taken prior to and during the survey along with cross-sections and weather data. All of this data is included with this report. Additionally, electronic copies of the data are available on the watershed shared network (ws_surveys).

Approximately 3 inches of rain fell on June 23 between 1300hrs and 1330hrs, which may or may not have had an effect upon the dye study.

Appendix F4 – Site Information Sheets

Grand Bayou

Site Information

Site # GRB1 Subsegment 120206 Date: 6/23/04 Time: 11/0
 Waterbody Grand Bayou Tappedown 1: Staff Gauge 1:
 Gauge Height 1: Tappedown 2: Staff Gauge 2: Gauge Height 2:
 Site Location Just above confluence w/ Bayou 5 g ul
 Personnel Benjamin Hughes

Type of Work: Recon Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° < 5 NW N NE
 Drizzle/Light Rain Warm > 75° 1-5 SW S SE
 Showers Mild > 65° 6-10 E W
 Cloud Cover: Cool > 60° 11-15 Variable
 0-10% Cold < 60° > 16
 11-40%
 41-70%
 71-100%

Stream Characteristics: Flowing: Measurable Flow:
 Flow Direction Upstream Downstream Tidally Influenced:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present: Sedimentation/Turbidity Present in Water Column
 Floating/Aquatic Vegetation % Surface Coverage: < 1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor S/N: 49805
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters
 Time: 11/0 Temp. (°C): 27.20 pH: 8.14 Secchi (cm): 300.8 IBU 72 IBAN 105
 D.O.: 3.60 D.O. %: 45.9 Salinity: 0.15 Depth (m): 1m Secchi (m): 12.2

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Drogue Estimate: Dye Estimate:
 Right Descending Bank: Distance (ft): 100 ft Time (s): 5m.u (300sec)
 Mid Stream: Distance (ft): 10 ft Time (s): 5m.u (300sec)
 Left Descending Bank: Distance (ft): 20 ft Time (s): 5m.u (300sec)

Cross Section Measurement: Measurement Location: GRB1 on 6/22/04
 Type of Measurement Manual: Fallometer Cross Section File Name: _____

GPS Measurement: GPS SSP File Name: _____
 Site GPS Cross Section GPS:

Comments: v-section done on 6/22/04

GRII

06/23/09

1110 W.

Photos Taken:

Picture File #: _____

Tapedown Established:

Tapedown Location: _____

Benchmark Established:

Benchmark Location: _____

Survey Equipment Used

Time of Travel Measurement

Type of Site: Injection Collection

Amount of Dye Injected (ml) _____

Physical Site Characteristic: Natural Waterbody Man-Altered Waterbody: Man-Made Waterbody:

Stream Dry/Intermittent:

Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt

Control Structure Present: Location: _____

Type: Man-Made Dam Flow Regulation Device Beaver Dam Log Jam

Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland

Percent Tree Canopy Cover: 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board

Measurement Location: _____

Gross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge: _____ Bridge Spans: _____ Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time:	Temp. (C):	pH:	Spcond (hms/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Spcond (hms/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Spcond (hms/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used

In Situ Probe S/N: 40803

Surveyor's S/N: 32005013439

GPS Unit:

Aquatic S/N:

Fathometer:

Laser Cut:

Camera S/N:

Reference

Convert Feet to Meters:

- 0.5 ft = 0.15 m
- 1.0 ft = 0.30 m
- 1.5 ft = 0.45 m
- 2.0 ft = 0.60 m
- 2.5 ft = 0.75 m

GRB2 Site Information

Site # ~~120206~~ *GRB2* Subsegment: 120206 Date: 6/22/04 Time: 0940
 Waterbody: Grand Bayou Tapdown 1: _____ Staff Gauge 1: _____
 Gauge Height 1: _____ Tapdown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: just downstream of confluence w/ Bayou Bijou
 Personnel: Virginia Hughes

Type of Work: Recon Data Collection

Weather Conditions: Clear Drizzle/Light Rain Showers Cloud Cover: 0-10% 11-40% 41-70% 71-100%

Temperature (°F): Hot > 85° Warm > 75° Mild > 65° Cool > 60° Cold < 60°

Wind (mph): < 1 1-5 6-10 11-15 > 16

Wind Direction: NW N NE SW S SE E W Variable

Stream Characteristics: Flowing: Measurable Flow: *with Drogue*
 Flow Direction: Upstream Downstream Quality influenced:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present Sedimentation/Turbidity Present in Water Column
 Floating Aquatic Vegetation % Surface Coverage: < 1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor SN: 40803
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters *IAV 7.2*

Time: 0940 Temp. (°C): 27.55 pH: 7.64 Secchi (cm): 208.0
 D.O.: 2.45 D.O. %: 30.7 Salinity: 0.10 Depth (m): 1m Secchi (in): 9.2

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
 Using Discharge equipment: Type: Wading Bridge Board Boat Board
 Drogue Estimate: Dye Estimate:
 Right Descending Bank: Distance (ft): 40 ft Time (s): 1.5m (90 sec)
 Mid Stream: Distance (ft): 50 ft Time (s): 3m (300 sec)
 Left Descending Bank: Distance (ft): 49.5m 5ft Time (s): 5m (300 sec)

Cross Section Measurement: Measurement Location: GRB2 on 6/22/04
 Type of Measurement Manual: Fishometer Cross Section File Name: _____

GPS Measurement: GPS SSP File Name: _____
 Site GPS: Cross Section GPS:

Comments: x-section done on 6/22/04

GRBR 06/12/09 0920 hrs.

Photos Taken Picture File # _____

Tapedown Established: Tapedown Location: _____
 Benchmark Established: Benchmark Location: _____
 Survey Equipment Used:

Date of Travel Measurement Type of Site: Injection Collection
 Amount of Dye Injected (gal): _____

Physical Site Characteristics: Natural Waterbody: Man-Altered Waterbody: Man-Made Waterbody:
 Stream Dry/Intermittent:
 Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Cravel/Silt
 Control Structure Present: Location: _____
 Type: Man-Made Dam Flow Regulation Device Beaver Dam Log Jam
 Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
 Percent Tree Canopy Cover: 0-25% 26-50% 51-75% 76-100%

Access Information:

Discharge Measurement: Wading Bridge Board Bear Board
 Measurement Location: _____
 Cross Section Location: _____
 Continuous Monitor Deployment: _____
 Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____
 Bridge Bridge Safe: _____ Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time:	Temp. (C):	pH:	Speed (km/hr):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Speed (km/hr):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Speed (km/hr):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used

In Situ Probe S/N: 403 03 Surveyor 4a S/N: 32005013439 GPS Unit:
 AquaCalc S/N: _____ Pathometer: _____ Laser Gun:
 Camera S/N: _____

References

Convert Feet to Meters

0.5 ft = 0.15 m
 1.0 ft = 0.30 m
 1.5 ft = 0.45 m
 2.0 ft = 0.60 m
 2.5 ft = 0.75 m

Site Information

Site # GRB3 Subsegment 120206 Date 6/27/07 Time 0940 hr
 Waterbody Galveston Bay Tapdown 1: _____ Staff Gauge 1: _____
 Gauge Height 1: _____ Tapdown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: just N of 996 Bridge
 Personnel: Buff G. Smith
 Type of Work: Reason Data Collection

Weather Conditions: Temperature (°F) Wind (mph) Wind Direction
 Clear 60-85° 0-1 NW N NE
 Overcast Warm > 70° 1-3 SW S SE
 Showers Mild > 65° 4-10 E W
 Cloud Cover: Cool > 50° 11-15 Variable
 0-10% Cold < 50° > 15
 11-40%
 41-70%
 71-100%

Stream Characteristics: Flowing Measurable Flow
 Flow Direction: Upstream Downstream Tidal Influence:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present: Sedimentation/Turbidity Present in Water Column
 Floating Aquatic Vegetation % Surface Coverage: 0-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken Water Quality Field Parameters Profiling
 Continuous Monitor Deployed Continuous Monitor S/N: 37761
 Continuous Monitor Retrieved Continuous Monitor Deployment Depth (m): 1
 Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 0940 Temp (°C): 27.88 pH: 7.28 Specific Conductance (µmhos/cm): 270.3 TSS: 2.4 IBATT: 5.7
 D.O.: 2.63 D.O. %: 73.6 Salinity: 0.10 Depth (m): 7 Secchi (in): 18

Flow Measurement Measurement Location: just N of 996 Bridge
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: GRB3 01

Flow Estimated: Measurement Location: _____
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Dye Estimate: Dye Estimate:
 Right Descending Band: Distance (ft): _____ Time (s): _____
 Mid Stream: Distance (ft): _____ Time (s): _____
 Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement Measurement Location: _____
 Type of Measurement: Manual Fathometer Cross Section File Name: _____

GPS Measurements GPS SRS File Name: _____
 Site GPS Cross Section GPS

Comments: _____

GRB3

06/22/09 0940 hrs.

Photos Taken:

Picture File #s: _____

Tapedowns Established:

Tapedown Location: _____

Benchmark Established:

Benchmark Location: _____

Survey Equipment Used:

Time of Travel Measurement

Type of Site: Injection Collection

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody Man-Altered Waterbody Man-Made Waterbody

Stream Dry/Intermittent

Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand Silt Rock/Gravel/Silt

Control Structure Present: Location: _____

Type: Man-Made Dam Flow Regulation Device Beaver Dam Log Jam

Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland

Percent Tree Canopy Cover: 0-25% 25-50% 51-75% 76-100%

Recor Information

Discharge Measurement: Wading Bridge Board Boat Board

Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: _____	Temp. (°C): _____	pH: _____	Spcond (µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Spcond (µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Spcond (µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Equipment Used:

In-Situ Probe S/N: 37761 Surveyor 4a S/N: _____ GPS Unit: _____
 AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
 Camera S/N: _____

References

Convert Feet to Meters

- 0.5 ft = 0.15 m
- 1.0 ft = 0.30 m
- 1.5 ft = 0.45 m
- 2.0 ft = 0.60 m
- 2.5 ft = 0.75 m

Site Information

Site #: GRB4 Subsegment: 120206 Date: 6/23/04 Time: 12:10hrs
 Waterbody: Grand Bayou Tape down 1: _____ Staff Gauge 1: _____
 Profile Height 1: _____ Tape down 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: At Hwy 170 on Southside of bridge
 Personnel: Lafleur, Dickinson, Earles
 Type of Work: Record Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° < 1 SW N NE
 Drizzle/Light Rain Warm < 75° 1-3 SW S SE
 Showers Mild > 65° 5-10 E W
 Cloud Cover: Cool > 60° 11-15 Variable
 0-10% Cold < 60° > 16
 11-40%
 41-70%
 71-100%

Stream Characteristics: Flowing Measurable Flow
 Flow Direction: Upstream Downstream Tidally Influenced
 Wind Influence Wind Influence Direction: Upstream Downstream
 Algae Present Sedimentation/Turbidity Present in Water Column
 Riparian/Aquatic Vegetative % Surface Coverage: < 1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor SN: _____
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 12:10hrs Temp (°C): 27.54 pH: 7.00 Specific Conductance (µmhos/cm): 175.8 I3A-~~10.9~~ 10.9
I3V-74
 D.O.: 100.198 D.O. %: 28.5 Salinity: 0.09 Depth (m): 1.0M Secchi (ft): 12.0in

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Dredge Estimate Dye Estimate
 Right Descending Bank: Distance (ft): _____ Time (s) _____
 Mid Stream: Distance (ft): _____ Time (s) _____
 Left Descending Bank: Distance (ft): _____ Time (s) _____

Cross Section Measurement: Measurement Location: _____
 Type of Measurement: Manual Pathfinder Cross Section File Name: _____
 GPS Measurement: GPS SSF File Name: _____
 Site GPS: Cross Section GPS:

Comments: _____

GRB4

06/23/04

1210 hrs.

Photos Taken:

Picture File #: _____

Tapedown Established:

Tapedown Location: _____

Benchmark Established:

Benchmark Location: _____

Survey Equipment Used:

Time of Travel Measurement:

Type of Site: Injection Collection

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man-Altered Waterbody: Man-Made Waterbody:

Stream Discontinuity:

Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt

Control Structure Present: Location: _____

Type: Man-Made Dam Flow Regulation Device Beaver Dam Log Jam

Land Use: Agriculture Forestry Municipal Industrial Field/Road Wetland

Percent Tree Canopy Cover: 0-25% 25-50% 51-75% 76-100%

Recor Information

Discharge Measurement: Wading Bridge Board Boat Board

Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge: _____ Bridge Span: _____ Bridge Width: _____ Bridge Height: _____

Profling Measurements:

Time:	Temp. (C):	pH:	Speed (kmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Speed (kmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Speed (kmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used

In Situ Probe S/N: 40807 Surveyor 4a S/N: 51968 GPS Unit
 Aquatic S/N: _____ Fathometer: _____ Laser Gun
 Camera S/N: _____

References

Convert Feet to Meters

- 0.5 ft = 0.15 m
- 1.0 ft = 0.30 m
- 1.5 ft = 0.45 m
- 2.0 ft = 0.60 m
- 2.5 ft = 0.75 m

Site Information

Site # GR05 Subsegment 120206 Date: 10/23/04 Time: 114 hrs
 Waterbody Grand Bayou Tapdown 1: _____ Staff Gauge 1: _____
 Gauge Height 1: _____ Tapdown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: Midway between Bayou Cane and 1st upstream dam
 Personnel: Lotz, Earles, Dickinson
 Type of Work: Reason Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° < 1 NW N NE
 Drizzle Light Rain Warm > 75° 1-5 SW S SE
 Showers Mild > 65° 6-10 E W
 Cloud Cover: Cool > 60° 11-15 Variable
 0-30% Cold < 50° > 16
 31-40%
 41-70%
 71-100%

Stream Characteristics: Flowing Measurable Flow:
 Flow Direction: Upstream Downstream Tidally Influenced:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present: Sedimentation/Turbidity Present in Water Column:
 Flamingo Aquatic Vegetation % Surface Coverage: < 1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor S/N: _____
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters
 Time: 1140hrs Temp. (°C): 27.36 pH: 6.89 Spcond (µmhos/cm): 151.5 ISV - 7.5
 D.O.: 2.56 D.O. %: 32.2 Salinity: 0.07 Depth (m): 1.0m ISA - 10.9
 Secchi (ft): NA

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____

Flow Estimated: Measurement Location: At site
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Drogue Estimate: Dye Estimate:
 Right Descending Bank: Distance (ft): 105 ft Time (s): 737s 230 ft from bank
 Mid Stream: Distance (ft): 189.0 ft Time (s): 1100s
 Left Descending Bank: Distance (ft): 200.0 ft Time (s): 740s > 15 ft from bank

Cross Section Measurement: Measurement Location: _____
 Type of Measurement: Manual Bathometer Cross Section File Name: _____

GPS Measurement: GPS SSF File Name: _____
 Site GPS: Cross Section GPS:

Comments: _____

G R B 5 06/23/07 1140 hrs

Photos Taken: Picture File #s: _____

Tapedown Established: Tapedown Location: _____

Benchmark Established: Benchmark Location: _____

Survey Equipment Used: _____

Time of Travel Measurement: Type of Site: Injection Collection

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody Man-Altered Waterbody: Man-Made Waterbody

Stream Dry/Intermittent:

Stream Bottom: Sandy Clay Gravel Hard Pan Soft Silt Sand/Silt Rock/Gravel-Silt

Control Structure Present: Location: _____

Type: Man-Made Dam Flow Regulation Device Beaver Dam Log Jam

Land Use: Agriculture Forestry Municipal Industrial Pasture Wetland

Percent Tree Canopy Cover: 0-25% 26-50% 51-75% 76-100%

Retain Information:

Discharge Measurement: Wading Bridge Board Boat Board

Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge Bridge Safe: Bridge Width: Bridge Height:

Prelling Measurements:

Time:	Temp. (C):	pH:	Spcond (hmus/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Spcond (hmus/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Spcond (hmus/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: 40307 Surveyor # S/N: S1968 GPS Unit
 AquaCalc S/N Fathometer Laser Gun
 Camera S/N

References

Convert Feet to Meters

- 0.5 ft = 0.15 m
- 1.0 ft = 0.30 m
- 1.5 ft = 0.45 m
- 2.0 ft = 0.60 m
- 2.5 ft = 0.75 m

Site Information

Site #: GR 36 Subsegment: 120203 Date: 6/23/04 Time: 1000hrs
 Waterbody: Between Little Grand Bayou and 2nd Unnamed Canal Tapdown 1: _____ Staff Gauge 1: _____
 Gauge Height 1: _____ Tapdown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: Between Little Grand Bayou and 2nd Unnamed Canal
 Personnel: Lafleur, Earles, Dickerson
 Type of Work: Record Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° < 1 NW N NE
 Drizzle/Light Rain Warm > 75° 1-5 SW S SE
 Showers Mild > 65° 6-10 E W
 Cloud Cover: Cool > 60° 11-15 Variable
 0-10% Cold < 60° > 16
 11-40%
 41-70%
 71-100%

Stream Characteristics: Flowing Measurable Flow:
 Flow Direction Upstream Downstream Tidally Influenced:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present Sedimentation/Turbidity Present in Water Column
 Floating Aquatic Vegetation % Surface Coverage: 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor S/N: _____
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 1000hrs Temp. (°C): 27.68 pH: 6.92 Spcond (µmhos/cm): 146.5
 D.O.: 2.42 D.O. %: 38.7 Salinity: 0.07 Depth (m): 1.0m Secchi (m): 30.0in

IDW-74
130-10.9

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 Aquatic File Name: _____

Flow Estimated: Measurement Location: AT site
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Dye Estimate: Dye Estimate:

Right Descending Bank: Distance (ft): 58.0ft Time (s): 630s → 226.0ft from bank
 Mid Stream: Distance (ft): 47.0ft Time (s): 800s
 Left Descending Bank: Distance (ft): 41.2ft Time (s): 600s → 97.0ft from bank

Cross Section Measurement: Measurement Location: _____
 Type of Measurement: Manual: Fathometer Cross Section File Name: _____

GPS Measurement: GPS SSF File Name: _____
 Site GPS: Cross Section GPS:

Comments: _____

GRBL 01/23/04 1000 hrs

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____

Benchmark Established: Benchmark Location: _____

Survey Equipment Used: _____

Time of Travel Measurement Type of Site Injection Collection

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:

Stream Dry-Intermittent:

Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel Silt

Control Structure Present: Location: _____

Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam

Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland

Percent Tree Canopy Cover: 0-25% 26-50% 51-75% 76-100%

Record Information:

Discharge Measurement: Wading Bridge Board Boat Board

Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge Bridge Size: Bridge Width: Bridge Height:

Profiling Measurements:

Time:	Temp. (C):	pH:	Speed (km/hr/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Speed (km/hr/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Speed (km/hr/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: 40807 Surveyor 4 S/N: 51970 OYS Unit
 AquaCalc S/N: Fathometer Laser Gun
 Camera S/N:

References

Convert Feet to Meters

0.5 ft	0.15 m
1.0 ft	0.30 m
1.5 ft	0.45 m
2.0 ft	0.60 m
2.5 ft	0.75 m

Site Information

Site #: GR07 Subsegment: 120206 Date: 6/23/04 Time: 1145
 Watersbody: Grand Bayou Tapdown 1: _____ Staff Gauge 1: _____
 Gauge Height 1: _____ Tapdown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: Between Bayou Area and Axel E. Grand Bayou
 Personnel: WMP, Schwartz
 Type of Work: Recon Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° < 1 NW N NE
 Drizzle/Light Rain Warm > 75° 1-5 SW S SE
 Showers Mild > 65° 6-10 E W
 Cloud Cover Cool > 50° 11-15 Variable
 0-10% Cold < 60° > 16
 11-40%
 41-70%
 71-100%

Stream Characteristics: Flowing: Measurable Flow:
 Flow Direction: Upstream Downstream Tidally Influenced:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present Sedimentation/Turbidity Present in Water Column
 Floating/Aquatic Vegetation % Surface Coverage: < 1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor S/N: _____
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 1145 Temp (°C): 28.5 pH: 6.94 Spcond (µmhos/cm): 171.8
 D.O.: 3.58 D.O. %: 46.1 Salinity: 0.08 Depth (m): 1m Secchi (in): 30

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 Aquatic File Name: _____

Flow Estimated: Measurement Location: _____
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Drogue Estimate: Dye Estimate:
23.7 Right Descending Bank: Distance (ft): 90.1 Time (s): 240
 Mid Stream: Distance (ft): 90.9 Time (s): 240
47.3 Left Descending Bank: Distance (ft): 76.2 Time (s): 240

Cross Section Measurement: Measurement Location: _____
 Type of Measurement Manual: Fathometer Cross Section File Name: _____

GPS Measurement: GPS SSF File Name: _____
 Site GPS: Cross Section GPS:

Comments: _____

GRB7
 Photos Taken: Pictures File #: 00/23/09 11:23 hrs.

Tapedown Established: Tapedown Location: _____
 Benchmark Established: Benchmark Location: _____
 Survey Equipment Used: _____

Time of Travel Measurement: Type of Sites Injection Collection
 Amount of Dye In, (cc/ml, in) _____

Physical Site Characteristics: Natural Waterbody: Man-Altered Waterbody: Man-Made Waterbody:
 Stream Dry/Intermittent:
 Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel Silt
 Control Structure Present: Location: _____
 Type: Man-Made Dam Flow Regulation Device Beaver Dam Log Jam
 Land Use: Agriculture Forestry Municipal Industrial Field Pasture Wetland
 Percent Tree Canopy Cover: 0-25% 26-50% 51-75% 76-100%

Kecon Information:

Discharge Measurement: Wading Bridge Board Boat Board
 Measurement Location: _____
 Cross Section Location: _____
 Continuous Monitor Deployment: _____
 Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____
 Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: _____	Temp. (°C): _____	pH: _____	Spcond (µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Spcond (µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Spcond (µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Equipment Used:

In Situ Probe S/N: 37762 Surveyor 4a S/N: _____ GPS Unit: _____
 AquaCam S/N: _____ Fathometer: _____ Laser Gun: LC 117B
 Camera S/N: _____

References

Convert Feet to Meters

- 0.5 ft = 0.15 m
- 1.0 ft = 0.30 m
- 1.5 ft = 0.45 m
- 2.0 ft = 0.60 m
- 2.5 ft = 0.75 m

Site Information

Site #: GRB8 Subsegment: 120206 Date: 6-23-04 Time: 1025
 Waterbody: Grand Bayou Tapetow: 1 Staff Gauge 1:
 Gauge Height 1: Tapetow 2: Staff Gauge 2: Gauge Height 2:
 Site Location: Midstream from confluence with Little Bayou Levee
 Personnel: LOUIS SCHWARTZ

Type of Work: Reason Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° < 1 NW N NE
 Drizzle/Light Rain Warm > 75° 1-5 SW S SE
 Showers Mild > 65° 6-10 E W
 Cloud Cover Cool < 60° 11-15 Variable
 0-10% Cold < 60° > 16
 11-40%
 41-70%
 71-100%

Stream Characteristics: Flowing Measurable Flow:
 Flow Direction Upstream Downstream Tidally Influenced:
 Wind Influence: Wind Influence Direction Upstream Downstream
 Algae Present Sedimentation/Turbidity Present in Water Column
 Floating Aquatic Vegetation % Surface Coverage: < 1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor S/N: _____
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 1025 Temp. (°C): 28.74 pH: 6.85 Spcond (µmhos/cm): 169.7
 D.O.: 3.43 D.O. %: 44.9 Salinity: 0.08 Depth (m): 1.0 Secchi (in): 30

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Drogue Estimate: Dye Estimate:
 58.5 - Right Descending Bank: Distance (ft): 86.2 Time (s): 240
 54.3 - Mid Stream: Distance (ft): 96.6 Time (s): 240
 Left Descending Bank: Distance (ft): 122 Time (s): 240

Cross Section Measurement: Measurement Location: _____
 Type of Measurement Manual: Fathometer Cross Section File Name: _____

GPS Measurement: GPS SSF File Name: _____
 Site GPS: Cross Section GPS:

Comments: Wind turned from south to a west-northwest direction

GRB8

06/23/04

1975 hrs.

Photos Taken

Picture File #s _____

Tapedown Established: Tapedown Location: _____

Benchmark Established: Benchmark Location: _____

Survey Equipment Used:

Time of Travel Measurement: Type of Site Injection Collection

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man-Altered Waterbody: Man-Made Waterbody:

Stream Dry/Intermittent:

Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt

Control Structures Present: Location: _____

Type: Man-Made Dam Flow Regulation Device Beaver Dam Log Jam

Land Use: Agriculture Forestry Municipal Industrial Field Pasture Wetland

Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Box Board

Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Probing Measurements:

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Equipment Used:

In Situ Probe S.N: 2742 Surveyor 4a S.N: _____ GPS Unit _____

AquaCalc S.N: _____ Fathometer: _____ Laser Gun 121173

Camera S.N: _____

References

Convert Feet to Meters

0.5 ft = 0.15 m

1.0 ft = 0.30 m

1.5 ft = 0.45 m

2.0 ft = 0.60 m

2.5 ft = 0.75 m

Site Information

Site # GRG 9 Subsegment: 120206 Date: 6/23/04 Time: 0920
 Waterbody: Grand Bayou Taperdown: Staff Gauge 1:
 Gauge Height 1: Taperdown 2: Staff Gauge 2: Gauge Height 2:
 Site Location: Just upstream LAKE VERRET
 Personnel: Jones, Schwartz

Type of Work: Recs Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° < 1 NW N NE
 Drizzle/Light Rain Warm > 75° 1-5 SW S SE
 Snows Mild > 55° 6-10 E W
 Cloud Cover: Cool > 50° 11-15 Variable
 0-10% Cold < 50° > 15
 11-40%
 41-70%
 71-100%

Stream Characteristics: Flowing: Measurable Flow:
 Flow Direction: Upstream Downstream Tidal Influence:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present Sedimentation/Turbidity Present in Water Column
 Floating Aquatic Vegetation % Surface Coverage: 0% 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor S/N: _____
 Continuous Monitor Retrieved: Continuous Monitor Deployment: Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 0920 Temp: (°C): 28.63 pH: 6.91 Susp (µg/m³/cm): 164.9
 D.O.: 3.27 D.O. %: 42.4 Salinity: 0.07 Depth (m): 1m Secchi (m): 24

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Drogue Estimate: Dye Estimate:
 98 ft. from Right Descending Bank: Distance (ft) 38.2 Time (s) 240
 Mid Stream: Distance (ft) 67 Time (s) 240
 172.5 - Left Descending Bank: Distance (ft) 57.2 Time (s) 240

Cross Section Measurement: Measurement Location: _____
 Type of Measurement: Manual Fathometer Cross Section File Name: _____

GPS Measurement: GPS SSP File Name: _____
 Site GPS: Cross Section GPS:

Comments: _____

2889

06/25/09

0020 hrs

Photos Taken: Picture File #s: _____

Tapedown Established: Tapedown Location: _____

Benchmark Established: Benchmark Location: _____

Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection

Amount of Dye Injected (mL): _____

Physical Site Characteristics: Natural Waterbody: Man-Altered Waterbody: Man-Made Waterbody:

Stream Dry/Intermittent:

Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand Silt Rock/Gravel Silt

Control Structure Present: Location: _____

Type: Man-Made Dam Flow Regulation Device Beaver Dam Log Jam

Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland

Percent Tree Canopy Cover: 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board

Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge: Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µhos/cm): _____
 D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µhos/cm): _____
 D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µhos/cm): _____
 D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Equipment Used:

In Situ Probe S/N: 37702 Surveyor 4s S/N: _____ GPS Unit _____
 AquaCalc S/N: _____ Fathometer: _____ Laser Gun LC1178
 Camera S/N: _____

References

Convert Feet to Meters

- 0.5 ft = 0.15 m
- 1.0 ft = 0.30 m
- 1.5 ft = 0.45 m
- 2.0 ft = 0.60 m
- 2.5 ft = 0.75 m

Site Information

Site #: LV1 Subsegment: 120206 Date: 6/23/04 Time: 815
Waterbody: LAKE VERRET Tapedown 1: _____ Staff Gauge 1: _____
Gauge Height 1: _____ Tapedown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
Site Location: Just out of mouth of Grand Bayou
Personnel: Jones, Schwartz
Type of Work: Recon Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
Clear Hot > 85° < 1 NW N NE
Drizzle/Light Rain Warm > 75° 1-5 SW S SE
Showers Mild > 65° 6-10 E W
Cloud Cover: Cool > 60° 11-15 Variable
6-10% Cold < 60° > 16
11-40%
41-70%
71-100%

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present: Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: 0-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: _____
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 0815 Temp. (°C): 18.49 pH: 6.89 Speed (µmhos/cm): 199.4
D.O.: 2.5 D.O. %: 32.3 Salinity: 0.09 Depth (m): 1m Secchi (in): 18

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
Aquatic File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank: Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
Type of Measurement Manual: Fathometer Cross Section File Name: _____

GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:

Comments: _____

LV2 06/25/04 DB 13 hr

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
 Benchmark Established: Benchmark Location: _____
 Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
 Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man-Altered Waterbody: Man-Made Waterbody:
 Stream Dry/Intermittent:
 Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
 Control Structure Present: Location: _____
 Type: Man-Made Dam Flow Regulation Device Beaver Dam Log Jam
 Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
 Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:
 Discharge Measurement: Wading Bridge Board Boat Board
 Measurement Location: _____
 Cross Section Location: _____
 Continuous Monitor Deployment: _____
 Continuous Monitor Location: _____
 Boat Accessible: Nearest Launch: _____
 Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: _____	Temp. (°C): _____	pH: _____	Spcond (µhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Spcond (µhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Spcond (µhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Equipment Used:
 In Situ Probe S/N: 37762 Surveyor 4a S/N: _____ GPS Unit _____
 AquaCalc S/N: _____ Fathometer: _____ Laser Gun _____
 Camera S/N: _____

- References**
 Convert Feet to Meters
 0.5 ft ± 0.15 m
 1.0 ft ± 0.30 m
 1.5 ft ± 0.45 m
 2.0 ft ± 0.60 m
 2.5 ft ± 0.75 m

Site Information

Site # BYS 1 Subsegment 120206 Date: 6/13/04 Time: 1045
 Waterbody: Bayou Sika Tapdown 1: _____ Staff Gauge 1: _____
 Gauge Height 1: _____ Tapdown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: Just Above Confluence of Grand Bayou
 Personnel: Fr. J. Mac, Hays

Type of Work: Reason Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° < 1 NW N NE
 Drizzle/Light Rain Warm > 75° 1-5 SW S SE
 Showers Mild > 65° 6-10 E W
 Cloud Cover: Cool > 60° 11-15 Variable
 Cold < 60° > 16

Stream Characteristics: Flowing: Measurable Flow:
 Flow Direction: Upstream Downstream Tidally Influenced:
 Wind Influenced: Wind Influence Direction: Upstream Downstream
 Algae Present: Sedimentation/Turbidity Present in Water Column
 Floating/Aquatic Vegetation % Surface Coverage: 0 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor ID#: 40803 in situ
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 1045 Temp (°C): 20.42 pH: 7.96 Spcond (µmhos/cm): 345.0 IBV 7.2
 D.O.: 2.45 D.O. %: 31.5 Salinity: 0.17 Depth (m): 1m Secchi (m): 24.2

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Dye Estimate: Dye Estimate:
 Right Descending Bank: Distance (ft): 0ft Time (s): 5min (300sec)
 Mid Stream: Distance (ft): 0ft Time (s): 5min (300sec)
 Left Descending Bank: Distance (ft): 0ft Time (s): 5min (300sec)

Cross Section Measurement: Measurement Location: _____
 Type of Measurement Method: Fathometer Cross Section File Name: _____

GPS Measurement: GPS SS# File Name: _____
 Site GPS Cross Section GPS

Comments: _____

BY31 06/23/04 10:45 hrs.

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
 Benchmark Established: Benchmark Location: _____
 Survey Equipment Used:

Time of Travel Measurement Type of Site: Injection Collection
 Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man-Altered Waterbody: Man-Made Waterbody:
 Stream Dry/Intermittent:
 Stream Bottom: Sandy Clay Gravel Hard Clay Silt/Sand Sand/Silt Rock/Gravel/Silt
 Control Structure Present: Location: _____
 Type: Man-Made Dam Flow Regulation Device Beaver Dam Log Jam
 Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
 Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recor Information

Discharge Measurement: Wading Bridge Board Boat Board
 Measurement Location: _____
 Cross Section Location: _____
 Continuous Monitor Deployment: _____
 Continuous Monitor Location: _____
 Boat Accessible: Nearest Launch: _____

Bridge	Bridge Side	Bridge Width	Bridge Height
Profiling Measurements:			
Time:	Temp. (C):	pH:	Speed (km/hr):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Speed (km/hr):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Speed (km/hr):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: 40803	Surveyor 4w S/N: 32005013439	GPS Unit
AquaCalc S/N:	Fathometer	Laser Gun
Camera S/N:		

- References
- Convert Feet to Meters
- 0.5 ft = 0.15 m
 - 1.0 ft = 0.30 m
 - 1.5 ft = 0.45 m
 - 2.0 ft = 0.60 m
 - 2.5 ft = 0.75 m

0820hrs

Site Information

Site # MB1 Subsegment 120206 Date: 6/22/04 Time: 0820hrs
 Waterbody: Muddy Bayou Tapdown 1: B.6 Staff Gauge 1: _____
 Gauge Height 1: _____ Tapdown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: Just Above confluence with Grand Bayou
 Personnel: Hughes, Regina
 Type of Work: Recor Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° <: NW N NE
 Drizzle/Light Rain Warm > 75° 1-5 SW S SE
 Showers Mild > 65° 6-10 E W
 Cloud Cover: Cool > 60° 11-15 Variable
 0-10% Cold < 60° > 16
 11-40%
 41-70%
 71-100%

Stream Characteristic: Flowing Measurable Flow:
 Flow Direction: Upstream Downstream Tidal Influence:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present Sedimentation Turbidity Present in Water Column
 Floating/Aquatic Vegetation % Surface Coverage: < 1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor S/N: _____
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 0820hrs Temp (°C): 27.10 pH: 7.4 Spcond (µmhos/cm): 171.4
 D.O.: 2.20 D.O. %: 27.7 Salinity: .08 Depth (m): 1m Secchi (ft): 24.2

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____
 Flow Estimated: Measurement Location: @ Bridge
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Dye Estimate: Dye Estimate:
 Right Descending Bank: Distance (ft): 0 FT Time (s): 5 min
 Mid Stream: Distance (ft): 8 Time (s): 9.5 min
 Left Descending Bank: Distance (ft): 0 FT Time (s): 5 min

Cross Section Measurement: Measurement Location: _____
 Type of Measurement Manual: Fathometer Cross Section File Name: _____
 GPS Measurement: GPS SSP File Name: _____
 Site GPS: Cross Section GPS:

Comments: Log on
outer bank

MB1

06/23/09

0820 hrs.

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
 Benchmark Established: Benchmark Location: _____
 Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
 Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody
 Stream Dry/Intermittent:
 Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock Gravel/Silt
 Control Structure Present: Location: _____
 Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
 Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
 Percent Tree Canopy Cover: 0-25% 26-50% 51-75% 76-100%

Recon Information

Discharge Measurement: Wading Bridge Board Boar Board
 Measurement Location: _____
 Cross Section Location: _____
 Continuous Monitor Deployment: _____
 Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____
 Bridge Bridge Safe: Bridge Width: Bridge Height:

Profiling Measurements:

Time:	Temp. (C):	pH:	Speed (hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Speed (hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Speed (hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used

In Situ Probe S/N: 40803 Surveyor 4+ S/N: 32005013439 GPS Unit
 AquaCalc S/N: Fathometer: Laser Gun
 Camera S/N:

References

Convert Feet to Meters

0.5 ft 0.15 m
 1.0 ft 0.30 m
 1.5 ft 0.45 m
 2.0 ft 0.60 m
 2.5 ft 0.75 m

Site Information

Site: BYC-1 Subsegment: 120206 Date: 6/25/07 Time: 1305 hrs.
 Waterbody: Bayou Croux Tapdown 1: _____ Staff Gauge 1: _____
 Gauge Height 1: _____ Tapdown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: Just above confluence w/ GB
 Personnel: Betty Savon +

Type of Work: Recop Data Collection

Weather Conditions: Clear Mist > 35° Wind (mph): 0-5 Wind Direction: NW N NE
 Drizzle/Light Rain Warm > 75° 6-10 SW S SE
 Showers Mild > 55° 6-10 E W
 Cloud Cover: Cool > 50° 11-15 Variable
 0-10% Cold < 50° > 16
 11-40%
 41-70%
 71-100%

Stream Characteristics: Flowing Measurable Flow
 Flow Direction: Upstream Downstream Tidal Influence:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present Sedimentation/Turbidity Present in Water Column
 Floating Aquatic Vegetation % Surface Coverage: < 1% 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor S/N: _____
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 1305 hrs Temp. (°C): 26.18 pH: 7.32 Speed (km/h/mph): 250.2 280/175.3
 D.O.: 2.48 D.O. %: 31.8 Salinity: 0.12 Depth (m): 1 Secchi (In): _____

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 Aquatic File Name: _____

Flow Estimated: Measurement Location: _____
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Dye Estimate: Dye Estimate:
 Right Descending Bank: Distance (ft): _____ Time (s): _____
 Mid Stream: Distance (ft): _____ Time (s): _____
 Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement Measurement Location: _____
 Type of Measurement Manual: Fathometer Cross Section File Name: _____

GPS Measurement GPS SBF File Name: _____
 Site GPS: Cross Section GPS:

Comments: _____

BYC1

06/23/09

1305 hrs.

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____

Benchmark Established: Benchmark Location: _____

Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection

Amount of Dye Injected (mL): _____

Physical Site Characteristics: Natural Waterbody: Man-Altered Waterbody: Man-Made Waterbody:

Stream Dry/Intermittent:

Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt

Control Structure Present: Location: _____

Type: Man-Made Dam Flow Regulation Device Beaver Dam Log Jam

Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland

Percent Tree Canopy Cover: 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board

Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Equipment Used:

In Situ Probe S/N: 37761 Surveyor 4a S/N: _____ GPS Unit _____

AquaCam S/N: _____ Fathometer: _____ Laser Gun _____

Camera S/N: _____

References

Convert Feet to Meters

0.5 ft = 0.15 m

1.0 ft = 0.30 m

1.5 ft = 0.45 m

2.0 ft = 0.60 m

2.5 ft = 0.75 m

Site Information

Site # B/C2 Subsegment: 120204 Date: 6/23/04 Time: 1240hrs
 Watershed: Bayou Creek Tapdown 1: _____ Staff Gauge 1: _____
 Gauge Height: _____ Tapdown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: just above outfall of GB (south of 996 bridge)
 Personnel: Jeff, Gaudet
 Type of Work: Recor: Data Collection:

Weather Conditions: Clear Drizzle Light Rain Showers Cloud Cover: 0-1% 11-40% 41-70% 71-100%

Temperature (°F): Hot > 85° Warm > 75° Mild > 65° Cool > 50° Cold < 50°

Wind (mph): < 1 1-5 6-10 11-15 > 16

Wind Direction: NW N NE SW S SE E W Variable

Stream Characteristics: Flowing: Measurable Flow:
 Flow Direction: Upstream Downstream Tidal Influence:
 Wind Influence: _____ Wind Influence Direction: Upstream Downstream
 Algae Present Sedimentation/Turbidity Present: Water Column
 Floating Aquatic Vegetation % Surface Coverage: < 1% 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling: In situ
 Continuous Monitor Deployed: Continuous Monitor S/N: 37761
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): 1
 Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 12:40 Temp. (°C): 28.4 pH: 7.27 Spcond (µmhos/cm): 246.8
 D.O.: 2.75 D.O. %: 95.7 Salinity: 0.14 Depth (m): 1 Secchi (ft): _____

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
 Weir Discharge Equipment: Type: Wading Bridge Board Boat Board
 Drogue Estimate: Dye Estimate:
 Right Descending Bank: Distance (ft): _____ Time (s): _____
 Mid Stream: Distance (ft): _____ Time (s): _____
 Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
 Type of Measurement: Manual Fathometer Cross Section File Name: _____
 GPS Measurement: GPS SSV File Name: _____
 Site GPS: Cross Section GPS:

Comments: _____

3V02 05/15/09 1290 hrs

Photos Taken Picture File # _____

Tapedown Established: Tapedown Location: _____

Benchmark Established: Benchmark Location: _____

Survey Equipment Used: _____

Time of Travel Measurement: Type of Site, Injection Collection

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man-Altered Waterbody: Man-Made Waterbody:

Stream Dry/Intermittent:

Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt

Control Structure Present: Location: _____

Type: Man-Made Dam Flow Regulation Device Beaver Dam Log Jam

Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland

Percent Tree Canopy Cover: 0-25% 26-50% 51-75% 76-100%

Recon Information

Discharge Measurement: Wading Bridge Board Boat Board

Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Equipment Used:

In Situ Probe S/N: 37761 Surveyor 4a S/N _____ GPS Unit _____

AquaCalc S/N _____ Fathometer: _____ Laser Gun _____

Camera S/N: _____

References

Convert Feet to Meters

- 0.5 ft = 0.15 m
- 1.0 ft = 0.30 m
- 1.5 ft = 0.45 m
- 2.0 ft = 0.60 m
- 2.5 ft = 0.75 m

Site Information

Site # PSI-1 Subsegment 120206 Date 6/23/04 Time 0510 hrs
 Watershed Grand Bayou (2012 SWC) Taps/Down L: _____ Staff Gauge 1: _____
 Gauge Height: _____ Taps/Down 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: North side of Hwy 70 bridge
 Personnel: Bobby Savault

Type of Work: Korea Data Collection

Weather Conditions: Clear Partly Cloudy Drizzle/Light Rain Showers Cloud Cover: 0-10% 11-40% 41-70% 71-100%

Temperature (°F): Hot > 95° Warm > 75° Mild > 55° Cool > 50° Cold < 50°

Wind (mph): < 4 4-5 6-10 11-15 > 15

Wind Direction: NW N NE SW S SE E W Variable

Stream Characteristics: Flowing No Flow Measurable Flow
 Flow Direction: Upstream Downstream Tidally Influenced
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present Sedimentation/Turbidity Present in Water Column
 Flowing/Equine Vegetation % Surface Coverage: < 25% 26-50% 51-75% 76-100%

Water Quality Samples Taken Water Quality Field Parameters: Profiling
 Continuous Monitor Deployed Continuous Monitor S/N: 37761 EA-514
 Continuous Monitor Retrieved Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Time: 0510 hrs Temp (°C): 21.17 pH: 7.29 Sp cond (µmhos/cm): 234.1 TDU: 7.4 TSS-H: 5.3
 D.O.: 2.11 D.O. %: 36.3 Salinity: 0.11 Depth (m): 0.15m Secchi (m): _____

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Dye Estimator: Dye Estimate: _____
 Right Descending Bank: Distance (ft): _____ Time (s): _____
 Mid Stream: Distance (ft): _____ Time (s): _____
 Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
 Type of Measurement Manual: Fathometer Cross Section File Name: _____

GPS Measurement: GPS SSP File Name: _____
 Site GPS: Cross Section GPS:

Comments: _____

LOT 1

06/23/09

0810 hrs.

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____

Benchmark Established: Benchmark Location: _____

Survey Equipment Used: _____

Time of Travel Measurement: Type of Site: Injection Collection

Amount of Dye Injected (mL): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:

Stream Dry/Intermittent:

Stream Bottom: Sand Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt

Control Structure Present: Location: _____

Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam

Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland

Percent Tree Canopy Cover: 0-25% 25-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board

Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: _____ Temp. (°C): _____ pH: _____ Speed (µmhos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Speed (µmhos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Speed (µmhos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Equipment Used:

In Situ Probe S/N: 27761 Surveyor 4a S/N: _____ GPS Unit: _____

AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____

Camera S/N: _____

References

Convert Feet to Meters

0.5 ft = 0.15 m

1.0 ft = 0.30 m

1.5 ft = 0.45 m

2.0 ft = 0.60 m

2.5 ft = 0.75 m

Site Information

Site # BV01 Subsegment: 120206 Date: 6/29/04 Time: 1247 hrs.
 Waterbody: Bayou Corne Tapdown 1: _____ Staff Gauge 1: _____
 Gauge Height 1: _____ Tapdown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: Just above confluence with Grand Bayou
 Personnel: Lafleur, Dickinson, Earles

Type of Work: Reason Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot < 85° < 1 NW N NE
 Drizzle/Light Rain Warm > 75° 1-5 SW S SE
 Showers Mild > 65° 6-10 E W
 Cloud Cover: Cool > 60° 11-15 Variable
 0-10% Cold < 60° > 15
 11-40%
 41-70%
 71-100%

Stream Characteristics: Flowing: Measurable Flow:
 Flow Direction: Upstream Downstream Tidally Influenced:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present: Sedimentation/Turbidity Present in Water Column:
 Riparian/Quillc Vegetation % Surface Coverage: 0-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor S/N: _____
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters
 Time: 1247 hrs Temp (°C): 26.99 pH: 6.85 Spcond (µmhos/cm): 143.3
 D.O.: 2.54 D.C. %: 91.2 Salinity: 2.02 Depth (m): 1.0m Secchi (m): 18.1m
 IBV - 75
 IBC - 10.9

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCap File Name: _____

Flow Estimated: Measurement Location: _____
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Dye Estimate: Dye Estimate:
 Right Descending Bank: Distance (ft): _____ Time (s): _____
 Mid Stream: Distance (ft): _____ Time (s): _____
 Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
 Type of Measurement Manual: Bathometer Cross Section File Name: _____

GPS Measurement: GPS GSP File Name: _____
 Site GPS: Cross Section GPS:

Comments: _____

BYCO1 06/23/09 1247 hrs

Photos Taken: Picture File #:

Tapsdowns Established: Tapsdown Location:

Benchmark Established: Benchmark Location:

Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection

Amount of Dye Injected (ml):

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:

Stream Dry/Intermittent:

Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt

Control Structure Present: Location:

Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam

Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland

Percent Tree Canopy Cover 0-25% 25-50% 51-75% 76-100%

Recor Information:

Discharge Measurement: Wading Bridge Board Boat Board

Measurement Location:

Cross Section Location:

Continuous Monitor Deployment:

Continuous Monitor Location:

Boat Accessible: Nearest Launch:

Bridge Bridge Safe: Bridge Width: Bridge Height:

Profiling Measurements:

Time: Temp. (C): pH: Speed (km/hr/cm):

D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (C): pH: Speed (km/hr/cm):

D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (C): pH: Speed (km/hr/cm):

D.O.: D.O. %: Salinity: Depth (m):

Equipment Used:

In Situ Probe S/N: 40001 Surveyor 4a S/N: 51968 GPS Unit

AquaCalc S/N: Fishometer: Laser Clin

Camera S/N:

References

Convert Feet to Meters

0.5 ft 0.15 m

1.0 ft 0.30 m

1.5 ft 0.45 m

2.0 ft 0.60 m

2.5 ft 0.75 m

Site Information

Site # UNC2 Subsegment 120206 Date 10/23/04 Time 0930hrs
 Waterbody: 2nd Unnamed Canal Tapdown 1: _____ Staff Gauge 1: _____
 Gauge Height 1: _____ Tapdown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location Just above confluence with Grand Bayou
 Personnel: J. Lewis, Earles, Dickinson
 Type of Work: Recon Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° < 1 NW N NE
 Mist/Light Rain Warm > 75° 1-5 SW S SE
 Showers Mild > 65° 6-10 E W
 Cloud Cover: Cool > 60° 11-15 Variable
 0-10% Cold < 60° > 16
 11-40%
 41-70%
 71-100%

Stream Characteristics: Flowing Measurable Flow:
 Flow Direction: Upstream Downstream Tidally Influenced
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present Sedimentation/Turbidity Present in Water Column
 Floating/Aquatic Vegetation % Surface Coverage: < 1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor S/N: _____
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): 1.0m
 Continuous Monitor Location: #514

Water Quality Field Parameters
 Time: 0930hrs Temp (°C): 21.93 pH: 7.03 Specific Conductance (µmhos/cm): 126.8 IBV = 7.6
 D.O.: 3.47 D.O. %: 44.2 Salinity: 0.07 Depth (m): 1.0m Secchi (in): NA IBest = 10.7

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Drogue Estimate: Dye Estimate:
 Right Descending Bank: Distance (ft): _____ Time (s): _____
 Mid Stream: Distance (ft): _____ Time (s): _____
 Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
 Type of Measurement: Manual: Fathometer Cross Section File Name: _____

GPS Measurement: GPS SPW File Name: _____
 Site GPS: Cross Section GPS:

Comments: _____

UNCG 06/22/09 0730 hrs.

Photos Taken: Picture File # _____

Tapedown Established: Tapedown Location: _____
 Benchmark Established: Benchmark Location: _____
 Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
 Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man-Altered Waterbody: Man-Made Waterbody:
 Stream Dry/Intermittent:
 Stream Bottom: Sandy Clay Gravel Hard Clay Soft Sil: Sand/Silt Rock/Gravel/Silt
 Control Structure Present: Location: _____
 Type: Man-Made Dam Flow Regulation Device Beaver Dam Log Jam
 Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
 Percent Tree Canopy Cover: 0-25% 26-50% 51-75% 76-100%

Reach Information

Discharge Measurement: Wading Bridge Board Boat Board
 Measurement Location: _____
 Cross Section Location: _____
 Continuous Monitor Deployment: _____
 Continuous Monitor Location: _____
 Boat Accessible: Nearest Launch: _____

Bridge	Bridge Safe:	Bridge Width:	Bridge Height:
Profiling Measurements:			
Time:	Temp. (C):	pH:	Spcond (hms/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Spcond (hms/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Spcond (hms/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: 46807	Surveyor 4s S/N: 51968 GL 40005012014	GPS Unit
AquaCalc S/N	Fathometer:	Laser Gun
Camera S/N		

- References
- Convert Feet to Meters
- 0.5 ft 0.15 m
 - 1.0 ft 0.30 m
 - 1.5 ft 0.45 m
 - 2.0 ft 0.60 m
 - 2.5 ft 0.75 m

Site Information

Site #: EG-B 1 Subsegment: 120206 Date: 6/23/04 Time: 1230
 Waterbody: EAST Grand Bayou Tapetown 1: Staff Gauge 1:
 Gauge Height 1: Tapetown 2: Staff Gauge 2: Gauge Height 2:
 Site Location: Just off from Grand Bayou MAIN channel
 Personnel: James Schwartz

Type of Work: Record Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° < 1 NW N NE
 Drizzle/Light Rain Warm > 70° 1-5 SW S SE
 Showers Mild > 65° 6-10 E W
 Cloud Cover: Cool > 60° 11-15 Variable
 0-10% Cold < 60° > 16
 11-40%
 41-70%
 71-100%

Stream Characteristics: Flowing: Measurable Flow:
 Flow Direction Upstream: Downstream Tidally Influenced:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present Sedimentation/Turbidity Present in Water Column
 Floating/Aquatic Vegetation % Surface Coverage: < 1 1-24% 25-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor S/N: _____
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 1230 Temp. (°C): 28.29 pH: 6.98 Speed (µhrms/cm): 170.7
 D.O.: 3.16 D.O. %: 40.6 Salinity: 0.08 Depth (m): 1m Secchi (in): 24

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____
 Flow Estimated: Measurement Location: _____
 Using Discharge Equipment Type: Wading Bridge Board Boat Board
 Drogue Estimate: Dye Estimate:
 Right Descending Bank: Distance (ft): _____ Time (s): 240
 Mid Stream: Distance (ft): 119.6 Time (s): 240
 Left Descending Bank: Distance (ft): _____ Time (s): 240
 Cross Section Measurement: Measurement Location: _____
 Type of Measurement Manual: Fathometer Cross Section File Name: _____
 GPS Measurement: GPS SSF File Name: _____
 Site GPS: Cross Section GPS:

Comments: Only one drogue measurement was taken because of heavy rain + lightning.

EGBA

06/22/09

1250 hrs.

Photos Taken:

Picture File #s: _____

Tapedown Established:

Tapedown Location: _____

Benchmark Established:

Benchmark Location: _____

Survey Equipment Used:

Time of Travel Measurement:

Type of Site: Injection Collection

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:

Stream Dry/Intermittent:

Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt

Control Structure Present: Location: _____

Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam

Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland

Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boar Board

Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: _____	Temp. (°C): _____	pH: _____	Spcond (µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Spcond (µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Spcond (µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Equipment Used:

In Situ Probe S/N: 37762

Surveyor 4a S/N: _____

GPS Unit _____

AquaCade S/N _____

Fathometer: _____

Laser Gun _____

Camera S/N: _____

LC1178

Reference

Convert Feet to Meters

0.5 ft = 0.15 m

1.0 ft = 0.30 m

1.5 ft = 0.45 m

2.0 ft = 0.60 m

2.5 ft = 0.75 m

Site Information

Site #: BA 1 Subsegment: 120206 Date: 6/23/04 Time: 1115
 Waterbody: Bayou Alcide Tapdown 1: _____ Staff Gauge 1: _____
 Gauge Height 1: _____ Tapdown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: Just Above confluence with Gemma Bayou
 Personnel: Jones, Schwartz

Type of Work: Recon Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° < NW N NE
 Drizzle/Light Rain Warm > 75° 1-5 SW S SE
 Showers Mild > 65° 6-10 E W
 Cloud Cover: Cool > 60° 11-15 Variable
 0-10% Cold < 60° > 16
 11-40%
 41-70%
 71-100%

Stream Characteristics: Flowing Measurable Flow
 Flow Direction Upstream Downstream Tidally Influenced:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present Sedimentation/Turbidity Present in Water Column
 Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor S/N: _____
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 1115 Temp. (°C): 27.72 pH: 6.96 Spcond (µmhos/cm): 164.9
 D.O.: 2.49 D.O. %: 31.7 Salinity: 0.07 Depth (m): 1m Secchi (in): 42

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Drogue Estimate: Dye Estimate:
 Right Descending Bank: Distance (ft): _____ Time (s): _____
 Mid Stream: Distance (ft): _____ Time (s): _____
 Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
 Type of Measurement Manual: Fathometer Cross Section File Name: _____

GPS Measurement: GPS SSF File Name: _____
 Site GPS: Cross Section GPS:

Comments: _____

BA1

08/23/04

1115 hrs

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____

Benchmark Established: Benchmark Location: _____

Survey Equipment Used: _____

Time of Travel Measurement: Type of Site: Injection Collection

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:

Stream Dry/Intermittent:

Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt

Control Structure Present: Location: _____

Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam

Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland

Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board

Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: _____	Temp. (°C): _____	pH: _____	Spcond (µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Spcond (µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Spcond (µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Equipment Used:

In Situ Probe S/N: 37762 Surveyor 4a S/N: _____ GPS Unit: _____
 AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
 Camera S/N: _____

References:

Convert Feet to Meters

- 0.5 ft = 0.15 m
- 1.0 ft = 0.30 m
- 1.5 ft = 0.45 m
- 2.0 ft = 0.60 m
- 2.5 ft = 0.75 m

Site Information

Site #: LBL 2 Subsegment: 120206 Date: 6/23/04 Time: 1000
 Waterbody: LITTLE BAYOU LONG Tapdown 1: _____ Staff Gauge 1: _____
 Gauge Height 1: _____ Tapdown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: Just ABOVE Confluence with Grand Bayou
 Personnel: JAMES SCHWARTZ

Type of Work: Record Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° < 1 NW N NE
 Drizzle/Light Rain Warm > 75° 1-5 SW S SE
 Showers Mild > 65° 6-10 E W
 Cloud Cover: Cool > 60° 11-15 Variable
 0-10% Cold < 60° > 16
 11-40%
 41-70%
 71-100%

Stream Characteristics: Flowing: Measurable Flow:
 Flow Direction Upstream Downstream Tidally Influenced:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present Sedimentation/Turbidity Present in Water Column
 Floating/Aquatic Vegetation % Surface Coverage: < 1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor S/N: _____
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 1000 Temp. (°C): 28.27 pH: 6.94 Speed (µmhos/cm): 153.6
 D.O.: 4.84 D.O. %: 22.8 Salinity: 0.07 Depth (m): 1.0 Secchi (in): 48

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____
 Flow Estimated: Measurement Location: _____
 Using Discharge Equipment Type: Wading Bridge Board Boat Board
 Drogue Estimate: Dye Estimate:
 Right Descending Bank: Distance (ft): _____ Time (s): _____
 Mid Stream: Distance (ft): 42.1 Time (s): 240
 Left Descending Bank: Distance (ft): _____ Time (s): _____
 Cross Section Measurement: Measurement Location: _____
 Type of Measurement Manual: Fathometer Cross Section File Name: _____
 GPS Measurement: GPS SSF File Name: _____
 Site GPS: Cross Section GPS:

Comments: _____

LBL1 06/23/04 1000 hrs

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____

Benchmark Established: Benchmark Location: _____

Survey Equipment Used: _____

Time of Travel Measurement: Type of Site: Injection Collection

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:

Stream Dry/Intermittent:

Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt

Control Structure Present: Location: _____

Type: Man Made Dam Flow Regulation Device Bower Dam Log Jam

Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland

Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Reach Information:

Discharge Measurement: Wading Bridge Board Boat Board

Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridges Bridge Side: Bridge Width: _____ Bridge Height: _____

Probing Measurements:

Time: _____ Temp. (°C): _____ pH: _____ Speed (uhmos/cm): _____
 D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Speed (uhmos/cm): _____
 D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Speed (uhmos/cm): _____
 D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Equipment Used:

In Situ Probe S/N: 37767 Surveyor # S/N: _____ GPS Unit: _____

ApexCalc S/N: _____ Fathometer: _____ Laser Gun: LP 425

Camera S/N: _____

References

Convert Feet to Meters

0.5 ft = 0.15 m

1.0 ft = 0.30 m

1.5 ft = 0.45 m

2.0 ft = 0.60 m

2.5 ft = 0.75 m

Little Grand Bayou

Site Information

Site = LG8Y1 Subsegment 120206 Date: 10/19/04 Time: 1155 hrs
 Waterbody Little Grand Bayou Tapdown 1: Staff Gauge 1:
 Gauge Height 1: Tapdown 2: Staff Gauge 2: Gauge Height 2:
 Site Location: just below confluence with Grand Bayou
 Personnel: LaFleur, DiMarco, Eades
 Type of Work: Recon Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° < 1 NW N NE
 Drizzle/Light Rain Warm > 75° 1-5 SW S SE
 Showers Mild > 65° 6-10 E W
 Cloud Cover: Cool > 60° 11-15 Variable
 0-10% Cold < 60° > 15
 11-40%
 41-70%
 71-100%

Stream Characteristics: Flowing Measurable Flow: Flowing away from (Grand Bayou)
 Flow Direction: Upstream Downstream Tidal Influence:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present: Sedimentation/Turbidity Present in Water Column
 Floating Aquatic Vegetation: Surface Coverage: < 1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor S/N: _____
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 1155 hrs Temp. (°C): 27.25 pH: 6.91 Specific Conductance: 167.7
 D.O.: 2.92 D.O. %: 26.9 Salinity: 2.07 Depth (m): 0.30 Secchi (m): N/A

LG8Y-74 LG8att 46.9

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____

Flow Estimated: Measurement Location: AT site
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Dragage Estimate: Dye Estimate:

Right Descending Bank: Distance (ft): 49.0 ft Time (s): 59.0 s 17.5 ft from bank
 Mid Stream: Distance (ft): 62.0 ft Time (s): 61.5 s
 Left Descending Bank: Distance (ft): 96.0 ft Time (s): 52.0 s 7.5 ft from bank

Cross Section Measurement: Measurement Location: _____
 Type of Measurement Manual: Bathometer Cross Section File Name: _____

GPS Measurement: GPS SST File Name: _____
 Site GPS Cross Section GPS

Comments: _____

1 GRBYJ 06/23/09 1055 hrs

Photos Taken Picture File #s: _____

Tapedown Established: Tapedown Location: _____

Benchmark Established: Benchmark Location: _____

Survey Equipment Used:

Time of Travel Measurement: Type of Site Injection: Collection

Amount of Dye Injected (mL): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:

Stream Dry/Intermittent:

Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt

Control Structure Present: Location: _____

Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam

Land Use: Agriculture Forestry Municipal Industrial Field Pasture Wetland

Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recor Information:

Discharge Measurement: Wading Bridge Board Boat Board

Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge	Bridge Safe	Bridge Width:	Bridge Height:
Profiling Measurements:			
Time:	Temp. (°F):	pH:	Speed (km/hr/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (°C):	pH:	Speed (km/hr/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (°C):	pH:	Speed (km/hr/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

It. Stat Probe S/N: 406001	Surveyor 4s S/N: 014110	GPS Unit:
AquaCalc S/N:	Fathometer:	Laser Clin:
Camera S/N:		

- References
- Convert Feet to Meters
- 0.5 ft = 0.15 m
 - 1.0 ft = 0.30 m
 - 1.5 ft = 0.45 m
 - 2.0 ft = 0.60 m
 - 2.5 ft = 0.75 m

Site Information

Site # LG-BY2 Subsegment: 120206 Date: 6/23/04 Time: 0915 hrs
 Waterbody: Little Grand Bayou Tapdown 1: _____ Staff Gauge 1: _____
 Gauge Height 1: _____ Tapdown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: upstream of Westfield canal in wide area
 Personnel: Chuck Fontana, Butler

Type of Work Reason Data Collection

Weather Conditions: Clear Drizzle/Light Rain Showers
 Temperature (°F): Hot > 85° Warm > 75° Mild > 65° Cool > 50° Cold < 50°
 Wind (mph): < 1 1-3 5-10 11-15 > 15
 Wind Direction: NW N NE SW S SE E W Variable
 Cloud Cover: 0-10% 11-40% 41-70% 71-100%

Stream Characteristics: Flowing: Measurable Flow: No flow
 Flow Direction: Upstream Downstream Tidal Influence:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present: Sedimentation/Turbidity Present in Water Column:
 Floating Aquatic Vegetation % Surface Coverage: < 1 1-24% 25-50% 51-75% 76-100%

Water Quality Samples Taken Water Quality Field Parameters: Profiling
 Continuous Monitor Deployed: Continuous Monitor S/N: IN Situ 41501
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 0915 hrs Temp (°C): 26.58 pH: 6.77 Secchi (µmhos/cm): 166.8
 D.O.: .60 D.O. %: 7.5 Salinity: 0.07 Depth (m): .5 Secchi (in): 36 in.

IBATT = 11.8
 I.B.U. = 7.4

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boar Board
 AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
 Using Discharge Equipment: Type: Wading Bridge Board Boar Board
 Drogue Estimate: Dye Estimate:
 Right Descending Bank: Distance (ft): _____ Time (s): _____
 Mid Stream: Distance (ft): _____ Time (s): _____
 Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
 Type of Measurement Manual: Fathometer Cross Section File Name: _____
 GPS Measurement: GPS SSF File Name: _____
 Site GPS: Cross Section GPS:

Comments: not possible to do flow due to 75%+ submerged aquatic vegetation.

LGBY2
 06/23/09
 0915 hrs

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
 Benchmark Established: Benchmark Location: _____
 Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
 Amount of Dye Injected (ml): _____

Physical Site Characteristics Natural Waterbody: Man Altered Waterbody Man-Made Waterbody
 Stream Dry/Intermittent:
 Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
 Control Structure Present: Location: _____
 Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
 Land Use: Agriculture Forestry Municipal Industrial Field Pasture Wetland
 Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Reach Information:
 Discharge Measurement: Wading Bridge Board Boat Board
 Measurement Location: _____
 Cross Section Location: _____
 Continuous Monitor Deployment: _____
 Continuous Monitor Location: _____
 Boat Accessible: Nearest Launch: _____
 Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements

Time: _____	Temp. (°C): _____	pH: _____	Spcond(µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Spcond(µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Spcond(µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Equipment Used:
 In Situ Probe S/N: 41501 Surveyor 4a S/N: 52772 GPS Unit: _____
 AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
 Caster S/N: _____

References
 Convert Feet to Meters
 0.5 ft ≈ 0.15 m
 1.0 ft ≈ 0.30 m
 1.5 ft ≈ 0.45 m
 2.0 ft ≈ 0.60 m
 2.5 ft ≈ 0.75 m

Site Information

Site #: LG842 Subsegment: 120206 Date: 6/29/04 Time: 10:10 AM
 Waterbody: Little Grand Bayou Tapedown 1: _____ Staff Gauge 1: _____
 Gauge Height 1: _____ Tapedown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: upstream of canal leading to east Grand Bayou
 Personnel: Chuck Fontenot, Butler
 Type of Work: Reason Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° < 1 NW N NE
 Drizzle/Light Rain Warm > 75° 1-5 SW S SE
 Showers Mild > 55° 6-11 E W
 Cloud Cover: Cool > 60° 11-15 Variable
 0-10% Cold < 60° > 16
 11-40%
 41-70%
 71-100%

Stream Characteristics: Flowing: Measurable Flow:
 Flow Direction: Upstream Downstream Tidally Influenced:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present Sedimentation/Turbidity Present in Water Column
 Floating/Aquatic Vegetation % Surface Coverage: < 1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor: S/N: 2NSAH 41501
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters
 Time: 10:10 AM Temp. (°C): 27.46 pH: 6.93 Spcond (µmhos/cm): 174.5 IBU - 7.5
 D.O.: 1.77 D.O. %: 22.4 Salinity: .08 Depth (m): 1 IBatt - 11.8
 Secchi (m): _____

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____

Flow Estimate: Measurement Location: _____
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Dye Estimate: Dye Estimate:
 Right Descending Bank: Distance (ft): 71 Time (s): 3 min.
 Mid Stream: Distance (ft): 84 Time (s): 3 min.
 Left Descending Bank: Distance (ft): 62 Time (s): 3 min.

Cross Section Measurement: Measurement Location: _____
 Type of Measurement: Manual: Fathometer Cross Section File Name: _____

GPS Measurement GPS SFF File Name: _____
 Site GPS: Cross Section GPS:

Comments: _____

LGBY3

06/23/04

1010 hrs.

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____

Benchmark Established: Benchmark Location: _____

Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:

Stream Dry/Intermittent:

Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt

Control Structure Present: Location: _____

Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam

Land Use: Agriculture Foresty Municipal Industrial Field/Pasture Wetland

Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board

Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Equipment Used:

In Site Probe S/N: 41501 Surveyor 4a S/N: 52772 GPS Unit _____

AquaCalc S/N: _____ Fathometer: _____ Laser Gun _____

Camera S/N: _____

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m

1.0 ft ≈ 0.30 m

1.5 ft ≈ 0.45 m

2.0 ft ≈ 0.60 m

2.5 ft ≈ 0.75 m

Site Information

Site # LG644 of Subsegment 120206 Date: 6/23/04 Time: 1030 hrs.
 Waterbody: LG644 Little Grand Bayou Tapdown 1: _____ Staff Gauge 1: _____
 Gauge Height 1: _____ Tapdown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: at Hwy 402 Boat launch
 Personnel: Chuck Fontenot, Butler

Type of Work Reason Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° < 1 NW N NE
 Drizzle/Light Rain Warm > 75° 1-5 SW S SE
 Showers MEL > 63° 6-10 E W
 Cloud Cover: Cool > 60° 11-15 Variable
 0 - 20% Cold < 60° > 15

Stream Characteristics: Flowing: Measurable Flow:
 Flow Direction: Upstream Downstream Tidally Influenced:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present Sedimentation/Turbidity Present in Water Column
 Floating Aquatic Vegetation % Surface Coverage: < 1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor S/N: TNS 41501
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters
 Time: 1030 hrs Temp. (°C): 27.50 pH: 6.93 Spcond (µmhos/cm): 170 IBU - 7.5
 D.O.: 2.22 D.O. %: 27.9 Salinity: 0.8 Depth (m): 5 Secchi (in): 36 in IBatt - 11.8

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
 Using Discharge Equipment Type: Wading Bridge Board Boat Board
 Drogue Estimate: Dye Estimate:
 Right Descending Bank: Distance (ft): 80 Time (s): 3 min
 Mid Stream: Distance (ft): 92 Time (s): 3 min
 Left Descending Bank: Distance (ft): 73 Time (s): 3 min

Cross Section Measurement: Measurement Location: _____
 Type of Measurement Manual: Fathometer Cross Section File Name: _____

GPS Measurement: GPS SSF File Name: _____
 Site GPS: Cross Section GPS:

Comments: _____

L-8Y9

06/03/09

1030 hr

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____

Benchmark Established: Benchmark Location: _____

Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:

Stream Dry/Late-nitrate:

Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand Silt Rock/Gravel/Silt

Control Structure Present: Location: _____

Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam

Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland

Percent Tree Canopy Cover: 0-25% 26-50% 51-75% 76-100%

Recort Information:

Discharge Measurement: Wading Bridge Board Boat Board

Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge Bridge Safe Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____
 D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____
 D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____
 D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Equipment Used:

In Situ Probe S/N: 41501 Surveyor 4a S/N: 52772 GPS Unit _____

AquaCalc S/N _____ Fathometer: _____ Laser Gun _____

Camera S/N: _____

References

Convert Feet to Meters

0.5 ft = 0.15 m

1.0 ft = 0.30 m

1.5 ft = 0.45 m

2.0 ft = 0.60 m

2.5 ft = 0.75 m

Site Information

Site # LG825 Subsegment: 120206 Date: 6/27/09 Time 1130 hrs.
 Waterbody: Little Grand Bayou Tapdown 1: _____ Staff Gauge 1: _____
 Gauge Height 1: _____ Tapdown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: mouth of lake wetland upstream in L. Grand Bayou
 Personnel: Buflor, Felicit

Type of Work: Recon Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° < 1 NW N NE
 Drizzle Light Rain Warm > 75° 1-5 SW S SE
 Showers Mild < 65° 6-10 E W
 Cloud Cover: Cool > 60° 11-15 Variable
 0-10% Cold < 60° > 15
 11-40%
 41-70%
 71-100%

Stream Characteristics: Flowing: Measurable Flow:
 Flow Direction: Upstream Downstream Tidally Influenced:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present: Sedimentation/Turbidity Present in Water Column:
 Floating Aquatic Vegetation: Surface Coverage: < 1% 1-24% 25-50% 51-75% 76-100%

Water Quality Samples Taken Water Quality Field Parameters Profiling
 Continuous Monitor Deployed: Continuous Monitor S/N: _____
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 1130h Temp. (°C): 28.25 pH: 6.98 Speed (cm/sec): 163.6
 D.O.: 2.63 D.O. %: 33.2 Salinity: 0.07 Depth (m): 1 Secchi (in): _____

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 Aquatic File Name: _____

Flow Estimated: Measurement Location: _____
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Dye Estimate: Dye Estimator:
 Right Descending Bank: Distance (ft): 20ft Time (s): 3.00 min
 Mid Stream: Distance (ft): 62ft Time (s): 3.00 min
 Left Descending Bank: Distance (ft): 52ft Time (s): 3.00 min

Cross Section Measurement: Measurement Location: _____
 Type of Measurement: Manual: Fathometer: Cross Section File Name: _____

GPS Measurement: GPS SSF File Name: _____
 Site GPS Cross Section GPS:

Comments: _____

LGBY5

06/23/04

1130 hrs.

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____

Benchmark Established: Benchmark Location: _____

Survey Equipment Used: _____

Time of Travel Measurement: Type of Site: Injection Collection

Amount of Dye injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:

Stream Dry/Intermittent:

Stream Bottom: Sandy Clay Gravel Hard Clay Soft Sil Sand/Silt Rock/Gravel/Silt

Control Structure Present: Location: _____

Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam

Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland

Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board

Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Preliing Measurements

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Equipment Used:

In Situ Probe S/N: 41501 Surveyor 4a S/N: 52772 GPS Unit: _____

AquaCalc S/N: _____ Pathometer: _____ Laser Gun: _____

Camera S/N: _____

References

Convert Feet to Meters

0.5 ft = 0.15 m

1.0 ft = 0.30 m

1.5 ft = 0.45 m

2.0 ft = 0.60 m

2.5 ft = 0.75 m

Site Information

Site: L-112 Subsegment: 120206 Date: 6/23/04 Time: 1110 hrs.
 Waterbody: Lake Verret Tapedown 1: _____ Staff Gauge 1: _____
 Gauge Height 1: _____ Tapedown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: Just out from mouth of C-Grand Bayou
 Personnel: Chuck Fontenot, R. Butler
 Type of Work: Recon Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° <1 NW N NE
 Drizzle Light Rain Warm > 75° 1-5 SW S SE
 Showers Mild > 65° 6-10 E W
 Cloud Cover: Cool > 50° 11-15 Variable
 0-10% Cold < 50° >16
 11-40%
 41-70%
 71-100%

Stream Characteristics: Flowing: Measurable Flow:
 Flow Direction Upstream Downstream Tidally Influenced:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present: Sedimentation/Turbidity Present in Water Column
 Floating Aquatic Vegetation % Surface Coverage: 0-24% 25-50% 51-75% 76-100%

Water Quality Samples Taken Water Quality Field Parameters Profiling
 Continuous Monitor Deployed: Continuous Monitor S/N: 41501 JA 51th
 Continuous Monitor Retrieval: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters
 Time: 1110 hrs Temp. (°C): 30.10 pH: 8.78 Specific Conductivity (µmhos/cm): 166.6
 D.O.: 9.70 D.O. %: 99.0 Salinity: 0.2 Depth (m): 1 Secchi (in): 151A
IBU-71
IBatt-11-7

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 Aquacade File Name: _____

Flow Estimated: Measurement Location: _____
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Dye Estimator: Dye Estimator
 Right Descending Bank: Distance (ft): _____ Time (s): _____
 Mid Stream: Distance (ft): _____ Time (s): _____
 Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
 Type of Measurement: Manual Fathometer Cross Section File Name: _____

GPS Measurement: GPS SSF File Name: _____
 Site GPS Cross Section GPS:

Comments: _____

LV2 06/03/09 1110 hrs.
 Photos Taken: Picture File #s: _____
 Tapdown Established: Tapdown Location: _____
 Benchmark Established: Benchmark Location: _____
 Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
 Amount of Dye Injected (ml): _____
 Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
 Stream Dry/Intermittent:
 Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
 Control Structure Present: Location: _____
 Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
 Land Use: Agriculture Forestry Municipal Industrial Field Pasture Wetland
 Percent Tree Canopy Cover 0-25% 25-50% 51-75% 76-100%

Recon Information:
 Discharge Measurement: Wading Bridge Board Boat Board
 Measurement Location: _____
 Cross Section Location: _____
 Continuous Monitor Deployment: _____
 Continuous Monitor Location: _____
 Boat Accessible: Nearest Launch: _____
 Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements

Time: _____	Temp. (°C): _____	pH: _____	Spcond(µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Spcond(µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Spcond(µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Equipment Used:
 In Situ Probe S/N: 41501 Surveyor 4a S/N: 52699 GPS Unit: _____
 AquaCalc S/N: _____ Fallometer: _____ Laser Gun: _____
 Camera S/N: _____

References
 Convert Feet to Meters
 0.5 ft = 0.15 m
 1.0 ft = 0.30 m
 1.5 ft = 0.45 m
 2.0 ft = 0.60 m
 2.5 ft = 0.75 m

Site Information

Site # W61 Subsegment 120206 Date: 6/23/04 Time: 0945 hrs.
 Waterbody: Westfield Canal Tapedown 1: _____ Staff Gauge 1: _____
 Gauge Height 1: _____ Tapedown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: Just ABOVE Confluence with L. Grand Bayou
 Personnel: Chuck Fontenot, Butler
 Type of Work: Recon Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° < 1 NW N NE
 Drizzle/Light Rain Warm > 75° 1-5 SW S SE
 Showers Mild > 65° 6-10 E W
 Cloud Cover: Cool > 60° 11-15 Variable
 0-10% Cold < 60° > 16
 11-40%
 41-70%
 71-100%

Stream Characteristics: Flowing: Measurable Flow
 Flow Direction: Upstream Downstream Tidally Influenced:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present Sedimentation/Turbidity Present in Water Column
 Floating/Aquatic Vegetation % Surface Coverage: < 1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor S/N: IN SHU 41501
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 0945 hrs Temp. (°C): 26.62 pH: 6.91 Spcond (µmhos/cm): 163.3 IBU - 11.7
 D.O.: 1.94 D.O. %: 26.5 Salinity: 0.07 Depth (m): .5 Secchi (in): IBU - 6.1

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
 Using Discharge Equipment Type: Wading Bridge Board Boat Board
 Drogue Estimate: Dye Estimate:
 Right Descending Bank: Distance (ft): _____ Time (s): _____
 Mid Stream: Distance (ft): _____ Time (s): _____
 Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
 Type of Measurement: Manual Fathometer Cross Section File Name: _____

GPS Measurement: GPS SSF File Name: _____
 Site GPS: Cross Section GPS:

Comments: _____

WCS

06/23/14

0795 hrs

Photos Taken:

Picture File #: _____

Tapedown Established:

Tapedown Location: _____

Benchmark Established:

Benchmark Location: _____

Survey Equipment Used:

Time of Travel Measurement:

Type of Size: Injection Collection

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man-Altered Waterbody: Man-Made Waterbody:

Stream Dry/Intermittent:

Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt

Control Structure Present: Location: _____

Type: Man-Made Dam Flow Regulation Device Beaver Dam Log Jam

Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland

Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board

Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: _____	Temp. (°C): _____	pH: _____	Spcond (µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Spcond (µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Spcond (µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Equipment Used:

In Situ Probe S/N: 41501 Surveyor 4a S/N: 52699 GPS Unit: _____
 AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
 Camera S/N: _____

References

Convert Feet to Meters

0.5 ft = 0.15 m
 1.0 ft = 0.30 m
 1.5 ft = 0.45 m
 2.0 ft = 0.60 m
 2.5 ft = 0.75 m

~~WCL1~~

Site Information

Site # WCL1 Subsegment 120206 Date 6/23/09 Time 1210hrs
 Waterbody Whitman Canal Tapedown 1: _____ Staff Gauge 1: _____
 Gauge Height 1: _____ Tapedown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location Just above confluence with L. Grand Bayou
 Personnel B. Tyler, K. Catal

Type of Work: Recon Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° < 1 NW N NE
 Drizzle/Light Rain Warm > 75° 1-5 SW S SE
 Showers Mild > 65° 6-10 E W
 Cloud Cover: Cool > 60° 11-15 Variable
 0-10% Cold < 60° > 16
 11-40%
 41-70%
 71-100%

Stream Characteristics: Flowing Measurable Flow:
 Flow Direction: Upstream Downstream Tidally Influenced:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present Sedimentation/Turbidity Present in Water Column
 Floating/Aquatic Vegetation % Surface Coverage: < 1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor S/N: _____
 Continuous Monitor Retrieved: Continuous Monitor Deployment: Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 1210 Temp (°C): 28.73 pH: 7.04 Spcond (µmhos/cm): 162.6
 D.O.: 2.90 D.O. %: 57.0 Salinity: 0.07 Depth (m): 1 Secchi (m): _____

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Drogue Estimate: Dye Estimate:
 Right Descending Bank: Distance (ft): 38 ft Time (s): 3 min
 Mid Stream: Distance (ft): 57 ft Time (s): 2 min
 Left Descending Bank: Distance (ft): 42 ft Time (s): 3 min

Cross Section Measurement: Measurement Location: _____
 Type of Measurement: Manual: Fathometer Cross Section File Name: _____

GPS Measurement: GPS SSF File Name: _____
 Site GPS: Cross Section GPS:

Comments: _____

WCL 1

06/27/09

1210 hrs.

Photos Taken

Picture File #: _____

Tapedown Established:

Tapedown Location: _____

Benchmark Established:

Benchmark Location: _____

Survey Equipment Used:

Time of Travel Measurement:

Type of Site: Injection Collection

Amount of Dye Injected (µg): _____

Physical Site Characteristics: Natural Waterbody: Man-Altered Waterbody: Man-Made Waterbody:

Stream Dry/Intermittent:

Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt

Control Structure Present: Location: _____

Type: Man-Made Dam Flow Regulation Device Beaver Dam Log Jam

Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland

Percent Tree Canopy Cover: 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board

Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge Bridge Safe Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Spcond (µmhos/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Equipment Used:

In Situ Probe S/N: 41501 Surveyor 4a S/N: 52699 GPS Unit: _____

AquaCalc S/N: _____ Pathometer: _____ Laser Gun: _____

Camera S/N: _____

References

Convert Feet to Meters

0.5 ft = 0.15 m

1.0 ft = 0.30 m

1.5 ft = 0.45 m

2.0 ft = 0.60 m

2.5 ft = 0.75 m

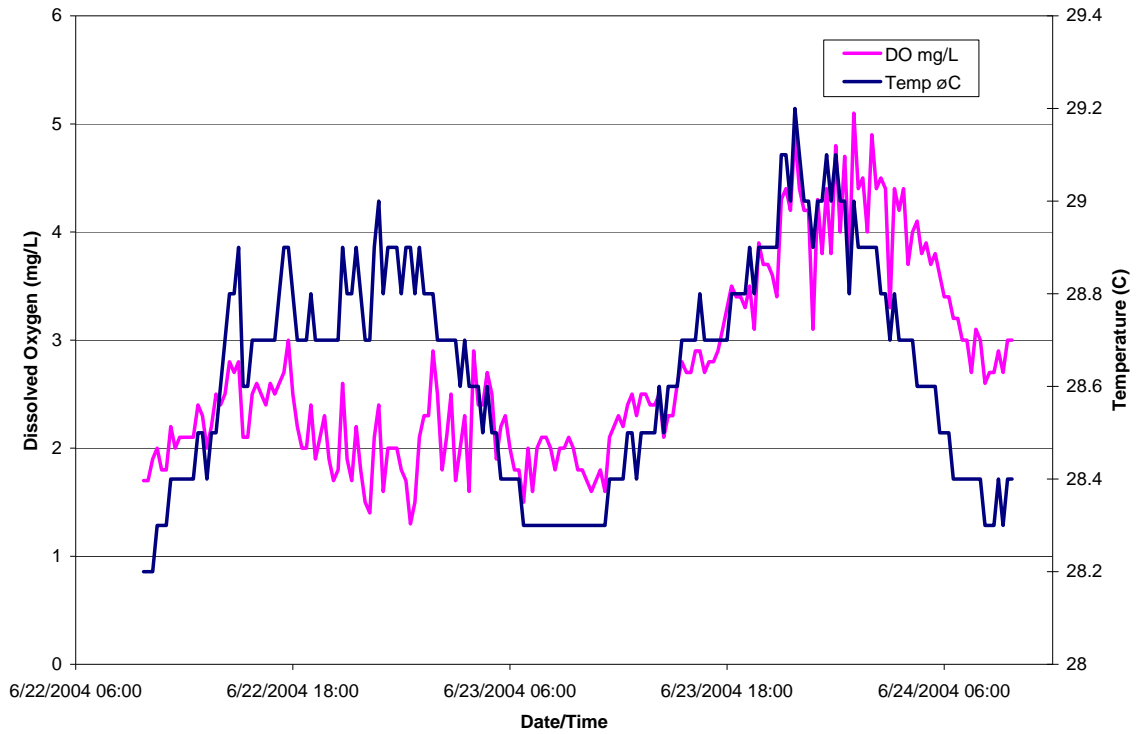
Appendix F5 – Continuous Monitor Data

Grand Bayou/Little Grand 120206 Continuous Monitoring Averages						
Site ID	Temp, °C	SpCond, æS/cm	Sal, ppt	pH, Standard Units	DO, mg/l	DO PERCENT, Sat
BYS1	28.64	0.350	0.17	7.33	2.63	34.01
MB1	27.74	169.20	0.08	6.89	4.17	53.07
GRB3	27.97	198.94	0.09	6.97	2.84	36.27
GRB4	27.99	220.01	0.10	7.04	2.60	33.33
BYC01	26.95	154.13	0.07	6.73	2.08	26.17
GRB6	27.94	0.160	0.07	6.86	3.33	42.58
GRB7	28.28	0.170	0.08	6.93	3.60	46.33
BA1	27.96	160.11	0.07	6.85	2.99	38.16
GRB9	28.66	159.56	0.07	6.64	3.35	43.26
LV1	28.72	202.14	0.09	7.08	3.06	39.65
LGBY2	26.40	165.32	0.07	6.56	0.07	0.91
WC1	26.85	135.47	0.06	6.61	1.31	16.38
LGBY4	27.60	0.159	0.07	6.70	2.59	32.97
LGBY5	28.84	164.89	0.07	7.01	3.55	46.13
LV2	29.84	0.162	0.07	8.32	7.85	103.64

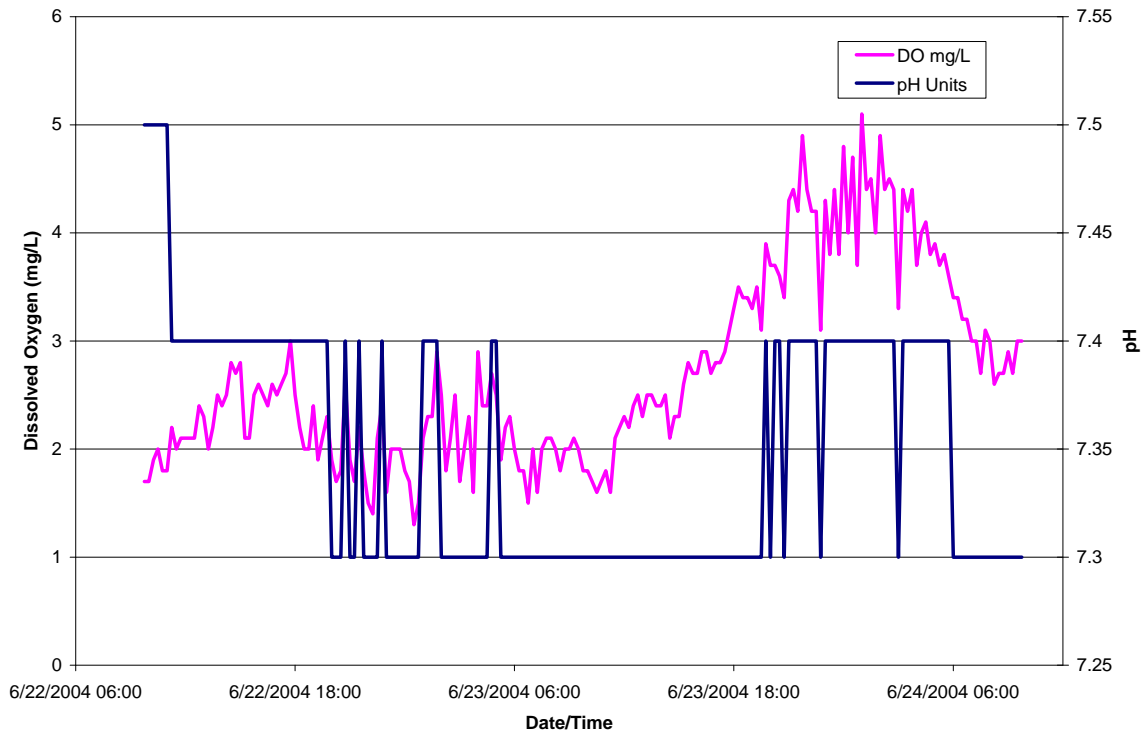
Grand Bayou/Little Grand 120206 Continuous Monitoring Minimums						
Site ID	Temp, °C	SpCond, æS/cm	Sal, ppt	pH, Standard Units	DO, mg/l	DO PERCENT, Sat
BYS1	28.29	0.340	0.17	7.27	1.34	17.40
MB1	27.25	166.30	0.07	6.80	2.28	28.80
GRB3	27.75	192.80	0.09	6.95	2.37	30.20
GRB4	27.42	208.00	0.10	6.97	1.59	20.10
BYC01	26.64	152.60	0.07	6.70	1.46	18.20
GRB6	27.58	0.155	0.07	6.78	2.17	27.50
GRB7	27.90	0.160	0.07	6.88	2.46	31.50
BA1	27.61	149.00	0.06	6.79	2.24	28.50
GRB9	28.41	154.90	0.07	6.59	2.66	34.40
LV1	28.37	190.90	0.09	7.04	2.35	30.40
LGBY2	26.31	163.00	0.07	6.53	0.02	0.30
WC1	26.22	106.40	0.04	6.53	0.87	10.80
LGBY4	26.88	0.151	0.07	6.63	1.81	22.70
LGBY5	27.86	159.80	0.07	6.77	2.31	29.70
LV2	29.37	0.159	0.07	7.78	6.46	84.60

Grand Bayou/Little Grand 120206 Continuous Monitoring Maximums						
Site ID	Temp, °C	SpCond, æS/cm	Sal, ppt	pH, Standard Units	DO, mg/l	DO PERCENT, Sat
BYS1	29.19	0.360	0.18	7.42	4.88	63.80
MB1	28.47	170.90	0.08	7.03	6.07	78.00
GRB3	28.29	210.00	0.10	7.01	3.60	46.30
GRB4	28.52	239.00	0.11	7.11	3.72	47.90
BYC01	27.47	155.10	0.07	6.79	3.06	38.70
GRB6	28.47	0.169	0.07	6.93	4.50	57.70
GRB7	28.99	0.180	0.08	7.02	4.95	64.40
BA1	28.86	167.40	0.07	6.92	3.79	49.20
GRB9	29.23	167.40	0.07	6.73	4.16	53.80
LV1	29.15	208.00	0.10	7.17	4.91	63.70
LGBY2	26.55	166.70	0.07	6.58	0.34	4.30
WC1	27.89	163.50	0.07	6.69	1.87	23.20
LGBY4	29.11	0.160	0.07	6.94	4.30	55.90
LGBY5	30.24	169.80	0.08	7.52	6.72	88.20
LV2	30.44	0.165	0.07	8.93	10.67	141.90

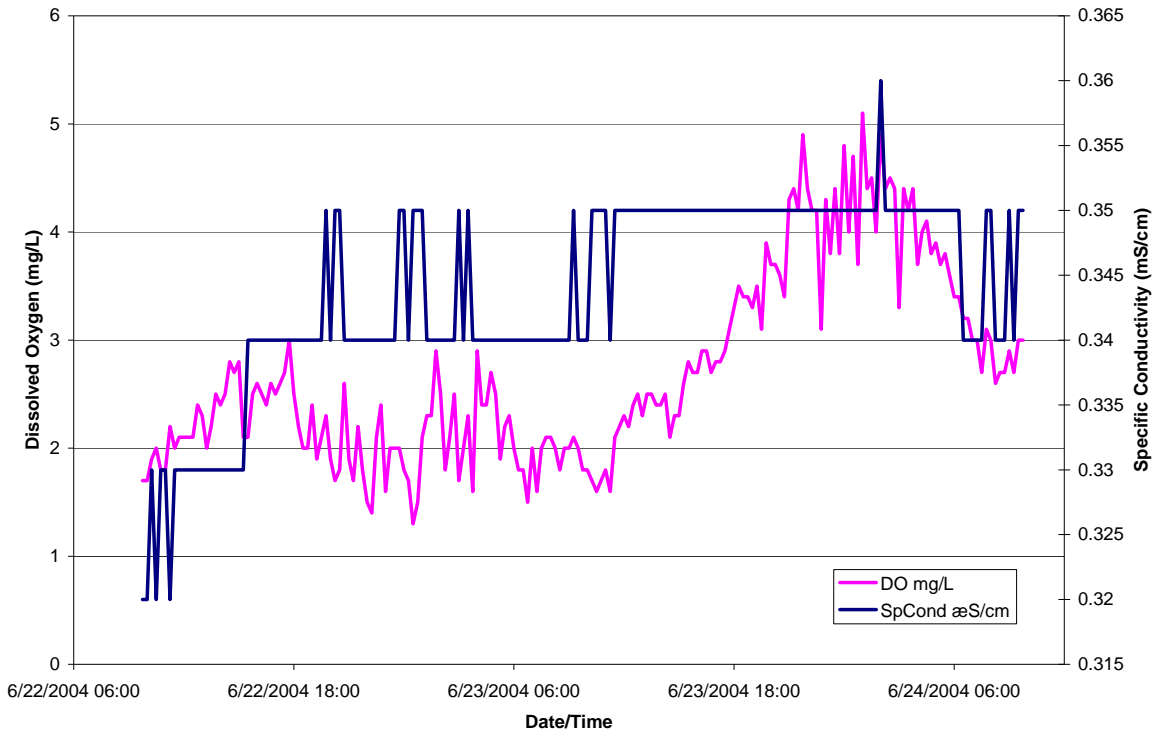
BYS1: DO & Temp v. Date/Time



BYS1: DO & pH v. Date/Time



BYS1: DO & SpCond v. Date/Time



Minisonde 4a 41499

Log File Name : BYS1

Setup Date (MMDDYY) : 062104

Setup Time (HHMMSS) : 131202

Starting Date (MMDDYY) : 062204

Starting Time (HHMMSS) : 070000

Stopping Date (MMDDYY) : 062404

Stopping Time (HHMMSS) : 235959

Interval (HHMMSS) : 001500

Sensor warmup (HHMMSS) : 000200

Circltr warmup (HHMMSS) : 000200

Summary:

06/23/2004 00:00:00 to 06/24/2004 00:00:00

	Temp	pH	SpCond	Sal	DO%	DO
	øC	Units	mS/cm	ppt	Sat	mg/l
Average	28.64	7.33	0.35	0.17	34.01	2.63
Min	28.29	7.27	0.34	0.17	17.40	1.34
Max	29.19	7.42	0.36	0.18	63.80	4.88

Date	Time	Temp	pH	SpCond	Sal	DO%	DO
MMDDYY	HHMMSS	øC	Units	mS/cm	ppt	Sat	mg/l
6/22/2004	9:45:00	28.2	7.5	0.328	0.2	21.7	1.7
6/22/2004	10:00:00	28.2	7.5	0.329	0.2	22.3	1.7
6/22/2004	10:15:00	28.2	7.5	0.331	0.2	25.0	1.9
6/22/2004	10:30:00	28.3	7.5	0.329	0.2	25.9	2.0
6/22/2004	10:45:00	28.3	7.5	0.33	0.2	23.7	1.8
6/22/2004	11:00:00	28.3	7.5	0.331	0.2	23.5	1.8
6/22/2004	11:15:00	28.4	7.4	0.329	0.2	28.0	2.2
6/22/2004	11:30:00	28.4	7.4	0.331	0.2	25.3	2.0

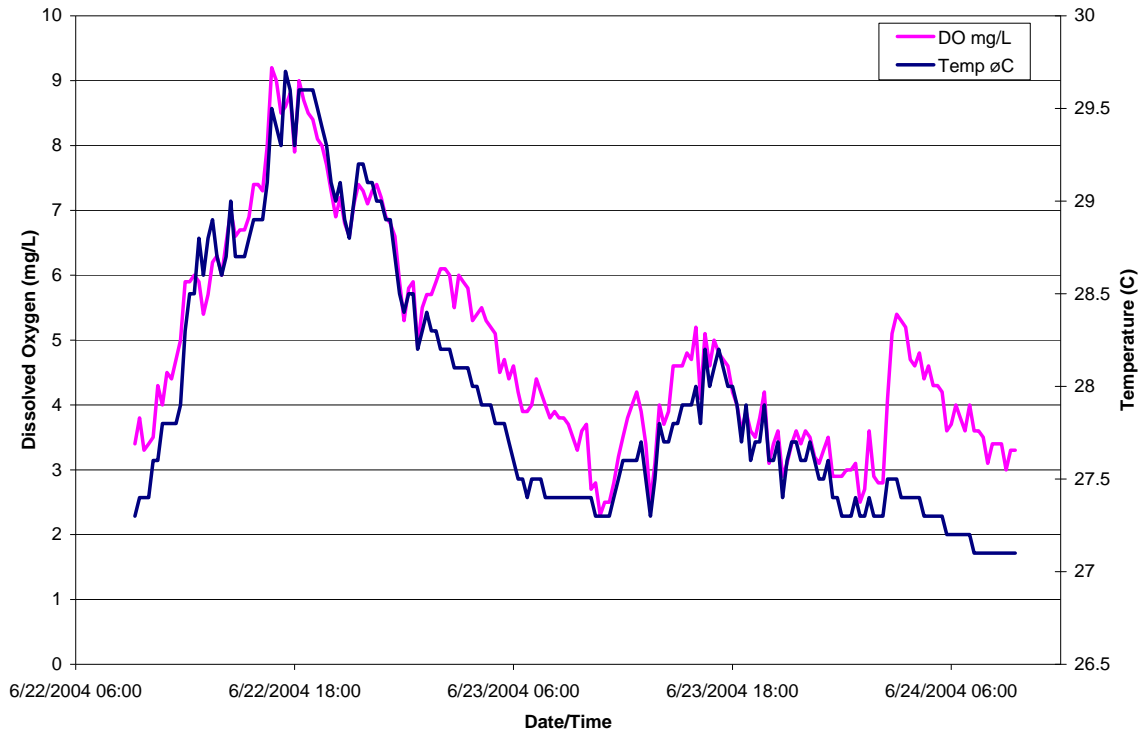
6/22/2004	11:45:00			28.4	7.4	0.332	0.2	27.4	2.1
6/22/2004	12:00:00			28.4	7.4	0.334	0.2	26.7	2.1
6/22/2004	12:15:00			28.4	7.4	0.333	0.2	27.4	2.1
6/22/2004	12:30:00			28.4	7.4	0.334	0.2	27.5	2.1
6/22/2004	12:45:00			28.5	7.4	0.335	0.2	31.4	2.4
6/22/2004	13:00:00			28.5	7.4	0.337	0.2	29.7	2.3
6/22/2004	13:15:00			28.5	7.4	0.337	0.2	25.7	2.0
6/22/2004	13:30:00			28.5	7.4	0.337	0.2	28.6	2.2
6/22/2004	13:45:00			28.5	7.4	0.339	0.2	32.6	2.5
6/22/2004	14:00:00			28.6	7.4	0.338	0.2	30.8	2.4
6/22/2004	14:15:00			28.7	7.4	0.338	0.2	32.8	2.5
6/22/2004	14:30:00			28.8	7.4	0.337	0.2	36.1	2.8
6/22/2004	14:45:00			28.8	7.4	0.335	0.2	34.4	2.7
6/22/2004	15:00:00			28.9	7.4	0.334	0.2	36.2	2.8
6/22/2004	15:15:00			28.6	7.4	0.334	0.2	27.5	2.1
6/22/2004	15:30:00			28.6	7.4	0.341	0.2	27.7	2.1
6/22/2004	15:45:00			28.7	7.4	0.345	0.2	32.9	2.5
6/22/2004	16:00:00			28.7	7.4	0.343	0.2	33.6	2.6
6/22/2004	16:15:00			28.7	7.4	0.344	0.2	32.5	2.5
6/22/2004	16:30:00			28.7	7.4	0.342	0.2	30.6	2.4
6/22/2004	16:45:00			28.7	7.4	0.345	0.2	33.0	2.6
6/22/2004	17:00:00			28.7	7.4	0.345	0.2	32.1	2.5
6/22/2004	17:15:00			28.8	7.4	0.345	0.2	34.0	2.6
6/22/2004	17:30:00			28.9	7.4	0.343	0.2	35.5	2.7
6/22/2004	17:45:00			28.9	7.4	0.348	0.2	39.1	3.0
6/22/2004	18:00:00			28.8	7.4	0.344	0.2	32.5	2.5
6/22/2004	18:15:00			28.7	7.4	0.344	0.2	28.4	2.2
6/22/2004	18:30:00			28.7	7.4	0.346	0.2	25.4	2.0
6/22/2004	18:45:00			28.7	7.4	0.347	0.2	25.9	2.0
6/22/2004	19:00:00			28.8	7.4	0.347	0.2	30.6	2.4
6/22/2004	19:15:00			28.7	7.4	0.345	0.2	24.9	1.9
6/22/2004	19:30:00			28.7	7.4	0.346	0.2	27.4	2.1
6/22/2004	19:45:00			28.7	7.4	0.351	0.2	29.5	2.3
6/22/2004	20:00:00			28.7	7.3	0.349	0.2	24.8	1.9
6/22/2004	20:15:00			28.7	7.3	0.35	0.2	22.3	1.7
6/22/2004	20:30:00			28.7	7.3	0.351	0.2	23.7	1.8
6/22/2004	20:45:00			28.9	7.4	0.349	0.2	33.4	2.6
6/22/2004	21:00:00			28.8	7.3	0.349	0.2	24.6	1.9
6/22/2004	21:15:00			28.8	7.3	0.347	0.2	21.8	1.7
6/22/2004	21:30:00			28.9	7.4	0.347	0.2	29.1	2.2
6/22/2004	21:45:00			28.8	7.3	0.344	0.2	22.8	1.8
6/22/2004	22:00:00			28.7	7.3	0.341	0.2	19.3	1.5
6/22/2004	22:15:00			28.7	7.3	0.342	0.2	17.8	1.4
6/22/2004	22:30:00			29.0	7.3	0.343	0.2	27.4	2.1
6/22/2004	22:45:00			29.0	7.4	0.34	0.2	30.6	2.4
6/22/2004	23:00:00			28.8	7.3	0.343	0.2	20.1	1.6
6/22/2004	23:15:00			28.9	7.3	0.343	0.2	26.1	2.0
6/22/2004	23:30:00			28.9	7.3	0.341	0.2	25.8	2.0

6/22/2004	23:45:00			28.9	7.3	0.35	0.2	25.5	2.0
6/23/2004	0:00:00			28.8	7.3	0.351	0.2	22.7	1.8
6/23/2004	0:15:00			28.9	7.3	0.348	0.2	22.5	1.7
6/23/2004	0:30:00			28.9	7.3	0.354	0.2	17.4	1.3
6/23/2004	0:45:00			28.8	7.3	0.355	0.2	19.4	1.5
6/23/2004	1:00:00			28.9	7.4	0.354	0.2	26.9	2.1
6/23/2004	1:15:00			28.8	7.4	0.349	0.2	29.7	2.3
6/23/2004	1:30:00			28.8	7.4	0.347	0.2	29.6	2.3
6/23/2004	1:45:00			28.8	7.4	0.344	0.2	37.2	2.9
6/23/2004	2:00:00			28.7	7.3	0.342	0.2	32.9	2.5
6/23/2004	2:15:00			28.7	7.3	0.345	0.2	22.8	1.8
6/23/2004	2:30:00			28.7	7.3	0.348	0.2	27.1	2.1
6/23/2004	2:45:00			28.7	7.3	0.346	0.2	32.9	2.5
6/23/2004	3:00:00			28.7	7.3	0.353	0.2	21.7	1.7
6/23/2004	3:15:00			28.6	7.3	0.349	0.2	25.7	2.0
6/23/2004	3:30:00			28.7	7.3	0.35	0.2	29.3	2.3
6/23/2004	3:45:00			28.6	7.3	0.348	0.2	20.6	1.6
6/23/2004	4:00:00			28.6	7.3	0.344	0.2	37.6	2.9
6/23/2004	4:15:00			28.6	7.3	0.345	0.2	31.3	2.4
6/23/2004	4:30:00			28.5	7.3	0.343	0.2	31.1	2.4
6/23/2004	4:45:00			28.6	7.4	0.346	0.2	34.2	2.7
6/23/2004	5:00:00			28.5	7.4	0.346	0.2	32.7	2.5
6/23/2004	5:15:00			28.5	7.3	0.346	0.2	25.0	1.9
6/23/2004	5:30:00			28.4	7.3	0.342	0.2	28.0	2.2
6/23/2004	5:45:00			28.4	7.3	0.344	0.2	29.1	2.3
6/23/2004	6:00:00			28.4	7.3	0.344	0.2	25.4	2.0
6/23/2004	6:15:00			28.4	7.3	0.344	0.2	23.3	1.8
6/23/2004	6:30:00			28.4	7.3	0.343	0.2	23.0	1.8
6/23/2004	6:45:00			28.3	7.3	0.34	0.2	19.9	1.5
6/23/2004	7:00:00			28.3	7.3	0.346	0.2	25.6	2.0
6/23/2004	7:15:00			28.3	7.3	0.345	0.2	21.1	1.6
6/23/2004	7:30:00			28.3	7.3	0.346	0.2	26.2	2.0
6/23/2004	7:45:00			28.3	7.3	0.347	0.2	26.7	2.1
6/23/2004	8:00:00			28.3	7.3	0.347	0.2	26.6	2.1
6/23/2004	8:15:00			28.3	7.3	0.347	0.2	25.9	2.0
6/23/2004	8:30:00			28.3	7.3	0.346	0.2	22.9	1.8
6/23/2004	8:45:00			28.3	7.3	0.347	0.2	25.0	2.0
6/23/2004	9:00:00			28.3	7.3	0.348	0.2	25.5	2.0
6/23/2004	9:15:00			28.3	7.3	0.35	0.2	26.9	2.1
6/23/2004	9:30:00			28.3	7.3	0.349	0.2	25.6	2.0
6/23/2004	9:45:00			28.3	7.3	0.349	0.2	22.8	1.8
6/23/2004	10:00:00			28.3	7.3	0.349	0.2	22.5	1.8
6/23/2004	10:15:00			28.3	7.3	0.35	0.2	21.5	1.7
6/23/2004	10:30:00			28.3	7.3	0.35	0.2	21.1	1.6
6/23/2004	10:45:00			28.3	7.3	0.35	0.2	22.4	1.7
6/23/2004	11:00:00			28.3	7.3	0.351	0.2	23.5	1.8
6/23/2004	11:15:00			28.3	7.3	0.349	0.2	20.5	1.6
6/23/2004	11:30:00			28.4	7.3	0.351	0.2	27.4	2.1

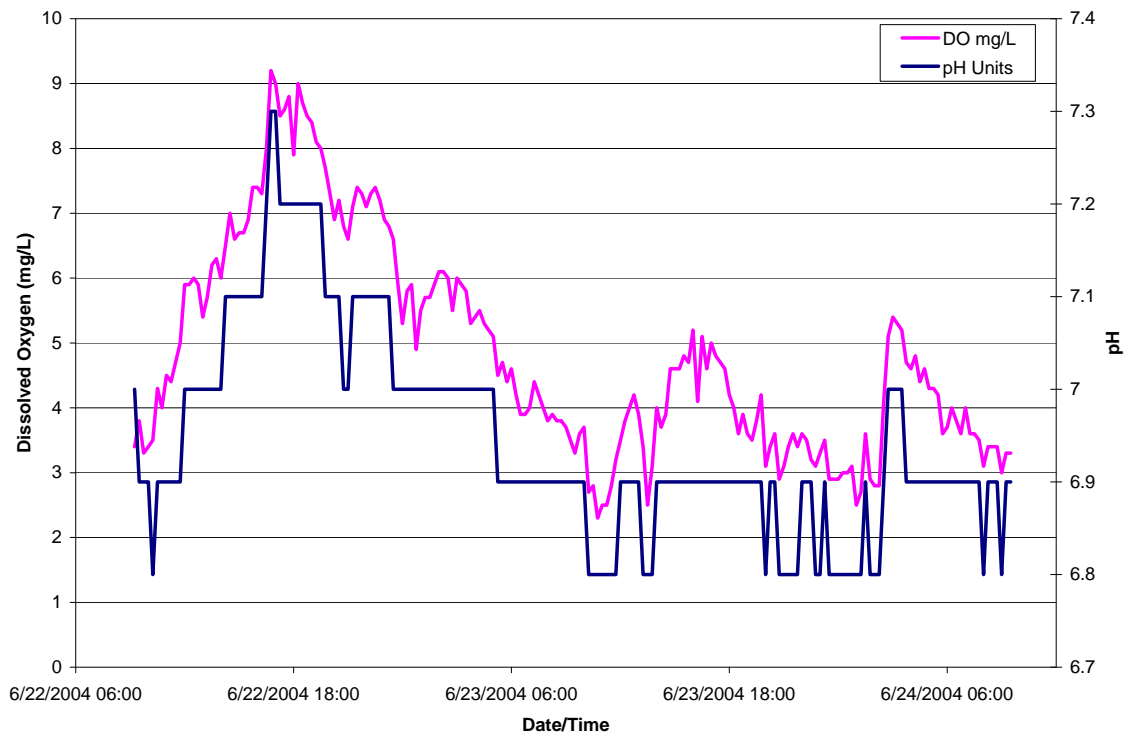
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6/23/2004	12:00:00			28.4	7.3	0.354	0.2	28.9	2.3
6/23/2004	12:15:00			28.4	7.3	0.354	0.2	28.9	2.2
6/23/2004	12:30:00			28.5	7.3	0.353	0.2	31.0	2.4
6/23/2004	12:45:00			28.5	7.3	0.354	0.2	32.7	2.5
6/23/2004	13:00:00			28.5	7.3	0.354	0.2	29.3	2.3
6/23/2004	13:15:00			28.5	7.3	0.354	0.2	32.6	2.5
6/23/2004	13:30:00			28.5	7.3	0.354	0.2	32.5	2.5
6/23/2004	13:45:00			28.5	7.3	0.353	0.2	31.2	2.4
6/23/2004	14:00:00			28.5	7.3	0.353	0.2	31.3	2.4
6/23/2004	14:15:00			28.6	7.3	0.353	0.2	32.4	2.5
6/23/2004	14:30:00			28.5	7.3	0.353	0.2	27.7	2.1
6/23/2004	14:45:00			28.6	7.3	0.353	0.2	29.8	2.3
6/23/2004	15:00:00			28.6	7.3	0.352	0.2	30.0	2.3
6/23/2004	15:15:00			28.6	7.3	0.353	0.2	34.0	2.6
6/23/2004	15:30:00			28.7	7.3	0.353	0.2	36.3	2.8
6/23/2004	15:45:00			28.7	7.3	0.352	0.2	34.7	2.7
6/23/2004	16:00:00			28.7	7.3	0.352	0.2	34.6	2.7
6/23/2004	16:15:00			28.7	7.3	0.353	0.2	37.7	2.9
6/23/2004	16:30:00			28.8	7.3	0.352	0.2	37.9	2.9
6/23/2004	16:45:00			28.7	7.3	0.352	0.2	35.5	2.7
6/23/2004	17:00:00			28.7	7.3	0.351	0.2	35.7	2.8
6/23/2004	17:15:00			28.7	7.3	0.352	0.2	36.7	2.8
6/23/2004	17:30:00			28.7	7.3	0.354	0.2	37.4	2.9
6/23/2004	17:45:00			28.7	7.3	0.356	0.2	39.8	3.1
6/23/2004	18:00:00			28.7	7.3	0.356	0.2	42.9	3.3
6/23/2004	18:15:00			28.8	7.3	0.357	0.2	45.3	3.5
6/23/2004	18:30:00			28.8	7.3	0.357	0.2	43.5	3.4
6/23/2004	18:45:00			28.8	7.3	0.356	0.2	44.5	3.4
6/23/2004	19:00:00			28.8	7.3	0.355	0.2	42.5	3.3
6/23/2004	19:15:00			28.9	7.3	0.357	0.2	45.7	3.5
6/23/2004	19:30:00			28.8	7.3	0.356	0.2	40.7	3.1
6/23/2004	19:45:00			28.9	7.4	0.359	0.2	50.9	3.9
6/23/2004	20:00:00			28.9	7.3	0.359	0.2	48.2	3.7
6/23/2004	20:15:00			28.9	7.4	0.357	0.2	48.6	3.7
6/23/2004	20:30:00			28.9	7.4	0.356	0.2	46.8	3.6
6/23/2004	20:45:00			28.9	7.3	0.355	0.2	43.6	3.4
6/23/2004	21:00:00			29.1	7.4	0.358	0.2	55.6	4.3
6/23/2004	21:15:00			29.1	7.4	0.354	0.2	57.1	4.4
6/23/2004	21:30:00			29.0	7.4	0.357	0.2	54.8	4.2
6/23/2004	21:45:00			29.2	7.4	0.359	0.2	63.8	4.9
6/23/2004	22:00:00			29.1	7.4	0.356	0.2	57.5	4.4
6/23/2004	22:15:00			29.0	7.4	0.355	0.2	54.1	4.2
6/23/2004	22:30:00			29.0	7.4	0.357	0.2	54.1	4.2
6/23/2004	22:45:00			28.9	7.3	0.353	0.2	39.6	3.1
6/23/2004	23:00:00			29.0	7.4	0.355	0.2	55.5	4.3
6/23/2004	23:15:00			29.0	7.4	0.352	0.2	49.1	3.8
6/23/2004	23:30:00			29.1	7.4	0.357	0.2	57.5	4.4

6/23/2004	23:45:00			29.0	7.4	0.357	0.2	49.7	3.8
6/24/2004	0:00:00			29.1	7.4	0.358	0.2	61.9	4.8
6/24/2004	0:15:00			29.0	7.4	0.355	0.2	52.4	4.0
6/24/2004	0:30:00			29.0	7.4	0.357	0.2	61.2	4.7
6/24/2004	0:45:00			28.8	7.4	0.35	0.2	47.9	3.7
6/24/2004	1:00:00			29.0	7.4	0.359	0.2	66.9	5.1
6/24/2004	1:15:00			28.9	7.4	0.356	0.2	57.5	4.4
6/24/2004	1:30:00			29.0	7.4	0.359	0.2	58.6	4.5
6/24/2004	1:45:00			28.9	7.4	0.357	0.2	51.3	4.0
6/24/2004	2:00:00			28.9	7.4	0.361	0.2	63.1	4.9
6/24/2004	2:15:00			28.9	7.4	0.358	0.2	57.5	4.4
6/24/2004	2:30:00			28.8	7.4	0.358	0.2	57.9	4.5
6/24/2004	2:45:00			28.8	7.4	0.358	0.2	56.4	4.4
6/24/2004	3:00:00			28.7	7.3	0.351	0.2	42.1	3.3
6/24/2004	3:15:00			28.8	7.4	0.357	0.2	57.2	4.4
6/24/2004	3:30:00			28.7	7.4	0.355	0.2	54.9	4.2
6/24/2004	3:45:00			28.7	7.4	0.356	0.2	56.4	4.4
6/24/2004	4:00:00			28.7	7.4	0.353	0.2	47.5	3.7
6/24/2004	4:15:00			28.7	7.4	0.355	0.2	51.2	4.0
6/24/2004	4:30:00			28.6	7.4	0.356	0.2	52.9	4.1
6/24/2004	4:45:00			28.6	7.4	0.354	0.2	49.2	3.8
6/24/2004	5:00:00			28.6	7.4	0.355	0.2	50.8	3.9
6/24/2004	5:15:00			28.6	7.4	0.355	0.2	48.0	3.7
6/24/2004	5:30:00			28.6	7.4	0.357	0.2	49.6	3.8
6/24/2004	5:45:00			28.5	7.4	0.355	0.2	46.8	3.6
6/24/2004	6:00:00			28.5	7.3	0.351	0.2	44.0	3.4
6/24/2004	6:15:00			28.5	7.3	0.352	0.2	43.2	3.4
6/24/2004	6:30:00			28.4	7.3	0.349	0.2	41.1	3.2
6/24/2004	6:45:00			28.4	7.3	0.349	0.2	40.6	3.2
6/24/2004	7:00:00			28.4	7.3	0.348	0.2	38.4	3.0
6/24/2004	7:15:00			28.4	7.3	0.349	0.2	38.5	3.0
6/24/2004	7:30:00			28.4	7.3	0.346	0.2	35.2	2.7
6/24/2004	7:45:00			28.4	7.3	0.352	0.2	39.3	3.1
6/24/2004	8:00:00			28.4	7.3	0.351	0.2	38.5	3.0
6/24/2004	8:15:00			28.3	7.3	0.347	0.2	33.9	2.6
6/24/2004	8:30:00			28.3	7.3	0.347	0.2	34.1	2.7
6/24/2004	8:45:00			28.3	7.3	0.348	0.2	34.7	2.7
6/24/2004	9:00:00			28.4	7.3	0.352	0.2	37.4	2.9
6/24/2004	9:15:00			28.3	7.3	0.349	0.2	34.1	2.7
6/24/2004	9:30:00			28.4	7.3	0.354	0.2	38.6	3.0
6/24/2004	9:45:00			28.4	7.3	0.355	0.2	39.2	3.0

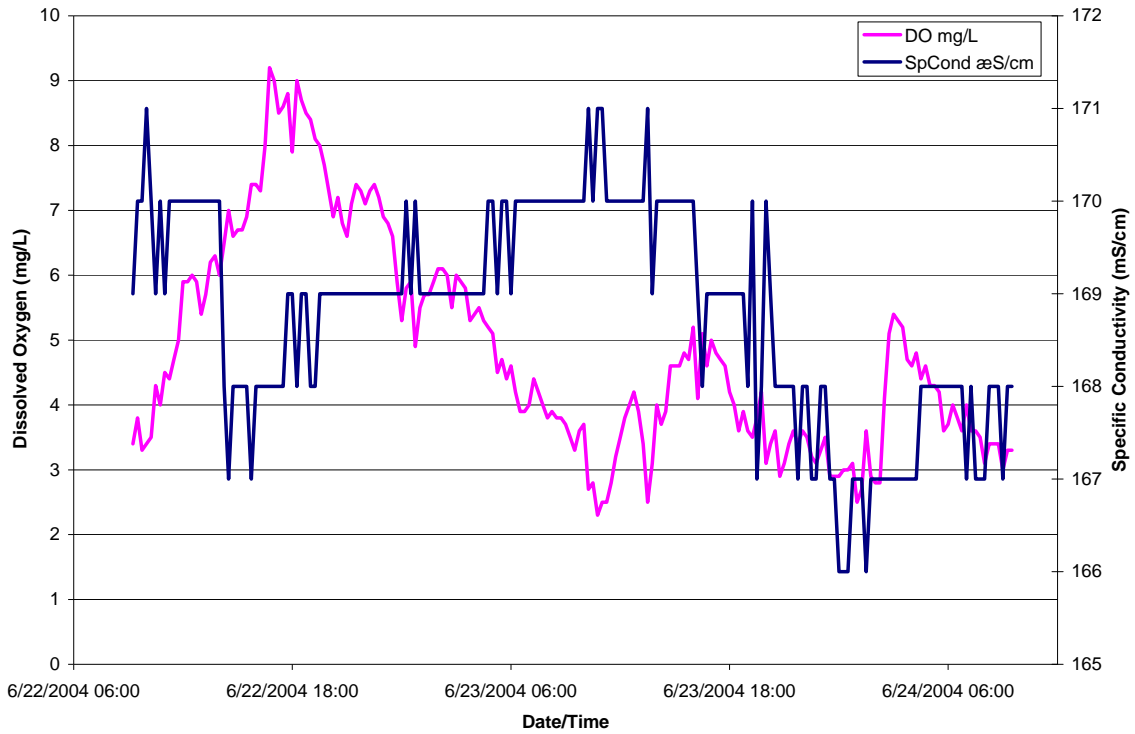
MB1: DO & Temp v. Date/Time



MB1: DO & pH v. Date/Time



MB1: DO & SpCond v. Date/Time



MiniSonde 4a 40808

Log File Name : MB1

Setup Date (MMDDYY) : 062104

Setup Time (HHMMSS) : 121527

Starting Date (MMDDYY) : 062204

Starting Time (HHMMSS) : 070000

Stopping Date (MMDDYY) : 062404

Stopping Time (HHMMSS) : 235959

Interval (HHMMSS) : 001500

Sensor warmup (HHMMSS) : 000200

Circltr warmup (HHMMSS) : 000200

Summary:

06/23/2004 00:00:00 to 06/24/2004 00:00:00

	Temp	SpCond	Sal	pH	DO	DO%
	øC	æS/cm	ppt	Units	mg/l	Sat
Average	27.74	169.20	0.08	6.89	4.17	53.07
Min	27.25	166.30	0.07	6.80	2.28	28.80
Max	28.47	170.90	0.08	7.03	6.07	78.00

Date	Time	Temp	SpCond	Sal	pH	DO	DO%
MMDDYY	HHMMSS	øC	æS/cm	ppt	Units	mg/l	Sat
6/22/2004	9:15:00	27.3	169	0.1	7.0	3.4	43.3
6/22/2004	9:30:00	27.4	170	0.1	6.9	3.8	47.5
6/22/2004	9:45:00	27.4	170	0.1	6.9	3.3	41.9
6/22/2004	10:00:00	27.4	171	0.1	6.9	3.4	43.0
6/22/2004	10:15:00	27.6	170	0.1	6.8	3.5	44.3
6/22/2004	10:30:00	27.6	169	0.1	6.9	4.3	54.8

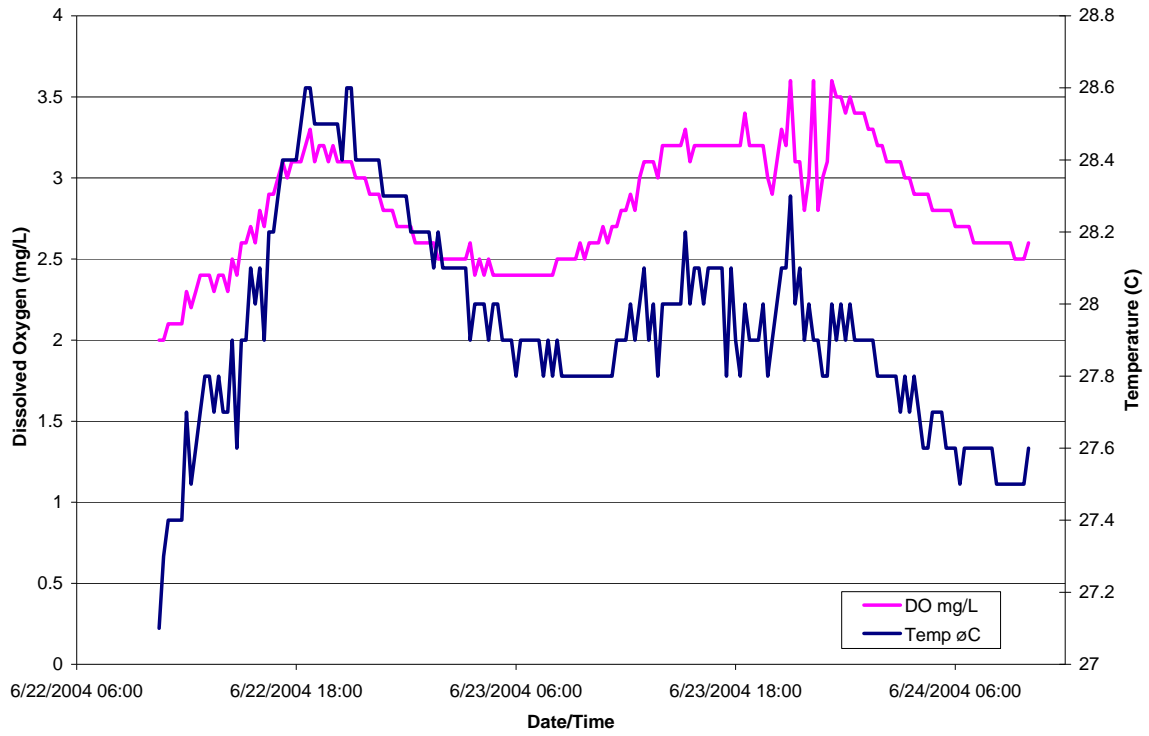
6/22/2004	10:45:00			27.8	170	0.1	6.9	4.0	51.0
6/22/2004	11:00:00			27.8	169	0.1	6.9	4.5	57.6
6/22/2004	11:15:00			27.8	170	0.1	6.9	4.4	55.4
6/22/2004	11:30:00			27.8	170	0.1	6.9	4.7	60.4
6/22/2004	11:45:00			27.9	170	0.1	6.9	5.0	64.2
6/22/2004	12:00:00			28.3	170	0.1	7.0	5.9	75.5
6/22/2004	12:15:00			28.5	170	0.1	7.0	5.9	76.3
6/22/2004	12:30:00			28.5	170	0.1	7.0	6.0	77.5
6/22/2004	12:45:00			28.8	170	0.1	7.0	5.9	76.0
6/22/2004	13:00:00			28.6	170	0.1	7.0	5.4	69.5
6/22/2004	13:15:00			28.8	170	0.1	7.0	5.7	74.5
6/22/2004	13:30:00			28.9	170	0.1	7.0	6.2	80.9
6/22/2004	13:45:00			28.7	170	0.1	7.0	6.3	81.2
6/22/2004	14:00:00			28.6	170	0.1	7.0	6.0	76.9
6/22/2004	14:15:00			28.7	168	0.1	7.1	6.5	83.9
6/22/2004	14:30:00			29.0	167	0.1	7.1	7.0	90.4
6/22/2004	14:45:00			28.7	168	0.1	7.1	6.6	86.0
6/22/2004	15:00:00			28.7	168	0.1	7.1	6.7	86.8
6/22/2004	15:15:00			28.7	168	0.1	7.1	6.7	86.8
6/22/2004	15:30:00			28.8	168	0.1	7.1	6.9	89.1
6/22/2004	15:45:00			28.9	167	0.1	7.1	7.4	96.7
6/22/2004	16:00:00			28.9	168	0.1	7.1	7.4	95.8
6/22/2004	16:15:00			28.9	168	0.1	7.1	7.3	94.8
6/22/2004	16:30:00			29.1	168	0.1	7.2	8.0	104.4
6/22/2004	16:45:00			29.5	168	0.1	7.3	9.2	121.3
6/22/2004	17:00:00			29.4	168	0.1	7.3	9.0	117.9
6/22/2004	17:15:00			29.3	168	0.1	7.2	8.5	111.0
6/22/2004	17:30:00			29.7	168	0.1	7.2	8.6	113.5
6/22/2004	17:45:00			29.6	169	0.1	7.2	8.8	115.2
6/22/2004	18:00:00			29.3	169	0.1	7.2	7.9	103.7
6/22/2004	18:15:00			29.6	168	0.1	7.2	9.0	118.1
6/22/2004	18:30:00			29.6	169	0.1	7.2	8.7	114.4
6/22/2004	18:45:00			29.6	169	0.1	7.2	8.5	112.0
6/22/2004	19:00:00			29.6	168	0.1	7.2	8.4	110.7
6/22/2004	19:15:00			29.5	168	0.1	7.2	8.1	106.7
6/22/2004	19:30:00			29.4	169	0.1	7.2	8.0	104.5
6/22/2004	19:45:00			29.3	169	0.1	7.1	7.7	100.0
6/22/2004	20:00:00			29.1	169	0.1	7.1	7.3	94.9
6/22/2004	20:15:00			29.0	169	0.1	7.1	6.9	89.7
6/22/2004	20:30:00			29.1	169	0.1	7.1	7.2	93.6
6/22/2004	20:45:00			28.9	169	0.1	7.0	6.8	87.9
6/22/2004	21:00:00			28.8	169	0.1	7.0	6.6	84.9
6/22/2004	21:15:00			29.0	169	0.1	7.1	7.1	92.9
6/22/2004	21:30:00			29.2	169	0.1	7.1	7.4	96.0
6/22/2004	21:45:00			29.2	169	0.1	7.1	7.3	95.8
6/22/2004	22:00:00			29.1	169	0.1	7.1	7.1	92.3
6/22/2004	22:15:00			29.1	169	0.1	7.1	7.3	95.4
6/22/2004	22:30:00			29.0	169	0.1	7.1	7.4	95.7

6/22/2004	22:45:00			29.0	169	0.1	7.1	7.2	93.9
6/22/2004	23:00:00			28.9	169	0.1	7.1	6.9	90.0
6/22/2004	23:15:00			28.9	169	0.1	7.1	6.8	87.9
6/22/2004	23:30:00			28.7	169	0.1	7.0	6.6	84.8
6/22/2004	23:45:00			28.5	169	0.1	7.0	5.9	75.8
6/23/2004	0:00:00			28.4	169	0.1	7.0	5.3	67.6
6/23/2004	0:15:00			28.5	170	0.1	7.0	5.8	74.7
6/23/2004	0:30:00			28.5	169	0.1	7.0	5.9	76.3
6/23/2004	0:45:00			28.2	170	0.1	7.0	4.9	63.3
6/23/2004	1:00:00			28.3	169	0.1	7.0	5.5	71.1
6/23/2004	1:15:00			28.4	169	0.1	7.0	5.7	73.1
6/23/2004	1:30:00			28.3	169	0.1	7.0	5.7	73.8
6/23/2004	1:45:00			28.3	169	0.1	7.0	5.9	76.3
6/23/2004	2:00:00			28.2	169	0.1	7.0	6.1	77.6
6/23/2004	2:15:00			28.2	169	0.1	7.0	6.1	78.0
6/23/2004	2:30:00			28.2	169	0.1	7.0	6.0	77.1
6/23/2004	2:45:00			28.1	169	0.1	7.0	5.5	69.7
6/23/2004	3:00:00			28.1	169	0.1	7.0	6.0	77.1
6/23/2004	3:15:00			28.1	169	0.1	7.0	5.9	76.1
6/23/2004	3:30:00			28.1	169	0.1	7.0	5.8	74.7
6/23/2004	3:45:00			28.0	169	0.1	7.0	5.3	67.9
6/23/2004	4:00:00			28.0	169	0.1	7.0	5.4	69.4
6/23/2004	4:15:00			28.0	169	0.1	7.0	5.5	70.4
6/23/2004	4:30:00			27.9	169	0.1	7.0	5.3	67.1
6/23/2004	4:45:00			27.9	170	0.1	7.0	5.2	65.9
6/23/2004	5:00:00			27.8	170	0.1	7.0	5.1	64.7
6/23/2004	5:15:00			27.8	169	0.1	6.9	4.5	57.6
6/23/2004	5:30:00			27.8	170	0.1	6.9	4.7	59.3
6/23/2004	5:45:00			27.7	170	0.1	6.9	4.4	56.2
6/23/2004	6:00:00			27.6	169	0.1	6.9	4.6	58.1
6/23/2004	6:15:00			27.5	170	0.1	6.9	4.2	53.1
6/23/2004	6:30:00			27.5	170	0.1	6.9	3.9	49.6
6/23/2004	6:45:00			27.4	170	0.1	6.9	3.9	49.0
6/23/2004	7:00:00			27.5	170	0.1	6.9	4.0	50.2
6/23/2004	7:15:00			27.5	170	0.1	6.9	4.4	56.0
6/23/2004	7:30:00			27.5	170	0.1	6.9	4.2	52.6
6/23/2004	7:45:00			27.5	170	0.1	6.9	4.0	51.2
6/23/2004	8:00:00			27.4	170	0.1	6.9	3.8	48.6
6/23/2004	8:15:00			27.4	170	0.1	6.9	3.9	48.9
6/23/2004	8:30:00			27.4	170	0.1	6.9	3.8	48.4
6/23/2004	8:45:00			27.4	170	0.1	6.9	3.8	48.6
6/23/2004	9:00:00			27.4	170	0.1	6.9	3.7	46.8
6/23/2004	9:15:00			27.4	170	0.1	6.9	3.5	44.8
6/23/2004	9:30:00			27.4	170	0.1	6.9	3.3	41.2
6/23/2004	9:45:00			27.4	170	0.1	6.9	3.6	45.6
6/23/2004	10:00:00			27.5	170	0.1	6.9	3.7	47.2
6/23/2004	10:15:00			27.4	171	0.1	6.8	2.7	34.7
6/23/2004	10:30:00			27.3	170	0.1	6.8	2.8	35.4

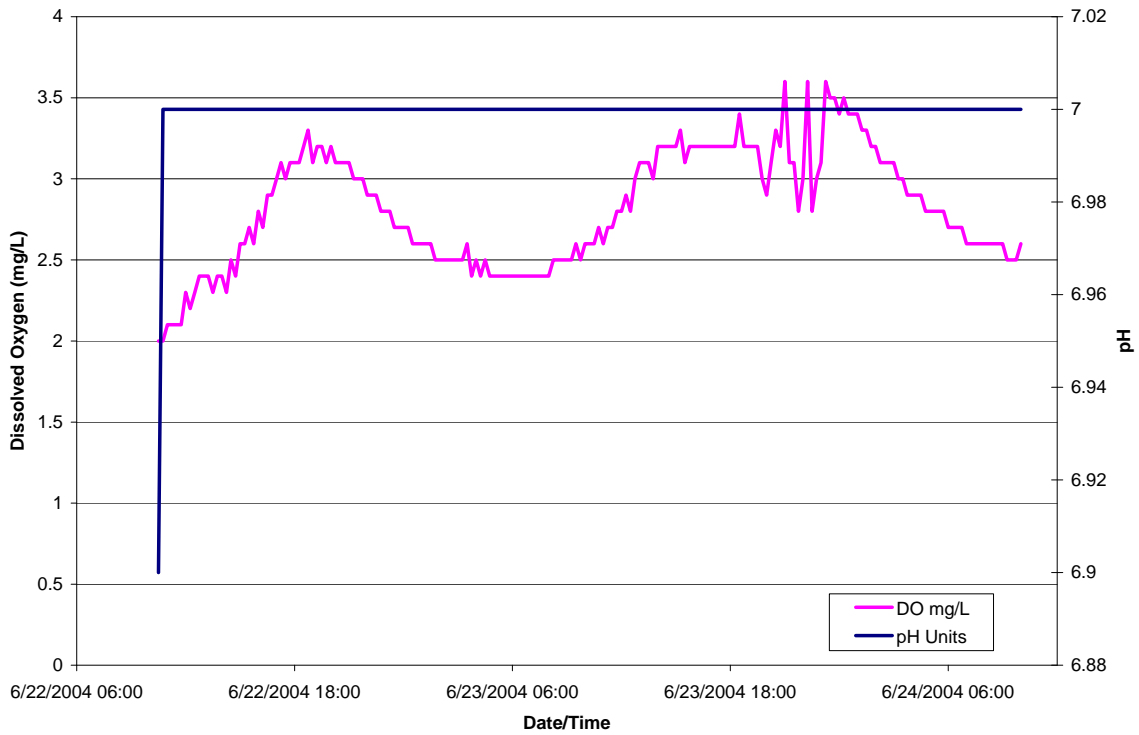
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6/23/2004	11:00:00			27.3	171	0.1	6.8	2.5	32.0
6/23/2004	11:15:00			27.3	170	0.1	6.8	2.5	31.3
6/23/2004	11:30:00			27.4	170	0.1	6.8	2.8	35.1
6/23/2004	11:45:00			27.5	170	0.1	6.8	3.2	39.9
6/23/2004	12:00:00			27.6	170	0.1	6.9	3.5	44.8
6/23/2004	12:15:00			27.6	170	0.1	6.9	3.8	48.2
6/23/2004	12:30:00			27.6	170	0.1	6.9	4.0	50.4
6/23/2004	12:45:00			27.6	170	0.1	6.9	4.2	53.1
6/23/2004	13:00:00			27.7	170	0.1	6.9	3.9	49.9
6/23/2004	13:15:00			27.5	170	0.1	6.8	3.4	42.8
6/23/2004	13:30:00			27.3	171	0.1	6.8	2.5	31.5
6/23/2004	13:45:00			27.5	169	0.1	6.8	3.1	39.5
6/23/2004	14:00:00			27.8	170	0.1	6.9	4.0	51.4
6/23/2004	14:15:00			27.7	170	0.1	6.9	3.7	47.5
6/23/2004	14:30:00			27.7	170	0.1	6.9	3.9	50.0
6/23/2004	14:45:00			27.8	170	0.1	6.9	4.6	58.3
6/23/2004	15:00:00			27.8	170	0.1	6.9	4.6	58.9
6/23/2004	15:15:00			27.9	170	0.1	6.9	4.6	58.5
6/23/2004	15:30:00			27.9	170	0.1	6.9	4.8	60.9
6/23/2004	15:45:00			27.9	170	0.1	6.9	4.7	59.4
6/23/2004	16:00:00			28.0	170	0.1	6.9	5.2	66.6
6/23/2004	16:15:00			27.8	169	0.1	6.9	4.1	52.1
6/23/2004	16:30:00			28.2	168	0.1	6.9	5.1	65.8
6/23/2004	16:45:00			28.0	169	0.1	6.9	4.6	58.2
6/23/2004	17:00:00			28.1	169	0.1	6.9	5.0	64.5
6/23/2004	17:15:00			28.2	169	0.1	6.9	4.8	62.0
6/23/2004	17:30:00			28.1	169	0.1	6.9	4.7	60.7
6/23/2004	17:45:00			28.0	169	0.1	6.9	4.6	58.3
6/23/2004	18:00:00			28.0	169	0.1	6.9	4.2	53.0
6/23/2004	18:15:00			27.9	169	0.1	6.9	4.0	51.4
6/23/2004	18:30:00			27.7	169	0.1	6.9	3.6	45.8
6/23/2004	18:45:00			27.9	169	0.1	6.9	3.9	49.5
6/23/2004	19:00:00			27.6	168	0.1	6.9	3.6	45.3
6/23/2004	19:15:00			27.7	170	0.1	6.9	3.5	44.1
6/23/2004	19:30:00			27.7	167	0.1	6.9	3.8	48.1
6/23/2004	19:45:00			27.9	168	0.1	6.9	4.2	53.5
6/23/2004	20:00:00			27.6	170	0.1	6.8	3.1	39.7
6/23/2004	20:15:00			27.6	169	0.1	6.9	3.4	43.7
6/23/2004	20:30:00			27.7	168	0.1	6.9	3.6	45.2
6/23/2004	20:45:00			27.4	168	0.1	6.8	2.9	36.2
6/23/2004	21:00:00			27.6	168	0.1	6.8	3.1	39.9
6/23/2004	21:15:00			27.7	168	0.1	6.8	3.4	42.9
6/23/2004	21:30:00			27.7	168	0.1	6.8	3.6	45.2
6/23/2004	21:45:00			27.6	167	0.1	6.8	3.4	43.5
6/23/2004	22:00:00			27.6	168	0.1	6.9	3.6	45.3
6/23/2004	22:15:00			27.7	168	0.1	6.9	3.5	44.7
6/23/2004	22:30:00			27.6	167	0.1	6.9	3.2	41.0

6/23/2004	22:45:00			27.5	167	0.1	6.8	3.1	39.2
6/23/2004	23:00:00			27.5	168	0.1	6.8	3.3	41.4
6/23/2004	23:15:00			27.6	168	0.1	6.9	3.5	44.8
6/23/2004	23:30:00			27.4	167	0.1	6.8	2.9	36.5
6/23/2004	23:45:00			27.4	167	0.1	6.8	2.9	36.5
6/24/2004	0:00:00			27.3	166	0.1	6.8	2.9	36.1
6/24/2004	0:15:00			27.3	166	0.1	6.8	3.0	37.5
6/24/2004	0:30:00			27.3	166	0.1	6.8	3.0	38.0
6/24/2004	0:45:00			27.4	167	0.1	6.8	3.1	38.5
6/24/2004	1:00:00			27.3	167	0.1	6.8	2.5	31.7
6/24/2004	1:15:00			27.3	167	0.1	6.8	2.7	34.5
6/24/2004	1:30:00			27.5	166	0.1	6.9	3.6	45.4
6/24/2004	1:45:00			27.3	167	0.1	6.8	2.9	37.0
6/24/2004	2:00:00			27.3	167	0.1	6.8	2.8	35.7
6/24/2004	2:15:00			27.3	167	0.1	6.8	2.8	35.1
6/24/2004	2:30:00			27.5	167	0.1	6.9	4.1	52.2
6/24/2004	2:45:00			27.5	167	0.1	7.0	5.1	64.0
6/24/2004	3:00:00			27.5	167	0.1	7.0	5.4	67.7
6/24/2004	3:15:00			27.5	167	0.1	7.0	5.3	66.9
6/24/2004	3:30:00			27.4	167	0.1	7.0	5.2	65.4
6/24/2004	3:45:00			27.4	167	0.1	6.9	4.7	59.7
6/24/2004	4:00:00			27.4	167	0.1	6.9	4.6	58.2
6/24/2004	4:15:00			27.4	167	0.1	6.9	4.8	61.0
6/24/2004	4:30:00			27.3	168	0.1	6.9	4.4	55.2
6/24/2004	4:45:00			27.3	168	0.1	6.9	4.6	58.3
6/24/2004	5:00:00			27.3	168	0.1	6.9	4.3	54.7
6/24/2004	5:15:00			27.3	168	0.1	6.9	4.3	54.4
6/24/2004	5:30:00			27.3	168	0.1	6.9	4.2	52.6
6/24/2004	5:45:00			27.2	168	0.1	6.9	3.6	45.4
6/24/2004	6:00:00			27.2	168	0.1	6.9	3.7	46.1
6/24/2004	6:15:00			27.2	168	0.1	6.9	4.0	50.0
6/24/2004	6:30:00			27.2	168	0.1	6.9	3.8	47.5
6/24/2004	6:45:00			27.2	168	0.1	6.9	3.6	45.1
6/24/2004	7:00:00			27.2	167	0.1	6.9	4.0	50.3
6/24/2004	7:15:00			27.1	168	0.1	6.9	3.6	44.7
6/24/2004	7:30:00			27.1	167	0.1	6.9	3.6	44.6
6/24/2004	7:45:00			27.1	167	0.1	6.9	3.5	43.5
6/24/2004	8:00:00			27.1	167	0.1	6.8	3.1	39.5
6/24/2004	8:15:00			27.1	168	0.1	6.9	3.4	42.9
6/24/2004	8:30:00			27.1	168	0.1	6.9	3.4	43.1
6/24/2004	8:45:00			27.1	168	0.1	6.9	3.4	42.1
6/24/2004	9:00:00			27.1	167	0.1	6.8	3.0	37.1
6/24/2004	9:15:00			27.1	168	0.1	6.9	3.3	41.6
6/24/2004	9:30:00			27.1	168	0.1	6.9	3.3	41.6

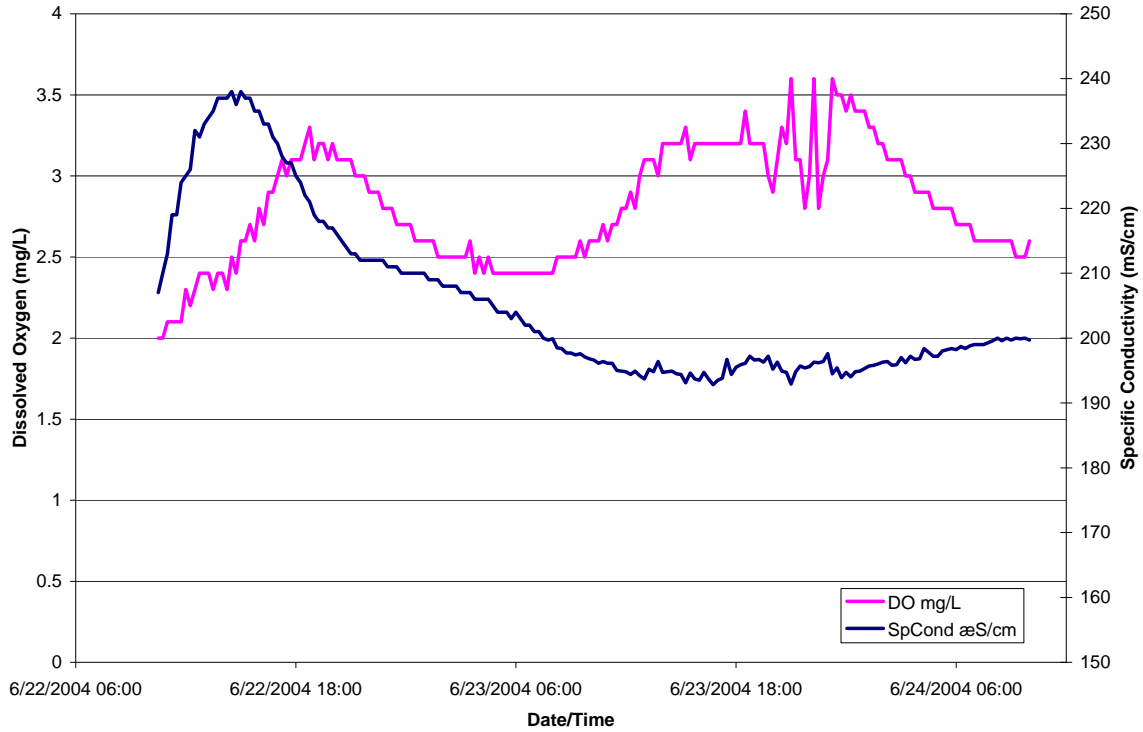
GRB3: DO & Temp v. Date/Time



GRB3: DO & pH v. Date/Time



GRB3: DO & SpCond v. Date/Time



MiniSonde 4a 40805
 Log File Name : GRB3
 Setup Date (MMDDYY) : 062104
 Setup Time (HHMMSS) : 122150
 Starting Date (MMDDYY) : 062204
 Starting Time (HHMMSS) : 070000
 Stopping Date (MMDDYY) : 062404
 Stopping Time (HHMMSS) : 235959
 Interval (HHMMSS) : 001500
 Sensor warmup (HHMMSS) : 000200
 Circltr warmup (HHMMSS) : 000200

Summary:
 06/23/2004 00:00:00 to 06/24/2004 00:00:00

	Temp øC	SpCond æS/cm	Sal ppt	pH Units	DO mg/l	DO% Sat
Average	27.97	198.94	0.09	6.97	2.84	36.27
Min	27.75	192.80	0.09	6.95	2.37	30.20
Max	28.29	210.00	0.10	7.01	3.60	46.30

Date MMDDYY	Time HHMMSS	Temp øC	SpCond æS/cm	Sal ppt	pH Units	DO mg/l	DO% Sat
6/22/2004	10:30:00	27.1	207	0.1	6.9	2.0	24.8
6/22/2004	10:45:00	27.3	210	0.1	7.0	2.0	25.5
6/22/2004	11:00:00	27.4	213	0.1	7.0	2.1	26.3
6/22/2004	11:15:00	27.4	219	0.1	7.0	2.1	26.6
6/22/2004	11:30:00	27.4	219	0.1	7.0	2.1	26.8
6/22/2004	11:45:00	27.4	224	0.1	7.0	2.1	26.3
6/22/2004	12:00:00	27.7	225	0.1	7.0	2.3	29.0
6/22/2004	12:15:00	27.5	226	0.1	7.0	2.2	28.4

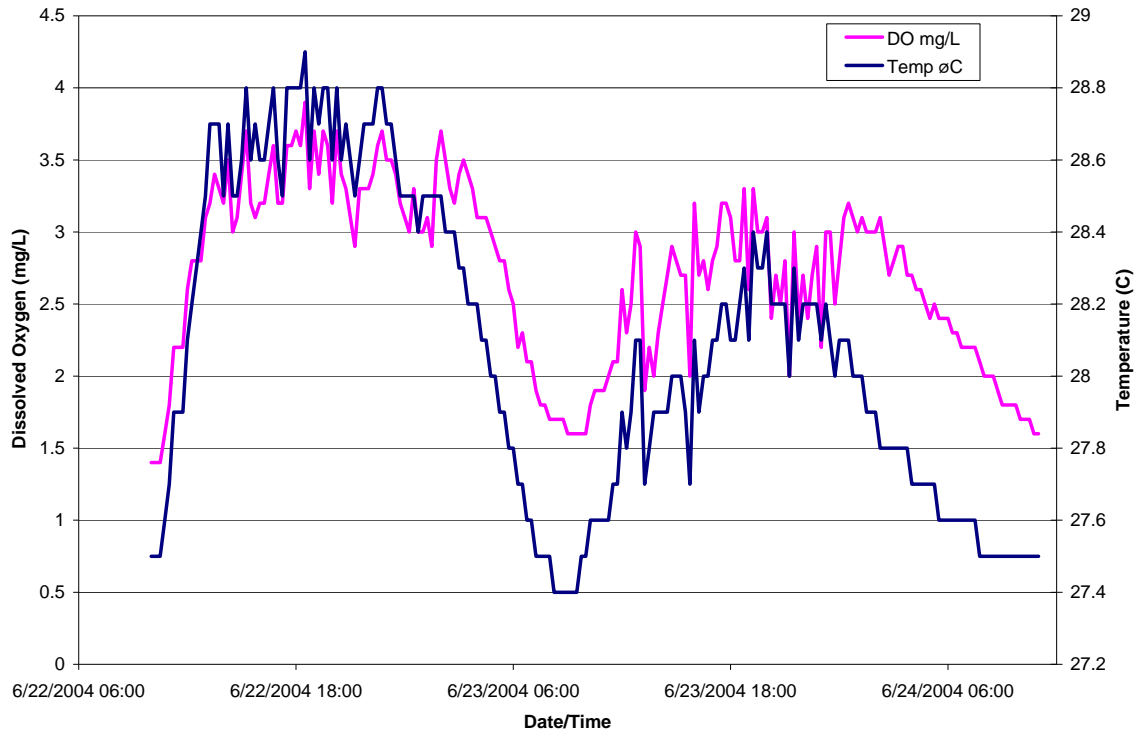
6/22/2004	12:30:00			27.6	232	0.1	7.0	2.3	29.7
6/22/2004	12:45:00			27.7	231	0.1	7.0	2.4	30.3
6/22/2004	13:00:00			27.8	233	0.1	7.0	2.4	31.0
6/22/2004	13:15:00			27.8	234	0.1	7.0	2.4	30.0
6/22/2004	13:30:00			27.7	235	0.1	7.0	2.3	29.5
6/22/2004	13:45:00			27.8	237	0.1	7.0	2.4	30.4
6/22/2004	14:00:00			27.7	237	0.1	7.0	2.4	30.1
6/22/2004	14:15:00			27.7	237	0.1	7.0	2.3	29.8
6/22/2004	14:30:00			27.9	238	0.1	7.0	2.5	31.7
6/22/2004	14:45:00			27.6	236	0.1	7.0	2.4	30.4
6/22/2004	15:00:00			27.9	238	0.1	7.0	2.6	32.5
6/22/2004	15:15:00			27.9	237	0.1	7.0	2.6	33.3
6/22/2004	15:30:00			28.1	237	0.1	7.0	2.7	34.8
6/22/2004	15:45:00			28.0	235	0.1	7.0	2.6	33.7
6/22/2004	16:00:00			28.1	235	0.1	7.0	2.8	35.6
6/22/2004	16:15:00			28.0	233	0.1	7.0	2.7	34.6
6/22/2004	16:30:00			28.2	233	0.1	7.0	2.9	36.5
6/22/2004	16:45:00			28.2	231	0.1	7.0	2.9	37.0
6/22/2004	17:00:00			28.3	230	0.1	7.0	3.0	38.0
6/22/2004	17:15:00			28.4	228	0.1	7.0	3.1	39.4
6/22/2004	17:30:00			28.4	227	0.1	7.0	3.0	38.5
6/22/2004	17:45:00			28.4	227	0.1	7.0	3.1	39.4
6/22/2004	18:00:00			28.4	225	0.1	7.0	3.1	39.7
6/22/2004	18:15:00			28.5	224	0.1	7.0	3.1	40.2
6/22/2004	18:30:00			28.6	222	0.1	7.0	3.2	41.6
6/22/2004	18:45:00			28.6	221	0.1	7.0	3.3	42.0
6/22/2004	19:00:00			28.5	219	0.1	7.0	3.1	40.4
6/22/2004	19:15:00			28.5	218	0.1	7.0	3.2	40.7
6/22/2004	19:30:00			28.5	218	0.1	7.0	3.2	40.9
6/22/2004	19:45:00			28.5	217	0.1	7.0	3.1	40.1
6/22/2004	20:00:00			28.5	217	0.1	7.0	3.2	40.8
6/22/2004	20:15:00			28.5	216	0.1	7.0	3.1	39.7
6/22/2004	20:30:00			28.4	215	0.1	7.0	3.1	39.3
6/22/2004	20:45:00			28.6	214	0.1	7.0	3.1	40.3
6/22/2004	21:00:00			28.6	213	0.1	7.0	3.1	40.0
6/22/2004	21:15:00			28.4	213	0.1	7.0	3.0	38.5
6/22/2004	21:30:00			28.5	212	0.1	7.0	3.0	38.7
6/22/2004	21:45:00			28.4	212	0.1	7.0	3.0	38.0
6/22/2004	22:00:00			28.4	212	0.1	7.0	2.9	37.7
6/22/2004	22:15:00			28.4	212	0.1	7.0	2.9	37.4
6/22/2004	22:30:00			28.4	212	0.1	7.0	2.9	37.2
6/22/2004	22:45:00			28.3	212	0.1	7.0	2.8	36.4
6/22/2004	23:00:00			28.3	211	0.1	7.0	2.8	35.9
6/22/2004	23:15:00			28.3	211	0.1	7.0	2.8	35.7
6/22/2004	23:30:00			28.3	211	0.1	7.0	2.7	35.1
6/22/2004	23:45:00			28.3	210	0.1	7.0	2.7	35.1
6/23/2004	0:00:00			28.3	210	0.1	7.0	2.7	34.4
6/23/2004	0:15:00			28.2	210	0.1	7.0	2.7	34.1

6/23/2004	0:30:00			28.2	210	0.1	7.0	2.6	33.7
6/23/2004	0:45:00			28.2	210	0.1	7.0	2.6	33.6
6/23/2004	1:00:00			28.2	210	0.1	7.0	2.6	33.5
6/23/2004	1:15:00			28.2	209	0.1	7.0	2.6	33.0
6/23/2004	1:30:00			28.1	209	0.1	7.0	2.6	32.8
6/23/2004	1:45:00			28.2	209	0.1	7.0	2.5	32.4
6/23/2004	2:00:00			28.1	208	0.1	7.0	2.5	32.4
6/23/2004	2:15:00			28.1	208	0.1	7.0	2.5	32.1
6/23/2004	2:30:00			28.1	208	0.1	7.0	2.5	32.0
6/23/2004	2:45:00			28.1	208	0.1	7.0	2.5	31.9
6/23/2004	3:00:00			28.1	207	0.1	7.0	2.5	31.5
6/23/2004	3:15:00			28.1	207	0.1	7.0	2.5	31.4
6/23/2004	3:30:00			28.0	207	0.1	7.0	2.6	32.5
6/23/2004	3:45:00			28.0	206	0.1	7.0	2.4	31.1
6/23/2004	4:00:00			28.0	206	0.1	7.0	2.5	31.5
6/23/2004	4:15:00			28.0	206	0.1	7.0	2.4	31.0
6/23/2004	4:30:00			27.9	206	0.1	7.0	2.5	31.6
6/23/2004	4:45:00			28.0	205	0.1	7.0	2.4	30.9
6/23/2004	5:00:00			28.0	204	0.1	7.0	2.4	30.8
6/23/2004	5:15:00			27.9	204	0.1	7.0	2.4	30.8
6/23/2004	5:30:00			27.9	204	0.1	7.0	2.4	30.9
6/23/2004	5:45:00			27.9	203	0.1	7.0	2.4	30.5
6/23/2004	6:00:00			27.8	204	0.1	7.0	2.4	30.9
6/23/2004	6:15:00			27.9	203	0.1	7.0	2.4	30.2
6/23/2004	6:30:00			27.9	202	0.1	7.0	2.4	30.3
6/23/2004	6:45:00			27.9	202	0.1	7.0	2.4	30.2
6/23/2004	7:00:00			27.9	201	0.1	7.0	2.4	30.9
6/23/2004	7:15:00			27.9	201	0.1	7.0	2.4	30.3
6/23/2004	7:30:00			27.8	200	0.1	7.0	2.4	30.2
6/23/2004	7:45:00			27.9	199.7	0.1	7.0	2.4	30.4
6/23/2004	8:00:00			27.8	199.9	0.1	7.0	2.4	31.0
6/23/2004	8:15:00			27.9	198.5	0.1	7.0	2.5	31.2
6/23/2004	8:30:00			27.8	198.4	0.1	7.0	2.5	31.4
6/23/2004	8:45:00			27.8	197.7	0.1	7.0	2.5	31.7
6/23/2004	9:00:00			27.8	197.7	0.1	7.0	2.5	31.7
6/23/2004	9:15:00			27.8	197.4	0.1	7.0	2.5	31.7
6/23/2004	9:30:00			27.8	197.6	0.1	7.0	2.6	32.5
6/23/2004	9:45:00			27.8	197.1	0.1	7.0	2.5	32.3
6/23/2004	10:00:00			27.8	196.8	0.1	7.0	2.6	32.8
6/23/2004	10:15:00			27.8	196.6	0.1	7.0	2.6	33.2
6/23/2004	10:30:00			27.8	196.1	0.1	7.0	2.6	33.3
6/23/2004	10:45:00			27.8	196.4	0.1	7.0	2.7	34.5
6/23/2004	11:00:00			27.8	196.1	0.1	7.0	2.6	33.4
6/23/2004	11:15:00			27.8	196.1	0.1	7.0	2.7	34.0
6/23/2004	11:30:00			27.9	195	0.1	7.0	2.7	34.9
6/23/2004	11:45:00			27.9	194.9	0.1	7.0	2.8	35.8
6/23/2004	12:00:00			27.9	194.8	0.1	7.0	2.8	35.7
6/23/2004	12:15:00			28.0	194.4	0.1	7.0	2.9	36.6

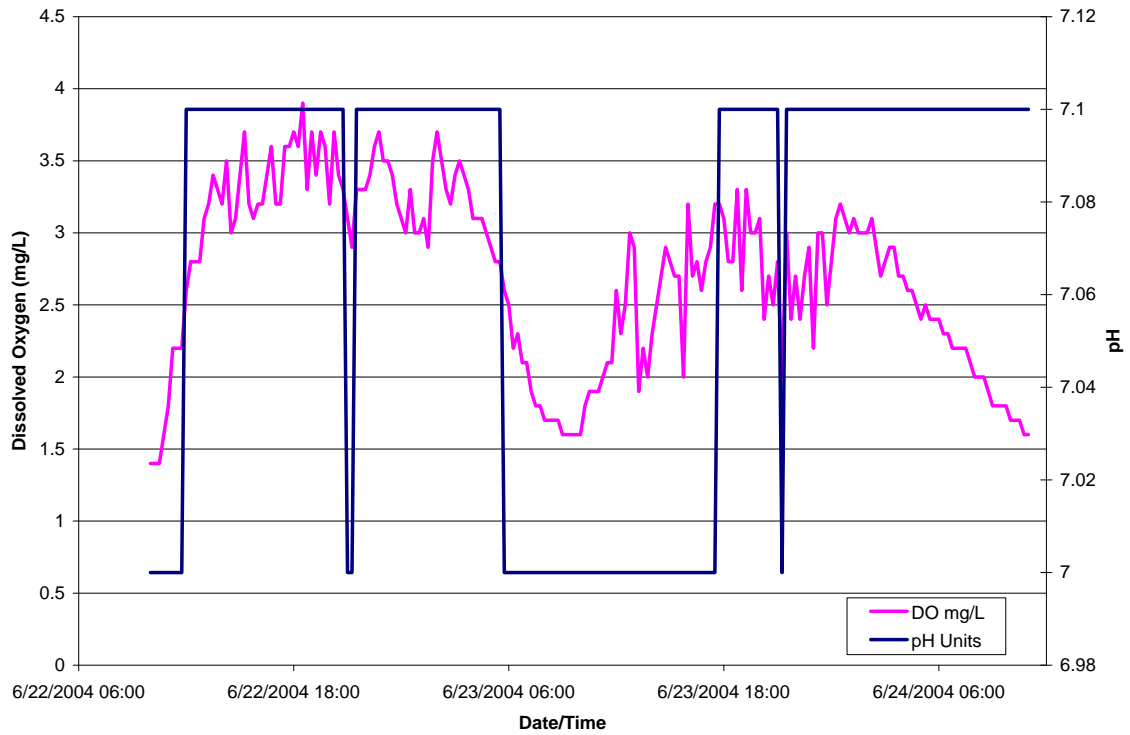
6/23/2004	12:30:00			27.9	194.9	0.1	7.0	2.8	36.0
6/23/2004	12:45:00			28.0	194.2	0.1	7.0	3.0	38.2
6/23/2004	13:00:00			28.1	193.7	0.1	7.0	3.1	39.4
6/23/2004	13:15:00			28.0	195.2	0.1	7.0	3.1	39.6
6/23/2004	13:30:00			28.0	194.8	0.1	7.0	3.1	39.8
6/23/2004	13:45:00			27.8	196.4	0.1	7.0	3.0	38.4
6/23/2004	14:00:00			28.0	194.7	0.1	7.0	3.2	40.6
6/23/2004	14:15:00			28.0	194.8	0.1	7.0	3.2	41.1
6/23/2004	14:30:00			28.0	194.9	0.1	7.0	3.2	40.8
6/23/2004	14:45:00			28.0	194.5	0.1	7.0	3.2	40.6
6/23/2004	15:00:00			28.0	194.4	0.1	7.0	3.2	41.1
6/23/2004	15:15:00			28.2	193.1	0.1	7.0	3.3	42.4
6/23/2004	15:30:00			28.0	194.6	0.1	7.0	3.1	39.7
6/23/2004	15:45:00			28.1	193.7	0.1	7.0	3.2	40.8
6/23/2004	16:00:00			28.1	193.5	0.1	7.0	3.2	41.2
6/23/2004	16:15:00			28.0	194.7	0.1	7.0	3.2	41.0
6/23/2004	16:30:00			28.1	193.7	0.1	7.0	3.2	40.7
6/23/2004	16:45:00			28.1	192.8	0.1	7.0	3.2	40.9
6/23/2004	17:00:00			28.1	193.5	0.1	7.0	3.2	40.4
6/23/2004	17:15:00			28.1	193.8	0.1	7.0	3.2	40.8
6/23/2004	17:30:00			27.8	196.7	0.1	7.0	3.2	40.6
6/23/2004	17:45:00			28.1	194.4	0.1	7.0	3.2	41.0
6/23/2004	18:00:00			27.9	195.5	0.1	7.0	3.2	40.9
6/23/2004	18:15:00			27.8	195.9	0.1	7.0	3.2	41.3
6/23/2004	18:30:00			28.0	196.1	0.1	7.0	3.4	43.2
6/23/2004	18:45:00			27.9	197.2	0.1	7.0	3.2	41.4
6/23/2004	19:00:00			27.9	196.6	0.1	7.0	3.2	40.7
6/23/2004	19:15:00			27.9	196.7	0.1	7.0	3.2	41.2
6/23/2004	19:30:00			28.0	196.3	0.1	7.0	3.2	40.6
6/23/2004	19:45:00			27.8	197.2	0.1	7.0	3.0	38.3
6/23/2004	20:00:00			27.9	195.2	0.1	7.0	2.9	37.3
6/23/2004	20:15:00			28.0	196.3	0.1	7.0	3.1	39.1
6/23/2004	20:30:00			28.1	194.9	0.1	7.0	3.3	41.8
6/23/2004	20:45:00			28.1	194.7	0.1	7.0	3.2	40.4
6/23/2004	21:00:00			28.3	192.9	0.1	7.0	3.6	46.3
6/23/2004	21:15:00			28.0	194.8	0.1	7.0	3.1	39.1
6/23/2004	21:30:00			28.1	195.7	0.1	7.0	3.1	39.8
6/23/2004	21:45:00			27.9	195.4	0.1	7.0	2.8	35.3
6/23/2004	22:00:00			28.0	195.6	0.1	7.0	3.0	38.3
6/23/2004	22:15:00			27.9	196.3	0.1	7.0	3.6	45.7
6/23/2004	22:30:00			27.9	196.2	0.1	7.0	2.8	35.2
6/23/2004	22:45:00			27.8	196.4	0.1	7.0	3.0	38.8
6/23/2004	23:00:00			27.8	197.6	0.1	7.0	3.1	39.3
6/23/2004	23:15:00			28.0	194.5	0.1	7.0	3.6	45.9
6/23/2004	23:30:00			27.9	195.4	0.1	7.0	3.5	44.2
6/23/2004	23:45:00			28.0	193.9	0.1	7.0	3.5	44.5
6/24/2004	0:00:00			27.9	194.7	0.1	7.0	3.4	43.3
6/24/2004	0:15:00			28.0	194	0.1	7.0	3.5	44.2

6/24/2004	0:30:00			28.0	194.8	0.1	7.0	3.4	43.4
6/24/2004	0:45:00			27.9	194.9	0.1	7.0	3.4	43.7
6/24/2004	1:00:00			27.9	195.3	0.1	7.0	3.4	43.0
6/24/2004	1:15:00			27.9	195.7	0.1	7.0	3.3	42.4
6/24/2004	1:30:00			27.9	195.8	0.1	7.0	3.3	41.5
6/24/2004	1:45:00			27.8	196	0.1	7.0	3.2	41.1
6/24/2004	2:00:00			27.8	196.3	0.1	7.0	3.2	40.5
6/24/2004	2:15:00			27.8	196.4	0.1	7.0	3.1	39.9
6/24/2004	2:30:00			27.8	195.8	0.1	7.0	3.1	39.9
6/24/2004	2:45:00			27.8	195.9	0.1	7.0	3.1	39.6
6/24/2004	3:00:00			27.7	197	0.1	7.0	3.1	39.2
6/24/2004	3:15:00			27.8	196.2	0.1	7.0	3.0	38.3
6/24/2004	3:30:00			27.7	197.2	0.1	7.0	3.0	38.3
6/24/2004	3:45:00			27.8	196.7	0.1	7.0	2.9	37.3
6/24/2004	4:00:00			27.7	196.8	0.1	7.0	2.9	37.2
6/24/2004	4:15:00			27.6	198.4	0.1	7.0	2.9	37.3
6/24/2004	4:30:00			27.6	197.8	0.1	7.0	2.9	36.7
6/24/2004	4:45:00			27.7	197.2	0.1	7.0	2.8	36.1
6/24/2004	5:00:00			27.7	197.2	0.1	7.0	2.8	36.0
6/24/2004	5:15:00			27.7	198	0.1	7.0	2.8	35.6
6/24/2004	5:30:00			27.6	198.2	0.1	7.0	2.8	35.3
6/24/2004	5:45:00			27.6	198.4	0.1	7.0	2.8	35.0
6/24/2004	6:00:00			27.6	198.2	0.1	7.0	2.7	34.5
6/24/2004	6:15:00			27.5	198.7	0.1	7.0	2.7	34.7
6/24/2004	6:30:00			27.6	198.4	0.1	7.0	2.7	34.2
6/24/2004	6:45:00			27.6	198.8	0.1	7.0	2.7	33.8
6/24/2004	7:00:00			27.6	199	0.1	7.0	2.6	33.4
6/24/2004	7:15:00			27.6	199	0.1	7.0	2.6	33.1
6/24/2004	7:30:00			27.6	199	0.1	7.0	2.6	32.8
6/24/2004	7:45:00			27.6	199.3	0.1	7.0	2.6	32.6
6/24/2004	8:00:00			27.6	199.6	0.1	7.0	2.6	32.3
6/24/2004	8:15:00			27.5	200	0.1	7.0	2.6	32.8
6/24/2004	8:30:00			27.5	199.6	0.1	7.0	2.6	32.6
6/24/2004	8:45:00			27.5	200	0.1	7.0	2.6	32.5
6/24/2004	9:00:00			27.5	199.7	0.1	7.0	2.6	32.3
6/24/2004	9:15:00			27.5	200	0.1	7.0	2.5	32.0
6/24/2004	9:30:00			27.5	199.9	0.1	7.0	2.5	31.4
6/24/2004	9:45:00			27.5	200	0.1	7.0	2.5	31.8
6/24/2004	10:00:00			27.6	199.7	0.1	7.0	2.6	32.3

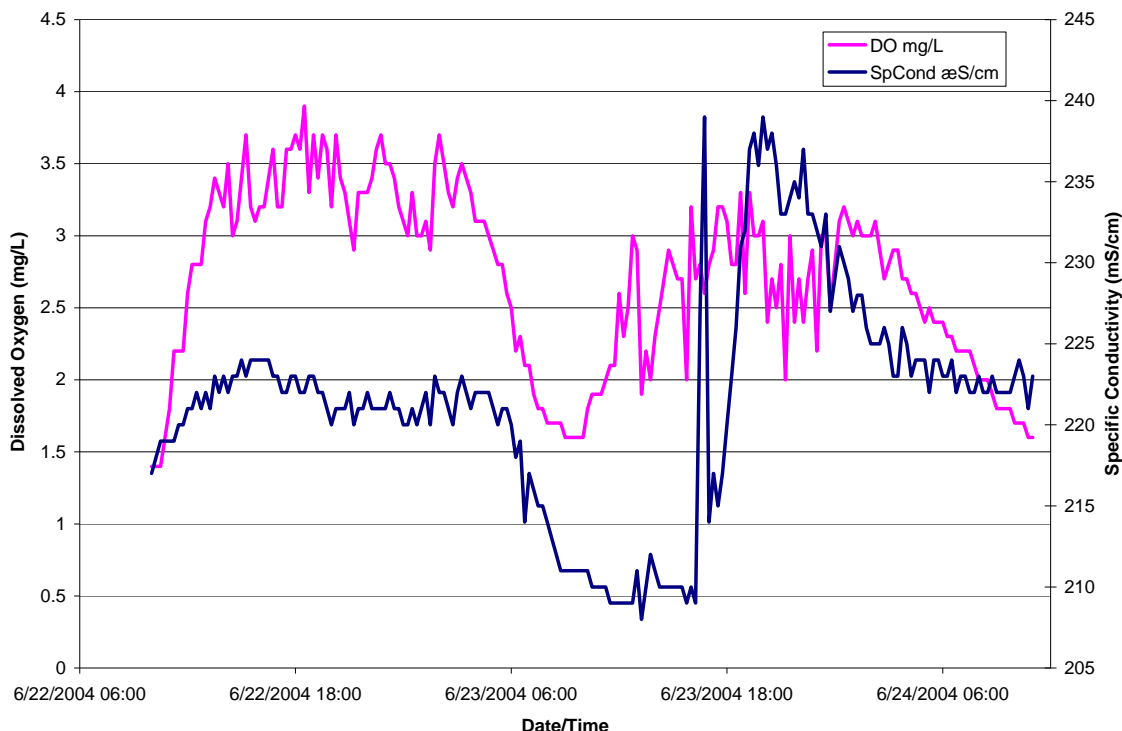
GRB4: DO & Temp v. Date/Time



GRB4: DO & pH v. Date/Time



GRB4: DO & SpCond v. Date/Time



MiniSonde 4a 40806

Log File Name : GRB 4

Setup Date (MMDDYY) : 062104

Setup Time (HHMMSS) : 094703

Starting Date (MMDDYY) : 062104

Starting Time (HHMMSS) : 100000

Stopping Date (MMDDYY) : 062404

Stopping Time (HHMMSS) : 235959

Interval (HHMMSS) : 001500

Sensor warmup (HHMMSS) : 000200

Circltr warmup (HHMMSS) : 000200

Summary:

06/23/2004 00:00:00 to 06/24/2004 00:00:00

	Temp	SpCond	Sal	pH	DO	DO%
	øC	æS/cm	ppt	Units	mg/l	Sat
Average	27.99	220.01	0.10	7.04	2.60	33.33
Min	27.42	208.00	0.10	6.97	1.59	20.10
Max	28.52	239.00	0.11	7.11	3.72	47.90

Date	Time	Temp	SpCond	Sal	pH	DO	DO%
MMDDYY	HHMMSS	øC	æS/cm	ppt	Units	mg/l	Sat
6/22/2004	10:00:00	27.5	217	0.1	7.0	1.4	17.4
6/22/2004	10:15:00	27.5	218	0.1	7.0	1.4	17.6
6/22/2004	10:30:00	27.5	219	0.1	7.0	1.4	17.8
6/22/2004	10:45:00	27.6	219	0.1	7.0	1.6	20.4
6/22/2004	11:00:00	27.7	219	0.1	7.0	1.8	22.3
6/22/2004	11:15:00	27.9	219	0.1	7.0	2.2	28.4
6/22/2004	11:30:00	27.9	220	0.1	7.0	2.2	27.8
6/22/2004	11:45:00	27.9	220	0.1	7.0	2.2	28.4

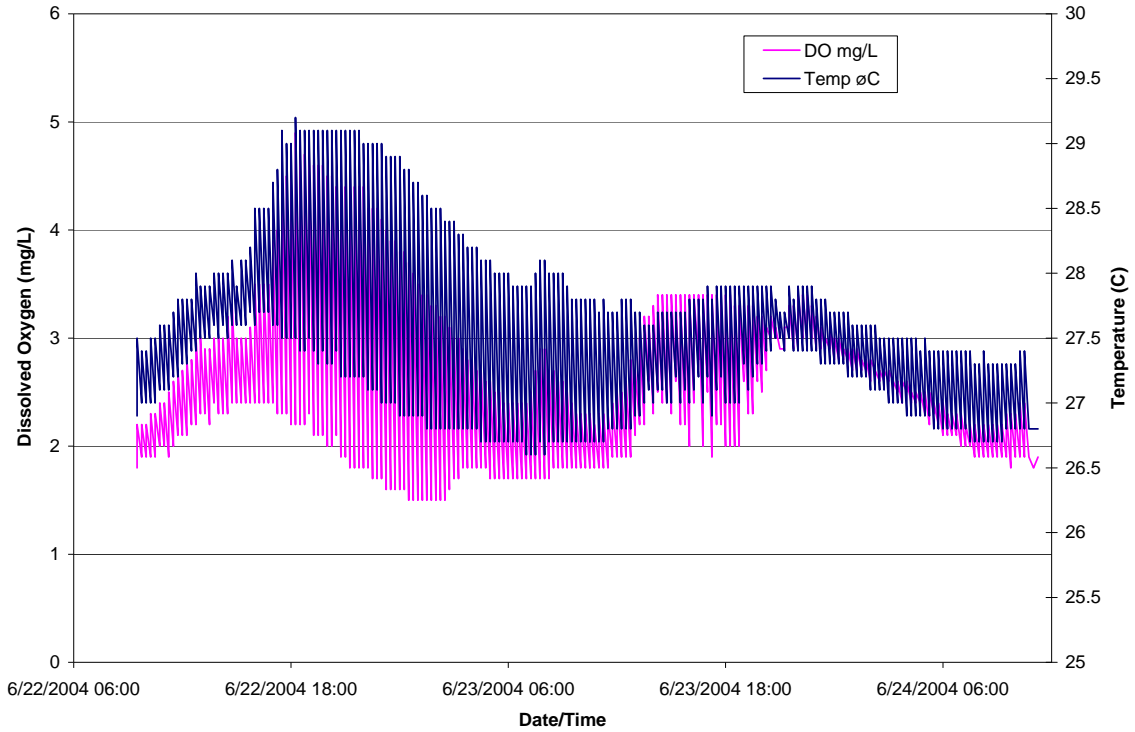
6/22/2004	12:00:00			28.1	221	0.1	7.1	2.6	32.7
6/22/2004	12:15:00			28.2	221	0.1	7.1	2.8	35.8
6/22/2004	12:30:00			28.3	222	0.1	7.1	2.8	36.5
6/22/2004	12:45:00			28.4	221	0.1	7.1	2.8	35.8
6/22/2004	13:00:00			28.5	222	0.1	7.1	3.1	39.7
6/22/2004	13:15:00			28.7	221	0.1	7.1	3.2	41.5
6/22/2004	13:30:00			28.7	223	0.1	7.1	3.4	43.8
6/22/2004	13:45:00			28.7	222	0.1	7.1	3.3	43.0
6/22/2004	14:00:00			28.5	223	0.1	7.1	3.2	40.9
6/22/2004	14:15:00			28.7	222	0.1	7.1	3.5	44.6
6/22/2004	14:30:00			28.5	223	0.1	7.1	3.0	38.7
6/22/2004	14:45:00			28.5	223	0.1	7.1	3.1	39.8
6/22/2004	15:00:00			28.6	224	0.1	7.1	3.4	44.1
6/22/2004	15:15:00			28.8	223	0.1	7.1	3.7	47.8
6/22/2004	15:30:00			28.6	224	0.1	7.1	3.2	41.8
6/22/2004	15:45:00			28.7	224	0.1	7.1	3.1	40.6
6/22/2004	16:00:00			28.6	224	0.1	7.1	3.2	41.9
6/22/2004	16:15:00			28.6	224	0.1	7.1	3.2	41.6
6/22/2004	16:30:00			28.7	224	0.1	7.1	3.4	43.7
6/22/2004	16:45:00			28.8	223	0.1	7.1	3.6	46.3
6/22/2004	17:00:00			28.6	223	0.1	7.1	3.2	41.9
6/22/2004	17:15:00			28.5	222	0.1	7.1	3.2	41.3
6/22/2004	17:30:00			28.8	222	0.1	7.1	3.6	46.4
6/22/2004	17:45:00			28.8	223	0.1	7.1	3.6	47.2
6/22/2004	18:00:00			28.8	223	0.1	7.1	3.7	47.5
6/22/2004	18:15:00			28.8	222	0.1	7.1	3.6	47.2
6/22/2004	18:30:00			28.9	222	0.1	7.1	3.9	50.7
6/22/2004	18:45:00			28.6	223	0.1	7.1	3.3	42.5
6/22/2004	19:00:00			28.8	223	0.1	7.1	3.7	47.5
6/22/2004	19:15:00			28.7	222	0.1	7.1	3.4	43.7
6/22/2004	19:30:00			28.8	222	0.1	7.1	3.7	47.5
6/22/2004	19:45:00			28.8	221	0.1	7.1	3.6	46.1
6/22/2004	20:00:00			28.6	220	0.1	7.1	3.2	41.3
6/22/2004	20:15:00			28.8	221	0.1	7.1	3.7	48.4
6/22/2004	20:30:00			28.6	221	0.1	7.1	3.4	43.3
6/22/2004	20:45:00			28.7	221	0.1	7.1	3.3	42.6
6/22/2004	21:00:00			28.6	222	0.1	7.0	3.1	40.2
6/22/2004	21:15:00			28.5	220	0.1	7.0	2.9	38.0
6/22/2004	21:30:00			28.6	221	0.1	7.1	3.3	42.1
6/22/2004	21:45:00			28.7	221	0.1	7.1	3.3	43.0
6/22/2004	22:00:00			28.7	222	0.1	7.1	3.3	42.9
6/22/2004	22:15:00			28.7	221	0.1	7.1	3.4	43.4
6/22/2004	22:30:00			28.8	221	0.1	7.1	3.6	47.1
6/22/2004	22:45:00			28.8	221	0.1	7.1	3.7	48.0
6/22/2004	23:00:00			28.7	221	0.1	7.1	3.5	45.2
6/22/2004	23:15:00			28.7	222	0.1	7.1	3.5	45.0
6/22/2004	23:30:00			28.6	221	0.1	7.1	3.4	44.3
6/22/2004	23:45:00			28.5	221	0.1	7.1	3.2	41.7

6/23/2004	0:00:00			28.5	220	0.1	7.1	3.1	39.5
6/23/2004	0:15:00			28.5	220	0.1	7.1	3.0	39.1
6/23/2004	0:30:00			28.5	221	0.1	7.1	3.3	42.7
6/23/2004	0:45:00			28.4	220	0.1	7.1	3.0	38.7
6/23/2004	1:00:00			28.5	221	0.1	7.1	3.0	39.2
6/23/2004	1:15:00			28.5	222	0.1	7.1	3.1	40.0
6/23/2004	1:30:00			28.5	220	0.1	7.1	2.9	37.8
6/23/2004	1:45:00			28.5	223	0.1	7.1	3.5	44.5
6/23/2004	2:00:00			28.5	222	0.1	7.1	3.7	47.9
6/23/2004	2:15:00			28.4	222	0.1	7.1	3.5	44.9
6/23/2004	2:30:00			28.4	221	0.1	7.1	3.3	42.0
6/23/2004	2:45:00			28.4	220	0.1	7.1	3.2	40.7
6/23/2004	3:00:00			28.3	222	0.1	7.1	3.4	43.6
6/23/2004	3:15:00			28.3	223	0.1	7.1	3.5	44.9
6/23/2004	3:30:00			28.2	222	0.1	7.1	3.4	44.0
6/23/2004	3:45:00			28.2	221	0.1	7.1	3.3	42.3
6/23/2004	4:00:00			28.2	222	0.1	7.1	3.1	40.0
6/23/2004	4:15:00			28.1	222	0.1	7.1	3.1	40.2
6/23/2004	4:30:00			28.1	222	0.1	7.1	3.1	39.3
6/23/2004	4:45:00			28.0	222	0.1	7.1	3.0	37.9
6/23/2004	5:00:00			28.0	221	0.1	7.1	2.9	37.0
6/23/2004	5:15:00			27.9	220	0.1	7.1	2.8	36.2
6/23/2004	5:30:00			27.9	221	0.1	7.1	2.8	35.5
6/23/2004	5:45:00			27.8	221	0.1	7.0	2.6	33.6
6/23/2004	6:00:00			27.8	220	0.1	7.0	2.5	31.5
6/23/2004	6:15:00			27.7	218	0.1	7.0	2.2	27.7
6/23/2004	6:30:00			27.7	219	0.1	7.0	2.3	28.6
6/23/2004	6:45:00			27.6	214	0.1	7.0	2.1	26.0
6/23/2004	7:00:00			27.6	217	0.1	7.0	2.1	26.2
6/23/2004	7:15:00			27.5	216	0.1	7.0	1.9	23.8
6/23/2004	7:30:00			27.5	215	0.1	7.0	1.8	22.7
6/23/2004	7:45:00			27.5	215	0.1	7.0	1.8	23.0
6/23/2004	8:00:00			27.5	214	0.1	7.0	1.7	21.8
6/23/2004	8:15:00			27.4	213	0.1	7.0	1.7	21.3
6/23/2004	8:30:00			27.4	212	0.1	7.0	1.7	21.9
6/23/2004	8:45:00			27.4	211	0.1	7.0	1.7	21.0
6/23/2004	9:00:00			27.4	211	0.1	7.0	1.6	20.5
6/23/2004	9:15:00			27.4	211	0.1	7.0	1.6	20.5
6/23/2004	9:30:00			27.4	211	0.1	7.0	1.6	20.1
6/23/2004	9:45:00			27.5	211	0.1	7.0	1.6	20.1
6/23/2004	10:00:00			27.5	211	0.1	7.0	1.6	20.8
6/23/2004	10:15:00			27.6	211	0.1	7.0	1.8	22.4
6/23/2004	10:30:00			27.6	210	0.1	7.0	1.9	24.3
6/23/2004	10:45:00			27.6	210	0.1	7.0	1.9	24.1
6/23/2004	11:00:00			27.6	210	0.1	7.0	1.9	24.0
6/23/2004	11:15:00			27.6	210	0.1	7.0	2.0	24.9
6/23/2004	11:30:00			27.7	209	0.1	7.0	2.1	26.4
6/23/2004	11:45:00			27.7	209	0.1	7.0	2.1	26.4

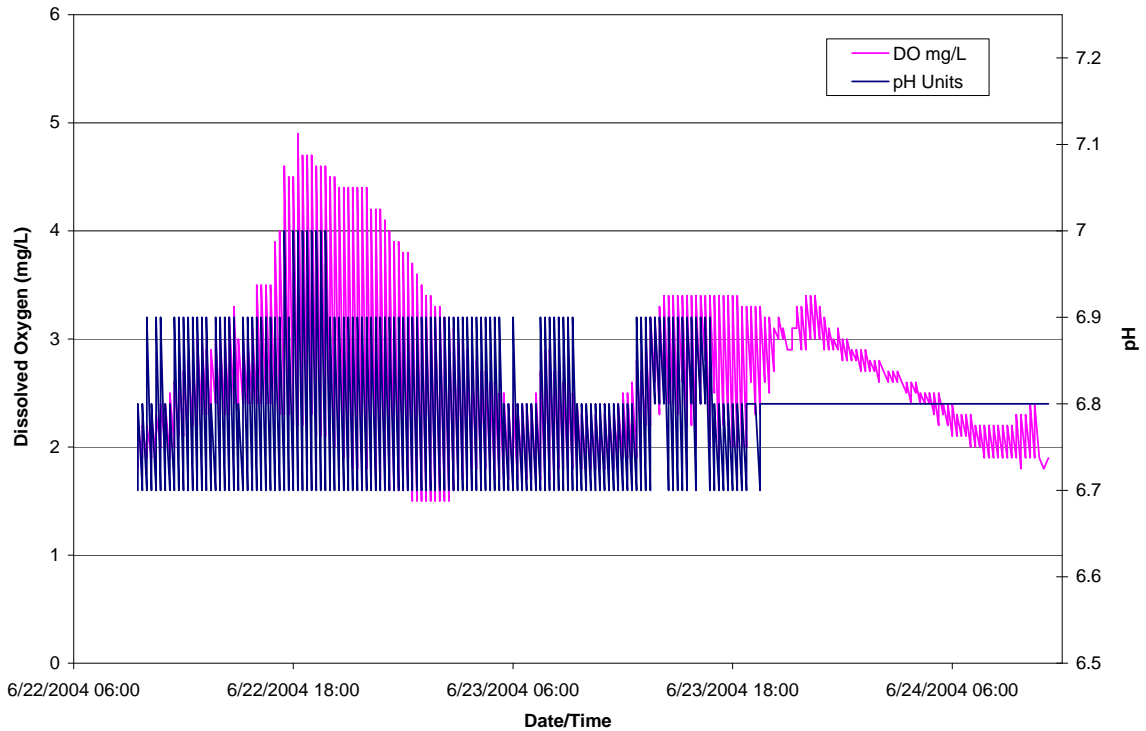
6/23/2004	12:00:00			27.9	209	0.1	7.0	2.6	32.6
6/23/2004	12:15:00			27.8	209	0.1	7.0	2.3	29.4
6/23/2004	12:30:00			27.9	209	0.1	7.0	2.5	31.5
6/23/2004	12:45:00			28.1	209	0.1	7.0	3.0	38.7
6/23/2004	13:00:00			28.1	211	0.1	7.0	2.9	37.7
6/23/2004	13:15:00			27.7	208	0.1	7.0	1.9	24.7
6/23/2004	13:30:00			27.8	210	0.1	7.0	2.2	28.0
6/23/2004	13:45:00			27.9	212	0.1	7.0	2.0	25.8
6/23/2004	14:00:00			27.9	211	0.1	7.0	2.3	29.9
6/23/2004	14:15:00			27.9	210	0.1	7.0	2.5	31.5
6/23/2004	14:30:00			28.0	210	0.1	7.0	2.7	34.1
6/23/2004	14:45:00			28.0	210	0.1	7.0	2.9	37.2
6/23/2004	15:00:00			28.0	210	0.1	7.0	2.8	35.9
6/23/2004	15:15:00			28.0	210	0.1	7.0	2.7	34.4
6/23/2004	15:30:00			28.0	210	0.1	7.0	2.7	34.4
6/23/2004	15:45:00			27.7	209	0.1	7.0	2.0	25.2
6/23/2004	16:00:00			28.1	210	0.1	7.0	3.2	40.7
6/23/2004	16:15:00			28.0	209	0.1	7.0	2.7	34.3
6/23/2004	16:30:00			28.0	227	0.1	7.0	2.8	35.6
6/23/2004	16:45:00			28.0	239	0.1	7.0	2.6	33.7
6/23/2004	17:00:00			28.1	214	0.1	7.0	2.8	35.9
6/23/2004	17:15:00			28.1	217	0.1	7.0	2.9	37.2
6/23/2004	17:30:00			28.2	215	0.1	7.0	3.2	41.5
6/23/2004	17:45:00			28.2	217	0.1	7.1	3.2	40.9
6/23/2004	18:00:00			28.1	220	0.1	7.1	3.1	39.8
6/23/2004	18:15:00			28.1	223	0.1	7.1	2.8	36.0
6/23/2004	18:30:00			28.2	226	0.1	7.1	2.8	36.0
6/23/2004	18:45:00			28.3	231	0.1	7.1	3.3	42.0
6/23/2004	19:00:00			28.1	232	0.1	7.1	2.6	32.9
6/23/2004	19:15:00			28.4	237	0.1	7.1	3.3	42.9
6/23/2004	19:30:00			28.3	238	0.1	7.1	3.0	38.5
6/23/2004	19:45:00			28.3	236	0.1	7.1	3.0	38.1
6/23/2004	20:00:00			28.4	239	0.1	7.1	3.1	39.7
6/23/2004	20:15:00			28.2	237	0.1	7.1	2.4	30.2
6/23/2004	20:30:00			28.2	238	0.1	7.1	2.7	34.2
6/23/2004	20:45:00			28.2	236	0.1	7.1	2.5	31.4
6/23/2004	21:00:00			28.2	233	0.1	7.1	2.8	35.3
6/23/2004	21:15:00			28.0	233	0.1	7.0	2.0	25.8
6/23/2004	21:30:00			28.3	234	0.1	7.1	3.0	38.2
6/23/2004	21:45:00			28.1	235	0.1	7.1	2.4	30.6
6/23/2004	22:00:00			28.2	234	0.1	7.1	2.7	34.9
6/23/2004	22:15:00			28.2	237	0.1	7.1	2.4	30.6
6/23/2004	22:30:00			28.2	233	0.1	7.1	2.7	34.3
6/23/2004	22:45:00			28.2	233	0.1	7.1	2.9	37.0
6/23/2004	23:00:00			28.1	232	0.1	7.1	2.2	27.7
6/23/2004	23:15:00			28.2	231	0.1	7.1	3.0	38.8
6/23/2004	23:30:00			28.1	233	0.1	7.1	3.0	38.1
6/23/2004	23:45:00			28.0	227	0.1	7.1	2.5	32.1

6/24/2004	0:00:00			28.1	229	0.1	7.1	2.8	35.4
6/24/2004	0:15:00			28.1	231	0.1	7.1	3.1	40.2
6/24/2004	0:30:00			28.1	230	0.1	7.1	3.2	40.7
6/24/2004	0:45:00			28.0	229	0.1	7.1	3.1	39.8
6/24/2004	1:00:00			28.0	227	0.1	7.1	3.0	38.6
6/24/2004	1:15:00			28.0	228	0.1	7.1	3.1	39.7
6/24/2004	1:30:00			27.9	228	0.1	7.1	3.0	37.7
6/24/2004	1:45:00			27.9	226	0.1	7.1	3.0	37.6
6/24/2004	2:00:00			27.9	225	0.1	7.1	3.0	37.8
6/24/2004	2:15:00			27.8	225	0.1	7.1	3.1	39.5
6/24/2004	2:30:00			27.8	225	0.1	7.1	2.9	36.8
6/24/2004	2:45:00			27.8	226	0.1	7.1	2.7	34.9
6/24/2004	3:00:00			27.8	225	0.1	7.1	2.8	35.5
6/24/2004	3:15:00			27.8	223	0.1	7.1	2.9	36.5
6/24/2004	3:30:00			27.8	223	0.1	7.1	2.9	36.3
6/24/2004	3:45:00			27.8	226	0.1	7.1	2.7	34.1
6/24/2004	4:00:00			27.7	225	0.1	7.1	2.7	33.7
6/24/2004	4:15:00			27.7	223	0.1	7.1	2.6	33.1
6/24/2004	4:30:00			27.7	224	0.1	7.1	2.6	32.5
6/24/2004	4:45:00			27.7	224	0.1	7.1	2.5	32.1
6/24/2004	5:00:00			27.7	224	0.1	7.1	2.4	30.4
6/24/2004	5:15:00			27.7	222	0.1	7.1	2.5	31.2
6/24/2004	5:30:00			27.6	224	0.1	7.1	2.4	29.9
6/24/2004	5:45:00			27.6	224	0.1	7.1	2.4	30.3
6/24/2004	6:00:00			27.6	223	0.1	7.1	2.4	30.5
6/24/2004	6:15:00			27.6	223	0.1	7.1	2.3	29.0
6/24/2004	6:30:00			27.6	224	0.1	7.1	2.3	28.9
6/24/2004	6:45:00			27.6	222	0.1	7.1	2.2	28.0
6/24/2004	7:00:00			27.6	223	0.1	7.1	2.2	28.3
6/24/2004	7:15:00			27.6	223	0.1	7.1	2.2	27.8
6/24/2004	7:30:00			27.6	222	0.1	7.1	2.2	27.5
6/24/2004	7:45:00			27.5	222	0.1	7.1	2.1	26.0
6/24/2004	8:00:00			27.5	223	0.1	7.1	2.0	25.5
6/24/2004	8:15:00			27.5	222	0.1	7.1	2.0	25.2
6/24/2004	8:30:00			27.5	222	0.1	7.1	2.0	25.5
6/24/2004	8:45:00			27.5	223	0.1	7.1	1.9	24.3
6/24/2004	9:00:00			27.5	222	0.1	7.1	1.8	23.4
6/24/2004	9:15:00			27.5	222	0.1	7.1	1.8	23.0
6/24/2004	9:30:00			27.5	222	0.1	7.1	1.8	22.6
6/24/2004	9:45:00			27.5	222	0.1	7.1	1.8	23.1
6/24/2004	10:00:00			27.5	223	0.1	7.1	1.7	21.7
6/24/2004	10:15:00			27.5	224	0.1	7.1	1.7	21.8
6/24/2004	10:30:00			27.5	223	0.1	7.1	1.7	21.5
6/24/2004	10:45:00			27.5	221	0.1	7.1	1.6	19.9
6/24/2004	11:00:00			27.5	223	0.1	7.1	1.6	20.7

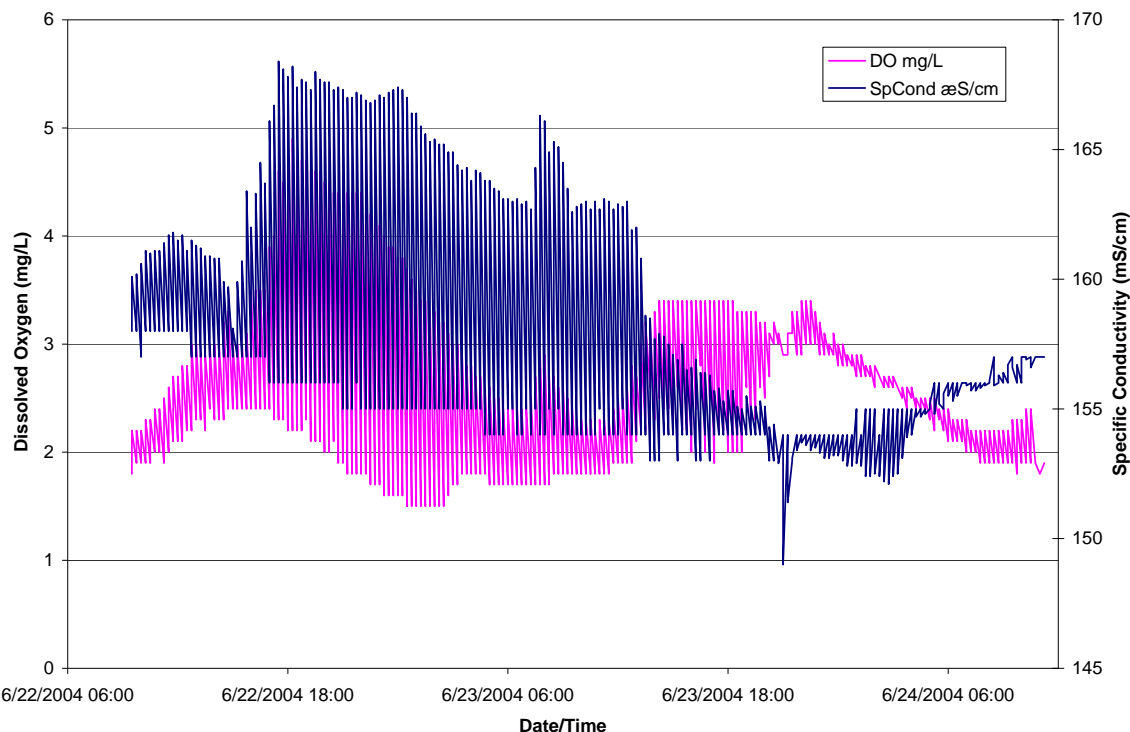
BYCO1: DO & Temp v. Date/Time



BYCO1: DO & pH v. Date/Time



BYC01: DO & SpCond v. Date/Time



MiniSonde 4a 40810

Log File Name : BYC01

Setup Date (MMDDYY) : 062104

Setup Time (HHMMSS) : 095526

Starting Date (MMDDYY) : 062104

Starting Time (HHMMSS) : 100000

Stopping Date (MMDDYY) : 062404

Stopping Time (HHMMSS) : 235959

Interval (HHMMSS) : 001500

Sensor warmup (HHMMSS) : 000200

Circltr warmup (HHMMSS) : 000200

Summary:

06/23/2004 00:00:00 to 06/24/2004 00:00:00

	Temp	SpCond	Sal	pH	DO	DO%
	øC	æS/cm	ppt	Units	mg/l	Sat
Average	26.95	154.13	0.07	6.73	2.08	26.17
Min	26.64	152.60	0.07	6.70	1.46	18.20
Max	27.47	155.10	0.07	6.79	3.06	38.70

Date	Time	Temp	SpCond	Sal	pH	DO	DO%
MMDDYY	HHMMSS	øC	æS/cm	ppt	Units	mg/l	Sat
6/22/2004	9:30:00	26.9	158	0.1	6.7	1.8	22.6
6/22/2004	9:45:00	27.0	158	0.1	6.7	1.9	23.4
6/22/2004	10:00:00	27.0	157	0.1	6.7	1.9	23.4
6/22/2004	10:15:00	27.0	158	0.1	6.7	1.9	23.3
6/22/2004	10:30:00	27.0	158	0.1	6.7	1.9	24.2
6/22/2004	10:45:00	27.1	158	0.1	6.7	2.0	24.8
6/22/2004	11:00:00	27.1	158	0.1	6.7	2.0	24.6
6/22/2004	11:15:00	27.1	158	0.1	6.7	1.9	24.3

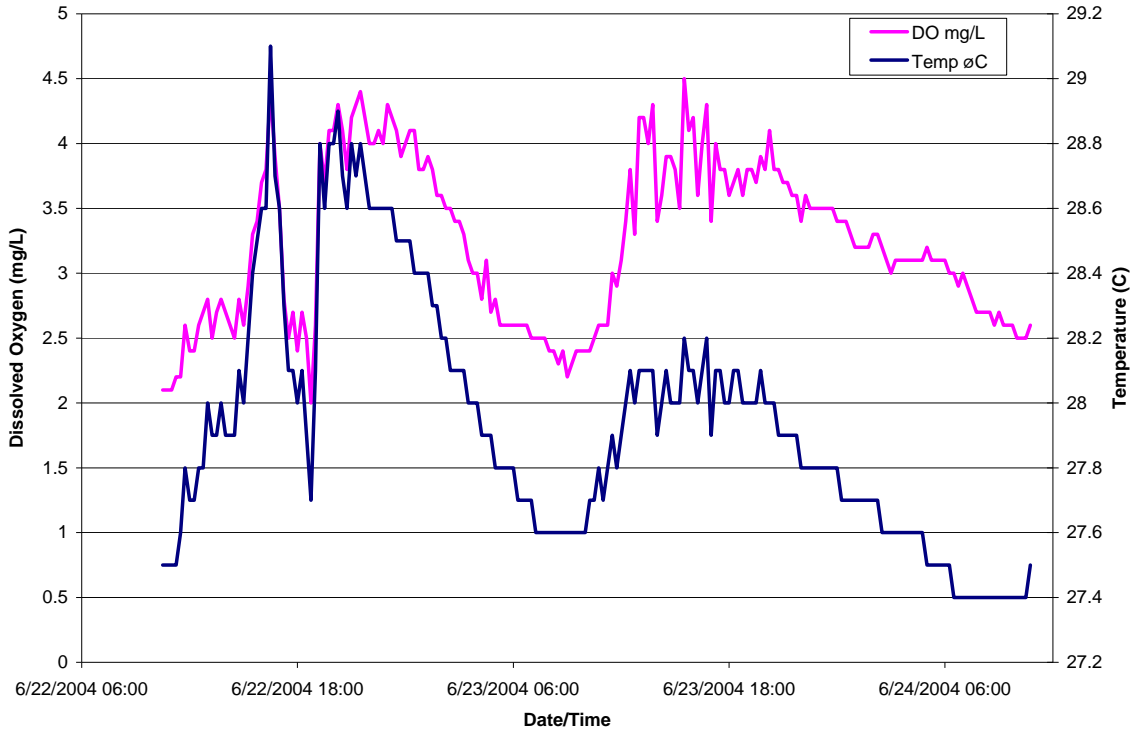
6/22/2004	11:30:00			27.2	158	0.1	6.7	2.0	24.8
6/22/2004	11:45:00			27.2	158	0.1	6.7	2.1	25.9
6/22/2004	12:00:00			27.3	158	0.1	6.7	2.1	26.6
6/22/2004	12:15:00			27.3	158	0.1	6.7	2.1	26.8
6/22/2004	12:30:00			27.4	158	0.1	6.7	2.2	28.0
6/22/2004	12:45:00			27.4	157	0.1	6.7	2.2	28.4
6/22/2004	13:00:00			27.5	157	0.1	6.7	2.3	29.4
6/22/2004	13:15:00			27.5	157	0.1	6.7	2.3	29.2
6/22/2004	13:30:00			27.5	157	0.1	6.7	2.2	28.0
6/22/2004	13:45:00			27.6	157	0.1	6.7	2.4	30.3
6/22/2004	14:00:00			27.5	157	0.1	6.7	2.3	28.9
6/22/2004	14:15:00			27.6	157	0.1	6.7	2.3	29.0
6/22/2004	14:30:00			27.5	157	0.1	6.7	2.3	29.2
6/22/2004	14:45:00			27.6	157	0.1	6.7	2.4	30.1
6/22/2004	15:00:00			27.6	157	0.1	6.7	2.4	30.2
6/22/2004	15:15:00			27.6	157	0.1	6.7	2.4	30.3
6/22/2004	15:30:00			27.6	157	0.1	6.7	2.4	30.4
6/22/2004	15:45:00			27.7	157	0.1	6.7	2.4	30.6
6/22/2004	16:00:00			27.6	157	0.1	6.7	2.4	30.6
6/22/2004	16:15:00			27.7	157	0.1	6.7	2.4	30.6
6/22/2004	16:30:00			27.7	157	0.1	6.7	2.4	30.6
6/22/2004	16:45:00			27.7	157	0.1	6.7	2.4	30.2
6/22/2004	17:00:00			27.6	156	0.1	6.7	2.4	30.2
6/22/2004	17:15:00			27.6	156	0.1	6.7	2.3	29.5
6/22/2004	17:30:00			27.5	156	0.1	6.7	2.3	29.0
6/22/2004	17:45:00			27.5	156	0.1	6.7	2.3	29.2
6/22/2004	18:00:00			27.5	156	0.1	6.7	2.2	28.0
6/22/2004	18:15:00			27.5	156	0.1	6.7	2.2	28.2
6/22/2004	18:30:00			27.5	156	0.1	6.7	2.2	27.6
6/22/2004	18:45:00			27.4	156	0.1	6.7	2.2	27.2
6/22/2004	19:00:00			27.5	156	0.1	6.7	2.3	28.5
6/22/2004	19:15:00			27.4	156	0.1	6.7	2.1	26.5
6/22/2004	19:30:00			27.3	156	0.1	6.7	2.1	26.0
6/22/2004	19:45:00			27.4	156	0.1	6.7	2.1	26.7
6/22/2004	20:00:00			27.3	156	0.1	6.7	2.0	25.5
6/22/2004	20:15:00			27.3	156	0.1	6.7	2.0	24.7
6/22/2004	20:30:00			27.4	156	0.1	6.7	2.1	26.6
6/22/2004	20:45:00			27.2	156	0.1	6.7	1.9	23.3
6/22/2004	21:00:00			27.2	155	0.1	6.7	1.9	23.4
6/22/2004	21:15:00			27.2	155	0.1	6.7	1.8	23.1
6/22/2004	21:30:00			27.2	155	0.1	6.7	1.8	22.9
6/22/2004	21:45:00			27.2	156	0.1	6.7	1.8	22.4
6/22/2004	22:00:00			27.2	155	0.1	6.7	1.8	22.5
6/22/2004	22:15:00			27.1	155	0.1	6.7	1.8	22.0
6/22/2004	22:30:00			27.1	155	0.1	6.7	1.7	21.4
6/22/2004	22:45:00			27.1	155	0.1	6.7	1.7	21.5
6/22/2004	23:00:00			27.0	155	0.1	6.7	1.7	21.0
6/22/2004	23:15:00			27.0	155	0.1	6.7	1.6	20.2

6/22/2004	23:30:00			27.0	155	0.1	6.7	1.6	20.5
6/22/2004	23:45:00			27.0	155	0.1	6.7	1.6	20.1
6/23/2004	0:00:00			27.0	155	0.1	6.7	1.6	20.4
6/23/2004	0:15:00			26.9	155	0.1	6.7	1.6	19.7
6/23/2004	0:30:00			26.9	155	0.1	6.7	1.5	19.3
6/23/2004	0:45:00			26.9	155	0.1	6.7	1.5	18.9
6/23/2004	1:00:00			26.9	155	0.1	6.7	1.5	18.9
6/23/2004	1:15:00			26.9	155	0.1	6.7	1.5	18.6
6/23/2004	1:30:00			26.8	155	0.1	6.7	1.5	18.9
6/23/2004	1:45:00			26.8	155	0.1	6.7	1.5	18.7
6/23/2004	2:00:00			26.8	155	0.1	6.7	1.5	18.2
6/23/2004	2:15:00			26.8	155	0.1	6.7	1.5	18.9
6/23/2004	2:30:00			26.8	155	0.1	6.7	1.5	19.3
6/23/2004	2:45:00			26.8	155	0.1	6.7	1.6	19.6
6/23/2004	3:00:00			26.8	155	0.1	6.7	1.7	21.5
6/23/2004	3:15:00			26.8	155	0.1	6.7	1.7	21.7
6/23/2004	3:30:00			26.8	155	0.1	6.7	1.8	22.5
6/23/2004	3:45:00			26.8	155	0.1	6.7	1.8	23.0
6/23/2004	4:00:00			26.8	155	0.1	6.7	1.8	22.9
6/23/2004	4:15:00			26.8	155	0.1	6.7	1.8	23.0
6/23/2004	4:30:00			26.7	155	0.1	6.7	1.8	22.5
6/23/2004	4:45:00			26.7	154	0.1	6.7	1.8	22.4
6/23/2004	5:00:00			26.7	154	0.1	6.7	1.7	21.6
6/23/2004	5:15:00			26.7	154	0.1	6.7	1.7	21.7
6/23/2004	5:30:00			26.7	154	0.1	6.7	1.7	20.9
6/23/2004	5:45:00			26.7	154	0.1	6.7	1.7	21.6
6/23/2004	6:00:00			26.7	155	0.1	6.7	1.7	21.5
6/23/2004	6:15:00			26.7	155	0.1	6.7	1.7	21.3
6/23/2004	6:30:00			26.7	154	0.1	6.7	1.7	20.8
6/23/2004	6:45:00			26.7	154	0.1	6.7	1.7	21.7
6/23/2004	7:00:00			26.6	155	0.1	6.7	1.7	20.9
6/23/2004	7:15:00			26.6	154	0.1	6.7	1.7	21.2
6/23/2004	7:30:00			26.6	155	0.1	6.7	1.7	21.2
6/23/2004	7:45:00			26.7	154	0.1	6.7	1.7	21.4
6/23/2004	8:00:00			26.6	154	0.1	6.7	1.7	21.4
6/23/2004	8:15:00			26.7	155	0.1	6.7	1.7	21.2
6/23/2004	8:30:00			26.7	154	0.1	6.7	1.8	22.6
6/23/2004	8:45:00			26.7	155	0.1	6.7	1.8	22.2
6/23/2004	9:00:00			26.7	154	0.1	6.7	1.8	23.0
6/23/2004	9:15:00			26.7	154	0.1	6.7	1.8	22.4
6/23/2004	9:30:00			26.7	154	0.1	6.7	1.8	22.2
6/23/2004	9:45:00			26.7	154	0.1	6.7	1.8	22.1
6/23/2004	10:00:00			26.7	154	0.1	6.7	1.8	22.3
6/23/2004	10:15:00			26.7	154	0.1	6.7	1.8	22.0
6/23/2004	10:30:00			26.7	154	0.1	6.7	1.8	22.1
6/23/2004	10:45:00			26.7	154	0.1	6.7	1.8	21.9
6/23/2004	11:00:00			26.7	155	0.1	6.7	1.8	22.0
6/23/2004	11:15:00			26.7	154	0.1	6.7	1.8	22.6

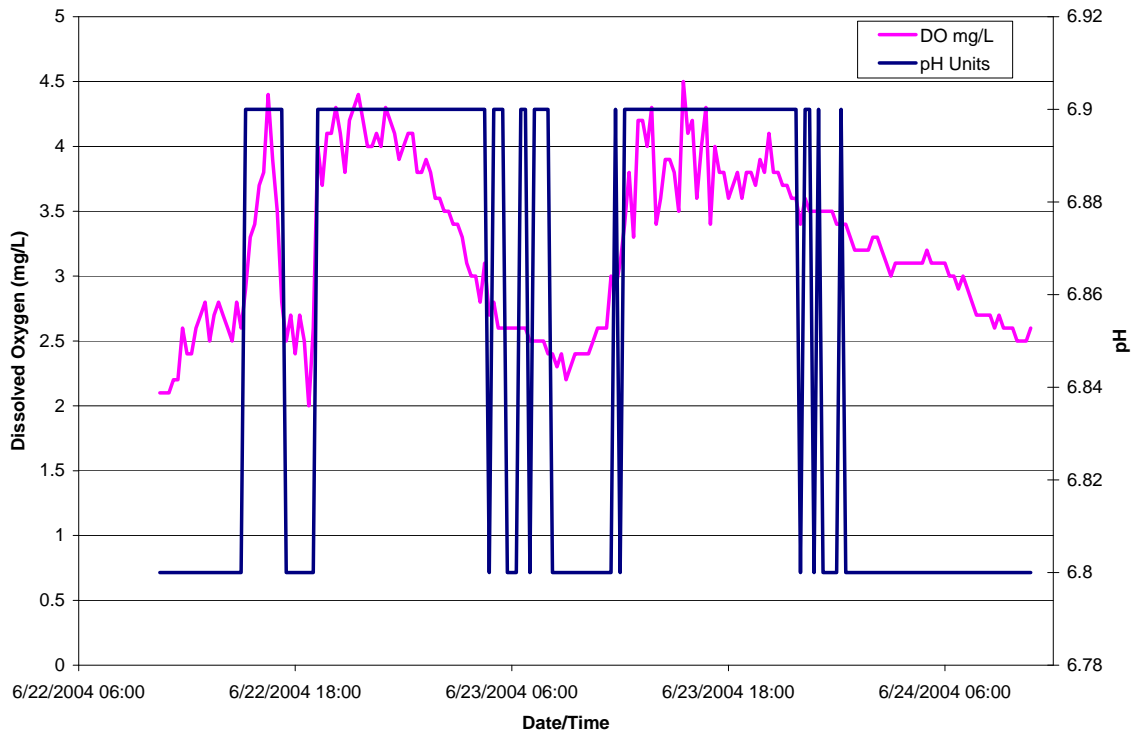
6/23/2004	11:30:00			26.8	154	0.1	6.7	1.8	22.7
6/23/2004	11:45:00			26.8	154	0.1	6.7	1.9	23.1
6/23/2004	12:00:00			26.8	154	0.1	6.7	1.9	23.9
6/23/2004	12:15:00			26.8	155	0.1	6.7	1.9	23.7
6/23/2004	12:30:00			26.8	154	0.1	6.7	1.9	24.2
6/23/2004	12:45:00			26.8	154	0.1	6.7	1.9	24.1
6/23/2004	13:00:00			26.9	154	0.1	6.7	2.1	25.6
6/23/2004	13:15:00			26.9	154	0.1	6.7	2.2	27.4
6/23/2004	13:30:00			27.0	154	0.1	6.7	2.2	28.0
6/23/2004	13:45:00			27.1	153	0.1	6.8	2.6	32.3
6/23/2004	14:00:00			27.0	153	0.1	6.8	2.3	29.2
6/23/2004	14:15:00			27.1	153	0.1	6.8	2.5	31.8
6/23/2004	14:30:00			27.1	154	0.1	6.7	2.4	30.3
6/23/2004	14:45:00			27.0	154	0.1	6.7	2.4	29.6
6/23/2004	15:00:00			27.0	154	0.1	6.7	2.3	28.4
6/23/2004	15:15:00			27.2	153	0.1	6.7	2.6	32.6
6/23/2004	15:30:00			27.0	154	0.1	6.7	2.2	28.1
6/23/2004	15:45:00			27.1	154	0.1	6.8	2.2	27.6
6/23/2004	16:00:00			27.0	154	0.1	6.7	2.0	25.6
6/23/2004	16:15:00			27.1	153	0.1	6.8	2.4	30.6
6/23/2004	16:30:00			27.2	153	0.1	6.8	2.8	35.0
6/23/2004	16:45:00			27.0	154	0.1	6.7	2.0	25.1
6/23/2004	17:00:00			27.2	153	0.1	6.7	2.5	30.8
6/23/2004	17:15:00			26.9	154	0.1	6.7	1.9	23.8
6/23/2004	17:30:00			27.1	154	0.1	6.7	2.2	28.2
6/23/2004	17:45:00			27.2	154	0.1	6.7	2.2	27.7
6/23/2004	18:00:00			27.0	154	0.1	6.7	2.0	25.5
6/23/2004	18:15:00			27.0	154	0.1	6.7	2.0	24.5
6/23/2004	18:30:00			27.0	154	0.1	6.7	2.0	25.6
6/23/2004	18:45:00			27.0	154	0.1	6.7	2.0	25.6
6/23/2004	19:00:00			27.3	154	0.1	6.8	2.6	33.0
6/23/2004	19:15:00			27.1	154	0.1	6.8	2.3	28.3
6/23/2004	19:30:00			27.2	154	0.1	6.7	2.3	28.8
6/23/2004	19:45:00			27.3	154	0.1	6.8	2.6	32.2
6/23/2004	20:00:00			27.3	154	0.1	6.8	2.5	31.7
6/23/2004	20:15:00			27.4	153	0.1	6.8	2.7	34.5
6/23/2004	20:30:00			27.5	153	0.1	6.8	3.0	37.5
6/23/2004	20:45:00			27.5	153	0.1	6.8	3.0	37.8
6/23/2004	21:00:00			27.5	154	0.1	6.8	2.9	37.0
6/23/2004	21:15:00			27.4	154	0.1	6.8	2.9	36.2
6/23/2004	21:30:00			27.5	153	0.1	6.8	3.1	38.7
6/23/2004	21:45:00			27.4	154	0.1	6.8	2.9	36.7
6/23/2004	22:00:00			27.4	154	0.1	6.8	2.9	36.3
6/23/2004	22:15:00			27.4	154	0.1	6.8	3.0	37.3
6/23/2004	22:30:00			27.4	154	0.1	6.8	3.0	37.8
6/23/2004	22:45:00			27.4	154	0.1	6.8	3.0	37.4
6/23/2004	23:00:00			27.4	154	0.1	6.8	2.9	37.0
6/23/2004	23:15:00			27.3	154	0.1	6.8	2.9	36.8

6/23/2004	23:30:00			27.3	154	0.1	6.8	2.9	36.1
6/23/2004	23:45:00			27.3	154	0.1	6.8	2.9	36.1
6/24/2004	0:00:00			27.3	154	0.1	6.8	2.8	35.6
6/24/2004	0:15:00			27.3	154	0.1	6.8	2.8	35.5
6/24/2004	0:30:00			27.3	154	0.1	6.8	2.8	35.2
6/24/2004	0:45:00			27.2	154	0.1	6.8	2.8	35.1
6/24/2004	1:00:00			27.2	155	0.1	6.8	2.7	34.5
6/24/2004	1:15:00			27.2	154	0.1	6.8	2.7	34.5
6/24/2004	1:30:00			27.2	155	0.1	6.8	2.7	34.0
6/24/2004	1:45:00			27.2	155	0.1	6.8	2.7	34.5
6/24/2004	2:00:00			27.1	155	0.1	6.8	2.6	33.1
6/24/2004	2:15:00			27.1	154	0.1	6.8	2.7	33.7
6/24/2004	2:30:00			27.1	155	0.1	6.8	2.6	32.9
6/24/2004	2:45:00			27.1	155	0.1	6.8	2.6	32.7
6/24/2004	3:00:00			27.0	155	0.1	6.8	2.6	32.4
6/24/2004	3:15:00			27.0	155	0.1	6.8	2.6	32.0
6/24/2004	3:30:00			27.0	155	0.1	6.8	2.5	31.8
6/24/2004	3:45:00			27.0	155	0.1	6.8	2.4	30.6
6/24/2004	4:00:00			27.0	155	0.1	6.8	2.5	30.7
6/24/2004	4:15:00			26.9	155	0.1	6.8	2.4	30.1
6/24/2004	4:30:00			26.9	155	0.1	6.8	2.4	29.6
6/24/2004	4:45:00			26.9	155	0.1	6.8	2.4	29.5
6/24/2004	5:00:00			26.9	155	0.1	6.8	2.3	28.5
6/24/2004	5:15:00			26.9	156	0.1	6.8	2.2	28.0
6/24/2004	5:30:00			26.8	156	0.1	6.8	2.3	28.4
6/24/2004	5:45:00			26.8	155	0.1	6.8	2.2	27.1
6/24/2004	6:00:00			26.8	156	0.1	6.8	2.1	26.3
6/24/2004	6:15:00			26.8	156	0.1	6.8	2.1	26.6
6/24/2004	6:30:00			26.8	156	0.1	6.8	2.1	26.0
6/24/2004	6:45:00			26.8	156	0.1	6.8	2.1	25.7
6/24/2004	7:00:00			26.8	156	0.1	6.8	2.0	25.2
6/24/2004	7:15:00			26.8	156	0.1	6.8	2.0	25.1
6/24/2004	7:30:00			26.7	156	0.1	6.8	2.0	24.5
6/24/2004	7:45:00			26.7	156	0.1	6.8	1.9	24.0
6/24/2004	8:00:00			26.7	156	0.1	6.8	1.9	23.9
6/24/2004	8:15:00			26.7	156	0.1	6.8	1.9	23.7
6/24/2004	8:30:00			26.7	157	0.1	6.8	1.9	23.5
6/24/2004	8:45:00			26.7	156	0.1	6.8	1.9	23.4
6/24/2004	9:00:00			26.7	156	0.1	6.8	1.9	23.1
6/24/2004	9:15:00			26.7	156	0.1	6.8	1.9	23.8
6/24/2004	9:30:00			26.8	157	0.1	6.8	1.9	23.6
6/24/2004	9:45:00			26.8	156	0.1	6.8	1.8	22.5
6/24/2004	10:00:00			26.8	156	0.1	6.8	1.9	23.2
6/24/2004	10:15:00			26.8	157	0.1	6.8	1.9	23.2
6/24/2004	10:30:00			26.8	157	0.1	6.8	1.9	23.1
6/24/2004	10:45:00			26.8	157	0.1	6.8	1.9	23.4
6/24/2004	11:00:00			26.8	157	0.1	6.8	1.8	23.0
6/24/2004	11:15:00			26.8	157	0.1	6.8	1.9	23.6

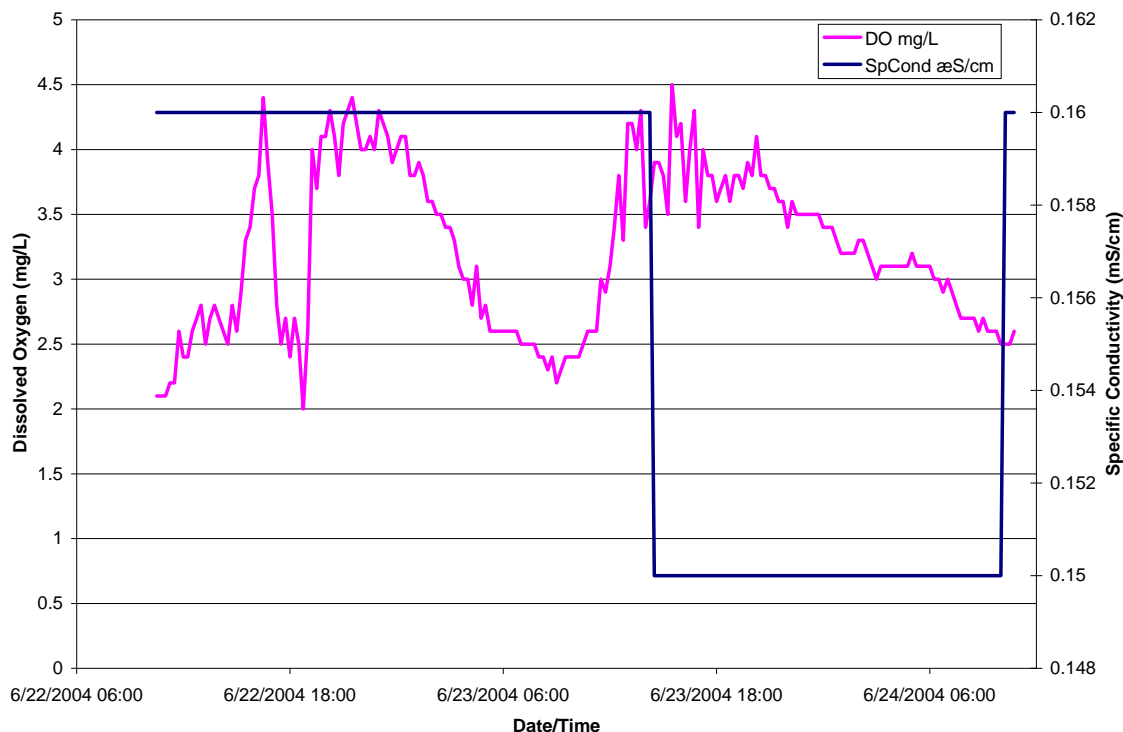
GRB6: DO & Temp v. Date/Time



GRB6: DO & pH v. Date/Time



GRB6: DO & SpCond v. Date/Time



MiniSonde 4a 40006
 Log File Name : GRB6
 Setup Date (MMDDYY) : 062104
 Setup Time (HHMMSS) : 105419
 Starting Date (MMDDYY) : 062104
 Starting Time (HHMMSS) : 110000
 Stopping Date (MMDDYY) : 062404
 Stopping Time (HHMMSS) : 235959
 Interval (HHMMSS) : 001500
 Sensor warmup (HHMMSS) :
 000200
 Circltr warmup (HHMMSS) : 000200

Summary:

06/23/2004 00:00:00 to 06/24/2004 00:00:00

	Temp	pH	SpCond	Sal	DO%	DO	Dep10
	øC	Units	mS/cm	ppt	Sat	mg/l	meters
Average	27.94	6.86	0.16	0.07	42.58	3.33	0.90
Min	27.58	6.78	0.15	0.07	27.50	2.17	0.90
Max	28.47	6.93	0.17	0.07	57.70	4.50	0.92

Date	Time	Temp	pH	SpCond	Sal	DO%	DO	Dep10
MMDDYY	HHMMSS	øC	Units	mS/cm	ppt	Sat	mg/l	meters
6/22/2004	10:30:00	27.5	6.8	0.1679	0.1	26.7	2.1	0.88
6/22/2004	10:45:00	27.5	6.8	0.1679	0.1	26.0	2.1	0.88
6/22/2004	11:00:00	27.5	6.8	0.1678	0.1	26.9	2.1	0.88
6/22/2004	11:15:00	27.5	6.8	0.168	0.1	27.2	2.2	0.88
6/22/2004	11:30:00	27.6	6.8	0.168	0.1	28.0	2.2	0.88
6/22/2004	11:45:00	27.8	6.8	0.168	0.1	32.7	2.6	0.88
6/22/2004	12:00:00	27.7	6.8	0.168	0.1	30.1	2.4	0.88

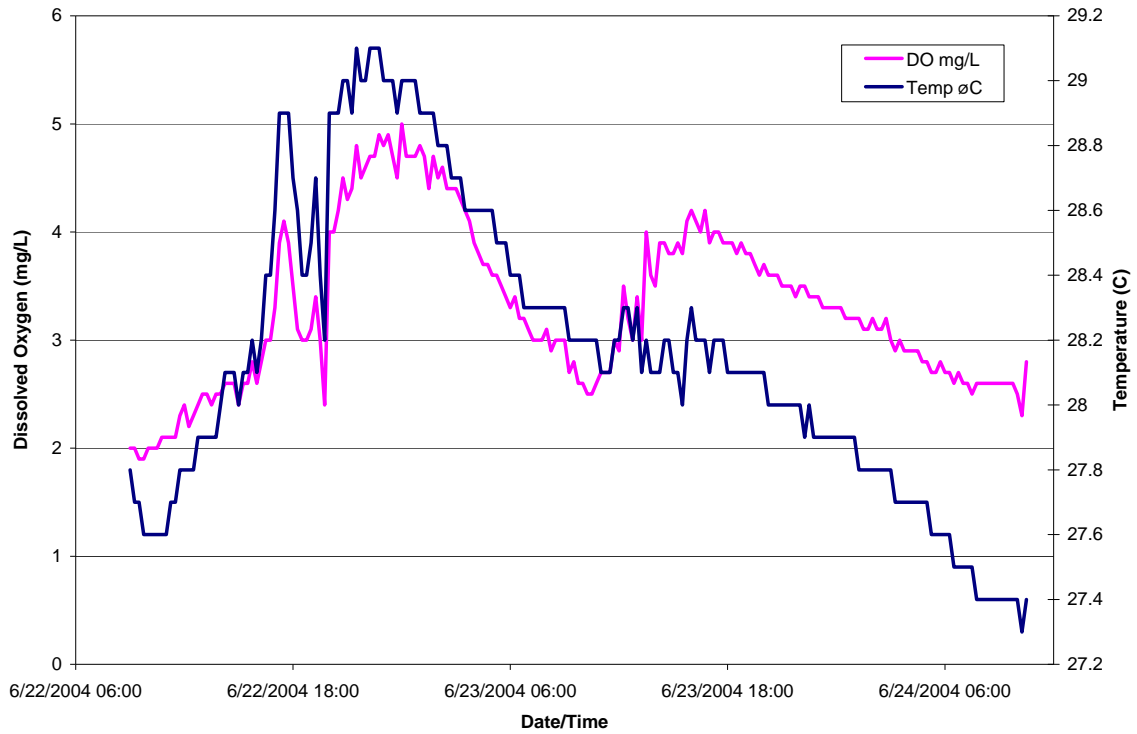
6/22/2004	12:15:00			27.7	6.8	0.1679	0.1	30.7	2.4	0.88
6/22/2004	12:30:00			27.8	6.8	0.1682	0.1	32.5	2.6	0.88
6/22/2004	12:45:00			27.8	6.8	0.1683	0.1	33.7	2.7	0.87
6/22/2004	13:00:00			28.0	6.8	0.1683	0.1	36.0	2.8	0.88
6/22/2004	13:15:00			27.9	6.8	0.1684	0.1	32.3	2.5	0.88
6/22/2004	13:30:00			28.0	6.8	0.1682	0.1	34.5	2.7	0.88
6/22/2004	13:45:00			28.0	6.8	0.1681	0.1	35.6	2.8	0.88
6/22/2004	14:00:00			27.9	6.8	0.1684	0.1	34.1	2.7	0.88
6/22/2004	14:15:00			27.9	6.8	0.1682	0.1	33.5	2.6	0.88
6/22/2004	14:30:00			27.9	6.8	0.1681	0.1	31.6	2.5	0.88
6/22/2004	14:45:00			28.1	6.8	0.1684	0.1	35.4	2.8	0.88
6/22/2004	15:00:00			28.0	6.8	0.1682	0.1	33.3	2.6	0.88
6/22/2004	15:15:00			28.2	6.9	0.1683	0.1	37.8	2.9	0.88
6/22/2004	15:30:00			28.4	6.9	0.1683	0.1	42.6	3.3	0.88
6/22/2004	15:45:00			28.5	6.9	0.1682	0.1	43.4	3.4	0.88
6/22/2004	16:00:00			28.6	6.9	0.1684	0.1	47.6	3.7	0.88
6/22/2004	16:15:00			28.6	6.9	0.1684	0.1	49.5	3.8	0.89
6/22/2004	16:30:00			29.1	6.9	0.1682	0.1	57.4	4.4	0.88
6/22/2004	16:45:00			28.7	6.9	0.1684	0.1	49.9	3.9	0.88
6/22/2004	17:00:00			28.6	6.9	0.1681	0.1	45.2	3.5	0.88
6/22/2004	17:15:00			28.3	6.9	0.1676	0.1	36.4	2.8	0.88
6/22/2004	17:30:00			28.1	6.8	0.1678	0.1	31.7	2.5	0.89
6/22/2004	17:45:00			28.1	6.8	0.1687	0.1	34.1	2.7	0.89
6/22/2004	18:00:00			28.0	6.8	0.1685	0.1	30.0	2.4	0.88
6/22/2004	18:15:00			28.1	6.8	0.1683	0.1	35.0	2.7	0.89
6/22/2004	18:30:00			28.0	6.8	0.1682	0.1	31.5	2.5	0.89
6/22/2004	18:45:00			27.7	6.8	0.168	0.1	25.3	2.0	0.89
6/22/2004	19:00:00			28.1	6.8	0.1682	0.1	32.8	2.6	0.89
6/22/2004	19:15:00			28.8	6.9	0.1681	0.1	52.0	4.0	0.89
6/22/2004	19:30:00			28.6	6.9	0.1682	0.1	47.9	3.7	0.90
6/22/2004	19:45:00			28.8	6.9	0.1682	0.1	52.9	4.1	0.90
6/22/2004	20:00:00			28.8	6.9	0.1679	0.1	52.9	4.1	0.90
6/22/2004	20:15:00			28.9	6.9	0.1678	0.1	55.2	4.3	0.90
6/22/2004	20:30:00			28.7	6.9	0.1676	0.1	53.2	4.1	0.90
6/22/2004	20:45:00			28.6	6.9	0.1677	0.1	49.4	3.8	0.90
6/22/2004	21:00:00			28.8	6.9	0.1678	0.1	54.9	4.2	0.90
6/22/2004	21:15:00			28.7	6.9	0.1678	0.1	55.4	4.3	0.90
6/22/2004	21:30:00			28.8	6.9	0.1677	0.1	56.6	4.4	0.90
6/22/2004	21:45:00			28.7	6.9	0.1675	0.1	54.5	4.2	0.90
6/22/2004	22:00:00			28.6	6.9	0.1674	0.1	51.6	4.0	0.90
6/22/2004	22:15:00			28.6	6.9	0.1675	0.1	52.1	4.0	0.90
6/22/2004	22:30:00			28.6	6.9	0.1677	0.1	53.5	4.1	0.90
6/22/2004	22:45:00			28.6	6.9	0.1675	0.1	51.5	4.0	0.90
6/22/2004	23:00:00			28.6	6.9	0.1678	0.1	55.5	4.3	0.90
6/22/2004	23:15:00			28.6	6.9	0.1678	0.1	54.4	4.2	0.90
6/22/2004	23:30:00			28.5	6.9	0.1676	0.1	52.4	4.1	0.90
6/22/2004	23:45:00			28.5	6.9	0.1675	0.1	50.2	3.9	0.90
6/23/2004	0:00:00			28.5	6.9	0.1676	0.1	51.7	4.0	0.90

6/23/2004	0:15:00			28.5	6.9	0.1676	0.1	52.5	4.1	0.90
6/23/2004	0:30:00			28.4	6.9	0.1678	0.1	52.2	4.1	0.90
6/23/2004	0:45:00			28.4	6.9	0.1677	0.1	49.4	3.8	0.90
6/23/2004	1:00:00			28.4	6.9	0.1677	0.1	48.5	3.8	0.90
6/23/2004	1:15:00			28.4	6.9	0.1677	0.1	50.1	3.9	0.90
6/23/2004	1:30:00			28.3	6.9	0.1676	0.1	48.2	3.8	0.90
6/23/2004	1:45:00			28.3	6.9	0.1676	0.1	46.6	3.6	0.90
6/23/2004	2:00:00			28.2	6.9	0.1676	0.1	46.7	3.6	0.90
6/23/2004	2:15:00			28.2	6.9	0.1677	0.1	44.5	3.5	0.90
6/23/2004	2:30:00			28.1	6.9	0.1679	0.1	44.3	3.5	0.90
6/23/2004	2:45:00			28.1	6.9	0.1672	0.1	43.0	3.4	0.90
6/23/2004	3:00:00			28.1	6.9	0.1675	0.1	43.9	3.4	0.90
6/23/2004	3:15:00			28.1	6.9	0.1677	0.1	42.7	3.3	0.90
6/23/2004	3:30:00			28.0	6.9	0.1678	0.1	39.4	3.1	0.90
6/23/2004	3:45:00			28.0	6.9	0.1676	0.1	37.7	3.0	0.90
6/23/2004	4:00:00			28.0	6.9	0.1679	0.1	38.9	3.0	0.90
6/23/2004	4:15:00			27.9	6.9	0.1681	0.1	36.1	2.8	0.90
6/23/2004	4:30:00			27.9	6.9	0.168	0.1	39.5	3.1	0.90
6/23/2004	4:45:00			27.9	6.8	0.1682	0.1	34.0	2.7	0.90
6/23/2004	5:00:00			27.8	6.9	0.1682	0.1	36.1	2.8	0.90
6/23/2004	5:15:00			27.8	6.9	0.1682	0.1	33.3	2.6	0.90
6/23/2004	5:30:00			27.8	6.9	0.1683	0.1	33.0	2.6	0.90
6/23/2004	5:45:00			27.8	6.8	0.1681	0.1	33.4	2.6	0.90
6/23/2004	6:00:00			27.8	6.8	0.1679	0.1	32.8	2.6	0.90
6/23/2004	6:15:00			27.7	6.8	0.1678	0.1	33.1	2.6	0.90
6/23/2004	6:30:00			27.7	6.9	0.1678	0.1	32.4	2.6	0.90
6/23/2004	6:45:00			27.7	6.9	0.1674	0.1	32.5	2.6	0.90
6/23/2004	7:00:00			27.7	6.8	0.1674	0.1	32.2	2.5	0.90
6/23/2004	7:15:00			27.6	6.9	0.1674	0.1	31.6	2.5	0.90
6/23/2004	7:30:00			27.6	6.9	0.1673	0.1	31.5	2.5	0.90
6/23/2004	7:45:00			27.6	6.9	0.1673	0.1	31.9	2.5	0.90
6/23/2004	8:00:00			27.6	6.9	0.1674	0.1	30.5	2.4	0.90
6/23/2004	8:15:00			27.6	6.8	0.1676	0.1	30.0	2.4	0.90
6/23/2004	8:30:00			27.6	6.8	0.168	0.1	28.8	2.3	0.90
6/23/2004	8:45:00			27.6	6.8	0.1676	0.1	30.0	2.4	0.90
6/23/2004	9:00:00			27.6	6.8	0.1677	0.1	27.5	2.2	0.90
6/23/2004	9:15:00			27.6	6.8	0.1675	0.1	29.4	2.3	0.90
6/23/2004	9:30:00			27.6	6.8	0.1679	0.1	30.0	2.4	0.90
6/23/2004	9:45:00			27.6	6.8	0.1678	0.1	29.9	2.4	0.90
6/23/2004	10:00:00			27.6	6.8	0.1677	0.1	30.2	2.4	0.90
6/23/2004	10:15:00			27.7	6.8	0.1677	0.1	31.0	2.4	0.90
6/23/2004	10:30:00			27.7	6.8	0.1674	0.1	32.3	2.5	0.90
6/23/2004	10:45:00			27.8	6.8	0.1673	0.1	32.9	2.6	0.90
6/23/2004	11:00:00			27.7	6.8	0.1672	0.1	33.0	2.6	0.90
6/23/2004	11:15:00			27.8	6.8	0.1665	0.1	33.3	2.6	0.90
6/23/2004	11:30:00			27.9	6.8	0.1663	0.1	38.7	3.0	0.90
6/23/2004	11:45:00			27.8	6.9	0.1661	0.1	36.3	2.9	0.90
6/23/2004	12:00:00			27.9	6.8	0.1659	0.1	39.1	3.1	0.90

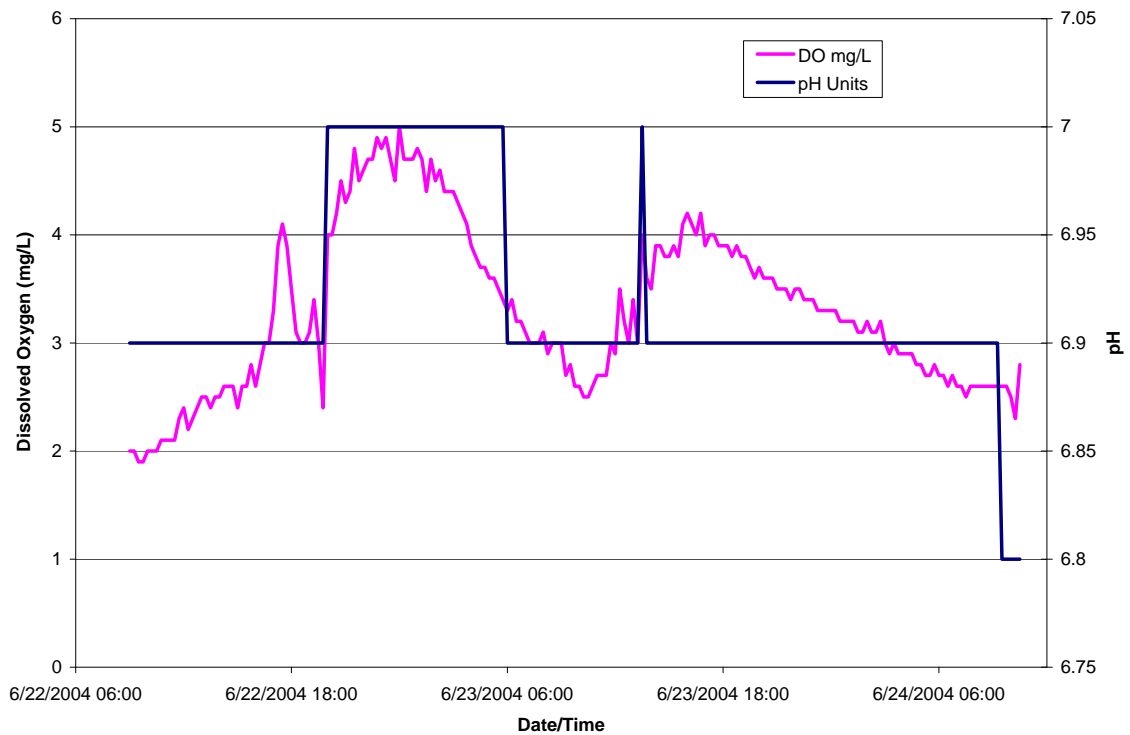
6/23/2004	12:15:00			28.0	6.9	0.1662	0.1	43.5	3.4	0.90
6/23/2004	12:30:00			28.1	6.9	0.1659	0.1	48.1	3.8	0.90
6/23/2004	12:45:00			28.0	6.9	0.1658	0.1	42.7	3.3	0.90
6/23/2004	13:00:00			28.1	6.9	0.1629	0.1	53.3	4.2	0.92
6/23/2004	13:15:00			28.1	6.9	0.1623	0.1	54.0	4.2	0.92
6/23/2004	13:30:00			28.1	6.9	0.1623	0.1	51.7	4.0	0.91
6/23/2004	13:45:00			28.1	6.9	0.1617	0.1	54.4	4.3	0.91
6/23/2004	14:00:00			28.0	6.9	0.1625	0.1	43.7	3.4	0.91
6/23/2004	14:15:00			28.0	6.9	0.1607	0.1	46.4	3.6	0.91
6/23/2004	14:30:00			28.1	6.9	0.1595	0.1	50.5	3.9	0.91
6/23/2004	14:45:00			28.0	6.9	0.1587	0.1	49.8	3.9	0.91
6/23/2004	15:00:00			28.0	6.9	0.1597	0.1	49.0	3.8	0.91
6/23/2004	15:15:00			28.0	6.9	0.1596	0.1	44.5	3.5	0.91
6/23/2004	15:30:00			28.2	6.9	0.1581	0.1	57.7	4.5	0.91
6/23/2004	15:45:00			28.1	6.9	0.1578	0.1	52.7	4.1	0.91
6/23/2004	16:00:00			28.1	6.9	0.1571	0.1	53.5	4.2	0.91
6/23/2004	16:15:00			28.0	6.9	0.1572	0.1	45.8	3.6	0.91
6/23/2004	16:30:00			28.1	6.9	0.157	0.1	51.7	4.0	0.91
6/23/2004	16:45:00			28.2	6.9	0.157	0.1	55.6	4.3	0.91
6/23/2004	17:00:00			27.9	6.9	0.1569	0.1	43.2	3.4	0.91
6/23/2004	17:15:00			28.1	6.9	0.1582	0.1	50.7	4.0	0.91
6/23/2004	17:30:00			28.1	6.9	0.1583	0.1	48.9	3.8	0.91
6/23/2004	17:45:00			28.0	6.9	0.1574	0.1	48.3	3.8	0.91
6/23/2004	18:00:00			28.0	6.9	0.1581	0.1	46.0	3.6	0.91
6/23/2004	18:15:00			28.1	6.9	0.1577	0.1	47.8	3.7	0.91
6/23/2004	18:30:00			28.1	6.9	0.1574	0.1	49.2	3.8	0.91
6/23/2004	18:45:00			28.0	6.9	0.157	0.1	45.9	3.6	0.91
6/23/2004	19:00:00			28.0	6.9	0.1569	0.1	48.7	3.8	0.91
6/23/2004	19:15:00			28.0	6.9	0.1569	0.1	48.9	3.8	0.91
6/23/2004	19:30:00			28.0	6.9	0.156	0.1	47.7	3.7	0.91
6/23/2004	19:45:00			28.1	6.9	0.1565	0.1	50.2	3.9	0.91
6/23/2004	20:00:00			28.0	6.9	0.1552	0.1	48.4	3.8	0.91
6/23/2004	20:15:00			28.0	6.9	0.1555	0.1	51.8	4.1	0.91
6/23/2004	20:30:00			28.0	6.9	0.1558	0.1	48.1	3.8	0.91
6/23/2004	20:45:00			27.9	6.9	0.1553	0.1	48.1	3.8	0.91
6/23/2004	21:00:00			27.9	6.9	0.1555	0.1	46.8	3.7	0.91
6/23/2004	21:15:00			27.9	6.9	0.1553	0.1	47.0	3.7	0.91
6/23/2004	21:30:00			27.9	6.9	0.1549	0.1	45.6	3.6	0.91
6/23/2004	21:45:00			27.9	6.9	0.1552	0.1	46.1	3.6	0.91
6/23/2004	22:00:00			27.8	6.8	0.1551	0.1	43.5	3.4	0.91
6/23/2004	22:15:00			27.8	6.9	0.1551	0.1	45.3	3.6	0.91
6/23/2004	22:30:00			27.8	6.9	0.1551	0.1	44.5	3.5	0.91
6/23/2004	22:45:00			27.8	6.8	0.1553	0.1	44.3	3.5	0.91
6/23/2004	23:00:00			27.8	6.9	0.1551	0.1	44.2	3.5	0.91
6/23/2004	23:15:00			27.8	6.8	0.1551	0.1	44.6	3.5	0.91
6/23/2004	23:30:00			27.8	6.8	0.1551	0.1	43.9	3.5	0.91
6/23/2004	23:45:00			27.8	6.8	0.155	0.1	43.9	3.5	0.91
6/24/2004	0:00:00			27.8	6.8	0.1549	0.1	43.3	3.4	0.91

6/24/2004	0:15:00			27.7	6.9	0.155	0.1	43.2	3.4	0.91
6/24/2004	0:30:00			27.7	6.8	0.1551	0.1	43.0	3.4	0.91
6/24/2004	0:45:00			27.7	6.8	0.1551	0.1	42.3	3.3	0.91
6/24/2004	1:00:00			27.7	6.8	0.1551	0.1	41.2	3.2	0.91
6/24/2004	1:15:00			27.7	6.8	0.1551	0.1	40.9	3.2	0.91
6/24/2004	1:30:00			27.7	6.8	0.155	0.1	40.7	3.2	0.91
6/24/2004	1:45:00			27.7	6.8	0.1552	0.1	40.1	3.2	0.91
6/24/2004	2:00:00			27.7	6.8	0.1549	0.1	41.3	3.3	0.91
6/24/2004	2:15:00			27.7	6.8	0.1551	0.1	41.5	3.3	0.91
6/24/2004	2:30:00			27.6	6.8	0.1551	0.1	40.7	3.2	0.91
6/24/2004	2:45:00			27.6	6.8	0.1553	0.1	38.8	3.1	0.91
6/24/2004	3:00:00			27.6	6.8	0.1551	0.1	38.5	3.0	0.91
6/24/2004	3:15:00			27.6	6.8	0.1552	0.1	39.8	3.1	0.91
6/24/2004	3:30:00			27.6	6.8	0.1552	0.1	39.6	3.1	0.91
6/24/2004	3:45:00			27.6	6.8	0.1553	0.1	39.8	3.1	0.91
6/24/2004	4:00:00			27.6	6.8	0.1553	0.1	39.6	3.1	0.91
6/24/2004	4:15:00			27.6	6.8	0.1554	0.1	38.8	3.1	0.91
6/24/2004	4:30:00			27.6	6.8	0.1555	0.1	38.8	3.1	0.91
6/24/2004	4:45:00			27.6	6.8	0.1556	0.1	39.3	3.1	0.91
6/24/2004	5:00:00			27.5	6.8	0.1556	0.1	39.9	3.2	0.91
6/24/2004	5:15:00			27.5	6.8	0.1557	0.1	39.8	3.1	0.91
6/24/2004	5:30:00			27.5	6.8	0.1558	0.1	38.8	3.1	0.91
6/24/2004	5:45:00			27.5	6.8	0.1559	0.1	38.8	3.1	0.91
6/24/2004	6:00:00			27.5	6.8	0.1559	0.1	38.6	3.1	0.91
6/24/2004	6:15:00			27.5	6.8	0.1561	0.1	37.8	3.0	0.91
6/24/2004	6:30:00			27.5	6.8	0.1562	0.1	37.6	3.0	0.91
6/24/2004	6:45:00			27.5	6.8	0.1564	0.1	37.2	2.9	0.91
6/24/2004	7:00:00			27.4	6.8	0.1569	0.1	37.6	3.0	0.91
6/24/2004	7:15:00			27.4	6.8	0.1568	0.1	36.0	2.9	0.91
6/24/2004	7:30:00			27.4	6.8	0.1569	0.1	35.2	2.8	0.91
6/24/2004	7:45:00			27.4	6.8	0.1572	0.1	34.7	2.7	0.91
6/24/2004	8:00:00			27.4	6.8	0.1574	0.1	34.2	2.7	0.91
6/24/2004	8:15:00			27.4	6.8	0.1578	0.1	34.0	2.7	0.91
6/24/2004	8:30:00			27.4	6.8	0.158	0.1	33.6	2.7	0.91
6/24/2004	8:45:00			27.4	6.8	0.1582	0.1	33.4	2.6	0.91
6/24/2004	9:00:00			27.4	6.8	0.1586	0.1	33.5	2.7	0.91
6/24/2004	9:15:00			27.4	6.8	0.159	0.1	33.2	2.6	0.91
6/24/2004	9:30:00			27.4	6.8	0.1593	0.1	32.7	2.6	0.91
6/24/2004	9:45:00			27.4	6.8	0.1594	0.1	32.5	2.6	0.91
6/24/2004	10:00:00			27.4	6.8	0.1598	0.1	31.6	2.5	0.91
6/24/2004	10:15:00			27.4	6.8	0.1602	0.1	31.3	2.5	0.91
6/24/2004	10:30:00			27.4	6.8	0.1609	0.1	32.1	2.5	0.91
6/24/2004	10:45:00			27.5	6.8	0.1614	0.1	33.5	2.6	0.91

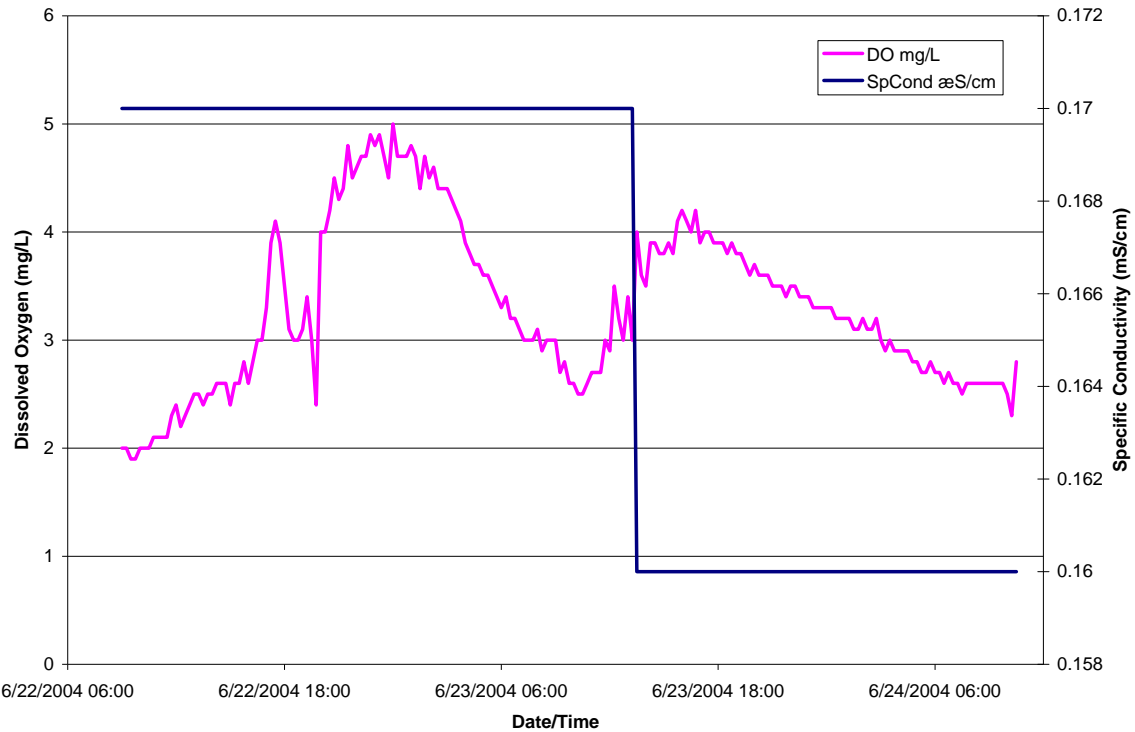
GRB7: DO & Temp v. Date/Time



GRB7: DO & pH v. Date/Time



GRB7: DO & SpCond v. Date/Time



MiniSonde 4a 41500									
Log File Name : GRB7		Summary: 06/23/2004 00:00:00 to 06/24/2004 00:00:00							
Setup Date (MMDDYY) : 062104									
Setup Time (HHMMSS) : 113200			Temp	pH	SpCond	Sal	DO%	DO	
Starting Date (MMDDYY) : 062104			øC	Units	mS/cm	ppt	Sat	mg/l	
Starting Time (HHMMSS) : 114500		Average	28.28	6.93	0.17	0.08	46.33	3.60	
Stopping Date (MMDDYY) : 062404		Min	27.90	6.88	0.16	0.07	31.50	2.46	
Stopping Time (HHMMSS) : 235959		Max	28.99	7.02	0.18	0.08	64.40	4.95	
Interval (HHMMSS) : 001500									
Sensor warmup (HHMMSS) : 000200									
Circltr warmup (HHMMSS) : 000200									
Date	Time		Temp	pH	SpCond	Sal	DO%	DO	
MMDDYY	HHMMSS		øC	Units	mS/cm	ppt	Sat	mg/l	
6/22/2004	9:00:00		27.8	6.9	0.1797	0.1	25.8	2.0	
6/22/2004	9:15:00		27.7	6.9	0.1799	0.1	25.1	2.0	
6/22/2004	9:30:00		27.7	6.9	0.1796	0.1	24.1	1.9	
6/22/2004	9:45:00		27.6	6.9	0.1791	0.1	24.0	1.9	
6/22/2004	10:00:00		27.6	6.9	0.1789	0.1	24.8	2.0	
6/22/2004	10:15:00		27.6	6.9	0.1779	0.1	25.1	2.0	
6/22/2004	10:30:00		27.6	6.9	0.177	0.1	25.6	2.0	

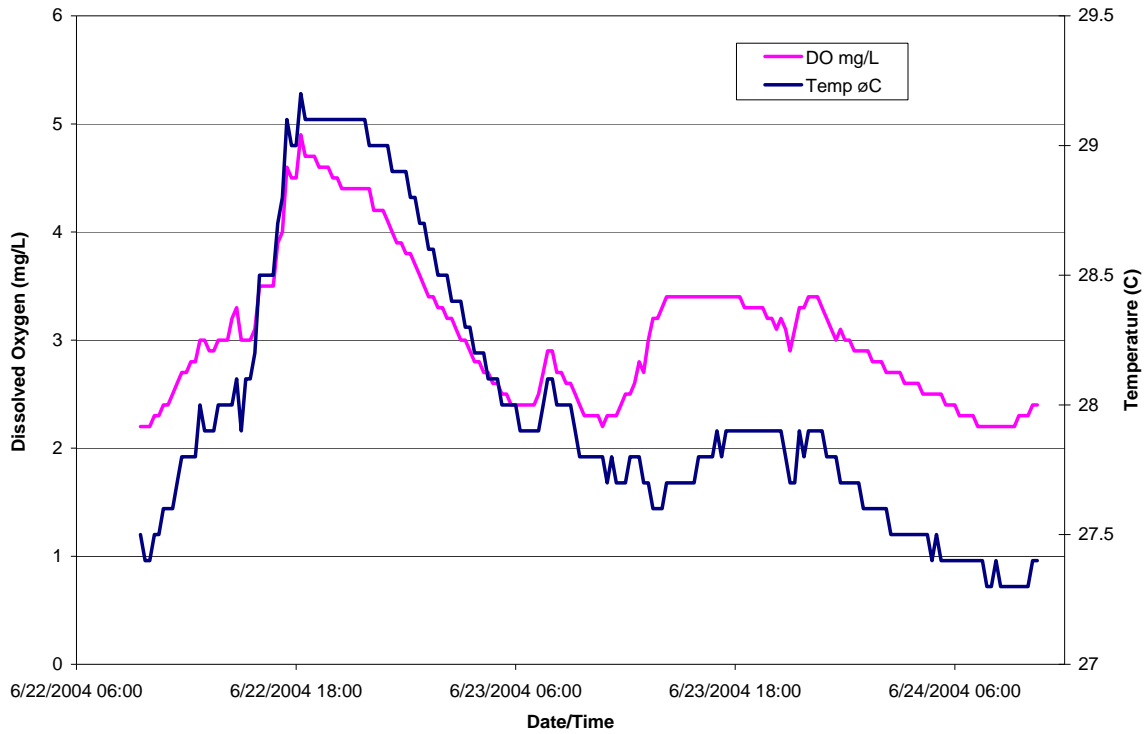
6/22/2004	10:45:00			27.6	6.9	0.1773	0.1	26.5	2.1
6/22/2004	11:00:00			27.6	6.9	0.1762	0.1	26.5	2.1
6/22/2004	11:15:00			27.7	6.9	0.176	0.1	26.5	2.1
6/22/2004	11:30:00			27.7	6.9	0.1765	0.1	27.1	2.1
6/22/2004	11:45:00			27.8	6.9	0.1763	0.1	28.8	2.3
6/22/2004	12:00:00			27.8	6.9	0.1759	0.1	30.5	2.4
6/22/2004	12:15:00			27.8	6.9	0.1758	0.1	28.4	2.2
6/22/2004	12:30:00			27.8	6.9	0.1754	0.1	29.8	2.3
6/22/2004	12:45:00			27.9	6.9	0.1745	0.1	30.9	2.4
6/22/2004	13:00:00			27.9	6.9	0.1748	0.1	31.3	2.5
6/22/2004	13:15:00			27.9	6.9	0.1744	0.1	31.9	2.5
6/22/2004	13:30:00			27.9	6.9	0.1743	0.1	30.6	2.4
6/22/2004	13:45:00			27.9	6.9	0.1742	0.1	31.9	2.5
6/22/2004	14:00:00			28.0	6.9	0.1738	0.1	32.4	2.5
6/22/2004	14:15:00			28.1	6.9	0.1733	0.1	33.0	2.6
6/22/2004	14:30:00			28.1	6.9	0.1734	0.1	33.7	2.6
6/22/2004	14:45:00			28.1	6.9	0.1734	0.1	33.4	2.6
6/22/2004	15:00:00			28.0	6.9	0.1738	0.1	30.7	2.4
6/22/2004	15:15:00			28.1	6.9	0.1739	0.1	33.1	2.6
6/22/2004	15:30:00			28.1	6.9	0.1737	0.1	33.8	2.6
6/22/2004	15:45:00			28.2	6.9	0.1737	0.1	35.3	2.8
6/22/2004	16:00:00			28.1	6.9	0.1736	0.1	33.8	2.6
6/22/2004	16:15:00			28.2	6.9	0.1738	0.1	35.9	2.8
6/22/2004	16:30:00			28.4	6.9	0.1739	0.1	39.1	3.0
6/22/2004	16:45:00			28.4	6.9	0.1733	0.1	38.5	3.0
6/22/2004	17:00:00			28.6	6.9	0.1732	0.1	42.5	3.3
6/22/2004	17:15:00			28.9	6.9	0.1738	0.1	50.5	3.9
6/22/2004	17:30:00			28.9	6.9	0.1739	0.1	52.8	4.1
6/22/2004	17:45:00			28.9	6.9	0.1742	0.1	50.9	3.9
6/22/2004	18:00:00			28.7	6.9	0.1742	0.1	45.0	3.5
6/22/2004	18:15:00			28.6	6.9	0.1733	0.1	40.2	3.1
6/22/2004	18:30:00			28.4	6.9	0.1733	0.1	38.1	3.0
6/22/2004	18:45:00			28.4	6.9	0.1728	0.1	38.1	3.0
6/22/2004	19:00:00			28.5	6.9	0.1729	0.1	39.5	3.1
6/22/2004	19:15:00			28.7	6.9	0.1734	0.1	43.6	3.4
6/22/2004	19:30:00			28.4	6.9	0.1733	0.1	38.4	3.0
6/22/2004	19:45:00			28.2	6.9	0.1726	0.1	31.0	2.4
6/22/2004	20:00:00			28.9	7.0	0.175	0.1	51.9	4.0
6/22/2004	20:15:00			28.9	7.0	0.1749	0.1	51.3	4.0
6/22/2004	20:30:00			28.9	7.0	0.1753	0.1	54.3	4.2
6/22/2004	20:45:00			29.0	7.0	0.1751	0.1	58.1	4.5
6/22/2004	21:00:00			29.0	7.0	0.1752	0.1	56.5	4.3
6/22/2004	21:15:00			29.0	7.0	0.1751	0.1	56.7	4.4
6/22/2004	21:30:00			29.1	7.0	0.1761	0.1	62.5	4.8
6/22/2004	21:45:00			29.0	7.0	0.1757	0.1	58.2	4.5
6/22/2004	22:00:00			29.0	7.0	0.1758	0.1	59.7	4.6
6/22/2004	22:15:00			29.1	7.0	0.1758	0.1	61.4	4.7
6/22/2004	22:30:00			29.1	7.0	0.1753	0.1	61.4	4.7

6/22/2004	22:45:00			29.1	7.0	0.1753	0.1	63.4	4.9
6/22/2004	23:00:00			29.0	7.0	0.1756	0.1	62.8	4.8
6/22/2004	23:15:00			29.0	7.0	0.1752	0.1	63.1	4.9
6/22/2004	23:30:00			29.0	7.0	0.1755	0.1	61.5	4.7
6/22/2004	23:45:00			29.0	7.0	0.1751	0.1	58.2	4.5
6/23/2004	0:00:00			29.0	7.0	0.1758	0.1	64.4	5.0
6/23/2004	0:15:00			29.0	7.0	0.1756	0.1	61.0	4.7
6/23/2004	0:30:00			29.0	7.0	0.1754	0.1	60.9	4.7
6/23/2004	0:45:00			29.0	7.0	0.1753	0.1	60.5	4.7
6/23/2004	1:00:00			28.9	7.0	0.1751	0.1	62.3	4.8
6/23/2004	1:15:00			28.9	7.0	0.1751	0.1	60.6	4.7
6/23/2004	1:30:00			28.9	7.0	0.175	0.1	57.6	4.4
6/23/2004	1:45:00			28.9	7.0	0.1754	0.1	61.2	4.7
6/23/2004	2:00:00			28.8	7.0	0.1749	0.1	58.4	4.5
6/23/2004	2:15:00			28.8	7.0	0.1749	0.1	59.2	4.6
6/23/2004	2:30:00			28.8	7.0	0.1747	0.1	57.5	4.4
6/23/2004	2:45:00			28.7	7.0	0.1745	0.1	57.5	4.4
6/23/2004	3:00:00			28.7	7.0	0.175	0.1	56.6	4.4
6/23/2004	3:15:00			28.7	7.0	0.1744	0.1	55.9	4.3
6/23/2004	3:30:00			28.6	7.0	0.1748	0.1	54.4	4.2
6/23/2004	3:45:00			28.6	7.0	0.1745	0.1	53.0	4.1
6/23/2004	4:00:00			28.6	7.0	0.1742	0.1	50.9	3.9
6/23/2004	4:15:00			28.6	7.0	0.1743	0.1	48.8	3.8
6/23/2004	4:30:00			28.6	7.0	0.1741	0.1	48.3	3.7
6/23/2004	4:45:00			28.6	7.0	0.1739	0.1	47.3	3.7
6/23/2004	5:00:00			28.6	7.0	0.1742	0.1	47.0	3.6
6/23/2004	5:15:00			28.5	7.0	0.1742	0.1	45.9	3.6
6/23/2004	5:30:00			28.5	7.0	0.1743	0.1	45.3	3.5
6/23/2004	5:45:00			28.5	7.0	0.1742	0.1	44.2	3.4
6/23/2004	6:00:00			28.4	6.9	0.1743	0.1	42.6	3.3
6/23/2004	6:15:00			28.4	6.9	0.1745	0.1	43.2	3.4
6/23/2004	6:30:00			28.4	6.9	0.1745	0.1	40.9	3.2
6/23/2004	6:45:00			28.3	6.9	0.1746	0.1	40.5	3.2
6/23/2004	7:00:00			28.3	6.9	0.1742	0.1	39.8	3.1
6/23/2004	7:15:00			28.3	6.9	0.1741	0.1	38.8	3.0
6/23/2004	7:30:00			28.3	6.9	0.1744	0.1	38.2	3.0
6/23/2004	7:45:00			28.3	6.9	0.1741	0.1	38.9	3.0
6/23/2004	8:00:00			28.3	6.9	0.174	0.1	39.6	3.1
6/23/2004	8:15:00			28.3	6.9	0.1742	0.1	37.6	2.9
6/23/2004	8:30:00			28.3	6.9	0.1744	0.1	38.5	3.0
6/23/2004	8:45:00			28.3	6.9	0.1738	0.1	38.2	3.0
6/23/2004	9:00:00			28.3	6.9	0.1745	0.1	37.9	3.0
6/23/2004	9:15:00			28.2	6.9	0.1743	0.1	34.8	2.7
6/23/2004	9:30:00			28.2	6.9	0.174	0.1	35.4	2.8
6/23/2004	9:45:00			28.2	6.9	0.1743	0.1	33.2	2.6
6/23/2004	10:00:00			28.2	6.9	0.1744	0.1	33.0	2.6
6/23/2004	10:15:00			28.2	6.9	0.1745	0.1	32.6	2.5
6/23/2004	10:30:00			28.2	6.9	0.1744	0.1	31.5	2.5

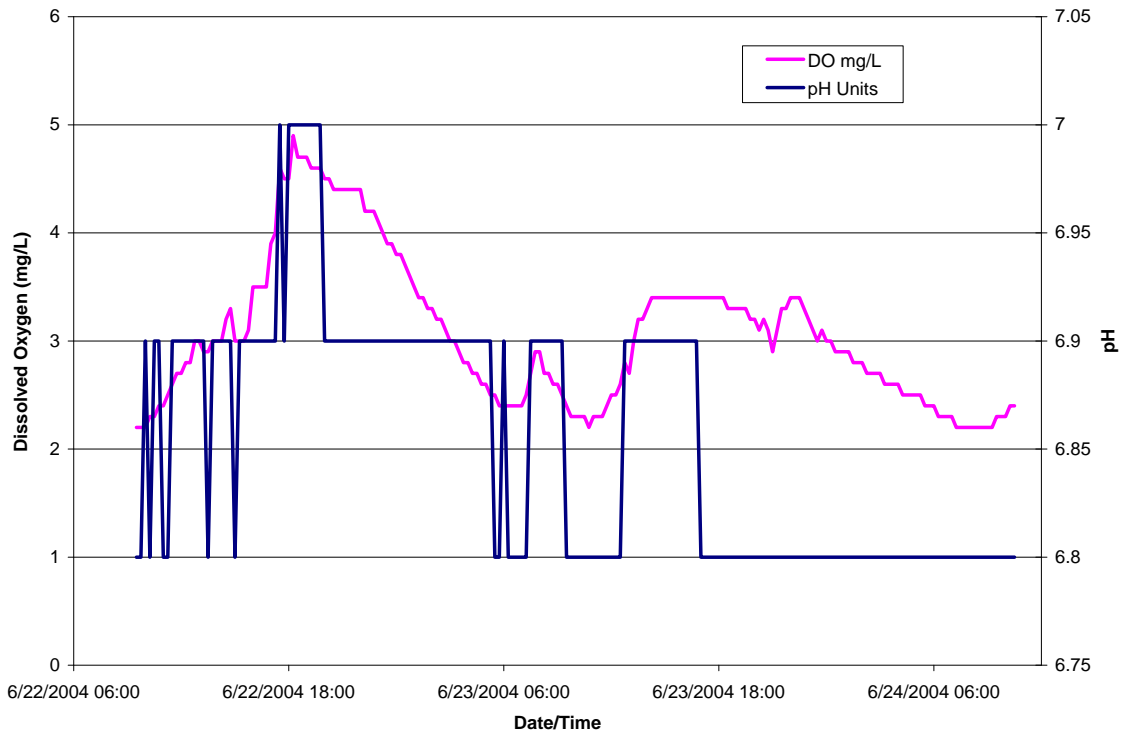
6/23/2004	10:45:00			28.2	6.9	0.1746	0.1	33.8	2.6
6/23/2004	11:00:00			28.1	6.9	0.1741	0.1	34.1	2.7
6/23/2004	11:15:00			28.1	6.9	0.1742	0.1	35.1	2.7
6/23/2004	11:30:00			28.1	6.9	0.1742	0.1	35.1	2.7
6/23/2004	11:45:00			28.2	6.9	0.1736	0.1	37.9	3.0
6/23/2004	12:00:00			28.2	6.9	0.1737	0.1	37.1	2.9
6/23/2004	12:15:00			28.3	6.9	0.1722	0.1	44.4	3.5
6/23/2004	12:30:00			28.3	6.9	0.1724	0.1	40.9	3.2
6/23/2004	12:45:00			28.2	6.9	0.1728	0.1	38.0	3.0
6/23/2004	13:00:00			28.3	6.9	0.1713	0.1	43.6	3.4
6/23/2004	13:15:00			28.1	6.9	0.1712	0.1	38.6	3.0
6/23/2004	13:30:00			28.2	7.0	0.1672	0.1	51.1	4.0
6/23/2004	13:45:00			28.1	6.9	0.1676	0.1	45.5	3.6
6/23/2004	14:00:00			28.1	6.9	0.1668	0.1	45.0	3.5
6/23/2004	14:15:00			28.1	6.9	0.167	0.1	49.5	3.9
6/23/2004	14:30:00			28.2	6.9	0.1657	0.1	49.8	3.9
6/23/2004	14:45:00			28.2	6.9	0.1659	0.1	48.7	3.8
6/23/2004	15:00:00			28.1	6.9	0.1637	0.1	48.0	3.8
6/23/2004	15:15:00			28.1	6.9	0.1641	0.1	49.3	3.9
6/23/2004	15:30:00			28.0	6.9	0.1636	0.1	49.0	3.8
6/23/2004	15:45:00			28.2	6.9	0.1642	0.1	52.9	4.1
6/23/2004	16:00:00			28.3	6.9	0.164	0.1	54.4	4.2
6/23/2004	16:15:00			28.2	6.9	0.1639	0.1	52.2	4.1
6/23/2004	16:30:00			28.2	6.9	0.1637	0.1	51.8	4.0
6/23/2004	16:45:00			28.2	6.9	0.1644	0.1	53.5	4.2
6/23/2004	17:00:00			28.1	6.9	0.1639	0.1	49.3	3.9
6/23/2004	17:15:00			28.2	6.9	0.1635	0.1	51.5	4.0
6/23/2004	17:30:00			28.2	6.9	0.1643	0.1	50.6	4.0
6/23/2004	17:45:00			28.2	6.9	0.1641	0.1	50.3	3.9
6/23/2004	18:00:00			28.1	6.9	0.164	0.1	49.6	3.9
6/23/2004	18:15:00			28.1	6.9	0.164	0.1	50.3	3.9
6/23/2004	18:30:00			28.1	6.9	0.1631	0.1	48.9	3.8
6/23/2004	18:45:00			28.1	6.9	0.1638	0.1	49.9	3.9
6/23/2004	19:00:00			28.1	6.9	0.1636	0.1	49.3	3.8
6/23/2004	19:15:00			28.1	6.9	0.1637	0.1	48.0	3.8
6/23/2004	19:30:00			28.1	6.9	0.1635	0.1	46.9	3.7
6/23/2004	19:45:00			28.1	6.9	0.1631	0.1	46.5	3.6
6/23/2004	20:00:00			28.1	6.9	0.163	0.1	47.0	3.7
6/23/2004	20:15:00			28.0	6.9	0.1629	0.1	46.3	3.6
6/23/2004	20:30:00			28.0	6.9	0.163	0.1	45.5	3.6
6/23/2004	20:45:00			28.0	6.9	0.163	0.1	45.8	3.6
6/23/2004	21:00:00			28.0	6.9	0.1633	0.1	44.7	3.5
6/23/2004	21:15:00			28.0	6.9	0.1626	0.1	44.7	3.5
6/23/2004	21:30:00			28.0	6.9	0.1631	0.1	44.7	3.5
6/23/2004	21:45:00			28.0	6.9	0.1624	0.1	43.7	3.4
6/23/2004	22:00:00			28.0	6.9	0.1626	0.1	44.7	3.5
6/23/2004	22:15:00			28.0	6.9	0.1628	0.1	44.1	3.5
6/23/2004	22:30:00			28.0	6.9	0.1627	0.1	43.4	3.4

6/23/2004	22:45:00			27.9	6.9	0.1622	0.1	43.4	3.4
6/23/2004	23:00:00			27.9	6.9	0.1627	0.1	43.3	3.4
6/23/2004	23:15:00			27.9	6.9	0.1623	0.1	42.6	3.3
6/23/2004	23:30:00			27.9	6.9	0.1623	0.1	42.1	3.3
6/23/2004	23:45:00			27.9	6.9	0.1625	0.1	42.4	3.3
6/24/2004	0:00:00			27.9	6.9	0.1625	0.1	41.6	3.3
6/24/2004	0:15:00			27.9	6.9	0.162	0.1	41.4	3.3
6/24/2004	0:30:00			27.9	6.9	0.1621	0.1	41.1	3.2
6/24/2004	0:45:00			27.9	6.9	0.1623	0.1	41.0	3.2
6/24/2004	1:00:00			27.9	6.9	0.1623	0.1	40.5	3.2
6/24/2004	1:15:00			27.8	6.9	0.1622	0.1	40.9	3.2
6/24/2004	1:30:00			27.8	6.9	0.1623	0.1	40.1	3.1
6/24/2004	1:45:00			27.8	6.9	0.1623	0.1	39.7	3.1
6/24/2004	2:00:00			27.8	6.9	0.1619	0.1	40.1	3.2
6/24/2004	2:15:00			27.8	6.9	0.1617	0.1	39.8	3.1
6/24/2004	2:30:00			27.8	6.9	0.162	0.1	39.2	3.1
6/24/2004	2:45:00			27.8	6.9	0.1619	0.1	40.1	3.2
6/24/2004	3:00:00			27.8	6.9	0.1617	0.1	38.5	3.0
6/24/2004	3:15:00			27.7	6.9	0.1617	0.1	36.8	2.9
6/24/2004	3:30:00			27.7	6.9	0.1624	0.1	38.5	3.0
6/24/2004	3:45:00			27.7	6.9	0.1623	0.1	37.4	2.9
6/24/2004	4:00:00			27.7	6.9	0.1619	0.1	36.6	2.9
6/24/2004	4:15:00			27.7	6.9	0.1615	0.1	36.5	2.9
6/24/2004	4:30:00			27.7	6.9	0.1621	0.1	36.7	2.9
6/24/2004	4:45:00			27.7	6.9	0.1622	0.1	35.8	2.8
6/24/2004	5:00:00			27.7	6.9	0.1624	0.1	35.8	2.8
6/24/2004	5:15:00			27.6	6.9	0.1621	0.1	34.6	2.7
6/24/2004	5:30:00			27.6	6.9	0.1624	0.1	34.7	2.7
6/24/2004	5:45:00			27.6	6.9	0.1626	0.1	34.8	2.8
6/24/2004	6:00:00			27.6	6.9	0.1624	0.1	33.9	2.7
6/24/2004	6:15:00			27.6	6.9	0.1625	0.1	34.2	2.7
6/24/2004	6:30:00			27.5	6.9	0.162	0.1	33.5	2.6
6/24/2004	6:45:00			27.5	6.9	0.1625	0.1	33.5	2.7
6/24/2004	7:00:00			27.5	6.9	0.162	0.1	32.9	2.6
6/24/2004	7:15:00			27.5	6.9	0.1618	0.1	32.3	2.6
6/24/2004	7:30:00			27.5	6.9	0.1622	0.1	32.2	2.5
6/24/2004	7:45:00			27.5	6.9	0.1624	0.1	32.9	2.6
6/24/2004	8:00:00			27.4	6.9	0.1623	0.1	32.4	2.6
6/24/2004	8:15:00			27.4	6.9	0.1624	0.1	32.7	2.6
6/24/2004	8:30:00			27.4	6.9	0.1628	0.1	32.2	2.6
6/24/2004	8:45:00			27.4	6.9	0.1625	0.1	33.1	2.6
6/24/2004	9:00:00			27.4	6.9	0.1624	0.1	32.5	2.6
6/24/2004	9:15:00			27.4	6.9	0.1621	0.1	32.7	2.6
6/24/2004	9:30:00			27.4	6.8	0.1613	0.1	32.6	2.6
6/24/2004	9:45:00			27.4	6.8	0.1608	0.1	32.9	2.6
6/24/2004	10:00:00			27.4	6.8	0.1605	0.1	32.0	2.5
6/24/2004	10:15:00			27.3	6.8	0.1609	0.1	29.2	2.3
6/24/2004	10:30:00			27.4	6.8	0.1616	0.1	35.0	2.8

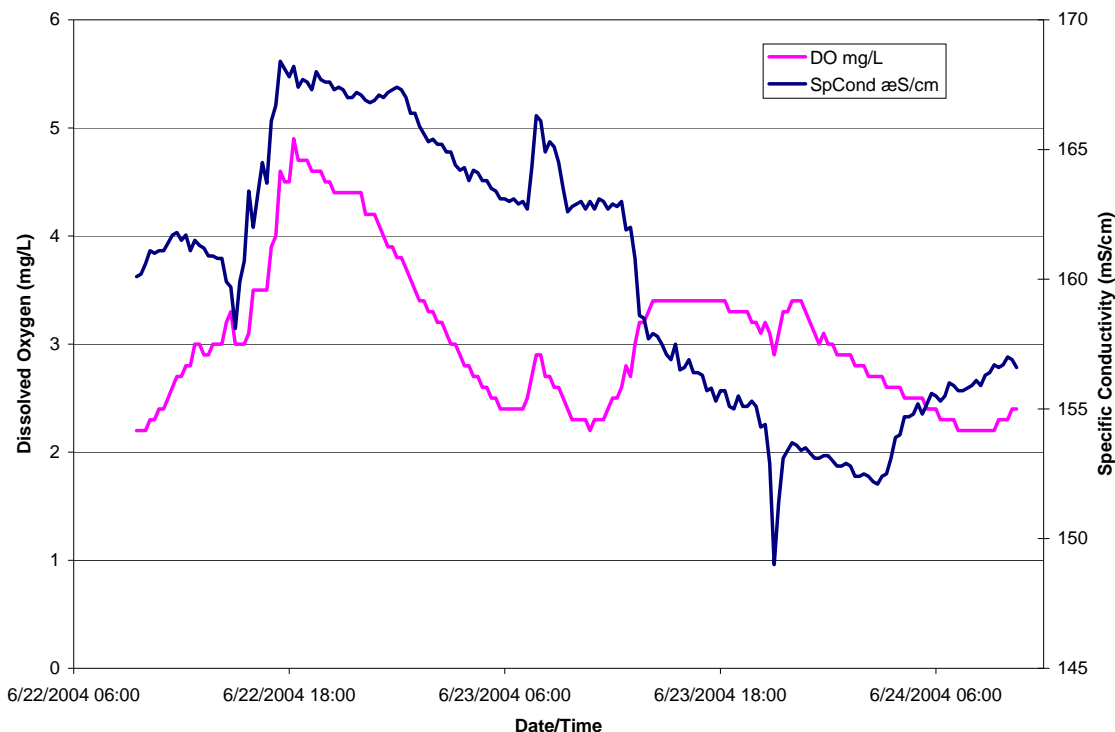
BA1: DO & Temp v. Date/Time



BA1: DO & pH v. Date/Time



BA1: DO & SpCond v. Date/Time



MiniSonde 4a 40804
 Log File Name : BA1
 Setup Date (MMDDYY) : 062104
 Setup Time (HHMMSS) : 113537
 Starting Date (MMDDYY) : 062104
 Starting Time (HHMMSS) : 114500
 Stopping Date (MMDDYY) : 062404
 Stopping Time (HHMMSS) : 235959
 Interval (HHMMSS) : 001500
 Sensor warmup (HHMMSS) :
 000200
 Circltr warmup (HHMMSS) : 000200

Summary:
 06/23/2004 00:00:00 to 06/24/2004 00:00:00

	Temp	SpCond	Sal	pH	DO	DO%
	øC	æS/cm	ppt	Units	mg/l	Sat
Average	27.96	160.11	0.07	6.85	2.99	38.16
Min	27.61	149.00	0.06	6.79	2.24	28.50
Max	28.86	167.40	0.07	6.92	3.79	49.20

Date	Time	Temp	SpCond	Sal	pH	DO	DO%
MMDDYY	HHMMSS	øC	æS/cm	ppt	Units	mg/l	Sat
6/22/2004	9:30:00	27.5	160.1	0.1	6.8	2.2	27.5
6/22/2004	9:45:00	27.5	160.2	0.1	6.8	2.2	27.5
6/22/2004	10:00:00	27.4	160.6	0.1	6.9	2.2	28.0
6/22/2004	10:15:00	27.5	161.1	0.1	6.8	2.3	28.7
6/22/2004	10:30:00	27.5	161.0	0.1	6.9	2.3	29.0
6/22/2004	10:45:00	27.6	161.1	0.1	6.9	2.4	29.9
6/22/2004	11:00:00	27.6	161.1	0.1	6.8	2.4	31.0

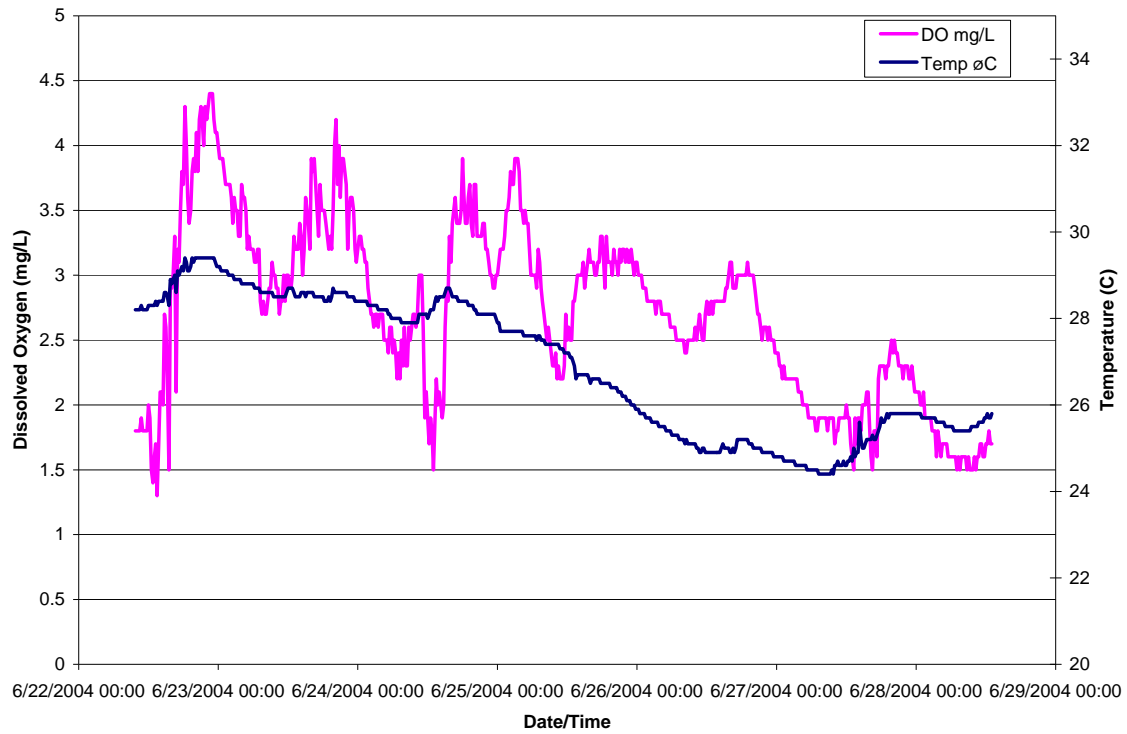
6/22/2004	11:15:00			27.6	161.4	0.1	6.8	2.5	31.6
6/22/2004	11:30:00			27.7	161.7	0.1	6.9	2.6	32.6
6/22/2004	11:45:00			27.8	161.8	0.1	6.9	2.7	34.1
6/22/2004	12:00:00			27.8	161.5	0.1	6.9	2.7	34.5
6/22/2004	12:15:00			27.8	161.7	0.1	6.9	2.8	35.5
6/22/2004	12:30:00			27.8	161.1	0.1	6.9	2.8	35.1
6/22/2004	12:45:00			28.0	161.5	0.1	6.9	3.0	38.6
6/22/2004	13:00:00			27.9	161.3	0.1	6.9	3.0	38.3
6/22/2004	13:15:00			27.9	161.2	0.1	6.9	2.9	37.0
6/22/2004	13:30:00			27.9	160.9	0.1	6.8	2.9	37.3
6/22/2004	13:45:00			28.0	160.9	0.1	6.9	3.0	38.4
6/22/2004	14:00:00			28.0	160.8	0.1	6.9	3.0	38.6
6/22/2004	14:15:00			28.0	160.8	0.1	6.9	3.0	37.7
6/22/2004	14:30:00			28.0	159.9	0.1	6.9	3.2	40.9
6/22/2004	14:45:00			28.1	159.7	0.1	6.9	3.3	42.3
6/22/2004	15:00:00			27.9	158.1	0.1	6.8	3.0	37.8
6/22/2004	15:15:00			28.1	159.9	0.1	6.9	3.0	38.7
6/22/2004	15:30:00			28.1	160.7	0.1	6.9	3.0	38.3
6/22/2004	15:45:00			28.2	163.4	0.1	6.9	3.1	39.7
6/22/2004	16:00:00			28.5	162.0	0.1	6.9	3.5	44.5
6/22/2004	16:15:00			28.5	163.3	0.1	6.9	3.5	45.0
6/22/2004	16:30:00			28.5	164.5	0.1	6.9	3.5	45.0
6/22/2004	16:45:00			28.5	163.7	0.1	6.9	3.5	45.5
6/22/2004	17:00:00			28.7	166.1	0.1	6.9	3.9	50.0
6/22/2004	17:15:00			28.8	166.7	0.1	6.9	4.0	51.8
6/22/2004	17:30:00			29.1	168.4	0.1	7.0	4.6	60.2
6/22/2004	17:45:00			29.0	168.1	0.1	6.9	4.5	58.9
6/22/2004	18:00:00			29.0	167.8	0.1	7.0	4.5	58.7
6/22/2004	18:15:00			29.2	168.2	0.1	7.0	4.9	63.9
6/22/2004	18:30:00			29.1	167.4	0.1	7.0	4.7	60.9
6/22/2004	18:45:00			29.1	167.7	0.1	7.0	4.7	60.9
6/22/2004	19:00:00			29.1	167.6	0.1	7.0	4.7	60.9
6/22/2004	19:15:00			29.1	167.3	0.1	7.0	4.6	59.8
6/22/2004	19:30:00			29.1	168.0	0.1	7.0	4.6	59.8
6/22/2004	19:45:00			29.1	167.7	0.1	7.0	4.6	59.4
6/22/2004	20:00:00			29.1	167.6	0.1	6.9	4.5	58.8
6/22/2004	20:15:00			29.1	167.6	0.1	6.9	4.5	58.4
6/22/2004	20:30:00			29.1	167.3	0.1	6.9	4.4	57.0
6/22/2004	20:45:00			29.1	167.4	0.1	6.9	4.4	57.1
6/22/2004	21:00:00			29.1	167.3	0.1	6.9	4.4	57.1
6/22/2004	21:15:00			29.1	167.0	0.1	6.9	4.4	57.6
6/22/2004	21:30:00			29.1	167.0	0.1	6.9	4.4	57.5
6/22/2004	21:45:00			29.1	167.2	0.1	6.9	4.4	57.3
6/22/2004	22:00:00			29.0	167.1	0.1	6.9	4.4	56.9
6/22/2004	22:15:00			29.0	166.9	0.1	6.9	4.2	55.2
6/22/2004	22:30:00			29.0	166.8	0.1	6.9	4.2	54.3
6/22/2004	22:45:00			29.0	166.9	0.1	6.9	4.2	54.0
6/22/2004	23:00:00			29.0	167.1	0.1	6.9	4.1	53.5

6/22/2004	23:15:00			29.0	167.0	0.1	6.9	4.0	51.9
6/22/2004	23:30:00			28.9	167.2	0.1	6.9	3.9	50.8
6/22/2004	23:45:00			28.9	167.3	0.1	6.9	3.9	50.4
6/23/2004	0:00:00			28.9	167.4	0.1	6.9	3.8	49.2
6/23/2004	0:15:00			28.8	167.3	0.1	6.9	3.8	48.7
6/23/2004	0:30:00			28.8	167.0	0.1	6.9	3.7	48.2
6/23/2004	0:45:00			28.7	166.4	0.1	6.9	3.6	46.8
6/23/2004	1:00:00			28.7	166.4	0.1	6.9	3.5	45.2
6/23/2004	1:15:00			28.6	165.9	0.1	6.9	3.4	44.5
6/23/2004	1:30:00			28.6	165.6	0.1	6.9	3.4	43.9
6/23/2004	1:45:00			28.5	165.3	0.1	6.9	3.3	43.1
6/23/2004	2:00:00			28.5	165.4	0.1	6.9	3.3	42.2
6/23/2004	2:15:00			28.5	165.2	0.1	6.9	3.2	41.4
6/23/2004	2:30:00			28.4	165.2	0.1	6.9	3.2	40.8
6/23/2004	2:45:00			28.4	164.9	0.1	6.9	3.1	39.7
6/23/2004	3:00:00			28.4	164.9	0.1	6.9	3.0	39.0
6/23/2004	3:15:00			28.3	164.4	0.1	6.9	3.0	38.2
6/23/2004	3:30:00			28.3	164.2	0.1	6.9	2.9	37.2
6/23/2004	3:45:00			28.2	164.3	0.1	6.9	2.8	36.3
6/23/2004	4:00:00			28.2	163.8	0.1	6.9	2.8	35.4
6/23/2004	4:15:00			28.2	164.2	0.1	6.9	2.7	34.5
6/23/2004	4:30:00			28.1	164.1	0.1	6.9	2.7	33.9
6/23/2004	4:45:00			28.1	163.8	0.1	6.9	2.6	33.5
6/23/2004	5:00:00			28.1	163.8	0.1	6.9	2.6	32.8
6/23/2004	5:15:00			28.0	163.5	0.1	6.9	2.5	32.2
6/23/2004	5:30:00			28.0	163.4	0.1	6.8	2.5	31.6
6/23/2004	5:45:00			28.0	163.1	0.1	6.8	2.4	31.1
6/23/2004	6:00:00			28.0	163.1	0.1	6.9	2.4	30.7
6/23/2004	6:15:00			28.0	163.0	0.1	6.8	2.4	30.5
6/23/2004	6:30:00			27.9	163.1	0.1	6.8	2.4	30.0
6/23/2004	6:45:00			27.9	162.9	0.1	6.8	2.4	30.2
6/23/2004	7:00:00			27.9	163.0	0.1	6.8	2.4	30.2
6/23/2004	7:15:00			27.9	162.7	0.1	6.8	2.5	31.9
6/23/2004	7:30:00			28.0	164.3	0.1	6.9	2.7	34.9
6/23/2004	7:45:00			28.1	166.3	0.1	6.9	2.9	37.4
6/23/2004	8:00:00			28.1	166.1	0.1	6.9	2.9	36.8
6/23/2004	8:15:00			28.0	164.9	0.1	6.9	2.7	33.9
6/23/2004	8:30:00			28.0	165.3	0.1	6.9	2.7	34.0
6/23/2004	8:45:00			28.0	165.1	0.1	6.9	2.6	33.2
6/23/2004	9:00:00			28.0	164.5	0.1	6.9	2.6	33.5
6/23/2004	9:15:00			27.9	163.5	0.1	6.9	2.5	31.6
6/23/2004	9:30:00			27.8	162.6	0.1	6.8	2.4	30.2
6/23/2004	9:45:00			27.8	162.8	0.1	6.8	2.3	29.3
6/23/2004	10:00:00			27.8	162.9	0.1	6.8	2.3	29.2
6/23/2004	10:15:00			27.8	163.0	0.1	6.8	2.3	28.8
6/23/2004	10:30:00			27.8	162.7	0.1	6.8	2.3	28.8
6/23/2004	10:45:00			27.8	163.0	0.1	6.8	2.2	28.5
6/23/2004	11:00:00			27.7	162.7	0.1	6.8	2.3	28.7

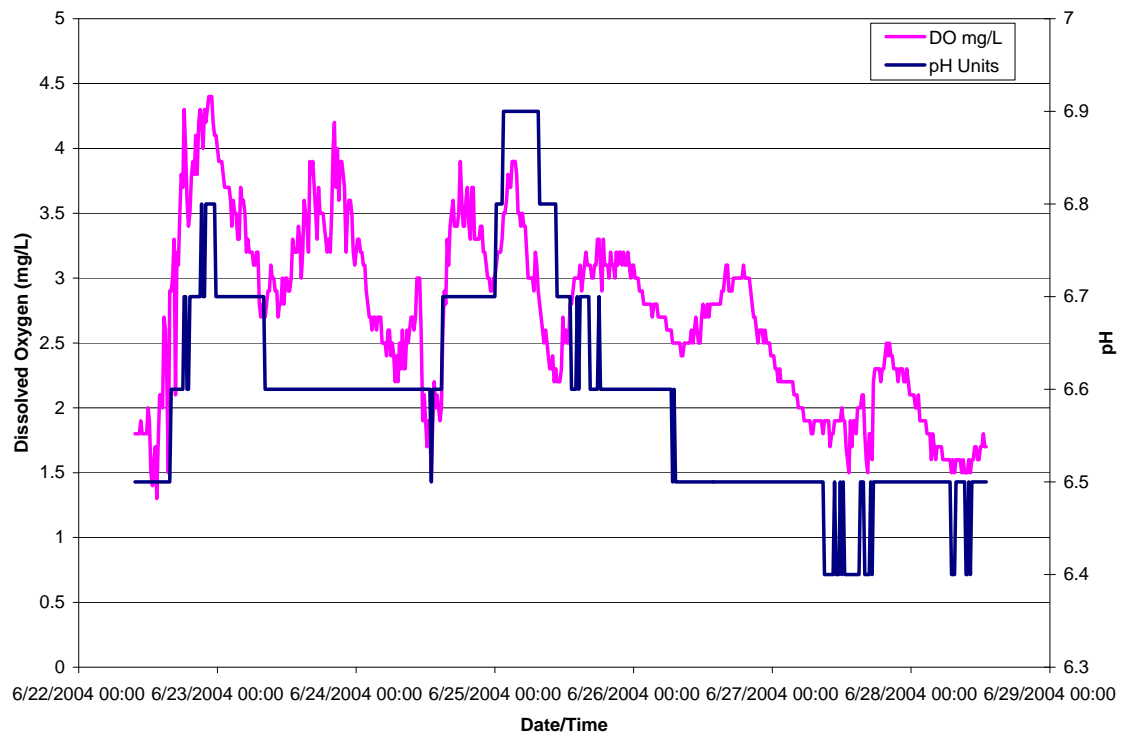
6/23/2004	11:15:00			27.8	163.1	0.1	6.8	2.3	29.3
6/23/2004	11:30:00			27.7	163.0	0.1	6.8	2.3	29.5
6/23/2004	11:45:00			27.7	162.7	0.1	6.8	2.4	30.4
6/23/2004	12:00:00			27.7	162.9	0.1	6.8	2.5	31.3
6/23/2004	12:15:00			27.8	162.8	0.1	6.8	2.5	32.2
6/23/2004	12:30:00			27.8	163.0	0.1	6.8	2.6	33.4
6/23/2004	12:45:00			27.8	161.9	0.1	6.9	2.8	35.3
6/23/2004	13:00:00			27.7	162.0	0.1	6.9	2.7	34.5
6/23/2004	13:15:00			27.7	160.8	0.1	6.9	3.0	37.8
6/23/2004	13:30:00			27.6	158.6	0.1	6.9	3.2	40.6
6/23/2004	13:45:00			27.6	158.5	0.1	6.9	3.2	40.8
6/23/2004	14:00:00			27.6	157.7	0.1	6.9	3.3	42.0
6/23/2004	14:15:00			27.7	157.9	0.1	6.9	3.4	42.8
6/23/2004	14:30:00			27.7	157.8	0.1	6.9	3.4	42.9
6/23/2004	14:45:00			27.7	157.5	0.1	6.9	3.4	42.9
6/23/2004	15:00:00			27.7	157.1	0.1	6.9	3.4	43.1
6/23/2004	15:15:00			27.7	156.9	0.1	6.9	3.4	42.7
6/23/2004	15:30:00			27.7	157.5	0.1	6.9	3.4	42.9
6/23/2004	15:45:00			27.7	156.5	0.1	6.9	3.4	42.6
6/23/2004	16:00:00			27.8	156.6	0.1	6.9	3.4	43.0
6/23/2004	16:15:00			27.8	156.9	0.1	6.9	3.4	42.7
6/23/2004	16:30:00			27.8	156.4	0.1	6.9	3.4	43.1
6/23/2004	16:45:00			27.8	156.4	0.1	6.9	3.4	43.0
6/23/2004	17:00:00			27.9	156.3	0.1	6.8	3.4	42.9
6/23/2004	17:15:00			27.8	155.7	0.1	6.8	3.4	43.1
6/23/2004	17:30:00			27.9	155.8	0.1	6.8	3.4	43.2
6/23/2004	17:45:00			27.9	155.3	0.1	6.8	3.4	43.0
6/23/2004	18:00:00			27.9	155.7	0.1	6.8	3.4	43.0
6/23/2004	18:15:00			27.9	155.7	0.1	6.8	3.4	42.9
6/23/2004	18:30:00			27.9	155.1	0.1	6.8	3.3	42.3
6/23/2004	18:45:00			27.9	155.0	0.1	6.8	3.3	42.4
6/23/2004	19:00:00			27.9	155.5	0.1	6.8	3.3	42.4
6/23/2004	19:15:00			27.9	155.1	0.1	6.8	3.3	41.8
6/23/2004	19:30:00			27.9	155.1	0.1	6.8	3.3	41.6
6/23/2004	19:45:00			27.9	155.3	0.1	6.8	3.2	41.3
6/23/2004	20:00:00			27.9	155.1	0.1	6.8	3.2	40.5
6/23/2004	20:15:00			27.9	154.3	0.1	6.8	3.1	40.0
6/23/2004	20:30:00			27.9	154.4	0.1	6.8	3.2	40.7
6/23/2004	20:45:00			27.8	152.9	0.1	6.8	3.1	39.7
6/23/2004	21:00:00			27.7	149.0	0.1	6.8	2.9	37.4
6/23/2004	21:15:00			27.7	151.4	0.1	6.8	3.1	39.4
6/23/2004	21:30:00			27.9	153.1	0.1	6.8	3.3	42.6
6/23/2004	21:45:00			27.8	153.4	0.1	6.8	3.3	41.9
6/23/2004	22:00:00			27.9	153.7	0.1	6.8	3.4	43.3
6/23/2004	22:15:00			27.9	153.6	0.1	6.8	3.4	43.4
6/23/2004	22:30:00			27.9	153.4	0.1	6.8	3.4	43.5
6/23/2004	22:45:00			27.9	153.5	0.1	6.8	3.3	42.6
6/23/2004	23:00:00			27.8	153.3	0.1	6.8	3.2	40.7

6/23/2004	23:15:00			27.8	153.1	0.1	6.8	3.1	39.4
6/23/2004	23:30:00			27.8	153.1	0.1	6.8	3.0	38.6
6/23/2004	23:45:00			27.7	153.2	0.1	6.8	3.1	39.4
6/24/2004	0:00:00			27.7	153.2	0.1	6.8	3.0	38.4
6/24/2004	0:15:00			27.7	153.0	0.1	6.8	3.0	38.4
6/24/2004	0:30:00			27.7	152.8	0.1	6.8	2.9	37.0
6/24/2004	0:45:00			27.7	152.8	0.1	6.8	2.9	36.5
6/24/2004	1:00:00			27.6	152.9	0.1	6.8	2.9	36.9
6/24/2004	1:15:00			27.6	152.8	0.1	6.8	2.9	36.9
6/24/2004	1:30:00			27.6	152.4	0.1	6.8	2.8	35.6
6/24/2004	1:45:00			27.6	152.4	0.1	6.8	2.8	35.8
6/24/2004	2:00:00			27.6	152.5	0.1	6.8	2.8	35.2
6/24/2004	2:15:00			27.6	152.4	0.1	6.8	2.7	34.8
6/24/2004	2:30:00			27.5	152.2	0.1	6.8	2.7	34.2
6/24/2004	2:45:00			27.5	152.1	0.1	6.8	2.7	33.7
6/24/2004	3:00:00			27.5	152.4	0.1	6.8	2.7	33.7
6/24/2004	3:15:00			27.5	152.5	0.1	6.8	2.6	33.2
6/24/2004	3:30:00			27.5	153.1	0.1	6.8	2.6	32.8
6/24/2004	3:45:00			27.5	153.9	0.1	6.8	2.6	32.3
6/24/2004	4:00:00			27.5	154.0	0.1	6.8	2.6	32.3
6/24/2004	4:15:00			27.5	154.7	0.1	6.8	2.5	32.1
6/24/2004	4:30:00			27.5	154.7	0.1	6.8	2.5	31.7
6/24/2004	4:45:00			27.5	154.8	0.1	6.8	2.5	31.7
6/24/2004	5:00:00			27.5	155.2	0.1	6.8	2.5	31.3
6/24/2004	5:15:00			27.4	154.8	0.1	6.8	2.5	31.5
6/24/2004	5:30:00			27.5	155.2	0.1	6.8	2.4	30.8
6/24/2004	5:45:00			27.5	155.6	0.1	6.8	2.4	30.1
6/24/2004	6:00:00			27.4	155.5	0.1	6.8	2.4	29.7
6/24/2004	6:15:00			27.4	155.3	0.1	6.8	2.3	29.4
6/24/2004	6:30:00			27.4	155.5	0.1	6.8	2.3	29.0
6/24/2004	6:45:00			27.4	156.0	0.1	6.8	2.3	28.8
6/24/2004	7:00:00			27.4	155.9	0.1	6.8	2.3	28.5
6/24/2004	7:15:00			27.4	155.7	0.1	6.8	2.2	28.1
6/24/2004	7:30:00			27.4	155.7	0.1	6.8	2.2	28.1
6/24/2004	7:45:00			27.3	155.8	0.1	6.8	2.2	28.0
6/24/2004	8:00:00			27.3	155.9	0.1	6.8	2.2	28.2
6/24/2004	8:15:00			27.4	156.1	0.1	6.8	2.2	28.0
6/24/2004	8:30:00			27.3	155.9	0.1	6.8	2.2	28.2
6/24/2004	8:45:00			27.3	156.3	0.1	6.8	2.2	28.1
6/24/2004	9:00:00			27.3	156.4	0.1	6.8	2.2	28.0
6/24/2004	9:15:00			27.3	156.7	0.1	6.8	2.2	28.2
6/24/2004	9:30:00			27.3	156.6	0.1	6.8	2.3	28.5
6/24/2004	9:45:00			27.3	156.7	0.1	6.8	2.3	28.7
6/24/2004	10:00:00			27.3	157.0	0.1	6.8	2.3	29.2
6/24/2004	10:15:00			27.4	156.9	0.1	6.8	2.4	29.9
6/24/2004	10:30:00			27.4	156.6	0.1	6.8	2.4	30.2

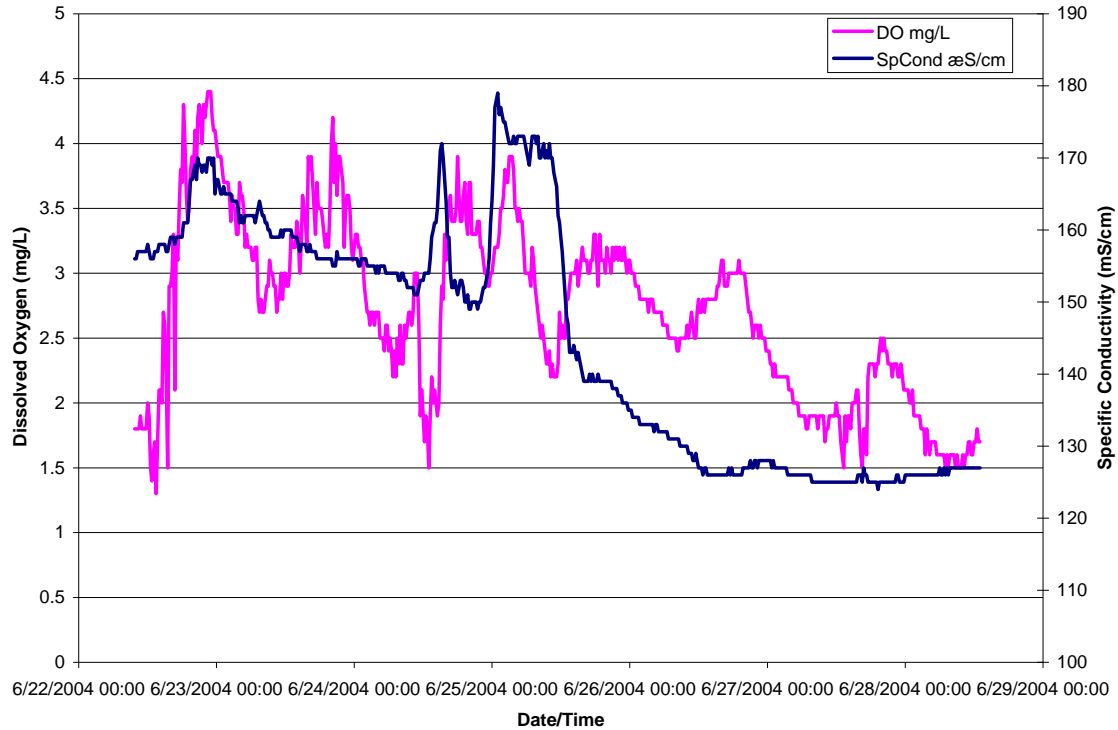
GRB9: DO & Temp v. Date/Time



GRB9: DO & pH v. Date/Time



GRB9: DO & SpCond v. Date/Time



MiniSonde 4a 39001									
Log File Name : GRB9		Summary: 06/23/2004 00:00:00 to 06/24/2004 00:00:00							
Setup Date (MMDDYY) : 062104									
Setup Time (HHMMSS) : 113022		Temp	SpCond	Sal	pH	DO	DO%	Dep10	
Starting Date (MMDDYY) : 062104		øC	æS/cm	ppt	Units	mg/l	Sat	meters	
Starting Time (HHMMSS) : 114500		Average	28.66	159.56	0.07	6.64	3.35	43.26	0.91
Stopping Date (MMDDYY) : 062804		Min	28.41	154.90	0.07	6.59	2.66	34.40	0.87
Stopping Time (HHMMSS) : 235959		Max	29.23	167.40	0.07	6.73	4.16	53.80	0.94
Interval (HHMMSS) : 001500									
Sensor warmup (HHMMSS) : 000200									
Circltr warmup (HHMMSS) : 000200									
Date	Time	Temp	SpCond	Sal	pH	DO	DO%	Dep10	
MMDDYY	HHMMSS	øC	æS/cm	ppt	Units	mg/l	Sat	meters	
6/22/2004	94500	28.2	156	0.1	6.5	1.8	23.2	0.88	
6/22/2004	100000	28.2	156	0.1	6.5	1.8	22.5	0.87	
6/22/2004	101500	28.2	157	0.1	6.5	1.8	23.0	0.88	
6/22/2004	103000	28.2	157	0.1	6.5	1.8	23.3	0.88	
6/22/2004	104500	28.3	157	0.1	6.5	1.9	24.4	0.88	
6/22/2004	110000	28.2	157	0.1	6.5	1.8	22.7	0.88	
6/22/2004	111500	28.2	157	0.1	6.5	1.8	22.8	0.88	

6/22/2004	113000			28.2	157	0.1	6.5	1.8	23.6	0.88
6/22/2004	114500			28.2	157	0.1	6.5	1.8	23.5	0.88
6/22/2004	120000			28.3	158	0.1	6.5	2.0	25.4	0.88
6/22/2004	121500			28.3	157	0.1	6.5	1.9	24.1	0.89
6/22/2004	123000			28.3	156	0.1	6.5	1.5	19.0	0.89
6/22/2004	124500			28.3	156	0.1	6.5	1.4	17.4	0.89
6/22/2004	130000			28.3	156	0.1	6.5	1.6	21.1	0.89
6/22/2004	131500			28.4	157	0.1	6.5	1.7	22.3	0.89
6/22/2004	133000			28.3	157	0.1	6.5	1.3	17.0	0.89
6/22/2004	134500			28.4	157	0.1	6.5	1.7	22.3	0.89
6/22/2004	140000			28.4	158	0.1	6.5	2.1	27.0	0.90
6/22/2004	141500			28.4	158	0.1	6.5	2.1	26.4	0.90
6/22/2004	143000			28.4	158	0.1	6.5	2.0	25.9	0.90
6/22/2004	144500			28.6	158	0.1	6.5	2.7	35.1	0.89
6/22/2004	150000			28.6	158	0.1	6.5	2.6	33.2	0.90
6/22/2004	151500			28.5	157	0.1	6.5	2.2	28.5	0.90
6/22/2004	153000			28.3	157	0.1	6.5	1.5	18.7	0.90
6/22/2004	154500			28.9	158	0.1	6.5	2.9	37.4	0.90
6/22/2004	160000			28.8	159	0.1	6.6	2.9	37.8	0.91
6/22/2004	161500			28.9	159	0.1	6.6	3.0	39.2	0.90
6/22/2004	163000			29.0	159	0.1	6.6	3.3	42.9	0.90
6/22/2004	164500			28.6	158	0.1	6.6	2.1	27.4	0.90
6/22/2004	170000			29.1	159	0.1	6.6	3.2	42.0	0.90
6/22/2004	171500			29.0	159	0.1	6.6	3.1	40.2	0.91
6/22/2004	173000			29.1	159	0.1	6.6	3.5	46.1	0.90
6/22/2004	174500			29.2	159	0.1	6.6	3.8	49.8	0.90
6/22/2004	180000			29.1	159	0.1	6.6	3.7	47.8	0.91
6/22/2004	181500			29.4	161	0.1	6.7	4.3	56.2	0.91
6/22/2004	183000			29.3	161	0.1	6.7	4.0	52.2	0.91
6/22/2004	184500			29.1	161	0.1	6.6	3.6	47.4	0.91
6/22/2004	190000			29.1	161	0.1	6.6	3.4	43.6	0.91
6/22/2004	191500			29.2	164	0.1	6.7	3.5	45.4	0.91
6/22/2004	193000			29.4	167	0.1	6.7	3.8	49.1	0.91
6/22/2004	194500			29.3	167	0.1	6.7	3.9	51.4	0.91
6/22/2004	200000			29.4	168	0.1	6.7	3.8	50.1	0.91
6/22/2004	201500			29.4	169	0.1	6.7	4.1	53.4	0.91
6/22/2004	203000			29.4	167	0.1	6.7	3.8	49.2	0.91
6/22/2004	204500			29.4	170	0.1	6.7	4.2	54.8	0.91
6/22/2004	210000			29.4	169	0.1	6.7	4.3	55.7	0.91
6/22/2004	211500			29.4	169	0.1	6.8	4.2	55.0	0.92
6/22/2004	213000			29.4	168	0.1	6.7	4.0	52.5	0.91
6/22/2004	214500			29.4	169	0.1	6.7	4.3	56.7	0.91
6/22/2004	220000			29.4	169	0.1	6.8	4.2	54.3	0.91
6/22/2004	221500			29.4	168	0.1	6.8	4.3	55.8	0.91
6/22/2004	223000			29.4	170	0.1	6.8	4.4	57.5	0.91
6/22/2004	224500			29.4	170	0.1	6.8	4.4	57.4	0.91
6/22/2004	230000			29.4	170	0.1	6.8	4.4	56.9	0.91
6/22/2004	231500			29.4	169	0.1	6.8	4.2	55.5	0.90

6/22/2004	233000			29.3	170	0.1	6.8	4.1	53.7	0.90
6/22/2004	234500			29.2	165	0.1	6.7	4.1	53.5	0.90
6/23/2004	0			29.2	167	0.1	6.7	4.0	52.5	0.90
6/23/2004	1500			29.2	167	0.1	6.7	3.9	51.0	0.90
6/23/2004	3000			29.1	166	0.1	6.7	3.9	50.5	0.91
6/23/2004	4500			29.1	165	0.1	6.7	3.9	50.2	0.91
6/23/2004	10000			29.1	165	0.1	6.7	3.8	49.0	0.91
6/23/2004	11500			29.1	166	0.1	6.7	3.7	47.6	0.91
6/23/2004	13000			29.1	165	0.1	6.7	3.7	48.5	0.91
6/23/2004	14500			29.0	165	0.1	6.7	3.7	48.3	0.91
6/23/2004	20000			29.0	165	0.1	6.7	3.7	47.7	0.91
6/23/2004	21500			29.0	165	0.1	6.7	3.6	46.2	0.91
6/23/2004	23000			29.0	165	0.1	6.7	3.4	44.6	0.91
6/23/2004	24500			28.9	164	0.1	6.7	3.6	46.5	0.91
6/23/2004	30000			28.9	164	0.1	6.7	3.5	45.1	0.91
6/23/2004	31500			28.9	164	0.1	6.7	3.5	45.0	0.90
6/23/2004	33000			28.9	164	0.1	6.7	3.3	43.4	0.91
6/23/2004	34500			28.9	163	0.1	6.7	3.3	43.1	0.91
6/23/2004	40000			28.8	161	0.1	6.7	3.7	47.5	0.91
6/23/2004	41500			28.8	162	0.1	6.7	3.6	46.6	0.91
6/23/2004	43000			28.8	161	0.1	6.7	3.6	46.7	0.90
6/23/2004	44500			28.8	161	0.1	6.7	3.5	44.9	0.91
6/23/2004	50000			28.8	162	0.1	6.7	3.2	41.3	0.91
6/23/2004	51500			28.8	162	0.1	6.7	3.3	43.1	0.91
6/23/2004	53000			28.8	162	0.1	6.7	3.2	41.0	0.91
6/23/2004	54500			28.8	162	0.1	6.7	3.2	41.0	0.91
6/23/2004	60000			28.8	162	0.1	6.7	3.2	41.6	0.91
6/23/2004	61500			28.7	162	0.1	6.7	3.1	40.0	0.92
6/23/2004	63000			28.7	162	0.1	6.7	3.1	40.0	0.92
6/23/2004	64500			28.7	161	0.1	6.7	3.2	41.6	0.92
6/23/2004	70000			28.7	162	0.1	6.7	3.2	41.4	0.94
6/23/2004	71500			28.6	163	0.1	6.7	2.8	36.2	0.93
6/23/2004	73000			28.6	164	0.1	6.7	2.7	34.5	0.91
6/23/2004	74500			28.6	163	0.1	6.7	2.8	36.2	0.90
6/23/2004	80000			28.6	162	0.1	6.7	2.7	34.4	0.91
6/23/2004	81500			28.6	162	0.1	6.6	2.7	34.6	0.91
6/23/2004	83000			28.6	161	0.1	6.6	2.8	35.9	0.90
6/23/2004	84500			28.6	161	0.1	6.6	2.9	37.2	0.90
6/23/2004	90000			28.6	160	0.1	6.6	2.9	37.3	0.90
6/23/2004	91500			28.6	160	0.1	6.6	3.1	40.0	0.90
6/23/2004	93000			28.5	159	0.1	6.6	3.0	38.6	0.90
6/23/2004	94500			28.5	159	0.1	6.6	3.0	38.7	0.90
6/23/2004	100000			28.5	159	0.1	6.6	2.9	37.8	0.89
6/23/2004	101500			28.5	159	0.1	6.6	2.9	37.7	0.89
6/23/2004	103000			28.5	159	0.1	6.6	2.7	34.5	0.89
6/23/2004	104500			28.5	159	0.1	6.6	2.8	35.4	0.89
6/23/2004	110000			28.5	159	0.1	6.6	2.8	36.3	0.89
6/23/2004	111500			28.5	160	0.1	6.6	3.0	38.4	0.89

6/23/2004	113000			28.5	159	0.1	6.6	2.8	35.4	0.89
6/23/2004	114500			28.6	160	0.1	6.6	3.0	38.2	0.89
6/23/2004	120000			28.7	160	0.1	6.6	3.0	39.0	0.89
6/23/2004	121500			28.7	160	0.1	6.6	2.9	37.5	0.89
6/23/2004	123000			28.7	160	0.1	6.6	2.9	37.5	0.89
6/23/2004	124500			28.7	160	0.1	6.6	3.0	39.3	0.89
6/23/2004	130000			28.6	160	0.1	6.6	3.3	42.3	0.90
6/23/2004	131500			28.5	159	0.1	6.6	3.2	41.4	0.90
6/23/2004	133000			28.5	159	0.1	6.6	3.2	40.6	0.89
6/23/2004	134500			28.5	159	0.1	6.6	3.2	41.5	0.87
6/23/2004	140000			28.5	159	0.1	6.6	3.4	43.2	0.90
6/23/2004	141500			28.6	158	0.1	6.6	3.3	42.3	0.91
6/23/2004	143000			28.6	157	0.1	6.6	3.0	39.0	0.90
6/23/2004	144500			28.6	158	0.1	6.6	3.2	41.9	0.89
6/23/2004	150000			28.5	158	0.1	6.6	3.6	46.0	0.90
6/23/2004	151500			28.6	158	0.1	6.6	3.5	45.5	0.90
6/23/2004	153000			28.6	158	0.1	6.6	3.4	44.0	0.90
6/23/2004	154500			28.6	157	0.1	6.6	3.2	41.7	0.90
6/23/2004	160000			28.6	157	0.1	6.6	3.9	50.6	0.89
6/23/2004	161500			28.6	158	0.1	6.6	3.8	49.4	0.90
6/23/2004	163000			28.5	157	0.1	6.6	3.9	50.3	0.90
6/23/2004	164500			28.5	157	0.1	6.6	3.7	47.3	0.90
6/23/2004	170000			28.5	157	0.1	6.6	3.5	45.3	0.90
6/23/2004	171500			28.5	157	0.1	6.6	3.3	42.9	0.90
6/23/2004	173000			28.5	156	0.1	6.6	3.7	47.3	0.90
6/23/2004	174500			28.5	156	0.1	6.6	3.5	45.0	0.90
6/23/2004	180000			28.5	156	0.1	6.6	3.5	44.7	0.90
6/23/2004	181500			28.4	156	0.1	6.6	3.5	44.5	0.90
6/23/2004	183000			28.4	156	0.1	6.6	3.4	43.4	0.90
6/23/2004	184500			28.5	156	0.1	6.6	3.3	42.7	0.91
6/23/2004	190000			28.5	156	0.1	6.6	3.2	41.5	0.91
6/23/2004	191500			28.4	156	0.1	6.6	3.3	42.5	0.91
6/23/2004	193000			28.5	156	0.1	6.6	3.2	41.2	0.91
6/23/2004	194500			28.7	156	0.1	6.6	3.5	45.5	0.92
6/23/2004	200000			28.6	156	0.1	6.6	4.0	52.1	0.92
6/23/2004	201500			28.6	155	0.1	6.6	4.2	53.8	0.92
6/23/2004	203000			28.6	155	0.1	6.6	3.7	47.6	0.92
6/23/2004	204500			28.6	155	0.1	6.6	4.0	51.4	0.93
6/23/2004	210000			28.6	157	0.1	6.6	3.6	46.2	0.93
6/23/2004	211500			28.6	156	0.1	6.6	3.9	50.0	0.92
6/23/2004	213000			28.6	156	0.1	6.6	3.9	50.0	0.92
6/23/2004	214500			28.6	156	0.1	6.6	3.8	49.4	0.92
6/23/2004	220000			28.6	156	0.1	6.6	3.7	47.7	0.92
6/23/2004	221500			28.5	156	0.1	6.6	3.2	41.7	0.92
6/23/2004	223000			28.5	156	0.1	6.6	3.5	45.6	0.92
6/23/2004	224500			28.5	156	0.1	6.6	3.6	45.9	0.92
6/23/2004	230000			28.5	156	0.1	6.6	3.6	46.8	0.92
6/23/2004	231500			28.5	156	0.1	6.6	3.5	45.4	0.92

6/23/2004	233000			28.5	156	0.1	6.6	3.2	41.4	0.92
6/23/2004	234500			28.4	156	0.1	6.6	3.1	40.2	0.92
6/24/2004	0			28.4	156	0.1	6.6	3.2	41.4	0.92
6/24/2004	1500			28.4	156	0.1	6.6	3.3	42.3	0.92
6/24/2004	3000			28.4	156	0.1	6.6	3.3	43.0	0.92
6/24/2004	4500			28.4	155	0.1	6.6	3.2	40.6	0.92
6/24/2004	10000			28.4	155	0.1	6.6	3.2	41.7	0.92
6/24/2004	11500			28.4	156	0.1	6.6	3.1	39.6	0.92
6/24/2004	13000			28.4	156	0.1	6.6	3.1	40.1	0.92
6/24/2004	14500			28.3	156	0.1	6.6	2.9	37.2	0.92
6/24/2004	20000			28.3	156	0.1	6.6	2.8	35.8	0.92
6/24/2004	21500			28.3	155	0.1	6.6	2.7	35.0	0.92
6/24/2004	23000			28.3	155	0.1	6.6	2.7	34.3	0.92
6/24/2004	24500			28.3	155	0.1	6.6	2.6	33.5	0.92
6/24/2004	30000			28.3	155	0.1	6.6	2.7	34.3	0.92
6/24/2004	31500			28.3	155	0.1	6.6	2.7	34.0	0.92
6/24/2004	33000			28.2	155	0.1	6.6	2.6	33.8	0.92
6/24/2004	34500			28.2	154	0.1	6.6	2.7	34.1	0.92
6/24/2004	40000			28.2	155	0.1	6.6	2.7	34.4	0.92
6/24/2004	41500			28.2	154	0.1	6.6	2.7	34.1	0.92
6/24/2004	43000			28.2	155	0.1	6.6	2.5	32.5	0.92
6/24/2004	44500			28.2	155	0.1	6.6	2.5	31.7	0.92
6/24/2004	50000			28.2	155	0.1	6.6	2.5	31.8	0.92
6/24/2004	51500			28.1	155	0.1	6.6	2.4	31.0	0.92
6/24/2004	53000			28.1	154	0.1	6.6	2.6	32.7	0.92
6/24/2004	54500			28.0	154	0.1	6.6	2.6	33.3	0.92
6/24/2004	60000			28.0	154	0.1	6.6	2.4	31.0	0.92
6/24/2004	61500			28.0	154	0.1	6.6	2.5	32.0	0.92
6/24/2004	63000			28.0	154	0.1	6.6	2.4	30.4	0.92
6/24/2004	64500			28.0	154	0.1	6.6	2.2	28.6	0.92
6/24/2004	70000			28.0	154	0.1	6.6	2.4	30.1	0.92
6/24/2004	71500			28.0	154	0.1	6.6	2.2	28.1	0.92
6/24/2004	73000			27.9	154	0.1	6.6	2.5	31.8	0.92
6/24/2004	74500			27.9	153	0.1	6.6	2.3	29.6	0.92
6/24/2004	80000			27.9	153	0.1	6.6	2.6	32.8	0.91
6/24/2004	81500			27.9	154	0.1	6.6	2.3	29.4	0.91
6/24/2004	83000			28.0	154	0.1	6.6	2.3	29.8	0.91
6/24/2004	84500			27.9	153	0.1	6.6	2.6	33.3	0.91
6/24/2004	90000			27.9	153	0.1	6.6	2.5	31.7	0.91
6/24/2004	91500			27.9	152	0.1	6.6	2.6	33.7	0.91
6/24/2004	93000			27.9	152	0.1	6.6	2.7	33.9	0.91
6/24/2004	94500			27.9	152	0.1	6.6	2.7	34.5	0.91
6/24/2004	100000			27.9	152	0.1	6.6	2.6	33.8	0.91
6/24/2004	101500			27.9	152	0.1	6.6	2.7	34.0	0.91
6/24/2004	103000			28.1	151	0.1	6.6	3.0	38.0	0.91
6/24/2004	104500			28.1	151	0.1	6.6	3.0	38.2	0.91
6/24/2004	110000			28.1	151	0.1	6.6	3.0	38.9	0.91
6/24/2004	111500			28.1	152	0.1	6.6	2.6	33.6	0.92

6/24/2004	113000			28.1	153	0.1	6.6	1.9	23.6	0.92
6/24/2004	114500			28.1	153	0.1	6.6	2.1	27.4	0.93
6/24/2004	120000			28.0	153	0.1	6.6	1.9	24.0	0.93
6/24/2004	121500			28.1	154	0.1	6.6	1.7	21.7	0.93
6/24/2004	123000			28.2	154	0.1	6.6	1.9	23.8	0.93
6/24/2004	124500			28.2	154	0.1	6.6	1.8	22.9	0.93
6/24/2004	130000			28.2	154	0.1	6.5	1.5	19.7	0.93
6/24/2004	131500			28.4	156	0.1	6.6	1.9	24.8	0.93
6/24/2004	133000			28.5	159	0.1	6.6	2.2	28.5	0.93
6/24/2004	134500			28.5	160	0.1	6.6	2.0	25.9	0.92
6/24/2004	140000			28.5	161	0.1	6.6	2.1	26.9	0.92
6/24/2004	141500			28.5	161	0.1	6.6	2.0	25.5	0.93
6/24/2004	143000			28.5	163	0.1	6.6	1.9	24.8	0.93
6/24/2004	144500			28.5	167	0.1	6.6	2.0	25.9	0.95
6/24/2004	150000			28.6	171	0.1	6.7	2.6	33.8	0.95
6/24/2004	151500			28.7	172	0.1	6.7	2.9	37.8	0.93
6/24/2004	153000			28.7	170	0.1	6.7	2.8	36.0	0.91
6/24/2004	154500			28.7	167	0.1	6.7	3.3	42.2	0.94
6/24/2004	160000			28.6	164	0.1	6.7	3.1	40.6	0.94
6/24/2004	161500			28.5	159	0.1	6.7	3.4	44.1	0.89
6/24/2004	163000			28.5	159	0.1	6.7	3.5	45.6	0.87
6/24/2004	164500			28.5	154	0.1	6.7	3.6	46.3	0.89
6/24/2004	170000			28.5	152	0.1	6.7	3.4	43.4	0.92
6/24/2004	171500			28.4	152	0.1	6.7	3.4	43.8	0.93
6/24/2004	173000			28.4	153	0.1	6.7	3.4	44.4	0.94
6/24/2004	174500			28.4	152	0.1	6.7	3.5	45.1	0.94
6/24/2004	180000			28.4	151	0.1	6.7	3.9	50.7	0.94
6/24/2004	181500			28.4	152	0.1	6.7	3.6	46.4	0.94
6/24/2004	183000			28.4	153	0.1	6.7	3.4	44.1	0.94
6/24/2004	184500			28.4	153	0.1	6.7	3.4	44.0	0.93
6/24/2004	190000			28.3	152	0.1	6.7	3.6	46.3	0.93
6/24/2004	191500			28.3	150	0.1	6.7	3.7	48.0	0.93
6/24/2004	193000			28.3	150	0.1	6.7	3.4	43.7	0.94
6/24/2004	194500			28.3	151	0.1	6.7	3.3	41.8	0.94
6/24/2004	200000			28.2	149	0.1	6.7	3.7	47.4	0.94
6/24/2004	201500			28.2	149	0.1	6.7	3.7	46.8	0.94
6/24/2004	203000			28.1	150	0.1	6.7	3.3	42.5	0.94
6/24/2004	204500			28.1	150	0.1	6.7	3.3	42.7	0.94
6/24/2004	210000			28.1	150	0.1	6.7	3.3	42.1	0.95
6/24/2004	211500			28.1	150	0.1	6.7	3.3	42.1	0.95
6/24/2004	213000			28.1	149	0.1	6.7	3.4	43.8	0.95
6/24/2004	214500			28.1	150	0.1	6.7	3.4	43.5	0.95
6/24/2004	220000			28.1	150	0.1	6.7	3.2	40.4	0.95
6/24/2004	221500			28.1	151	0.1	6.7	3.2	41.2	0.95
6/24/2004	223000			28.1	152	0.1	6.7	3.1	40.0	0.95
6/24/2004	224500			28.1	152	0.1	6.7	3.0	38.2	0.96
6/24/2004	230000			28.1	153	0.1	6.7	3.0	38.2	0.96
6/24/2004	231500			28.1	154	0.1	6.7	2.9	37.2	0.96

6/24/2004	233000			28.1	156	0.1	6.7	2.9	36.7	0.96
6/24/2004	234500			28.0	161	0.1	6.7	3.0	38.3	0.96
6/25/2004	0			28.0	164	0.1	6.7	3.0	38.5	0.97
6/25/2004	1500			27.9	169	0.1	6.8	3.1	39.7	0.97
6/25/2004	3000			27.7	177	0.1	6.8	3.2	40.9	0.97
6/25/2004	4500			27.7	178	0.1	6.8	3.2	40.8	0.97
6/25/2004	10000			27.7	179	0.1	6.8	3.2	41.1	0.97
6/25/2004	11500			27.7	176	0.1	6.8	3.3	41.3	0.97
6/25/2004	13000			27.7	177	0.1	6.9	3.5	44.1	0.97
6/25/2004	14500			27.7	176	0.1	6.9	3.5	44.4	0.97
6/25/2004	20000			27.7	175	0.1	6.9	3.6	45.9	0.97
6/25/2004	21500			27.7	175	0.1	6.9	3.8	48.0	0.97
6/25/2004	23000			27.7	174	0.1	6.9	3.7	47.3	0.97
6/25/2004	24500			27.7	173	0.1	6.9	3.7	47.5	0.97
6/25/2004	30000			27.7	172	0.1	6.9	3.9	49.5	0.97
6/25/2004	31500			27.7	172	0.1	6.9	3.9	50.1	0.97
6/25/2004	33000			27.7	172	0.1	6.9	3.9	49.5	0.96
6/25/2004	34500			27.7	173	0.1	6.9	3.8	47.7	0.96
6/25/2004	40000			27.7	172	0.1	6.9	3.5	44.0	0.96
6/25/2004	41500			27.7	172	0.1	6.9	3.5	43.8	0.96
6/25/2004	43000			27.6	173	0.1	6.9	3.4	43.6	0.96
6/25/2004	44500			27.6	173	0.1	6.9	3.5	43.8	0.96
6/25/2004	50000			27.6	173	0.1	6.9	3.4	43.2	0.96
6/25/2004	51500			27.6	173	0.1	6.9	3.4	42.5	0.96
6/25/2004	53000			27.6	173	0.1	6.9	3.2	41.0	0.96
6/25/2004	54500			27.6	172	0.1	6.9	3.0	38.0	0.97
6/25/2004	60000			27.6	171	0.1	6.9	3.0	38.2	0.97
6/25/2004	61500			27.6	170	0.1	6.9	3.0	38.2	0.96
6/25/2004	63000			27.6	169	0.1	6.9	3.0	38.3	0.96
6/25/2004	64500			27.5	171	0.1	6.9	2.9	37.2	0.96
6/25/2004	70000			27.6	173	0.1	6.9	3.2	40.8	0.96
6/25/2004	71500			27.6	173	0.1	6.9	3.1	39.3	0.96
6/25/2004	73000			27.5	173	0.1	6.9	2.9	37.1	0.96
6/25/2004	74500			27.5	172	0.1	6.8	2.8	35.2	0.96
6/25/2004	80000			27.5	173	0.1	6.8	2.7	33.9	0.96
6/25/2004	81500			27.5	170	0.1	6.8	2.6	32.8	0.96
6/25/2004	83000			27.4	170	0.1	6.8	2.5	31.9	0.96
6/25/2004	84500			27.4	171	0.1	6.8	2.6	32.4	0.96
6/25/2004	90000			27.4	172	0.1	6.8	2.5	31.8	0.96
6/25/2004	91500			27.4	170	0.1	6.8	2.4	30.7	0.95
6/25/2004	93000			27.4	171	0.1	6.8	2.3	29.3	0.95
6/25/2004	94500			27.4	170	0.1	6.8	2.3	29.1	0.95
6/25/2004	100000			27.4	172	0.1	6.8	2.4	29.8	0.95
6/25/2004	101500			27.4	170	0.1	6.8	2.2	28.3	0.95
6/25/2004	103000			27.4	170	0.1	6.8	2.3	29.6	0.95
6/25/2004	104500			27.3	168	0.1	6.7	2.2	28.3	0.96
6/25/2004	110000			27.3	167	0.1	6.7	2.2	27.3	0.96
6/25/2004	111500			27.3	166	0.1	6.7	2.2	27.2	0.95

6/25/2004	113000			27.2	162	0.1	6.7	2.3	28.6	0.96
6/25/2004	114500			27.2	161	0.1	6.7	2.7	33.4	0.95
6/25/2004	120000			27.2	159	0.1	6.7	2.5	32.0	0.93
6/25/2004	121500			27.2	157	0.1	6.7	2.6	32.1	0.94
6/25/2004	123000			27.1	154	0.1	6.7	2.5	31.3	0.94
6/25/2004	124500			27.1	151	0.1	6.7	2.5	31.0	0.94
6/25/2004	130000			27.0	148	0.1	6.7	2.8	35.2	0.90
6/25/2004	131500			26.9	147	0.1	6.6	2.8	35.6	0.93
6/25/2004	133000			26.6	143	0.1	6.6	2.9	35.7	0.99
6/25/2004	134500			26.7	143	0.1	6.6	3.0	36.9	0.96
6/25/2004	140000			26.7	143	0.1	6.6	3.0	37.2	0.96
6/25/2004	141500			26.7	144	0.1	6.7	3.0	37.6	0.96
6/25/2004	143000			26.7	143	0.1	6.6	3.0	37.7	0.96
6/25/2004	144500			26.7	142	0.1	6.7	3.1	38.4	0.99
6/25/2004	150000			26.7	143	0.1	6.7	2.9	36.7	0.99
6/25/2004	151500			26.7	142	0.1	6.7	3.0	37.8	0.99
6/25/2004	153000			26.7	141	0.1	6.7	3.1	38.4	0.99
6/25/2004	154500			26.6	140	0.1	6.7	3.2	39.4	0.98
6/25/2004	160000			26.5	139	0.1	6.7	3.1	39.1	0.98
6/25/2004	161500			26.6	139	0.1	6.7	3.1	39.1	0.98
6/25/2004	163000			26.6	139	0.1	6.6	3.1	39.0	0.98
6/25/2004	164500			26.6	139	0.1	6.6	3.0	37.7	0.98
6/25/2004	170000			26.6	140	0.1	6.6	3.0	37.9	0.98
6/25/2004	171500			26.6	139	0.1	6.6	3.1	38.8	0.98
6/25/2004	173000			26.6	140	0.1	6.6	3.1	38.4	0.98
6/25/2004	174500			26.5	139	0.1	6.6	3.3	41.3	0.98
6/25/2004	180000			26.5	139	0.1	6.7	3.3	41.5	0.99
6/25/2004	181500			26.5	139	0.1	6.6	3.1	38.4	0.99
6/25/2004	183000			26.5	140	0.1	6.6	2.9	36.4	0.99
6/25/2004	184500			26.5	139	0.1	6.6	3.3	41.0	0.99
6/25/2004	190000			26.5	139	0.1	6.6	3.1	38.7	0.99
6/25/2004	191500			26.5	139	0.1	6.6	3.1	38.2	0.99
6/25/2004	193000			26.4	139	0.1	6.6	3.1	38.7	0.99
6/25/2004	194500			26.4	139	0.1	6.6	3.0	36.7	0.99
6/25/2004	200000			26.4	139	0.1	6.6	3.2	40.0	0.99
6/25/2004	201500			26.4	139	0.1	6.6	3.1	38.4	0.99
6/25/2004	203000			26.4	139	0.1	6.6	3.1	38.6	0.99
6/25/2004	204500			26.3	139	0.1	6.6	3.0	37.7	0.99
6/25/2004	210000			26.3	138	0.1	6.6	3.2	39.1	0.99
6/25/2004	211500			26.3	138	0.1	6.6	3.1	38.6	0.99
6/25/2004	213000			26.2	138	0.1	6.6	3.2	39.7	1.00
6/25/2004	214500			26.2	138	0.1	6.6	3.2	39.8	0.99
6/25/2004	220000			26.2	137	0.1	6.6	3.1	38.9	0.99
6/25/2004	221500			26.1	137	0.1	6.6	3.2	39.1	0.99
6/25/2004	223000			26.1	137	0.1	6.6	3.1	38.7	0.99
6/25/2004	224500			26.1	136	0.1	6.6	3.1	38.5	0.99
6/25/2004	230000			26.0	136	0.1	6.6	3.2	39.1	0.99
6/25/2004	231500			26.0	136	0.1	6.6	3.1	37.6	0.99

6/25/2004	233000			26.0	136	0.1	6.6	3.0	37.2	0.99
6/25/2004	234500			25.9	135	0.1	6.6	3.1	37.7	0.99
6/26/2004	0			25.9	135	0.1	6.6	3.1	37.9	1.00
6/26/2004	1500			25.9	135	0.1	6.6	3.0	37.0	0.99
6/26/2004	3000			25.8	134	0.1	6.6	3.0	37.3	1.00
6/26/2004	4500			25.8	134	0.1	6.6	3.0	37.1	0.99
6/26/2004	10000			25.8	134	0.1	6.6	2.9	36.0	0.99
6/26/2004	11500			25.8	134	0.1	6.6	2.9	35.2	0.99
6/26/2004	13000			25.7	134	0.1	6.6	2.9	35.1	0.99
6/26/2004	14500			25.7	133	0.1	6.6	2.8	34.2	0.99
6/26/2004	20000			25.7	133	0.1	6.6	2.8	34.0	0.99
6/26/2004	21500			25.7	133	0.1	6.6	2.8	34.4	1.00
6/26/2004	23000			25.6	133	0.1	6.6	2.8	34.6	1.00
6/26/2004	24500			25.6	133	0.1	6.6	2.8	34.0	0.99
6/26/2004	30000			25.6	133	0.1	6.6	2.8	34.0	1.00
6/26/2004	31500			25.6	133	0.1	6.6	2.7	33.6	1.00
6/26/2004	33000			25.6	133	0.1	6.6	2.8	33.9	0.99
6/26/2004	34500			25.5	133	0.1	6.6	2.8	33.8	0.99
6/26/2004	40000			25.5	133	0.1	6.6	2.8	33.8	0.99
6/26/2004	41500			25.5	132	0.1	6.6	2.7	33.5	0.99
6/26/2004	43000			25.5	133	0.1	6.6	2.7	32.6	0.99
6/26/2004	44500			25.5	133	0.1	6.6	2.7	32.6	0.99
6/26/2004	50000			25.4	132	0.1	6.6	2.7	32.7	0.99
6/26/2004	51500			25.4	132	0.1	6.6	2.7	32.3	0.99
6/26/2004	53000			25.4	132	0.1	6.6	2.7	32.7	0.99
6/26/2004	54500			25.4	132	0.1	6.6	2.6	31.9	0.99
6/26/2004	60000			25.3	132	0.1	6.6	2.6	32.0	0.99
6/26/2004	61500			25.3	132	0.1	6.6	2.6	31.6	0.99
6/26/2004	63000			25.3	132	0.1	6.6	2.6	31.6	0.99
6/26/2004	64500			25.3	131	0.1	6.5	2.5	30.9	0.99
6/26/2004	70000			25.3	131	0.1	6.6	2.5	30.8	0.99
6/26/2004	71500			25.2	131	0.1	6.5	2.5	30.8	0.99
6/26/2004	73000			25.2	131	0.1	6.5	2.5	30.2	0.99
6/26/2004	74500			25.2	131	0.1	6.5	2.5	30.0	0.99
6/26/2004	80000			25.2	131	0.1	6.5	2.5	29.8	0.99
6/26/2004	81500			25.1	131	0.1	6.5	2.4	29.6	0.99
6/26/2004	83000			25.2	131	0.1	6.5	2.4	29.1	0.99
6/26/2004	84500			25.1	130	0.1	6.5	2.5	29.9	0.99
6/26/2004	90000			25.1	130	0.1	6.5	2.5	30.0	0.99
6/26/2004	91500			25.1	130	0.1	6.5	2.5	30.2	0.99
6/26/2004	93000			25.1	130	0.1	6.5	2.5	30.1	0.99
6/26/2004	94500			25.1	130	0.1	6.5	2.5	30.5	1.01
6/26/2004	100000			25.1	130	0.1	6.5	2.6	31.9	0.98
6/26/2004	101500			25.0	129	0.1	6.5	2.5	30.3	0.97
6/26/2004	103000			25.0	129	0.1	6.5	2.6	31.0	0.97
6/26/2004	104500			25.0	129	0.1	6.5	2.7	32.3	0.97
6/26/2004	110000			24.9	128	0.1	6.5	2.6	31.6	0.98
6/26/2004	111500			25.0	128	0.1	6.5	2.5	29.9	0.98

6/26/2004	113000			25.0	129	0.1	6.5	2.5	30.1	0.99
6/26/2004	114500			24.9	128	0.1	6.5	2.7	33.1	0.99
6/26/2004	120000			24.9	127	0.1	6.5	2.8	33.2	0.99
6/26/2004	121500			24.9	127	0.1	6.5	2.7	32.9	0.99
6/26/2004	123000			24.9	127	0.1	6.5	2.7	32.5	0.99
6/26/2004	124500			24.9	126	0.1	6.5	2.8	33.2	0.99
6/26/2004	130000			24.9	127	0.1	6.5	2.7	33.0	0.99
6/26/2004	131500			24.9	127	0.1	6.5	2.8	33.7	0.98
6/26/2004	133000			24.9	126	0.1	6.5	2.8	33.6	0.98
6/26/2004	134500			24.9	126	0.1	6.5	2.8	33.7	0.98
6/26/2004	140000			24.9	126	0.1	6.5	2.8	33.6	0.98
6/26/2004	141500			24.9	126	0.1	6.5	2.8	33.4	0.99
6/26/2004	143000			25.0	126	0.1	6.5	2.8	34.3	0.98
6/26/2004	144500			25.1	126	0.1	6.5	2.8	34.5	0.98
6/26/2004	150000			25.0	126	0.1	6.5	2.8	34.0	0.98
6/26/2004	151500			25.0	126	0.1	6.5	2.9	35.4	0.99
6/26/2004	153000			25.0	126	0.1	6.5	2.9	35.6	1.00
6/26/2004	154500			25.0	126	0.1	6.5	3.0	35.9	0.99
6/26/2004	160000			25.0	126	0.1	6.5	3.1	37.2	0.98
6/26/2004	161500			25.0	126	0.1	6.5	3.1	36.9	0.98
6/26/2004	163000			25.0	126	0.1	6.5	2.9	35.0	0.98
6/26/2004	164500			24.9	126	0.1	6.5	2.9	35.3	0.99
6/26/2004	170000			25.0	126	0.1	6.5	2.9	35.2	0.99
6/26/2004	171500			25.2	127	0.1	6.5	3.0	36.6	0.99
6/26/2004	173000			25.2	126	0.1	6.5	3.0	37.0	0.99
6/26/2004	174500			25.2	127	0.1	6.5	3.0	36.5	0.99
6/26/2004	180000			25.2	126	0.1	6.5	3.0	36.5	0.99
6/26/2004	181500			25.2	126	0.1	6.5	3.0	37.0	0.99
6/26/2004	183000			25.2	126	0.1	6.5	3.0	36.8	0.99
6/26/2004	184500			25.2	126	0.1	6.5	3.0	36.7	0.99
6/26/2004	190000			25.2	126	0.1	6.5	3.1	37.8	0.99
6/26/2004	191500			25.1	126	0.1	6.5	3.0	36.0	0.99
6/26/2004	193000			25.1	126	0.1	6.5	3.0	35.8	0.99
6/26/2004	194500			25.1	127	0.1	6.5	3.0	36.1	0.99
6/26/2004	200000			25.0	127	0.1	6.5	3.0	35.8	0.99
6/26/2004	201500			25.0	127	0.1	6.5	2.9	34.9	0.99
6/26/2004	203000			25.0	127	0.1	6.5	2.8	34.3	0.99
6/26/2004	204500			25.0	127	0.1	6.5	2.7	32.7	0.99
6/26/2004	210000			25.0	128	0.1	6.5	2.7	33.2	0.99
6/26/2004	211500			25.0	127	0.1	6.5	2.6	31.8	0.99
6/26/2004	213000			24.9	127	0.1	6.5	2.5	30.6	0.99
6/26/2004	214500			24.9	128	0.1	6.5	2.6	31.9	0.99
6/26/2004	220000			24.9	128	0.1	6.5	2.6	31.3	0.99
6/26/2004	221500			24.9	127	0.1	6.5	2.6	31.1	0.99
6/26/2004	223000			24.9	128	0.1	6.5	2.5	30.7	1.00
6/26/2004	224500			24.9	128	0.1	6.5	2.6	31.4	0.99
6/26/2004	230000			24.9	128	0.1	6.5	2.5	30.4	0.99
6/26/2004	231500			24.9	128	0.1	6.5	2.5	30.4	0.99

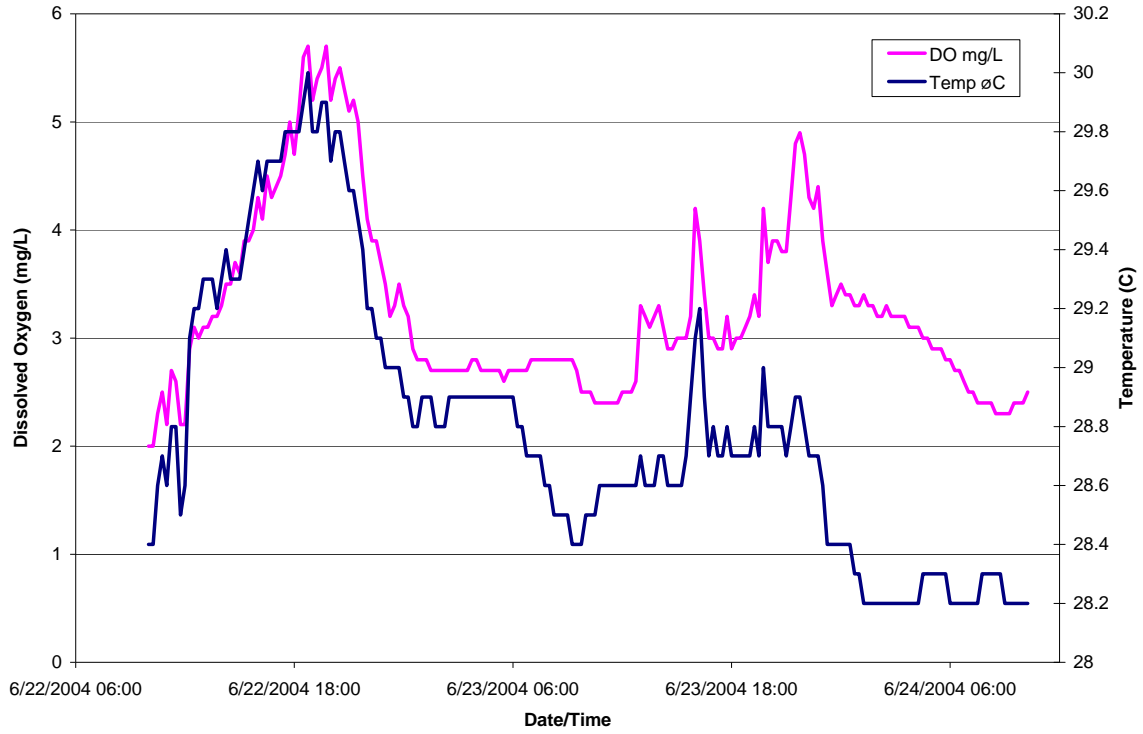
6/26/2004	233000			24.8	128	0.1	6.5	2.5	30.2	1.00
6/26/2004	234500			24.8	128	0.1	6.5	2.4	28.9	0.99
6/27/2004	0			24.8	128	0.1	6.5	2.4	28.5	0.99
6/27/2004	1500			24.8	128	0.1	6.5	2.4	28.4	0.99
6/27/2004	3000			24.8	128	0.1	6.5	2.3	28.0	0.99
6/27/2004	4500			24.8	127	0.1	6.5	2.3	27.5	0.99
6/27/2004	10000			24.8	128	0.1	6.5	2.2	27.0	0.99
6/27/2004	11500			24.7	127	0.1	6.5	2.3	27.2	0.99
6/27/2004	13000			24.7	127	0.1	6.5	2.2	26.7	0.99
6/27/2004	14500			24.7	127	0.1	6.5	2.2	26.5	0.99
6/27/2004	20000			24.7	127	0.1	6.5	2.2	26.8	0.99
6/27/2004	21500			24.7	127	0.1	6.5	2.2	26.5	0.99
6/27/2004	23000			24.7	127	0.1	6.5	2.2	26.6	0.99
6/27/2004	24500			24.7	127	0.1	6.5	2.2	26.3	0.99
6/27/2004	30000			24.7	127	0.1	6.5	2.2	26.4	1.00
6/27/2004	31500			24.6	127	0.1	6.5	2.2	26.8	1.00
6/27/2004	33000			24.6	126	0.1	6.5	2.2	26.0	0.99
6/27/2004	34500			24.6	126	0.1	6.5	2.1	25.3	0.99
6/27/2004	40000			24.6	126	0.1	6.5	2.1	25.5	0.99
6/27/2004	41500			24.6	126	0.1	6.5	2.1	25.0	0.99
6/27/2004	43000			24.6	126	0.1	6.5	2.0	24.4	0.99
6/27/2004	44500			24.6	126	0.1	6.5	2.0	24.2	0.99
6/27/2004	50000			24.6	126	0.1	6.5	2.0	24.2	0.99
6/27/2004	51500			24.5	126	0.1	6.5	2.0	23.9	0.99
6/27/2004	53000			24.5	126	0.1	6.5	1.9	23.2	0.98
6/27/2004	54500			24.5	126	0.1	6.5	1.9	22.3	0.98
6/27/2004	60000			24.5	126	0.1	6.5	1.9	22.4	0.98
6/27/2004	61500			24.5	126	0.1	6.5	1.9	22.7	0.98
6/27/2004	63000			24.5	126	0.1	6.5	1.9	22.6	0.98
6/27/2004	64500			24.5	126	0.1	6.5	1.8	21.8	0.98
6/27/2004	70000			24.5	126	0.1	6.5	1.8	22.0	0.98
6/27/2004	71500			24.4	126	0.1	6.5	1.9	22.6	0.98
6/27/2004	73000			24.4	126	0.1	6.5	1.9	22.7	0.99
6/27/2004	74500			24.4	125	0.1	6.5	1.9	22.8	0.99
6/27/2004	80000			24.4	125	0.1	6.5	1.9	23.1	0.98
6/27/2004	81500			24.4	125	0.1	6.5	1.9	22.7	0.98
6/27/2004	83000			24.4	125	0.1	6.5	1.9	22.7	0.98
6/27/2004	84500			24.4	125	0.1	6.5	1.8	21.9	0.98
6/27/2004	90000			24.4	125	0.1	6.4	1.9	22.8	0.98
6/27/2004	91500			24.5	125	0.1	6.4	1.9	22.1	0.98
6/27/2004	93000			24.5	125	0.1	6.4	1.9	22.5	0.99
6/27/2004	94500			24.5	125	0.1	6.4	1.9	22.4	0.99
6/27/2004	100000			24.6	125	0.1	6.4	1.7	20.9	0.98
6/27/2004	101500			24.6	125	0.1	6.4	1.8	22.0	0.98
6/27/2004	103000			24.7	125	0.1	6.4	1.8	21.8	0.98
6/27/2004	104500			24.6	125	0.1	6.5	1.9	22.8	0.99
6/27/2004	110000			24.6	125	0.1	6.4	1.9	22.2	0.99
6/27/2004	111500			24.6	125	0.1	6.4	1.9	23.3	0.99

6/27/2004	113000			24.7	125	0.1	6.4	1.9	23.3	0.99
6/27/2004	114500			24.6	125	0.1	6.5	1.9	22.9	1.00
6/27/2004	120000			24.6	125	0.1	6.4	2.0	23.4	0.99
6/27/2004	121500			24.7	125	0.1	6.5	1.9	22.6	0.99
6/27/2004	123000			24.7	125	0.1	6.4	1.9	22.6	0.99
6/27/2004	124500			24.8	125	0.1	6.4	1.7	20.3	0.98
6/27/2004	130000			24.7	125	0.1	6.4	1.6	19.3	0.98
6/27/2004	131500			25.0	125	0.1	6.4	1.5	18.7	0.99
6/27/2004	133000			24.8	125	0.1	6.4	1.9	22.3	0.99
6/27/2004	134500			24.9	125	0.1	6.4	1.7	20.7	0.99
6/27/2004	140000			24.9	125	0.1	6.4	1.9	23.1	0.99
6/27/2004	141500			25.6	125	0.1	6.4	1.9	23.7	0.99
6/27/2004	143000			25.2	125	0.1	6.4	1.8	21.4	1.00
6/27/2004	144500			25.0	125	0.1	6.4	2.0	24.4	1.00
6/27/2004	150000			25.0	125	0.1	6.4	2.0	23.8	1.00
6/27/2004	151500			25.1	125	0.1	6.5	2.0	24.3	1.00
6/27/2004	153000			25.2	125	0.1	6.5	2.1	25.1	1.00
6/27/2004	154500			25.2	126	0.1	6.5	2.1	25.4	0.99
6/27/2004	160000			25.2	126	0.1	6.4	1.8	21.8	0.99
6/27/2004	161500			25.2	126	0.1	6.4	1.6	19.7	0.99
6/27/2004	163000			25.3	125	0.1	6.4	1.5	17.7	0.98
6/27/2004	164500			25.2	127	0.1	6.4	1.8	21.7	0.98
6/27/2004	170000			25.2	126	0.1	6.5	1.8	21.8	0.99
6/27/2004	171500			25.3	126	0.1	6.4	1.6	20.0	0.98
6/27/2004	173000			25.4	125	0.1	6.5	2.2	26.6	0.98
6/27/2004	174500			25.5	125	0.1	6.5	2.3	28.5	0.99
6/27/2004	180000			25.7	125	0.1	6.5	2.3	28.5	0.99
6/27/2004	181500			25.6	125	0.1	6.5	2.3	28.6	0.99
6/27/2004	183000			25.6	125	0.1	6.5	2.3	27.8	0.99
6/27/2004	184500			25.7	125	0.1	6.5	2.2	26.4	0.99
6/27/2004	190000			25.8	125	0.1	6.5	2.3	28.4	0.99
6/27/2004	191500			25.7	124	0.1	6.5	2.3	28.3	0.99
6/27/2004	193000			25.8	125	0.1	6.5	2.4	29.3	0.99
6/27/2004	194500			25.8	125	0.1	6.5	2.5	30.2	0.98
6/27/2004	200000			25.8	125	0.1	6.5	2.4	29.7	0.99
6/27/2004	201500			25.8	125	0.1	6.5	2.5	30.1	0.99
6/27/2004	203000			25.8	125	0.1	6.5	2.4	29.9	0.99
6/27/2004	204500			25.8	125	0.1	6.5	2.4	30.0	0.99
6/27/2004	210000			25.8	125	0.1	6.5	2.3	28.7	0.99
6/27/2004	211500			25.8	125	0.1	6.5	2.3	27.7	0.99
6/27/2004	213000			25.8	125	0.1	6.5	2.3	27.8	0.99
6/27/2004	214500			25.8	125	0.1	6.5	2.2	27.5	0.99
6/27/2004	220000			25.8	125	0.1	6.5	2.3	28.1	0.99
6/27/2004	221500			25.8	125	0.1	6.5	2.3	27.8	0.99
6/27/2004	223000			25.8	126	0.1	6.5	2.3	27.8	0.99
6/27/2004	224500			25.8	126	0.1	6.5	2.2	27.2	0.99
6/27/2004	230000			25.8	125	0.1	6.5	2.2	27.2	0.99
6/27/2004	231500			25.8	125	0.1	6.5	2.3	27.8	0.99

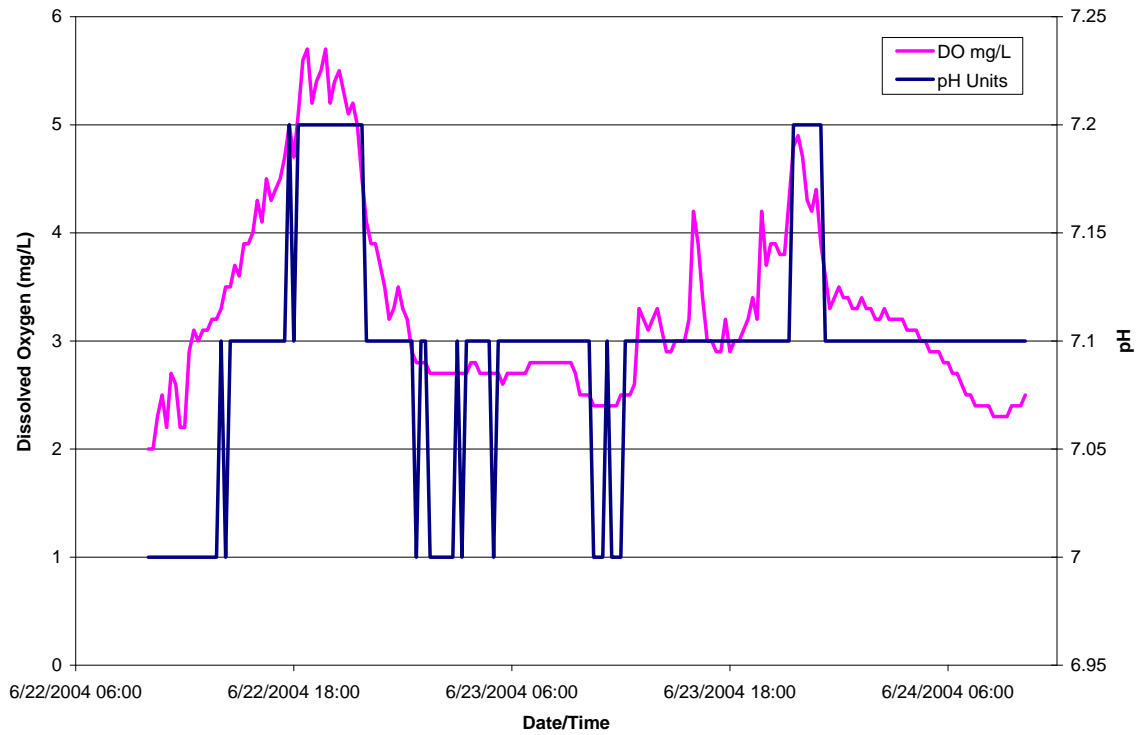
6/27/2004	233000			25.8	125	0.1	6.5	2.2	27.5	1.00
6/27/2004	234500			25.8	125	0.1	6.5	2.1	25.8	0.99
6/28/2004	0			25.8	126	0.1	6.5	2.1	26.2	1.00
6/28/2004	1500			25.8	126	0.1	6.5	2.1	26.3	1.00
6/28/2004	3000			25.8	126	0.1	6.5	2.1	25.7	1.00
6/28/2004	4500			25.8	126	0.1	6.5	2.0	24.9	1.00
6/28/2004	10000			25.7	126	0.1	6.5	2.0	24.2	1.00
6/28/2004	11500			25.7	126	0.1	6.5	2.1	25.4	1.00
6/28/2004	13000			25.7	126	0.1	6.5	1.9	23.8	1.00
6/28/2004	14500			25.7	126	0.1	6.5	1.9	23.5	1.00
6/28/2004	20000			25.7	126	0.1	6.5	1.9	23.1	0.99
6/28/2004	21500			25.7	126	0.1	6.5	1.9	23.5	0.99
6/28/2004	23000			25.7	126	0.1	6.5	1.9	23.2	0.99
6/28/2004	24500			25.7	126	0.1	6.5	1.8	22.1	1.00
6/28/2004	30000			25.7	126	0.1	6.5	1.8	22.0	0.99
6/28/2004	31500			25.7	126	0.1	6.5	1.8	22.2	0.99
6/28/2004	33000			25.6	126	0.1	6.5	1.6	19.7	0.99
6/28/2004	34500			25.6	126	0.1	6.5	1.8	21.4	0.99
6/28/2004	40000			25.6	126	0.1	6.5	1.7	20.2	0.99
6/28/2004	41500			25.6	126	0.1	6.5	1.6	20.0	0.99
6/28/2004	43000			25.6	126	0.1	6.5	1.7	20.5	0.99
6/28/2004	44500			25.6	126	0.1	6.5	1.7	20.3	0.99
6/28/2004	50000			25.5	126	0.1	6.5	1.7	20.2	0.99
6/28/2004	51500			25.5	126	0.1	6.5	1.7	20.4	0.99
6/28/2004	53000			25.5	126	0.1	6.5	1.6	19.6	0.99
6/28/2004	54500			25.5	126	0.1	6.5	1.6	19.6	0.99
6/28/2004	60000			25.5	127	0.1	6.5	1.6	19.5	0.99
6/28/2004	61500			25.5	126	0.1	6.5	1.6	19.1	0.99
6/28/2004	63000			25.5	126	0.1	6.5	1.6	19.1	0.99
6/28/2004	64500			25.4	127	0.1	6.5	1.6	19.0	0.99
6/28/2004	70000			25.4	126	0.1	6.4	1.5	18.8	0.99
6/28/2004	71500			25.4	127	0.1	6.4	1.6	19.4	0.98
6/28/2004	73000			25.4	126	0.1	6.4	1.5	18.7	0.98
6/28/2004	74500			25.4	127	0.1	6.5	1.6	19.0	0.98
6/28/2004	80000			25.4	127	0.1	6.5	1.6	19.3	0.98
6/28/2004	81500			25.4	127	0.1	6.5	1.6	19.7	0.98
6/28/2004	83000			25.4	127	0.1	6.5	1.6	19.6	0.98
6/28/2004	84500			25.4	127	0.1	6.5	1.5	18.7	0.98
6/28/2004	90000			25.4	127	0.1	6.5	1.6	19.1	0.98
6/28/2004	91500			25.4	127	0.1	6.5	1.5	18.5	0.97
6/28/2004	93000			25.5	127	0.1	6.4	1.5	18.4	0.97
6/28/2004	94500			25.5	127	0.1	6.4	1.5	18.1	0.97
6/28/2004	100000			25.5	127	0.1	6.5	1.6	19.8	0.97
6/28/2004	101500			25.5	127	0.1	6.4	1.5	18.0	0.97
6/28/2004	103000			25.5	127	0.1	6.5	1.6	19.1	0.97
6/28/2004	104500			25.6	127	0.1	6.5	1.6	19.4	0.97
6/28/2004	110000			25.6	127	0.1	6.5	1.7	20.6	0.97
6/28/2004	111500			25.6	127	0.1	6.5	1.7	20.2	0.97

6/28/2004	113000			25.6	127	0.1	6.5	1.6	19.4	0.97
6/28/2004	114500			25.7	127	0.1	6.5	1.6	19.9	0.97
6/28/2004	120000			25.7	127	0.1	6.5	1.7	20.6	0.97
6/28/2004	121500			25.8	127	0.1	6.5	1.7	20.7	0.97
6/28/2004	123000			25.7	127	0.1	6.5	1.8	21.7	0.98
6/28/2004	124500			25.7	127	0.1	6.5	1.7	21.2	0.97
6/28/2004	130000			25.8	127	0.1	6.5	1.7	21.1	0.97

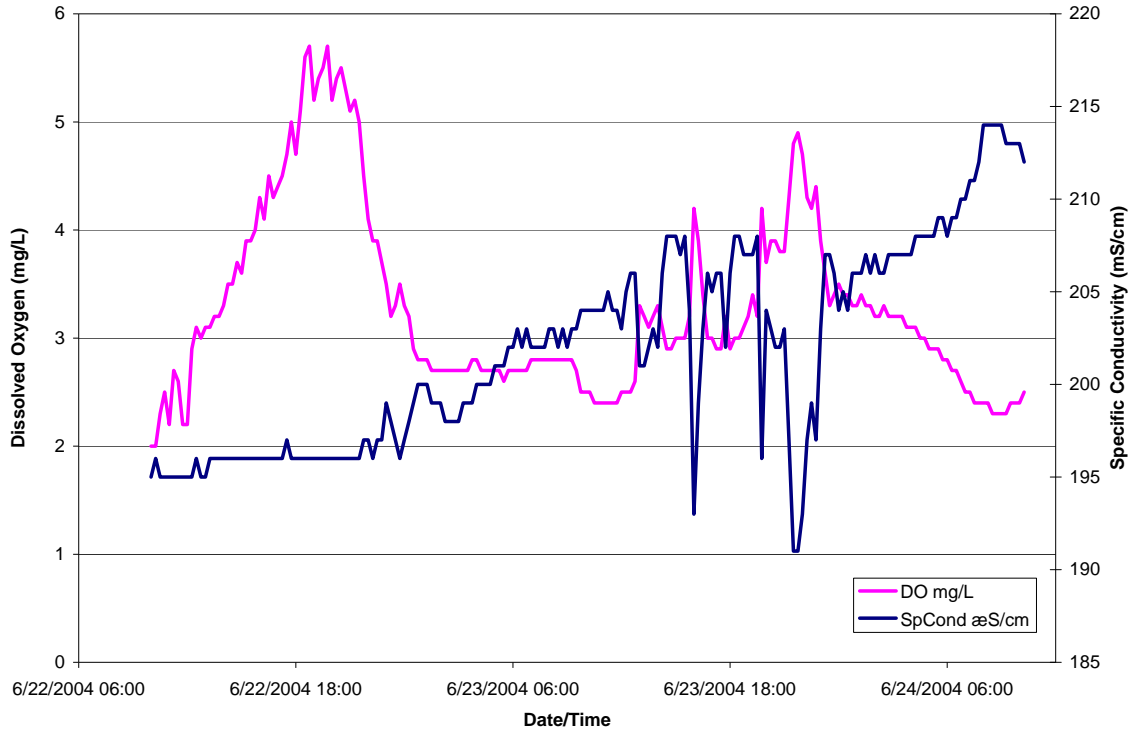
LV1: DO & Temp v. Date/Time



LV1: DO & pH v. Date/Time



LV1: DO & SpCond v. Date/Time



MiniSonde 4a 40811
 Log File Name : LV1
 Setup Date (MMDDYY) : 062104
 Setup Time (HHMMSS) : 113638
 Starting Date (MMDDYY) : 062104
 Starting Time (HHMMSS) : 114500
 Stopping Date (MMDDYY) : 062404
 Stopping Time (HHMMSS) : 235959
 Interval (HHMMSS) : 001500
 Sensor warmup (HHMMSS) : 000200
 Circltr warmup (HHMMSS) : 000200

Summary:

06/23/2004 00:00:00 to 06/24/2004 00:00:00

	Temp øC	SpCond æS/cm	Sal ppt	pH Units	DO mg/l	DO% Sat
Average	28.72	202.14	0.09	7.08	3.06	39.65
Min	28.37	190.90	0.09	7.04	2.35	30.40
Max	29.15	208.00	0.10	7.17	4.91	63.70

Date MMDDYY	Time HHMMSS	Temp øC	SpCond æS/cm	Sal ppt	pH Units	DO mg/l	DO% Sat
6/22/2004	10:00:00	28.4	195	0.1	7.0	2.0	25.1
6/22/2004	10:15:00	28.4	196	0.1	7.0	2.0	25.7
6/22/2004	10:30:00	28.6	195	0.1	7.0	2.3	30.0
6/22/2004	10:45:00	28.7	195	0.1	7.0	2.5	31.9
6/22/2004	11:00:00	28.6	195	0.1	7.0	2.2	28.7
6/22/2004	11:15:00	28.8	195	0.1	7.0	2.7	34.6
6/22/2004	11:30:00	28.8	195	0.1	7.0	2.6	33.8
6/22/2004	11:45:00	28.5	195	0.1	7.0	2.2	27.7

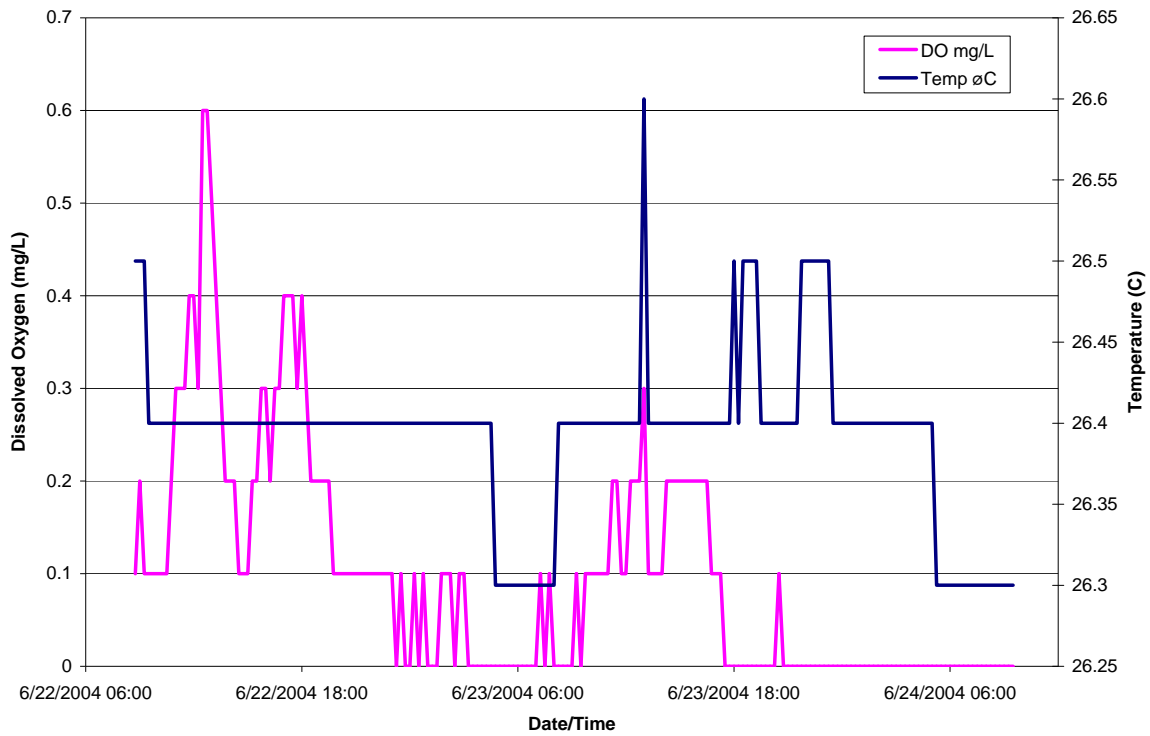
6/22/2004	12:00:00			28.6	195	0.1	7.0	2.2	27.9
6/22/2004	12:15:00			29.1	195	0.1	7.0	2.9	37.2
6/22/2004	12:30:00			29.2	196	0.1	7.0	3.1	40.1
6/22/2004	12:45:00			29.2	195	0.1	7.0	3.0	39.7
6/22/2004	13:00:00			29.3	195	0.1	7.0	3.1	41.1
6/22/2004	13:15:00			29.3	196	0.1	7.0	3.1	41.0
6/22/2004	13:30:00			29.3	196	0.1	7.0	3.2	42.0
6/22/2004	13:45:00			29.2	196	0.1	7.0	3.2	41.2
6/22/2004	14:00:00			29.3	196	0.1	7.1	3.3	43.4
6/22/2004	14:15:00			29.4	196	0.1	7.0	3.5	45.6
6/22/2004	14:30:00			29.3	196	0.1	7.1	3.5	45.9
6/22/2004	14:45:00			29.3	196	0.1	7.1	3.7	47.8
6/22/2004	15:00:00			29.3	196	0.1	7.1	3.6	47.4
6/22/2004	15:15:00			29.4	196	0.1	7.1	3.9	51.1
6/22/2004	15:30:00			29.5	196	0.1	7.1	3.9	50.8
6/22/2004	15:45:00			29.6	196	0.1	7.1	4.0	52.7
6/22/2004	16:00:00			29.7	196	0.1	7.1	4.3	56.3
6/22/2004	16:15:00			29.6	196	0.1	7.1	4.1	53.4
6/22/2004	16:30:00			29.7	196	0.1	7.1	4.5	59.1
6/22/2004	16:45:00			29.7	196	0.1	7.1	4.3	56.1
6/22/2004	17:00:00			29.7	196	0.1	7.1	4.4	58.1
6/22/2004	17:15:00			29.7	196	0.1	7.1	4.5	59.2
6/22/2004	17:30:00			29.8	197	0.1	7.1	4.7	62.2
6/22/2004	17:45:00			29.8	196	0.1	7.2	5.0	66.0
6/22/2004	18:00:00			29.8	196	0.1	7.1	4.7	62.1
6/22/2004	18:15:00			29.8	196	0.1	7.2	5.1	67.1
6/22/2004	18:30:00			29.9	196	0.1	7.2	5.6	73.8
6/22/2004	18:45:00			30.0	196	0.1	7.2	5.7	75.9
6/22/2004	19:00:00			29.8	196	0.1	7.2	5.2	69.2
6/22/2004	19:15:00			29.8	196	0.1	7.2	5.4	70.7
6/22/2004	19:30:00			29.9	196	0.1	7.2	5.5	72.2
6/22/2004	19:45:00			29.9	196	0.1	7.2	5.7	75.1
6/22/2004	20:00:00			29.7	196	0.1	7.2	5.2	68.9
6/22/2004	20:15:00			29.8	196	0.1	7.2	5.4	71.3
6/22/2004	20:30:00			29.8	196	0.1	7.2	5.5	71.8
6/22/2004	20:45:00			29.7	196	0.1	7.2	5.3	69.4
6/22/2004	21:00:00			29.6	196	0.1	7.2	5.1	67.5
6/22/2004	21:15:00			29.6	196	0.1	7.2	5.2	68.0
6/22/2004	21:30:00			29.5	196	0.1	7.2	5.0	66.2
6/22/2004	21:45:00			29.4	197	0.1	7.2	4.5	59.2
6/22/2004	22:00:00			29.2	197	0.1	7.1	4.1	54.1
6/22/2004	22:15:00			29.2	196	0.1	7.1	3.9	51.1
6/22/2004	22:30:00			29.1	197	0.1	7.1	3.9	50.7
6/22/2004	22:45:00			29.1	197	0.1	7.1	3.7	48.8
6/22/2004	23:00:00			29.0	199	0.1	7.1	3.5	45.3
6/22/2004	23:15:00			29.0	198	0.1	7.1	3.2	41.5
6/22/2004	23:30:00			29.0	197	0.1	7.1	3.3	42.7
6/22/2004	23:45:00			29.0	196	0.1	7.1	3.5	45.9

6/23/2004	0:00:00			29.0	197	0.1	7.1	3.3	42.7
6/23/2004	0:15:00			28.9	198	0.1	7.1	3.2	41.6
6/23/2004	0:30:00			28.8	199	0.1	7.1	2.9	37.3
6/23/2004	0:45:00			28.8	200	0.1	7.0	2.8	35.7
6/23/2004	1:00:00			28.9	200	0.1	7.1	2.8	35.8
6/23/2004	1:15:00			28.9	200	0.1	7.1	2.8	35.8
6/23/2004	1:30:00			28.9	199	0.1	7.0	2.7	34.8
6/23/2004	1:45:00			28.8	199	0.1	7.0	2.7	34.8
6/23/2004	2:00:00			28.8	199	0.1	7.0	2.7	34.6
6/23/2004	2:15:00			28.8	198	0.1	7.0	2.7	34.8
6/23/2004	2:30:00			28.9	198	0.1	7.0	2.7	34.8
6/23/2004	2:45:00			28.9	198	0.1	7.0	2.7	34.4
6/23/2004	3:00:00			28.9	198	0.1	7.1	2.7	34.9
6/23/2004	3:15:00			28.9	199	0.1	7.0	2.7	35.3
6/23/2004	3:30:00			28.9	199	0.1	7.1	2.7	35.2
6/23/2004	3:45:00			28.9	199	0.1	7.1	2.8	35.8
6/23/2004	4:00:00			28.9	200	0.1	7.1	2.8	35.7
6/23/2004	4:15:00			28.9	200	0.1	7.1	2.7	35.5
6/23/2004	4:30:00			28.9	200	0.1	7.1	2.7	35.5
6/23/2004	4:45:00			28.9	200	0.1	7.1	2.7	34.9
6/23/2004	5:00:00			28.9	201	0.1	7.0	2.7	34.6
6/23/2004	5:15:00			28.9	201	0.1	7.1	2.7	34.4
6/23/2004	5:30:00			28.9	201	0.1	7.1	2.6	34.3
6/23/2004	5:45:00			28.9	202	0.1	7.1	2.7	34.5
6/23/2004	6:00:00			28.9	202	0.1	7.1	2.7	35.2
6/23/2004	6:15:00			28.8	203	0.1	7.1	2.7	35.4
6/23/2004	6:30:00			28.8	202	0.1	7.1	2.7	35.2
6/23/2004	6:45:00			28.7	203	0.1	7.1	2.7	35.4
6/23/2004	7:00:00			28.7	202	0.1	7.1	2.8	35.9
6/23/2004	7:15:00			28.7	202	0.1	7.1	2.8	35.9
6/23/2004	7:30:00			28.7	202	0.1	7.1	2.8	35.6
6/23/2004	7:45:00			28.6	202	0.1	7.1	2.8	35.7
6/23/2004	8:00:00			28.6	203	0.1	7.1	2.8	35.8
6/23/2004	8:15:00			28.5	203	0.1	7.1	2.8	36.6
6/23/2004	8:30:00			28.5	202	0.1	7.1	2.8	35.9
6/23/2004	8:45:00			28.5	203	0.1	7.1	2.8	35.7
6/23/2004	9:00:00			28.5	202	0.1	7.1	2.8	36.6
6/23/2004	9:15:00			28.4	203	0.1	7.1	2.8	35.7
6/23/2004	9:30:00			28.4	203	0.1	7.1	2.7	35.0
6/23/2004	9:45:00			28.5	204	0.1	7.1	2.5	32.4
6/23/2004	10:00:00			28.5	204	0.1	7.1	2.5	31.8
6/23/2004	10:15:00			28.5	204	0.1	7.1	2.5	31.7
6/23/2004	10:30:00			28.5	204	0.1	7.0	2.4	30.7
6/23/2004	10:45:00			28.6	204	0.1	7.0	2.4	31.2
6/23/2004	11:00:00			28.6	204	0.1	7.0	2.4	31.4
6/23/2004	11:15:00			28.6	205	0.1	7.1	2.4	31.5
6/23/2004	11:30:00			28.6	204	0.1	7.0	2.4	30.4
6/23/2004	11:45:00			28.6	204	0.1	7.0	2.4	31.2

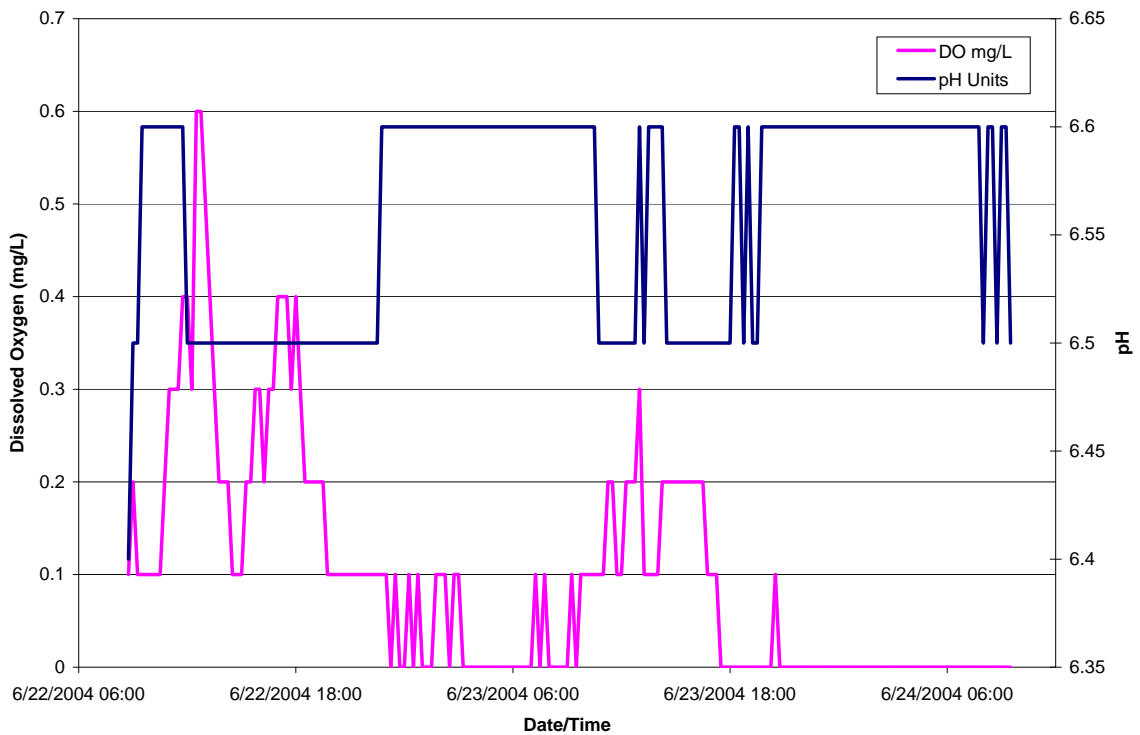
6/23/2004	12:00:00			28.6	203	0.1	7.0	2.5	32.0
6/23/2004	12:15:00			28.6	205	0.1	7.1	2.5	32.3
6/23/2004	12:30:00			28.6	206	0.1	7.1	2.5	31.8
6/23/2004	12:45:00			28.6	206	0.1	7.1	2.6	33.1
6/23/2004	13:00:00			28.7	201	0.1	7.1	3.3	42.5
6/23/2004	13:15:00			28.6	201	0.1	7.1	3.2	41.1
6/23/2004	13:30:00			28.6	202	0.1	7.1	3.1	40.2
6/23/2004	13:45:00			28.6	203	0.1	7.1	3.2	41.3
6/23/2004	14:00:00			28.7	202	0.1	7.1	3.3	42.4
6/23/2004	14:15:00			28.7	206	0.1	7.1	3.1	40.4
6/23/2004	14:30:00			28.6	208	0.1	7.1	2.9	37.3
6/23/2004	14:45:00			28.6	208	0.1	7.1	2.9	37.7
6/23/2004	15:00:00			28.6	208	0.1	7.1	3.0	38.8
6/23/2004	15:15:00			28.6	207	0.1	7.1	3.0	38.2
6/23/2004	15:30:00			28.7	208	0.1	7.1	3.0	38.3
6/23/2004	15:45:00			28.9	204	0.1	7.1	3.2	41.7
6/23/2004	16:00:00			29.1	193	0.1	7.1	4.2	54.3
6/23/2004	16:15:00			29.2	199	0.1	7.1	3.9	51.2
6/23/2004	16:30:00			28.9	203	0.1	7.1	3.4	43.6
6/23/2004	16:45:00			28.7	206	0.1	7.1	3.0	38.5
6/23/2004	17:00:00			28.8	205	0.1	7.1	3.0	38.2
6/23/2004	17:15:00			28.7	206	0.1	7.1	2.9	37.3
6/23/2004	17:30:00			28.7	206	0.1	7.1	2.9	36.9
6/23/2004	17:45:00			28.8	202	0.1	7.1	3.2	41.8
6/23/2004	18:00:00			28.7	206	0.1	7.1	2.9	37.1
6/23/2004	18:15:00			28.7	208	0.1	7.1	3.0	39.2
6/23/2004	18:30:00			28.7	208	0.1	7.1	3.0	38.8
6/23/2004	18:45:00			28.7	207	0.1	7.1	3.1	39.9
6/23/2004	19:00:00			28.7	207	0.1	7.1	3.2	41.6
6/23/2004	19:15:00			28.8	207	0.1	7.1	3.4	44.1
6/23/2004	19:30:00			28.7	208	0.1	7.1	3.2	41.2
6/23/2004	19:45:00			29.0	196	0.1	7.1	4.2	55.0
6/23/2004	20:00:00			28.8	204	0.1	7.1	3.7	48.3
6/23/2004	20:15:00			28.8	203	0.1	7.1	3.9	50.9
6/23/2004	20:30:00			28.8	202	0.1	7.1	3.9	50.1
6/23/2004	20:45:00			28.8	202	0.1	7.1	3.8	49.1
6/23/2004	21:00:00			28.7	203	0.1	7.1	3.8	49.0
6/23/2004	21:15:00			28.8	197	0.1	7.1	4.3	55.1
6/23/2004	21:30:00			28.9	191	0.1	7.2	4.8	62.5
6/23/2004	21:45:00			28.9	191	0.1	7.2	4.9	63.7
6/23/2004	22:00:00			28.8	193	0.1	7.2	4.7	60.9
6/23/2004	22:15:00			28.7	197	0.1	7.2	4.3	55.1
6/23/2004	22:30:00			28.7	199	0.1	7.2	4.2	53.9
6/23/2004	22:45:00			28.7	197	0.1	7.2	4.4	56.5
6/23/2004	23:00:00			28.6	203	0.1	7.2	3.9	49.7
6/23/2004	23:15:00			28.4	207	0.1	7.1	3.6	46.3
6/23/2004	23:30:00			28.4	207	0.1	7.1	3.3	43.0
6/23/2004	23:45:00			28.4	206	0.1	7.1	3.4	43.3

6/24/2004	0:00:00			28.4	204	0.1	7.1	3.5	45.5
6/24/2004	0:15:00			28.4	205	0.1	7.1	3.4	43.8
6/24/2004	0:30:00			28.4	204	0.1	7.1	3.4	43.4
6/24/2004	0:45:00			28.3	206	0.1	7.1	3.3	42.9
6/24/2004	1:00:00			28.3	206	0.1	7.1	3.3	42.2
6/24/2004	1:15:00			28.2	206	0.1	7.1	3.4	43.4
6/24/2004	1:30:00			28.2	207	0.1	7.1	3.3	41.9
6/24/2004	1:45:00			28.2	206	0.1	7.1	3.3	42.8
6/24/2004	2:00:00			28.2	207	0.1	7.1	3.2	41.5
6/24/2004	2:15:00			28.2	206	0.1	7.1	3.2	41.6
6/24/2004	2:30:00			28.2	206	0.1	7.1	3.3	41.9
6/24/2004	2:45:00			28.2	207	0.1	7.1	3.2	41.3
6/24/2004	3:00:00			28.2	207	0.1	7.1	3.2	41.0
6/24/2004	3:15:00			28.2	207	0.1	7.1	3.2	40.8
6/24/2004	3:30:00			28.2	207	0.1	7.1	3.2	40.4
6/24/2004	3:45:00			28.2	207	0.1	7.1	3.1	40.0
6/24/2004	4:00:00			28.2	207	0.1	7.1	3.1	39.8
6/24/2004	4:15:00			28.2	208	0.1	7.1	3.1	39.6
6/24/2004	4:30:00			28.3	208	0.1	7.1	3.0	38.4
6/24/2004	4:45:00			28.3	208	0.1	7.1	3.0	38.8
6/24/2004	5:00:00			28.3	208	0.1	7.1	2.9	37.5
6/24/2004	5:15:00			28.3	208	0.1	7.1	2.9	37.3
6/24/2004	5:30:00			28.3	209	0.1	7.1	2.9	36.7
6/24/2004	5:45:00			28.3	209	0.1	7.1	2.8	36.2
6/24/2004	6:00:00			28.2	208	0.1	7.1	2.8	35.3
6/24/2004	6:15:00			28.2	209	0.1	7.1	2.7	34.5
6/24/2004	6:30:00			28.2	209	0.1	7.1	2.7	34.1
6/24/2004	6:45:00			28.2	210	0.1	7.1	2.6	33.5
6/24/2004	7:00:00			28.2	210	0.1	7.1	2.5	32.6
6/24/2004	7:15:00			28.2	211	0.1	7.1	2.5	31.8
6/24/2004	7:30:00			28.2	211	0.1	7.1	2.4	31.4
6/24/2004	7:45:00			28.3	212	0.1	7.1	2.4	30.9
6/24/2004	8:00:00			28.3	214	0.1	7.1	2.4	30.5
6/24/2004	8:15:00			28.3	214	0.1	7.1	2.4	30.5
6/24/2004	8:30:00			28.3	214	0.1	7.1	2.3	29.6
6/24/2004	8:45:00			28.3	214	0.1	7.1	2.3	30.1
6/24/2004	9:00:00			28.2	214	0.1	7.1	2.3	29.8
6/24/2004	9:15:00			28.2	213	0.1	7.1	2.3	29.8
6/24/2004	9:30:00			28.2	213	0.1	7.1	2.4	30.2
6/24/2004	9:45:00			28.2	213	0.1	7.1	2.4	30.1
6/24/2004	10:00:00			28.2	213	0.1	7.1	2.4	30.3
6/24/2004	10:15:00			28.2	212	0.1	7.1	2.5	31.5

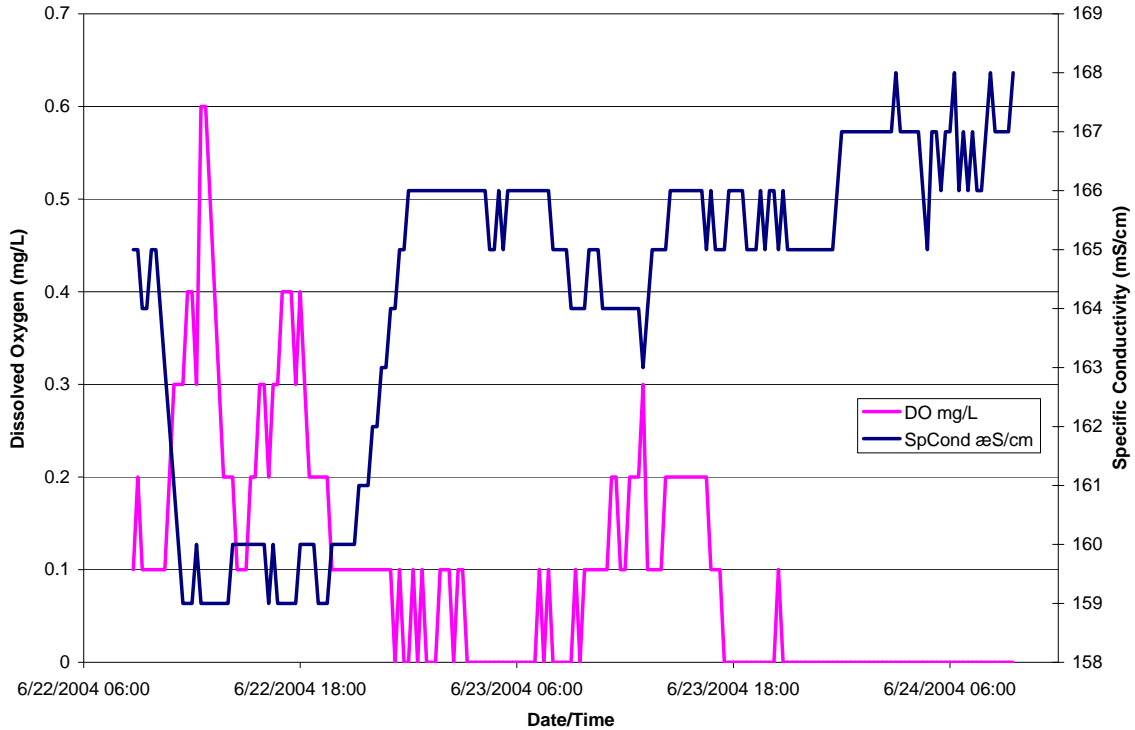
LGBY2: DO & Temp v. Date/Time



LGBY2: DO & pH v. Date/Time



LGBY2: DO & SpCond v. Date/Time



MiniSonde 4a 39894
 Log File Name : LGBY2
 Setup Date (MMDDYY) : 062104
 Setup Time (HHMMSS) : 093312
 Starting Date (MMDDYY) : 062104
 Starting Time (HHMMSS) : 110000
 Stopping Date (MMDDYY) : 062404
 Stopping Time (HHMMSS) : 235959
 Interval (HHMMSS) : 001500
 Sensor warmup (HHMMSS) : 000200
 Circltr warmup (HHMMSS) : 000200

Summary:

06/23/2004 00:00:00 to 06/24/2004 00:00:00

	Temp øC	SpCond æS/cm	Sal ppt	pH Units	DO mg/l	DO% Sat	Dep10 meters
Average	26.40	165.32	0.07	6.56	0.07	0.91	0.64
Min	26.31	163.00	0.07	6.53	0.02	0.30	0.63
Max	26.55	166.70	0.07	6.58	0.34	4.30	0.66

Date MMDDYY	Time HHMMSS	Temp øC	SpCond æS/cm	Sal ppt	pH Units	DO mg/l	DO% Sat	Dep10 meters
62204	84500	26.5	165	0.1	6.4	0.1	1.5	0.63
62204	90000	26.5	165	0.1	6.5	0.2	1.9	0.62
62204	91500	26.5	164	0.1	6.5	0.1	1.1	0.62
62204	93000	26.5	164	0.1	6.6	0.1	1.0	0.62
62204	94500	26.5	165	0.1	6.6	0.1	1.2	0.62
62204	100000	26.5	165	0.1	6.6	0.1	1.3	0.62
62204	101500	26.5	164	0.1	6.6	0.1	1.4	0.62
62204	103000	26.5	163	0.1	6.6	0.1	1.4	0.62

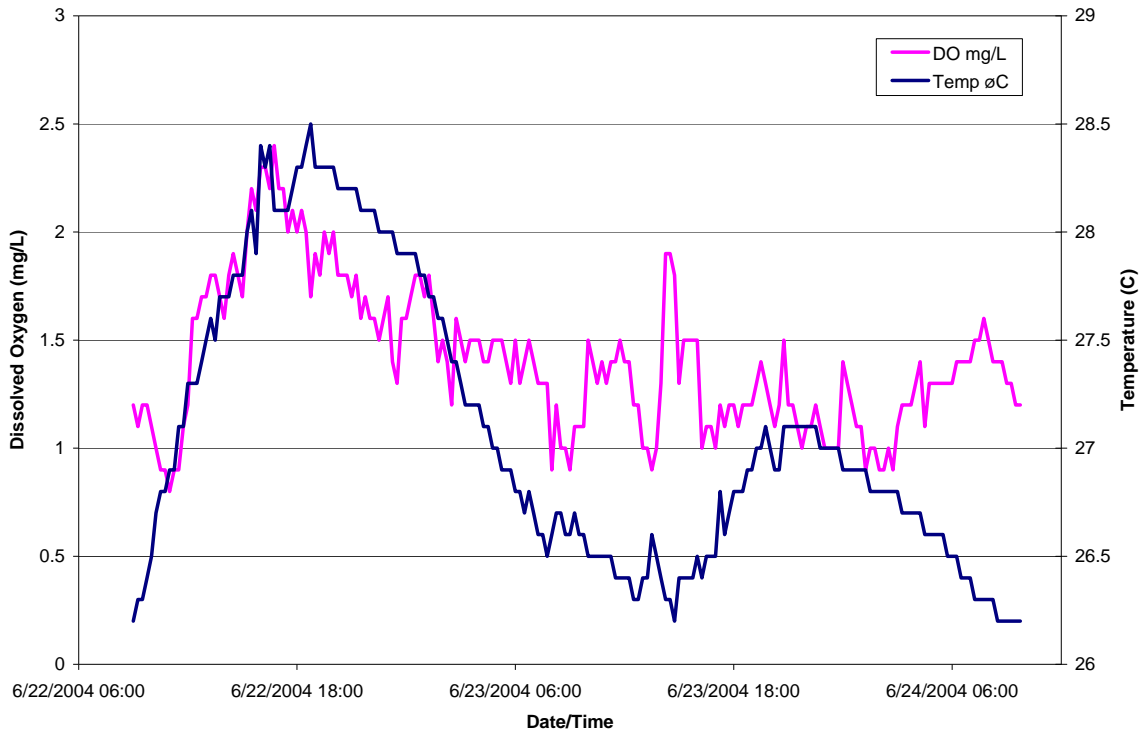
62204	104500			26.5	162	0.1	6.6	0.2	2.4	0.62
62204	110000			26.5	161	0.1	6.6	0.3	3.6	0.62
62204	111500			26.4	160	0.1	6.6	0.3	3.3	0.62
62204	113000			26.4	159	0.1	6.6	0.3	4.3	0.62
62204	114500			26.4	159	0.1	6.6	0.4	5.3	0.62
62204	120000			26.4	159	0.1	6.5	0.4	4.7	0.62
62204	121500			26.4	160	0.1	6.5	0.3	4.2	0.62
62204	123000			26.5	159	0.1	6.5	0.6	6.9	0.62
62204	124500			26.5	159	0.1	6.5	0.6	7.5	0.62
62204	130000			26.4	159	0.1	6.5	0.5	5.6	0.62
62204	131500			26.4	159	0.1	6.5	0.4	5.2	0.62
62204	133000			26.4	159	0.1	6.5	0.3	4.1	0.62
62204	134500			26.4	159	0.1	6.5	0.2	2.6	0.62
62204	140000			26.4	159	0.1	6.5	0.2	2.3	0.62
62204	141500			26.4	160	0.1	6.5	0.2	2.1	0.62
62204	143000			26.4	160	0.1	6.5	0.1	1.7	0.62
62204	144500			26.4	160	0.1	6.5	0.1	1.7	0.62
62204	150000			26.4	160	0.1	6.5	0.1	1.7	0.62
62204	151500			26.4	160	0.1	6.5	0.2	2.4	0.62
62204	153000			26.4	160	0.1	6.5	0.2	2.3	0.63
62204	154500			26.4	160	0.1	6.5	0.3	3.3	0.62
62204	160000			26.4	160	0.1	6.5	0.3	3.4	0.63
62204	161500			26.4	159	0.1	6.5	0.2	3.0	0.63
62204	163000			26.4	160	0.1	6.5	0.3	3.6	0.63
62204	164500			26.4	159	0.1	6.5	0.3	3.6	0.63
62204	170000			26.5	159	0.1	6.5	0.4	4.8	0.63
62204	171500			26.4	159	0.1	6.5	0.4	4.4	0.63
62204	173000			26.4	159	0.1	6.5	0.4	4.5	0.63
62204	174500			26.5	159	0.1	6.5	0.3	3.6	0.63
62204	180000			26.5	160	0.1	6.5	0.4	4.8	0.63
62204	181500			26.5	160	0.1	6.5	0.3	3.4	0.63
62204	183000			26.4	160	0.1	6.5	0.2	2.6	0.63
62204	184500			26.4	160	0.1	6.5	0.2	2.9	0.63
62204	190000			26.4	159	0.1	6.5	0.2	2.3	0.63
62204	191500			26.5	159	0.1	6.5	0.2	2.9	0.63
62204	193000			26.4	159	0.1	6.5	0.2	2.2	0.63
62204	194500			26.4	160	0.1	6.5	0.1	1.4	0.63
62204	200000			26.4	160	0.1	6.5	0.1	1.4	0.63
62204	201500			26.4	160	0.1	6.5	0.1	1.4	0.63
62204	203000			26.4	160	0.1	6.5	0.1	1.3	0.63
62204	204500			26.4	160	0.1	6.5	0.1	1.1	0.63
62204	210000			26.4	160	0.1	6.5	0.1	0.9	0.63
62204	211500			26.4	161	0.1	6.5	0.1	0.8	0.63
62204	213000			26.4	161	0.1	6.5	0.1	0.6	0.63
62204	214500			26.4	161	0.1	6.5	0.1	0.7	0.63
62204	220000			26.4	162	0.1	6.5	0.1	0.6	0.63
62204	221500			26.4	162	0.1	6.5	0.1	0.6	0.63
62204	223000			26.4	163	0.1	6.5	0.1	0.8	0.63

62204	224500			26.4	163	0.1	6.6	0.1	0.7	0.63
62204	230000			26.4	164	0.1	6.6	0.1	0.7	0.63
62204	231500			26.4	164	0.1	6.6	0.0	0.5	0.63
62204	233000			26.4	165	0.1	6.6	0.1	0.6	0.63
62204	234500			26.4	165	0.1	6.6	0.0	0.5	0.63
62304	0			26.4	166	0.1	6.6	0.0	0.5	0.63
62304	1500			26.4	166	0.1	6.6	0.1	0.6	0.63
62304	3000			26.4	166	0.1	6.6	0.0	0.5	0.63
62304	4500			26.4	166	0.1	6.6	0.1	0.6	0.63
62304	10000			26.4	166	0.1	6.6	0.0	0.5	0.63
62304	11500			26.4	166	0.1	6.6	0.0	0.5	0.63
62304	13000			26.4	166	0.1	6.6	0.0	0.5	0.63
62304	14500			26.4	166	0.1	6.6	0.1	0.6	0.63
62304	20000			26.4	166	0.1	6.6	0.1	0.6	0.63
62304	21500			26.4	166	0.1	6.6	0.1	0.6	0.63
62304	23000			26.4	166	0.1	6.6	0.0	0.5	0.63
62304	24500			26.4	166	0.1	6.6	0.1	0.6	0.63
62304	30000			26.4	166	0.1	6.6	0.1	0.6	0.63
62304	31500			26.4	166	0.1	6.6	0.0	0.5	0.63
62304	33000			26.4	166	0.1	6.6	0.0	0.5	0.63
62304	34500			26.4	166	0.1	6.6	0.0	0.5	0.63
62304	40000			26.4	166	0.1	6.6	0.0	0.5	0.63
62304	41500			26.4	166	0.1	6.6	0.0	0.5	0.63
62304	43000			26.4	165	0.1	6.6	0.0	0.5	0.63
62304	44500			26.3	165	0.1	6.6	0.0	0.4	0.63
62304	50000			26.3	166	0.1	6.6	0.0	0.5	0.63
62304	51500			26.3	165	0.1	6.6	0.0	0.5	0.63
62304	53000			26.3	166	0.1	6.6	0.0	0.5	0.63
62304	54500			26.3	166	0.1	6.6	0.0	0.5	0.63
62304	60000			26.3	166	0.1	6.6	0.0	0.4	0.63
62304	61500			26.3	166	0.1	6.6	0.0	0.4	0.63
62304	63000			26.3	166	0.1	6.6	0.0	0.5	0.63
62304	64500			26.3	166	0.1	6.6	0.0	0.5	0.63
62304	70000			26.3	166	0.1	6.6	0.0	0.5	0.64
62304	71500			26.3	166	0.1	6.6	0.1	0.6	0.63
62304	73000			26.3	166	0.1	6.6	0.0	0.5	0.63
62304	74500			26.3	166	0.1	6.6	0.1	0.6	0.63
62304	80000			26.3	165	0.1	6.6	0.0	0.5	0.63
62304	81500			26.4	165	0.1	6.6	0.0	0.4	0.64
62304	83000			26.4	165	0.1	6.6	0.0	0.5	0.64
62304	84500			26.4	165	0.1	6.6	0.0	0.4	0.64
62304	90000			26.4	164	0.1	6.6	0.0	0.5	0.63
62304	91500			26.4	164	0.1	6.6	0.1	0.6	0.63
62304	93000			26.4	164	0.1	6.6	0.0	0.5	0.63
62304	94500			26.4	164	0.1	6.6	0.1	0.6	0.63
62304	100000			26.4	165	0.1	6.6	0.1	0.6	0.63
62304	101500			26.4	165	0.1	6.6	0.1	0.8	0.63
62304	103000			26.4	165	0.1	6.6	0.1	0.9	0.63

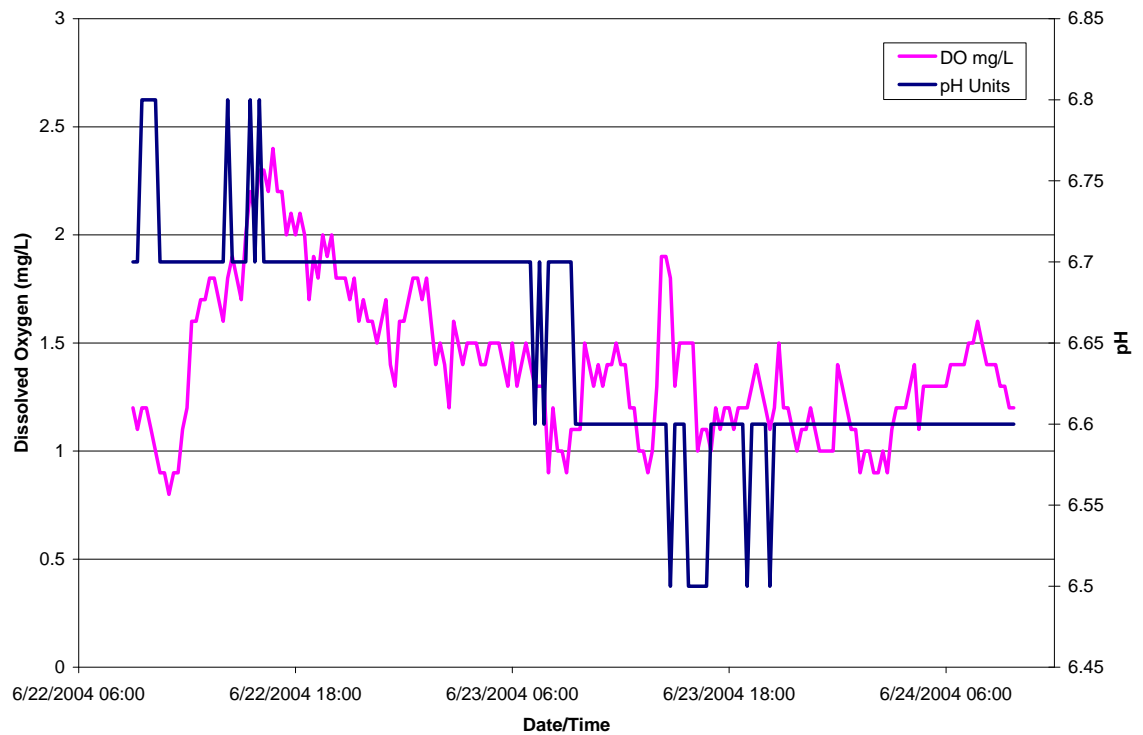
62304	104500			26.4	164	0.1	6.5	0.1	1.5	0.63
62304	110000			26.4	164	0.1	6.5	0.1	1.6	0.63
62304	111500			26.4	164	0.1	6.5	0.2	1.9	0.63
62304	113000			26.4	164	0.1	6.5	0.2	2.1	0.63
62304	114500			26.4	164	0.1	6.5	0.1	1.8	0.63
62304	120000			26.4	164	0.1	6.5	0.1	1.6	0.63
62304	121500			26.4	164	0.1	6.5	0.2	2.2	0.63
62304	123000			26.4	164	0.1	6.5	0.2	2.4	0.63
62304	124500			26.4	164	0.1	6.5	0.2	2.7	0.66
62304	130000			26.6	163	0.1	6.6	0.3	4.3	0.66
62304	131500			26.4	164	0.1	6.5	0.1	1.1	0.66
62304	133000			26.4	165	0.1	6.6	0.1	0.8	0.64
62304	134500			26.4	165	0.1	6.6	0.1	1.2	0.64
62304	140000			26.4	165	0.1	6.6	0.1	1.6	0.65
62304	141500			26.4	165	0.1	6.6	0.2	2.3	0.65
62304	143000			26.4	166	0.1	6.5	0.2	2.4	0.64
62304	144500			26.4	166	0.1	6.5	0.2	2.6	0.64
62304	150000			26.4	166	0.1	6.5	0.2	2.5	0.65
62304	151500			26.4	166	0.1	6.5	0.2	2.2	0.65
62304	153000			26.4	166	0.1	6.5	0.2	2.2	0.65
62304	154500			26.4	166	0.1	6.5	0.2	2.2	0.64
62304	160000			26.4	166	0.1	6.5	0.2	2.6	0.64
62304	161500			26.4	166	0.1	6.5	0.2	2.3	0.64
62304	163000			26.4	165	0.1	6.5	0.2	2.2	0.64
62304	164500			26.4	166	0.1	6.5	0.1	1.4	0.64
62304	170000			26.4	165	0.1	6.5	0.1	1.0	0.64
62304	171500			26.5	165	0.1	6.5	0.1	0.7	0.64
62304	173000			26.5	165	0.1	6.5	0.0	0.5	0.64
62304	174500			26.5	166	0.1	6.5	0.0	0.5	0.64
62304	180000			26.5	166	0.1	6.5	0.0	0.5	0.64
62304	181500			26.5	166	0.1	6.6	0.0	0.4	0.64
62304	183000			26.5	166	0.1	6.6	0.0	0.4	0.64
62304	184500			26.5	165	0.1	6.5	0.0	0.5	0.64
62304	190000			26.5	165	0.1	6.6	0.0	0.4	0.64
62304	191500			26.5	165	0.1	6.5	0.0	0.5	0.64
62304	193000			26.5	166	0.1	6.5	0.0	0.4	0.64
62304	194500			26.5	165	0.1	6.6	0.0	0.4	0.64
62304	200000			26.5	166	0.1	6.6	0.0	0.4	0.64
62304	201500			26.4	166	0.1	6.6	0.0	0.4	0.65
62304	203000			26.5	165	0.1	6.6	0.1	0.6	0.64
62304	204500			26.5	166	0.1	6.6	0.0	0.5	0.64
62304	210000			26.5	165	0.1	6.6	0.0	0.4	0.64
62304	211500			26.5	165	0.1	6.6	0.0	0.4	0.64
62304	213000			26.5	165	0.1	6.6	0.0	0.5	0.64
62304	214500			26.5	165	0.1	6.6	0.0	0.5	0.64
62304	220000			26.5	165	0.1	6.6	0.0	0.4	0.64
62304	221500			26.5	165	0.1	6.6	0.0	0.5	0.64
62304	223000			26.5	165	0.1	6.6	0.0	0.4	0.64

62304	224500			26.5	165	0.1	6.6	0.0	0.3	0.64
62304	230000			26.5	165	0.1	6.6	0.0	0.5	0.64
62304	231500			26.5	165	0.1	6.6	0.0	0.5	0.64
62304	233000			26.5	165	0.1	6.6	0.0	0.5	0.64
62304	234500			26.4	166	0.1	6.6	0.0	0.5	0.64
62404	0			26.4	167	0.1	6.6	0.0	0.4	0.64
62404	1500			26.4	167	0.1	6.6	0.0	0.4	0.64
62404	3000			26.4	167	0.1	6.6	0.0	0.4	0.64
62404	4500			26.4	167	0.1	6.6	0.0	0.4	0.64
62404	10000			26.4	167	0.1	6.6	0.0	0.5	0.64
62404	11500			26.4	167	0.1	6.6	0.0	0.4	0.64
62404	13000			26.4	167	0.1	6.6	0.0	0.4	0.64
62404	14500			26.4	167	0.1	6.6	0.0	0.3	0.64
62404	20000			26.4	167	0.1	6.6	0.0	0.4	0.64
62404	21500			26.4	167	0.1	6.6	0.0	0.4	0.64
62404	23000			26.4	167	0.1	6.6	0.0	0.4	0.64
62404	24500			26.4	167	0.1	6.6	0.0	0.4	0.64
62404	30000			26.4	168	0.1	6.6	0.0	0.4	0.64
62404	31500			26.4	167	0.1	6.6	0.0	0.4	0.64
62404	33000			26.4	167	0.1	6.6	0.0	0.4	0.64
62404	34500			26.4	167	0.1	6.6	0.0	0.4	0.64
62404	40000			26.4	167	0.1	6.6	0.0	0.3	0.64
62404	41500			26.4	167	0.1	6.6	0.0	0.3	0.64
62404	43000			26.4	166	0.1	6.6	0.0	0.5	0.64
62404	44500			26.4	165	0.1	6.6	0.0	0.3	0.65
62404	50000			26.4	167	0.1	6.6	0.0	0.4	0.65
62404	51500			26.3	167	0.1	6.6	0.0	0.3	0.65
62404	53000			26.3	166	0.1	6.6	0.0	0.3	0.65
62404	54500			26.3	167	0.1	6.6	0.0	0.3	0.65
62404	60000			26.3	167	0.1	6.6	0.0	0.4	0.65
62404	61500			26.3	168	0.1	6.6	0.0	0.4	0.65
62404	63000			26.3	166	0.1	6.6	0.0	0.5	0.64
62404	64500			26.3	167	0.1	6.6	0.0	0.5	0.64
62404	70000			26.3	166	0.1	6.6	0.0	0.3	0.64
62404	71500			26.3	167	0.1	6.6	0.0	0.4	0.64
62404	73000			26.3	166	0.1	6.6	0.0	0.3	0.64
62404	74500			26.3	166	0.1	6.6	0.0	0.4	0.64
62404	80000			26.3	167	0.1	6.5	0.0	0.4	0.65
62404	81500			26.3	168	0.1	6.6	0.0	0.4	0.64
62404	83000			26.3	167	0.1	6.6	0.0	0.4	0.64
62404	84500			26.3	167	0.1	6.5	0.0	0.3	0.64
62404	90000			26.3	167	0.1	6.6	0.0	0.4	0.64
62404	91500			26.3	167	0.1	6.6	0.0	0.4	0.64
62404	93000			26.3	168	0.1	6.5	0.0	0.5	0.64

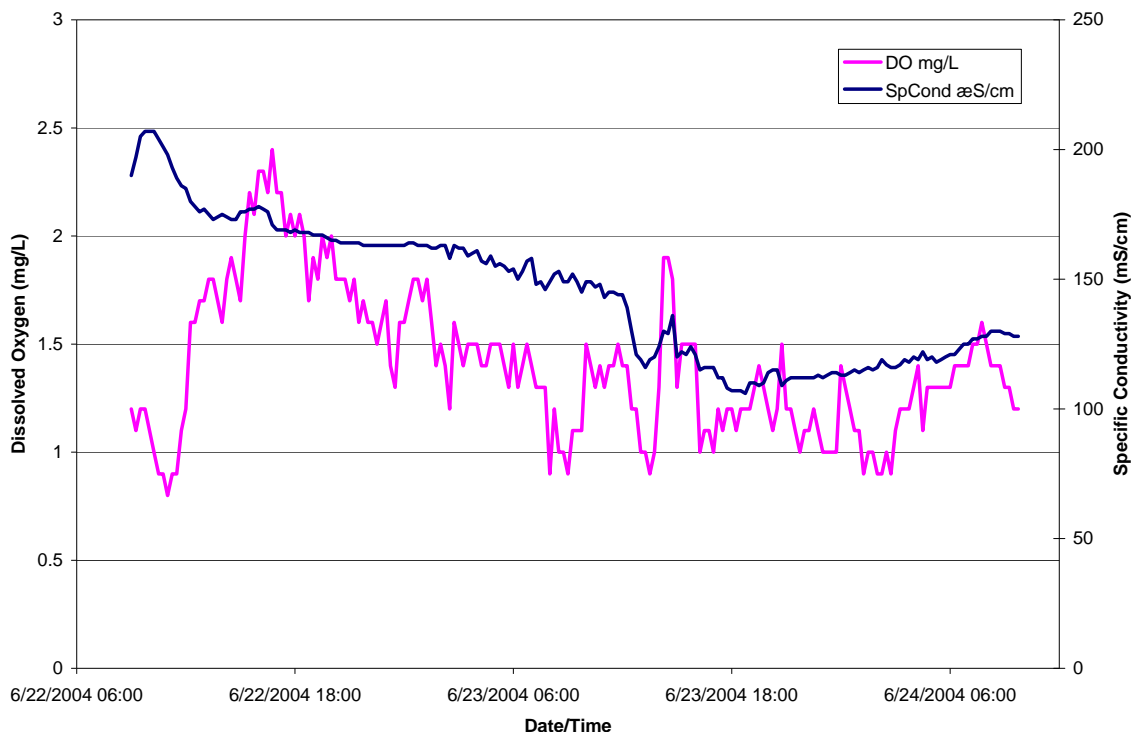
WC1: DO & Temp v. Date/Time



WC1: DO & pH v. Date/Time



WC1: DO & SpCond v. Date/Time



MiniSonde 4a 40009
 Log File Name : WC1
 Setup Date (MMDDYY) : 062104
 Setup Time (HHMMSS) : 130934
 Starting Date (MMDDYY) : 062104
 Starting Time (HHMMSS) : 141500
 Stopping Date (MMDDYY) : 062404
 Stopping Time (HHMMSS) : 235959
 Interval (HHMMSS) : 001500
 Sensor warmup (HHMMSS) :
 000200
 Circltr warmup (HHMMSS) : 000200

Summary:

06/23/2004 00:00:00 to 06/24/2004 00:00:00

	Temp	SpCond	Sal	pH	DO	DO%	Dep10
	øC	æS/cm	ppt	Units	mg/l	Sat	meters
Average	26.85	135.47	0.06	6.61	1.31	16.38	0.57
Min	26.22	106.40	0.04	6.53	0.87	10.80	0.56
Max	27.89	163.50	0.07	6.69	1.87	23.20	0.58

Date	Time	Temp	SpCond	Sal	pH	DO	DO%	Dep10
MMDDYY	HHMMSS	øC	æS/cm	ppt	Units	mg/l	Sat	meters
62204	90000	26.2	190	0.1	6.7	1.2	14.4	0.49
62204	91500	26.3	197	0.1	6.7	1.1	13.8	0.56
62204	93000	26.3	205	0.1	6.8	1.2	14.9	0.56
62204	94500	26.4	207	0.1	6.8	1.2	14.4	0.56
62204	100000	26.5	207	0.1	6.8	1.1	13.5	0.56
62204	101500	26.7	207	0.1	6.8	1.0	12.8	0.56
62204	103000	26.8	204	0.1	6.7	0.9	11.4	0.56

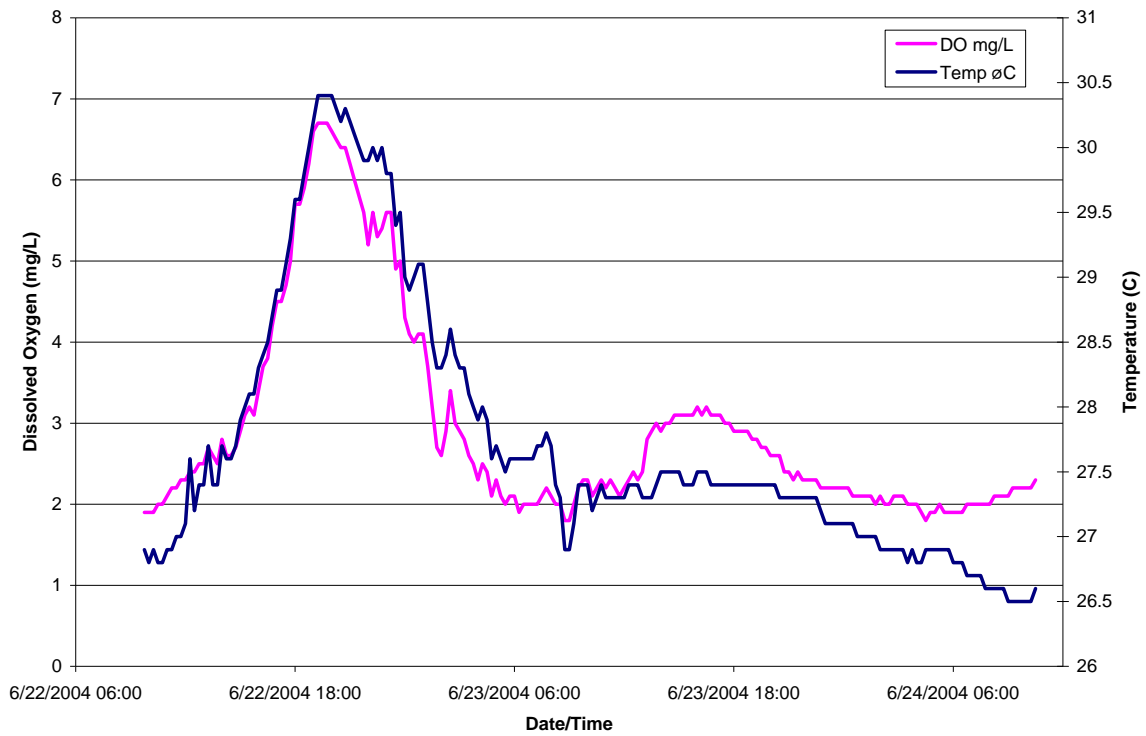
62204	104500			26.8	201	0.1	6.7	0.9	10.9	0.56
62204	110000			26.9	198	0.1	6.7	0.8	10.6	0.56
62204	111500			27.0	193	0.1	6.7	0.9	10.7	0.56
62204	113000			27.1	189	0.1	6.7	0.9	11.6	0.56
62204	114500			27.1	186	0.1	6.7	1.1	14.0	0.56
62204	120000			27.3	185	0.1	6.7	1.2	15.2	0.56
62204	121500			27.3	180	0.1	6.7	1.6	19.6	0.56
62204	123000			27.3	178	0.1	6.7	1.6	19.6	0.55
62204	124500			27.4	176	0.1	6.7	1.7	21.5	0.55
62204	130000			27.5	177	0.1	6.7	1.7	21.0	0.55
62204	131500			27.6	175	0.1	6.7	1.8	22.5	0.56
62204	133000			27.5	173	0.1	6.7	1.8	22.8	0.56
62204	134500			27.7	174	0.1	6.7	1.7	21.6	0.56
62204	140000			27.7	175	0.1	6.7	1.6	20.3	0.56
62204	141500			27.7	174	0.1	6.8	1.8	22.3	0.56
62204	143000			27.8	173	0.1	6.7	1.9	24.1	0.56
62204	144500			27.8	173	0.1	6.7	1.8	23.3	0.56
62204	150000			27.8	176	0.1	6.7	1.7	21.3	0.56
62204	151500			28.0	176	0.1	6.7	2.0	25.2	0.56
62204	153000			28.1	177	0.1	6.8	2.2	28.4	0.56
62204	154500			27.9	177	0.1	6.7	2.1	26.3	0.56
62204	160000			28.4	178	0.1	6.8	2.3	29.7	0.56
62204	161500			28.3	177	0.1	6.7	2.3	28.9	0.56
62204	163000			28.4	176	0.1	6.7	2.2	28.8	0.56
62204	164500			28.1	171	0.1	6.7	2.4	30.5	0.56
62204	170000			28.1	169	0.1	6.7	2.2	27.7	0.56
62204	171500			28.1	169	0.1	6.7	2.2	27.8	0.56
62204	173000			28.1	169	0.1	6.7	2.0	26.0	0.56
62204	174500			28.2	168	0.1	6.7	2.1	26.7	0.56
62204	180000			28.3	169	0.1	6.7	2.0	25.5	0.56
62204	181500			28.3	168	0.1	6.7	2.1	26.3	0.56
62204	183000			28.4	168	0.1	6.7	2.0	25.3	0.56
62204	184500			28.5	168	0.1	6.7	1.7	22.2	0.56
62204	190000			28.3	167	0.1	6.7	1.9	24.0	0.56
62204	191500			28.3	167	0.1	6.7	1.8	22.6	0.56
62204	193000			28.3	167	0.1	6.7	2.0	25.3	0.56
62204	194500			28.3	166	0.1	6.7	1.9	24.4	0.57
62204	200000			28.3	165	0.1	6.7	2.0	25.1	0.57
62204	201500			28.2	165	0.1	6.7	1.8	23.3	0.57
62204	203000			28.2	164	0.1	6.7	1.8	23.2	0.57
62204	204500			28.2	164	0.1	6.7	1.8	22.7	0.57
62204	210000			28.2	164	0.1	6.7	1.7	21.3	0.57
62204	211500			28.2	164	0.1	6.7	1.8	22.7	0.57
62204	213000			28.1	164	0.1	6.7	1.6	21.0	0.57
62204	214500			28.1	163	0.1	6.7	1.7	22.2	0.57
62204	220000			28.1	163	0.1	6.7	1.6	20.5	0.57
62204	221500			28.1	163	0.1	6.7	1.6	19.9	0.57
62204	223000			28.0	163	0.1	6.7	1.5	18.8	0.57

62204	224500			28.0	163	0.1	6.7	1.6	20.2	0.57
62204	230000			28.0	163	0.1	6.7	1.7	21.3	0.57
62204	231500			28.0	163	0.1	6.7	1.4	18.1	0.57
62204	233000			28.0	163	0.1	6.7	1.3	16.8	0.57
62204	234500			27.9	163	0.1	6.7	1.6	20.9	0.57
62304	0			27.9	163	0.1	6.7	1.6	20.1	0.57
62304	1500			27.9	164	0.1	6.7	1.7	22.0	0.57
62304	3000			27.9	164	0.1	6.7	1.8	23.0	0.57
62304	4500			27.8	163	0.1	6.7	1.8	23.2	0.57
62304	10000			27.8	163	0.1	6.7	1.7	21.6	0.57
62304	11500			27.7	163	0.1	6.7	1.8	22.4	0.57
62304	13000			27.7	162	0.1	6.7	1.6	20.7	0.57
62304	14500			27.6	162	0.1	6.7	1.4	18.1	0.57
62304	20000			27.6	163	0.1	6.7	1.5	18.6	0.57
62304	21500			27.5	163	0.1	6.7	1.4	18.2	0.57
62304	23000			27.4	158	0.1	6.7	1.2	14.9	0.57
62304	24500			27.5	163	0.1	6.7	1.6	20.1	0.57
62304	30000			27.3	162	0.1	6.7	1.5	19.1	0.57
62304	31500			27.2	162	0.1	6.7	1.4	17.3	0.57
62304	33000			27.2	159	0.1	6.7	1.5	19.2	0.57
62304	34500			27.2	160	0.1	6.7	1.5	18.4	0.57
62304	40000			27.2	161	0.1	6.7	1.5	19.3	0.57
62304	41500			27.1	157	0.1	6.7	1.4	18.1	0.57
62304	43000			27.1	156	0.1	6.7	1.4	17.7	0.57
62304	44500			27.0	159	0.1	6.7	1.5	19.0	0.57
62304	50000			27.0	155	0.1	6.7	1.5	18.2	0.57
62304	51500			26.9	156	0.1	6.7	1.5	19.0	0.57
62304	53000			26.9	155	0.1	6.7	1.4	17.5	0.57
62304	54500			26.9	153	0.1	6.7	1.3	16.4	0.56
62304	60000			26.8	154	0.1	6.7	1.5	19.3	0.57
62304	61500			26.8	150	0.1	6.7	1.3	16.7	0.57
62304	63000			26.7	153	0.1	6.7	1.4	18.0	0.57
62304	64500			26.8	157	0.1	6.7	1.5	18.9	0.57
62304	70000			26.7	158	0.1	6.7	1.4	16.9	0.57
62304	71500			26.6	148	0.1	6.6	1.3	15.8	0.57
62304	73000			26.6	149	0.1	6.7	1.3	15.7	0.57
62304	74500			26.5	146	0.1	6.6	1.3	16.3	0.57
62304	80000			26.6	149	0.1	6.7	0.9	11.7	0.57
62304	81500			26.7	152	0.1	6.7	1.2	14.5	0.57
62304	83000			26.7	153	0.1	6.7	1.0	12.3	0.57
62304	84500			26.6	149	0.1	6.7	1.0	12.3	0.57
62304	90000			26.6	149	0.1	6.7	0.9	11.1	0.57
62304	91500			26.7	152	0.1	6.7	1.1	13.0	0.57
62304	93000			26.6	149	0.1	6.6	1.1	14.1	0.57
62304	94500			26.6	145	0.1	6.6	1.1	13.5	0.57
62304	100000			26.5	149	0.1	6.6	1.5	18.3	0.57
62304	101500			26.5	149	0.1	6.6	1.4	16.7	0.57
62304	103000			26.5	147	0.1	6.6	1.3	15.9	0.57

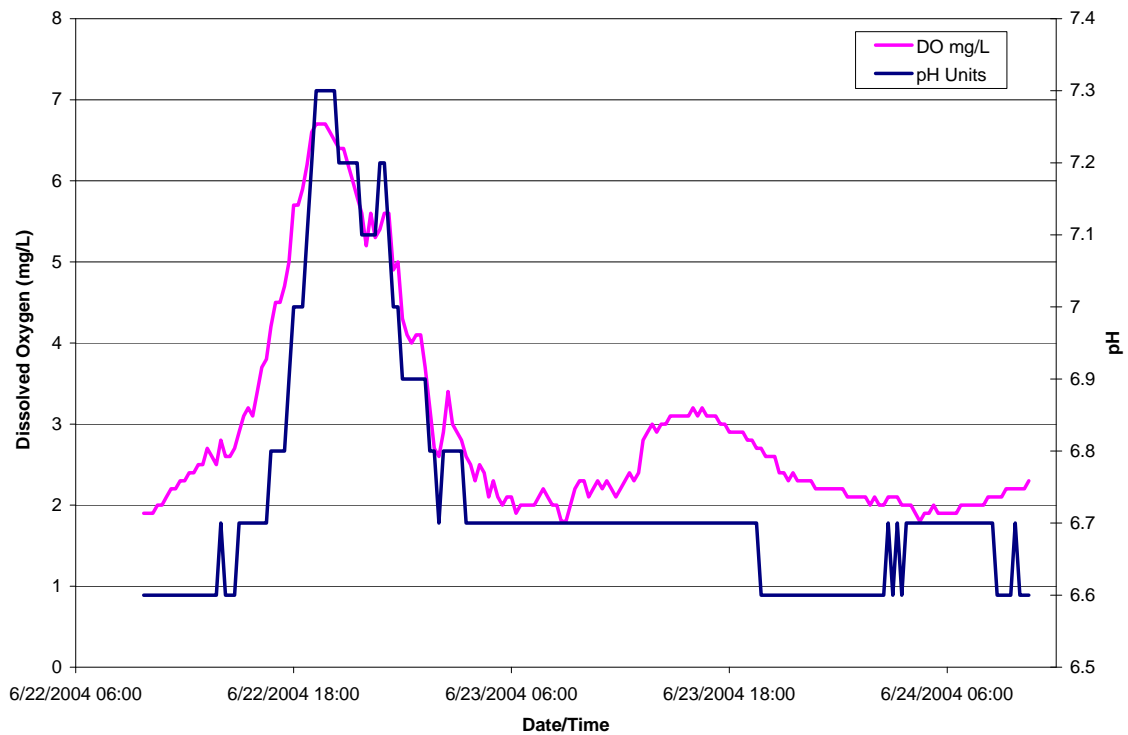
62304	104500			26.5	148	0.1	6.6	1.4	17.5	0.57
62304	110000			26.5	143	0.1	6.6	1.3	16.0	0.57
62304	111500			26.5	145	0.1	6.6	1.4	16.9	0.56
62304	113000			26.4	145	0.1	6.6	1.4	17.0	0.56
62304	114500			26.4	144	0.1	6.6	1.5	18.0	0.56
62304	120000			26.4	144	0.1	6.6	1.4	17.9	0.57
62304	121500			26.4	139	0.1	6.6	1.4	16.9	0.56
62304	123000			26.3	130	0.1	6.6	1.2	14.2	0.57
62304	124500			26.3	121	0.1	6.6	1.2	14.6	0.57
62304	130000			26.4	119	0.1	6.6	1.0	12.1	0.58
62304	131500			26.4	116	0.1	6.6	1.0	11.9	0.58
62304	133000			26.6	119	0.1	6.6	0.9	10.8	0.58
62304	134500			26.5	120	0.1	6.6	1.0	13.0	0.58
62304	140000			26.4	124	0.1	6.6	1.3	16.0	0.58
62304	141500			26.3	130	0.1	6.6	1.9	23.0	0.58
62304	143000			26.3	129	0.1	6.6	1.9	23.2	0.58
62304	144500			26.2	136	0.1	6.5	1.8	22.8	0.58
62304	150000			26.4	120	0.1	6.6	1.3	16.5	0.58
62304	151500			26.4	122	0.1	6.6	1.5	19.0	0.57
62304	153000			26.4	121	0.1	6.6	1.5	18.8	0.57
62304	154500			26.4	124	0.1	6.5	1.5	18.2	0.57
62304	160000			26.5	121	0.1	6.5	1.5	18.4	0.57
62304	161500			26.4	115	0.1	6.5	1.0	12.7	0.57
62304	163000			26.5	116	0.1	6.5	1.1	14.0	0.57
62304	164500			26.5	116	0.1	6.5	1.1	13.6	0.57
62304	170000			26.5	116	0.1	6.6	1.0	12.6	0.57
62304	171500			26.8	112	0.0	6.6	1.2	15.3	0.57
62304	173000			26.6	112	0.0	6.6	1.1	13.6	0.57
62304	174500			26.7	108	0.0	6.6	1.2	14.4	0.57
62304	180000			26.8	107	0.0	6.6	1.2	15.1	0.57
62304	181500			26.8	107	0.0	6.6	1.1	13.7	0.57
62304	183000			26.8	107	0.0	6.6	1.2	14.7	0.57
62304	184500			26.9	106	0.0	6.6	1.2	15.3	0.57
62304	190000			26.9	110	0.0	6.5	1.2	15.5	0.57
62304	191500			27.0	110	0.0	6.6	1.3	15.7	0.57
62304	193000			27.0	109	0.0	6.6	1.4	17.3	0.57
62304	194500			27.1	110	0.0	6.6	1.3	16.5	0.57
62304	200000			27.0	114	0.1	6.6	1.2	15.2	0.57
62304	201500			26.9	115	0.1	6.5	1.1	14.3	0.57
62304	203000			26.9	115	0.1	6.6	1.2	14.8	0.57
62304	204500			27.1	109	0.0	6.6	1.5	18.3	0.57
62304	210000			27.1	111	0.0	6.6	1.2	15.5	0.57
62304	211500			27.1	112	0.0	6.6	1.2	15.6	0.57
62304	213000			27.1	112	0.0	6.6	1.1	14.3	0.57
62304	214500			27.1	112	0.0	6.6	1.0	12.4	0.57
62304	220000			27.1	112	0.0	6.6	1.1	13.7	0.57
62304	221500			27.1	112	0.0	6.6	1.1	14.0	0.58
62304	223000			27.1	112	0.0	6.6	1.2	14.8	0.57

62304	224500			27.0	113	0.1	6.6	1.1	13.7	0.58
62304	230000			27.0	112	0.0	6.6	1.0	13.1	0.57
62304	231500			27.0	113	0.0	6.6	1.0	12.0	0.58
62304	233000			27.0	114	0.1	6.6	1.0	12.0	0.58
62304	234500			27.0	114	0.1	6.6	1.0	12.5	0.57
62404	0			26.9	113	0.0	6.6	1.4	16.9	0.58
62404	1500			26.9	113	0.1	6.6	1.3	16.7	0.58
62404	3000			26.9	114	0.1	6.6	1.2	14.9	0.58
62404	4500			26.9	115	0.1	6.6	1.1	13.4	0.58
62404	10000			26.9	114	0.1	6.6	1.1	13.3	0.58
62404	11500			26.9	115	0.1	6.6	0.9	11.8	0.58
62404	13000			26.8	116	0.1	6.6	1.0	12.8	0.58
62404	14500			26.8	115	0.1	6.6	1.0	12.1	0.58
62404	20000			26.8	116	0.1	6.6	0.9	11.1	0.58
62404	21500			26.8	119	0.1	6.6	0.9	11.4	0.58
62404	23000			26.8	117	0.1	6.6	1.0	12.5	0.58
62404	24500			26.8	116	0.1	6.6	0.9	11.6	0.58
62404	30000			26.8	116	0.1	6.6	1.1	13.1	0.58
62404	31500			26.7	117	0.1	6.6	1.2	14.4	0.58
62404	33000			26.7	119	0.1	6.6	1.2	14.4	0.58
62404	34500			26.7	118	0.1	6.6	1.2	15.4	0.58
62404	40000			26.7	120	0.1	6.6	1.3	16.0	0.58
62404	41500			26.7	119	0.1	6.6	1.4	17.3	0.58
62404	43000			26.6	122	0.1	6.6	1.1	14.3	0.58
62404	44500			26.6	119	0.1	6.6	1.3	16.7	0.58
62404	50000			26.6	120	0.1	6.6	1.3	16.4	0.58
62404	51500			26.6	118	0.1	6.6	1.3	16.2	0.58
62404	53000			26.6	119	0.1	6.6	1.3	15.6	0.58
62404	54500			26.5	120	0.1	6.6	1.3	16.1	0.58
62404	60000			26.5	121	0.1	6.6	1.3	16.3	0.58
62404	61500			26.5	121	0.1	6.6	1.4	17.1	0.58
62404	63000			26.4	123	0.1	6.6	1.4	17.7	0.58
62404	64500			26.4	125	0.1	6.6	1.4	17.5	0.58
62404	70000			26.4	125	0.1	6.6	1.4	17.7	0.58
62404	71500			26.3	127	0.1	6.6	1.5	18.4	0.58
62404	73000			26.3	127	0.1	6.6	1.5	18.7	0.58
62404	74500			26.3	128	0.1	6.6	1.6	19.5	0.58
62404	80000			26.3	128	0.1	6.6	1.5	18.2	0.58
62404	81500			26.3	130	0.1	6.6	1.4	17.7	0.58
62404	83000			26.2	130	0.1	6.6	1.4	17.0	0.57
62404	84500			26.2	130	0.1	6.6	1.4	16.9	0.58
62404	90000			26.2	129	0.1	6.6	1.3	16.6	0.58
62404	91500			26.2	129	0.1	6.6	1.3	16.4	0.57
62404	93000			26.2	128	0.1	6.6	1.2	15.0	0.57
62404	94500			26.2	128	0.1	6.6	1.2	14.5	0.57

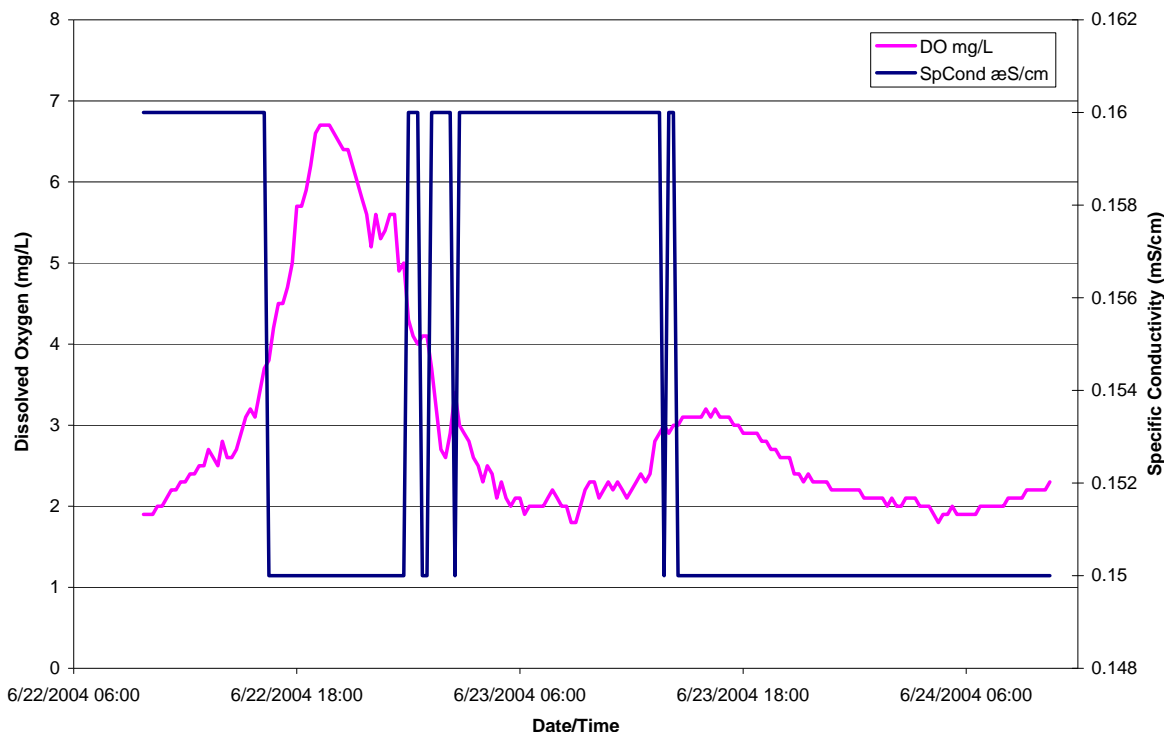
LGBY4: DO & Temp v. Date/Time



LGBY4: DO & pH v. Date/Time



LGBY4: DO & SpCond v. Date/Time



MiniSonde 4a 39003
 Log File Name : LGBY4
 Setup Date (MMDDYY) : 062104
 Setup Time (HHMMSS) : 104122
 Starting Date (MMDDYY) : 062104
 Starting Time (HHMMSS) : 110000
 Stopping Date (MMDDYY) : 062404
 Stopping Time (HHMMSS) : 235959
 Interval (HHMMSS) : 001500
 Sensor warmup (HHMMSS) :
 000200
 Circltr warmup (HHMMSS) : 000200

Summary:

06/23/2004 00:00:00 to 06/24/2004 00:00:00

	Temp	pH	SpCond	Sal	DO%	DO	Dep10
	øC	Units	mS/cm	ppt	Sat	mg/l	meters
Average	27.60	6.70	0.16	0.07	32.97	2.59	0.58
Min	26.88	6.63	0.15	0.07	22.70	1.81	0.57
Max	29.11	6.94	0.16	0.07	55.90	4.30	0.59

Date	Time	Temp	pH	SpCond	Sal	DO%	DO	Dep10
MMDDYY	HHMMSS	øC	Units	mS/cm	ppt	Sat	mg/l	meters
6/22/2004	9:45:00	26.9	6.6	0.1659	0.1	23.7	1.9	0.57
6/22/2004	10:00:00	26.8	6.6	0.1658	0.1	23.6	1.9	0.57
6/22/2004	10:15:00	26.9	6.6	0.1655	0.1	24.1	1.9	0.56
6/22/2004	10:30:00	26.8	6.6	0.1655	0.1	24.7	2.0	0.57
6/22/2004	10:45:00	26.8	6.6	0.1651	0.1	25.1	2.0	0.57
6/22/2004	11:00:00	26.9	6.6	0.165	0.1	26.1	2.1	0.57
6/22/2004	11:15:00	26.9	6.6	0.1631	0.1	27.0	2.2	0.56

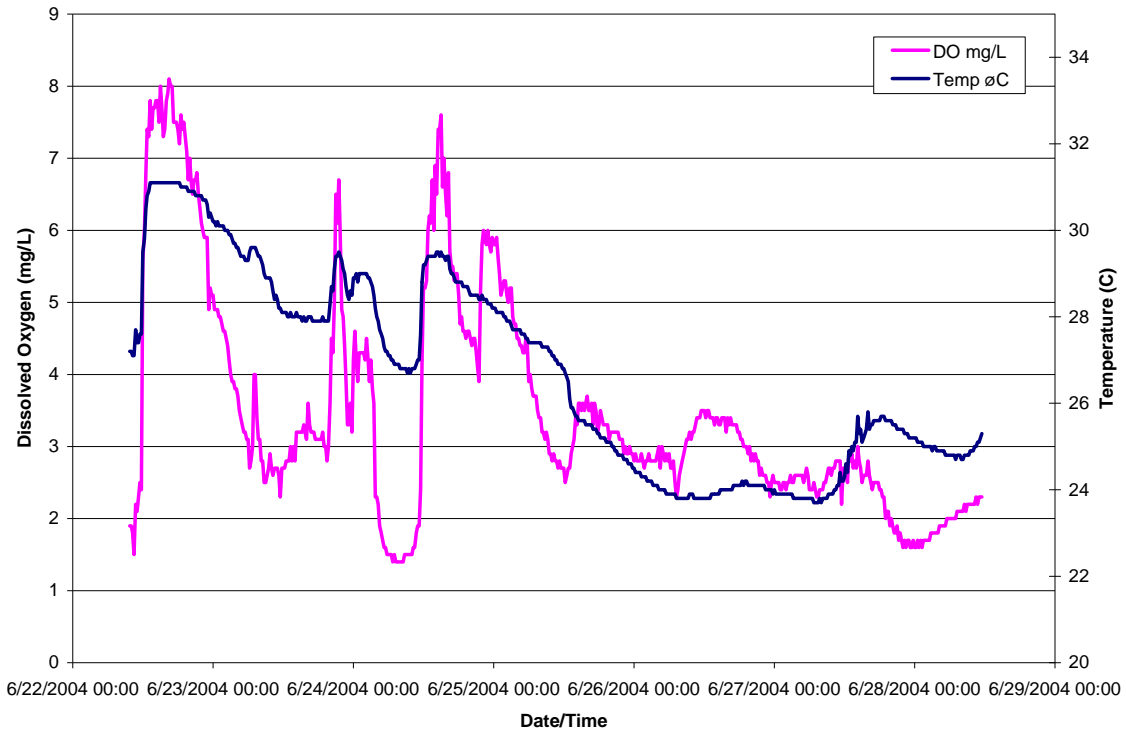
6/22/2004	11:30:00			27.0	6.6	0.1645	0.1	27.4	2.2	0.57
6/22/2004	11:45:00			27.0	6.6	0.1644	0.1	28.4	2.3	0.57
6/22/2004	12:00:00			27.1	6.6	0.1643	0.1	29.2	2.3	0.57
6/22/2004	12:15:00			27.6	6.6	0.1632	0.1	30.8	2.4	0.57
6/22/2004	12:30:00			27.2	6.6	0.1647	0.1	30.7	2.4	0.57
6/22/2004	12:45:00			27.4	6.6	0.1632	0.1	31.9	2.5	0.57
6/22/2004	13:00:00			27.4	6.6	0.1642	0.1	31.4	2.5	0.58
6/22/2004	13:15:00			27.7	6.6	0.1622	0.1	34.3	2.7	0.58
6/22/2004	13:30:00			27.4	6.6	0.1631	0.1	33.1	2.6	0.58
6/22/2004	13:45:00			27.4	6.6	0.1629	0.1	32.2	2.5	0.58
6/22/2004	14:00:00			27.7	6.7	0.1618	0.1	35.9	2.8	0.58
6/22/2004	14:15:00			27.6	6.6	0.1622	0.1	33.6	2.6	0.58
6/22/2004	14:30:00			27.6	6.6	0.162	0.1	32.6	2.6	0.58
6/22/2004	14:45:00			27.7	6.6	0.1621	0.1	33.9	2.7	0.58
6/22/2004	15:00:00			27.9	6.7	0.1615	0.1	36.8	2.9	0.58
6/22/2004	15:15:00			28.0	6.7	0.161	0.1	38.9	3.1	0.58
6/22/2004	15:30:00			28.1	6.7	0.1606	0.1	41.0	3.2	0.58
6/22/2004	15:45:00			28.1	6.7	0.161	0.1	39.5	3.1	0.58
6/22/2004	16:00:00			28.3	6.7	0.1603	0.1	44.0	3.4	0.58
6/22/2004	16:15:00			28.4	6.7	0.16	0.1	47.0	3.7	0.59
6/22/2004	16:30:00			28.5	6.7	0.1597	0.1	49.5	3.8	0.59
6/22/2004	16:45:00			28.7	6.8	0.159	0.1	53.7	4.2	0.59
6/22/2004	17:00:00			28.9	6.8	0.1582	0.1	59.0	4.5	0.59
6/22/2004	17:15:00			28.9	6.8	0.1587	0.1	58.3	4.5	0.59
6/22/2004	17:30:00			29.1	6.8	0.1584	0.1	61.5	4.7	0.59
6/22/2004	17:45:00			29.3	6.9	0.1583	0.1	65.5	5.0	0.59
6/22/2004	18:00:00			29.6	7.0	0.1581	0.1	74.3	5.7	0.59
6/22/2004	18:15:00			29.6	7.0	0.1582	0.1	74.5	5.7	0.60
6/22/2004	18:30:00			29.8	7.0	0.1582	0.1	77.6	5.9	0.60
6/22/2004	18:45:00			30.0	7.1	0.1581	0.1	82.6	6.2	0.59
6/22/2004	19:00:00			30.2	7.2	0.1581	0.1	87.5	6.6	0.59
6/22/2004	19:15:00			30.4	7.3	0.1582	0.1	89.7	6.7	0.60
6/22/2004	19:30:00			30.4	7.3	0.1583	0.1	89.4	6.7	0.60
6/22/2004	19:45:00			30.4	7.3	0.1584	0.1	89.7	6.7	0.60
6/22/2004	20:00:00			30.4	7.3	0.1583	0.1	88.3	6.6	0.60
6/22/2004	20:15:00			30.3	7.3	0.1582	0.1	86.0	6.5	0.60
6/22/2004	20:30:00			30.2	7.2	0.1582	0.1	85.0	6.4	0.60
6/22/2004	20:45:00			30.3	7.2	0.1582	0.1	84.8	6.4	0.60
6/22/2004	21:00:00			30.2	7.2	0.1582	0.1	81.7	6.2	0.60
6/22/2004	21:15:00			30.1	7.2	0.1581	0.1	79.8	6.0	0.60
6/22/2004	21:30:00			30.0	7.2	0.1582	0.1	77.2	5.8	0.60
6/22/2004	21:45:00			29.9	7.1	0.1582	0.1	74.3	5.6	0.60
6/22/2004	22:00:00			29.9	7.1	0.1586	0.1	68.5	5.2	0.59
6/22/2004	22:15:00			30.0	7.1	0.1585	0.1	74.1	5.6	0.59
6/22/2004	22:30:00			29.9	7.1	0.1586	0.1	70.0	5.3	0.59
6/22/2004	22:45:00			30.0	7.2	0.1589	0.1	72.1	5.4	0.59
6/22/2004	23:00:00			29.8	7.2	0.1591	0.1	73.7	5.6	0.59
6/22/2004	23:15:00			29.8	7.1	0.1589	0.1	73.9	5.6	0.59

6/22/2004	23:30:00			29.4	7.0	0.1593	0.1	64.8	4.9	0.59
6/22/2004	23:45:00			29.5	7.0	0.1592	0.1	65.6	5.0	0.59
6/23/2004	0:00:00			29.0	6.9	0.1603	0.1	55.9	4.3	0.59
6/23/2004	0:15:00			28.9	6.9	0.1605	0.1	53.1	4.1	0.58
6/23/2004	0:30:00			29.0	6.9	0.1601	0.1	52.4	4.0	0.58
6/23/2004	0:45:00			29.1	6.9	0.1598	0.1	53.0	4.1	0.58
6/23/2004	1:00:00			29.1	6.9	0.1595	0.1	53.1	4.1	0.58
6/23/2004	1:15:00			28.8	6.9	0.1604	0.1	47.9	3.7	0.58
6/23/2004	1:30:00			28.5	6.8	0.1614	0.1	41.4	3.2	0.59
6/23/2004	1:45:00			28.3	6.8	0.1625	0.1	34.6	2.7	0.59
6/23/2004	2:00:00			28.3	6.7	0.1626	0.1	33.3	2.6	0.59
6/23/2004	2:15:00			28.4	6.8	0.1617	0.1	36.8	2.9	0.58
6/23/2004	2:30:00			28.6	6.8	0.1599	0.1	43.3	3.4	0.58
6/23/2004	2:45:00			28.4	6.8	0.1603	0.1	39.0	3.0	0.58
6/23/2004	3:00:00			28.3	6.8	0.1605	0.1	36.6	2.9	0.58
6/23/2004	3:15:00			28.3	6.8	0.1605	0.1	35.9	2.8	0.58
6/23/2004	3:30:00			28.1	6.7	0.1613	0.1	33.1	2.6	0.58
6/23/2004	3:45:00			28.0	6.7	0.1613	0.1	31.7	2.5	0.58
6/23/2004	4:00:00			27.9	6.7	0.1615	0.1	29.5	2.3	0.58
6/23/2004	4:15:00			28.0	6.7	0.1603	0.1	31.5	2.5	0.58
6/23/2004	4:30:00			27.9	6.7	0.1606	0.1	30.4	2.4	0.58
6/23/2004	4:45:00			27.6	6.7	0.1626	0.1	26.6	2.1	0.58
6/23/2004	5:00:00			27.7	6.7	0.161	0.1	28.9	2.3	0.58
6/23/2004	5:15:00			27.6	6.7	0.1613	0.1	26.7	2.1	0.58
6/23/2004	5:30:00			27.5	6.7	0.1623	0.1	25.4	2.0	0.58
6/23/2004	5:45:00			27.6	6.7	0.1604	0.1	26.4	2.1	0.58
6/23/2004	6:00:00			27.6	6.7	0.1607	0.1	26.5	2.1	0.58
6/23/2004	6:15:00			27.6	6.7	0.1611	0.1	24.2	1.9	0.58
6/23/2004	6:30:00			27.6	6.7	0.1616	0.1	25.2	2.0	0.58
6/23/2004	6:45:00			27.6	6.7	0.1617	0.1	24.8	2.0	0.58
6/23/2004	7:00:00			27.6	6.7	0.1611	0.1	25.2	2.0	0.59
6/23/2004	7:15:00			27.7	6.7	0.1614	0.1	25.7	2.0	0.59
6/23/2004	7:30:00			27.7	6.7	0.1615	0.1	26.7	2.1	0.59
6/23/2004	7:45:00			27.8	6.7	0.1614	0.1	27.7	2.2	0.58
6/23/2004	8:00:00			27.7	6.7	0.1614	0.1	26.1	2.1	0.58
6/23/2004	8:15:00			27.4	6.7	0.1621	0.1	25.2	2.0	0.58
6/23/2004	8:30:00			27.3	6.7	0.1625	0.1	25.4	2.0	0.58
6/23/2004	8:45:00			26.9	6.7	0.1631	0.1	22.9	1.8	0.58
6/23/2004	9:00:00			26.9	6.7	0.1634	0.1	22.7	1.8	0.57
6/23/2004	9:15:00			27.1	6.7	0.1627	0.1	24.9	2.0	0.57
6/23/2004	9:30:00			27.4	6.7	0.1624	0.1	28.1	2.2	0.57
6/23/2004	9:45:00			27.5	6.7	0.1623	0.1	28.8	2.3	0.57
6/23/2004	10:00:00			27.4	6.7	0.1625	0.1	28.6	2.3	0.57
6/23/2004	10:15:00			27.2	6.7	0.1632	0.1	26.3	2.1	0.57
6/23/2004	10:30:00			27.3	6.7	0.1633	0.1	27.2	2.2	0.57
6/23/2004	10:45:00			27.5	6.7	0.1632	0.1	29.7	2.3	0.57
6/23/2004	11:00:00			27.3	6.7	0.1629	0.1	28.3	2.2	0.57
6/23/2004	11:15:00			27.3	6.7	0.1631	0.1	28.6	2.3	0.57

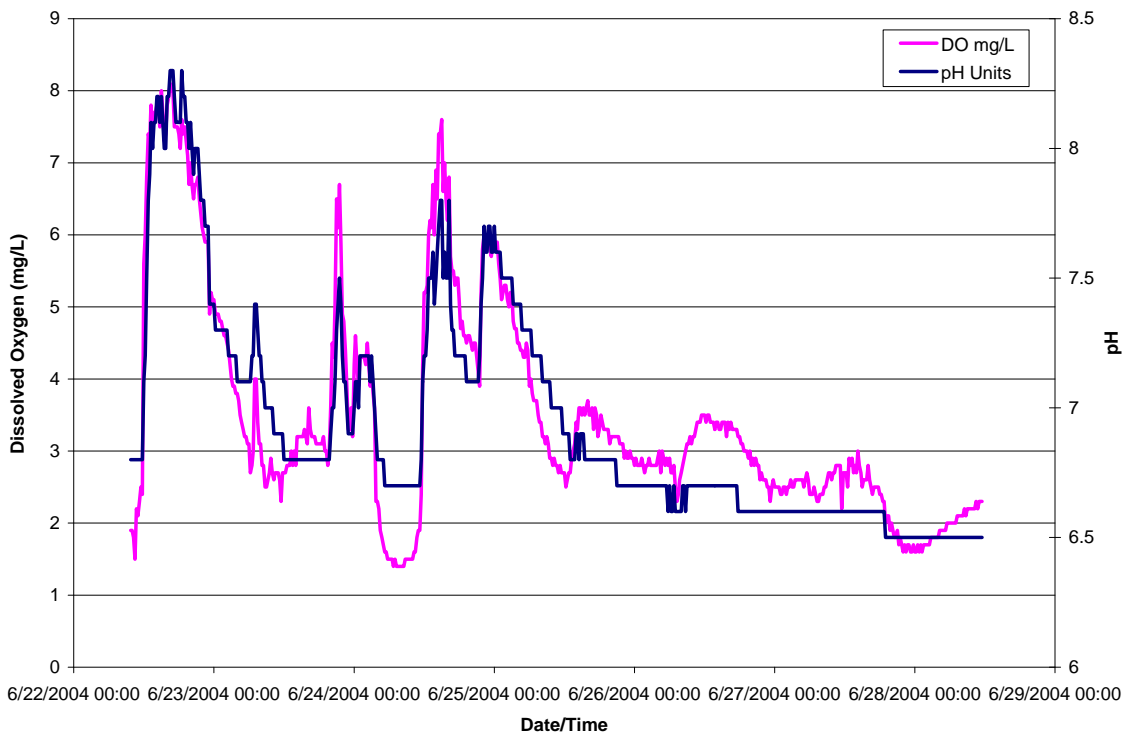
6/23/2004	11:30:00			27.3	6.7	0.1629	0.1	27.2	2.2	0.57
6/23/2004	11:45:00			27.3	6.7	0.163	0.1	26.5	2.1	0.57
6/23/2004	12:00:00			27.3	6.7	0.1631	0.1	27.9	2.2	0.57
6/23/2004	12:15:00			27.4	6.7	0.1631	0.1	29.0	2.3	0.57
6/23/2004	12:30:00			27.4	6.7	0.1626	0.1	29.7	2.4	0.57
6/23/2004	12:45:00			27.4	6.7	0.1625	0.1	29.3	2.3	0.57
6/23/2004	13:00:00			27.3	6.7	0.1623	0.1	30.1	2.4	0.57
6/23/2004	13:15:00			27.3	6.7	0.161	0.1	34.8	2.8	0.58
6/23/2004	13:30:00			27.3	6.7	0.1603	0.1	36.5	2.9	0.58
6/23/2004	13:45:00			27.4	6.7	0.1599	0.1	37.3	3.0	0.57
6/23/2004	14:00:00			27.5	6.7	0.1607	0.1	36.4	2.9	0.58
6/23/2004	14:15:00			27.5	6.7	0.1605	0.1	37.4	3.0	0.58
6/23/2004	14:30:00			27.5	6.7	0.1595	0.1	38.4	3.0	0.58
6/23/2004	14:45:00			27.5	6.7	0.1594	0.1	39.5	3.1	0.58
6/23/2004	15:00:00			27.5	6.7	0.1591	0.1	39.7	3.1	0.58
6/23/2004	15:15:00			27.4	6.7	0.1582	0.1	39.4	3.1	0.58
6/23/2004	15:30:00			27.4	6.7	0.1581	0.1	39.4	3.1	0.58
6/23/2004	15:45:00			27.5	6.7	0.1579	0.1	39.6	3.1	0.58
6/23/2004	16:00:00			27.5	6.7	0.1575	0.1	39.9	3.2	0.58
6/23/2004	16:15:00			27.5	6.7	0.1575	0.1	39.8	3.1	0.58
6/23/2004	16:30:00			27.5	6.7	0.1572	0.1	40.3	3.2	0.58
6/23/2004	16:45:00			27.4	6.7	0.1568	0.1	38.9	3.1	0.58
6/23/2004	17:00:00			27.4	6.7	0.1565	0.1	38.7	3.1	0.58
6/23/2004	17:15:00			27.5	6.7	0.1564	0.1	38.9	3.1	0.57
6/23/2004	17:30:00			27.4	6.7	0.1562	0.1	37.7	3.0	0.57
6/23/2004	17:45:00			27.4	6.7	0.1561	0.1	37.9	3.0	0.57
6/23/2004	18:00:00			27.4	6.7	0.1558	0.1	36.8	2.9	0.58
6/23/2004	18:15:00			27.4	6.7	0.1557	0.1	36.9	2.9	0.58
6/23/2004	18:30:00			27.4	6.7	0.1554	0.1	36.1	2.9	0.58
6/23/2004	18:45:00			27.4	6.7	0.1553	0.1	36.5	2.9	0.58
6/23/2004	19:00:00			27.4	6.7	0.1553	0.1	35.7	2.8	0.58
6/23/2004	19:15:00			27.4	6.7	0.155	0.1	35.0	2.8	0.58
6/23/2004	19:30:00			27.4	6.7	0.155	0.1	34.2	2.7	0.58
6/23/2004	19:45:00			27.4	6.6	0.1544	0.1	33.6	2.7	0.58
6/23/2004	20:00:00			27.4	6.6	0.1546	0.1	33.2	2.6	0.58
6/23/2004	20:15:00			27.4	6.6	0.154	0.1	32.8	2.6	0.58
6/23/2004	20:30:00			27.3	6.6	0.1538	0.1	32.2	2.6	0.58
6/23/2004	20:45:00			27.3	6.6	0.1536	0.1	30.7	2.4	0.58
6/23/2004	21:00:00			27.3	6.6	0.1532	0.1	30.4	2.4	0.58
6/23/2004	21:15:00			27.3	6.6	0.1531	0.1	29.5	2.3	0.58
6/23/2004	21:30:00			27.3	6.6	0.1528	0.1	30.2	2.4	0.59
6/23/2004	21:45:00			27.3	6.6	0.1533	0.1	29.3	2.3	0.59
6/23/2004	22:00:00			27.3	6.6	0.1533	0.1	28.9	2.3	0.59
6/23/2004	22:15:00			27.3	6.6	0.1533	0.1	28.9	2.3	0.59
6/23/2004	22:30:00			27.3	6.6	0.1534	0.1	28.5	2.3	0.58
6/23/2004	22:45:00			27.2	6.6	0.1539	0.1	27.3	2.2	0.58
6/23/2004	23:00:00			27.1	6.6	0.154	0.1	27.3	2.2	0.58
6/23/2004	23:15:00			27.1	6.6	0.1542	0.1	27.0	2.2	0.58

6/23/2004	23:30:00			27.1	6.6	0.1542	0.1	27.2	2.2	0.58
6/23/2004	23:45:00			27.1	6.6	0.1543	0.1	27.2	2.2	0.58
6/24/2004	0:00:00			27.1	6.6	0.1545	0.1	27.5	2.2	0.58
6/24/2004	0:15:00			27.1	6.6	0.1544	0.1	27.0	2.2	0.59
6/24/2004	0:30:00			27.1	6.6	0.1542	0.1	26.6	2.1	0.58
6/24/2004	0:45:00			27.0	6.6	0.1541	0.1	25.8	2.1	0.58
6/24/2004	1:00:00			27.0	6.6	0.1544	0.1	26.7	2.1	0.59
6/24/2004	1:15:00			27.0	6.6	0.1542	0.1	26.8	2.1	0.59
6/24/2004	1:30:00			27.0	6.6	0.1541	0.1	26.2	2.1	0.59
6/24/2004	1:45:00			27.0	6.6	0.1546	0.1	25.5	2.0	0.58
6/24/2004	2:00:00			27.0	6.6	0.1545	0.1	26.3	2.1	0.59
6/24/2004	2:15:00			26.9	6.6	0.1544	0.1	25.4	2.0	0.59
6/24/2004	2:30:00			26.9	6.6	0.1547	0.1	25.6	2.0	0.59
6/24/2004	2:45:00			26.9	6.7	0.1544	0.1	26.2	2.1	0.59
6/24/2004	3:00:00			26.9	6.6	0.1545	0.1	26.3	2.1	0.59
6/24/2004	3:15:00			26.9	6.7	0.1546	0.1	26.1	2.1	0.58
6/24/2004	3:30:00			26.8	6.6	0.1547	0.1	24.5	2.0	0.58
6/24/2004	3:45:00			26.9	6.7	0.1553	0.1	25.5	2.0	0.58
6/24/2004	4:00:00			26.8	6.7	0.1551	0.1	25.2	2.0	0.58
6/24/2004	4:15:00			26.8	6.7	0.1565	0.1	23.7	1.9	0.58
6/24/2004	4:30:00			26.9	6.7	0.1565	0.1	23.0	1.8	0.58
6/24/2004	4:45:00			26.9	6.7	0.1564	0.1	23.4	1.9	0.58
6/24/2004	5:00:00			26.9	6.7	0.1571	0.1	24.2	1.9	0.58
6/24/2004	5:15:00			26.9	6.7	0.1576	0.1	24.7	2.0	0.58
6/24/2004	5:30:00			26.9	6.7	0.1579	0.1	24.1	1.9	0.58
6/24/2004	5:45:00			26.9	6.7	0.1575	0.1	23.9	1.9	0.58
6/24/2004	6:00:00			26.8	6.7	0.1571	0.1	23.5	1.9	0.58
6/24/2004	6:15:00			26.8	6.7	0.1567	0.1	23.7	1.9	0.58
6/24/2004	6:30:00			26.8	6.7	0.1561	0.1	24.3	1.9	0.58
6/24/2004	6:45:00			26.7	6.7	0.1558	0.1	24.5	2.0	0.58
6/24/2004	7:00:00			26.7	6.7	0.1551	0.1	24.4	2.0	0.58
6/24/2004	7:15:00			26.7	6.7	0.1546	0.1	24.7	2.0	0.58
6/24/2004	7:30:00			26.7	6.7	0.1548	0.1	24.5	2.0	0.58
6/24/2004	7:45:00			26.6	6.7	0.1538	0.1	25.0	2.0	0.58
6/24/2004	8:00:00			26.6	6.7	0.1536	0.1	25.5	2.0	0.58
6/24/2004	8:15:00			26.6	6.7	0.1535	0.1	25.7	2.1	0.58
6/24/2004	8:30:00			26.6	6.7	0.1529	0.1	26.1	2.1	0.58
6/24/2004	8:45:00			26.6	6.6	0.1534	0.1	26.5	2.1	0.58
6/24/2004	9:00:00			26.5	6.6	0.1521	0.1	26.7	2.1	0.58
6/24/2004	9:15:00			26.5	6.6	0.1522	0.1	26.8	2.2	0.58
6/24/2004	9:30:00			26.5	6.6	0.1519	0.1	27.3	2.2	0.57
6/24/2004	9:45:00			26.5	6.7	0.1516	0.1	27.5	2.2	0.57
6/24/2004	10:00:00			26.5	6.6	0.1513	0.1	27.9	2.2	0.57
6/24/2004	10:15:00			26.5	6.6	0.151	0.1	27.9	2.2	0.57
6/24/2004	10:30:00			26.6	6.6	0.1509	0.1	29.1	2.3	0.57

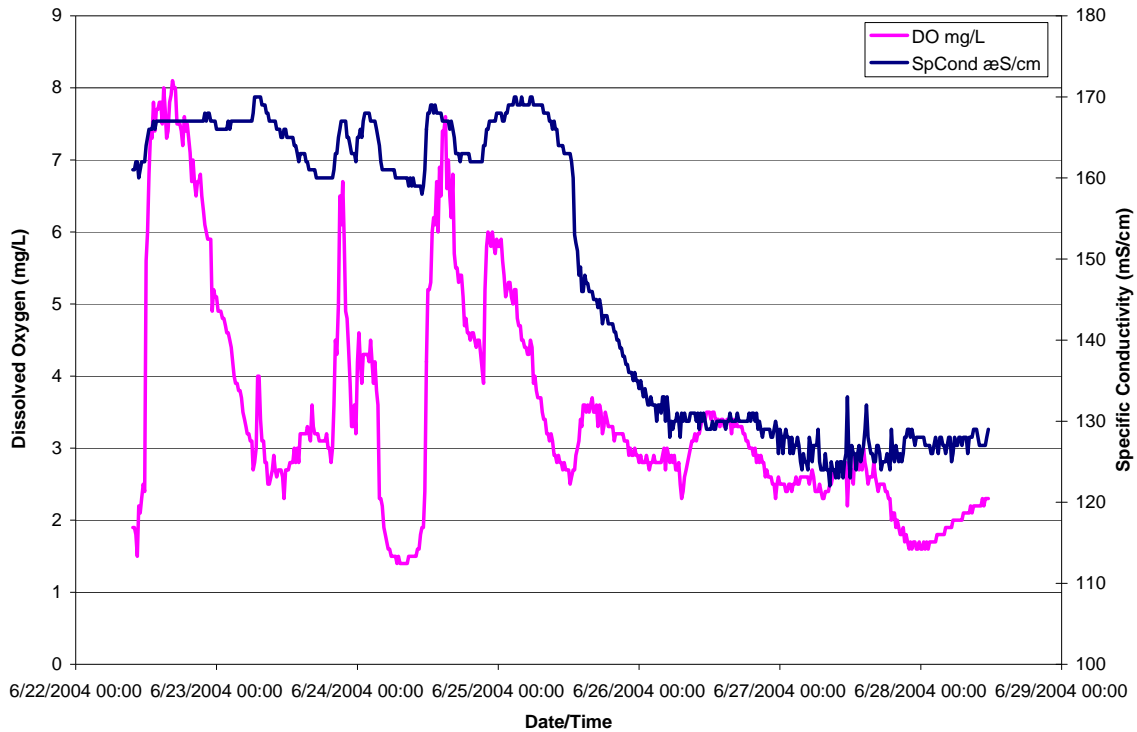
LGBY5: DO & Temp v. Date/Time



LGBY5: DO & pH v. Date/Time



LGBY5: DO & SpCond v. Date/Time



MiniSonde 4a 39002										
Log File Name : LGBY5		Summary: 06/23/2004 00:00:00 to 06/24/2004 00:00:00								
Setup Date (MMDDYY) : 062104										
Setup Time (HHMMSS) : 093619		Temp	SpCond	Sal	pH	DO	DO%	Dep10		
Starting Date (MMDDYY) : 062104		øC	æS/cm	ppt	Units	mg/l	Sat	meters		
Starting Time (HHMMSS) : 110000		Average	28.84	164.89	0.07	7.01	3.55	46.13	0.87	
Stopping Date (MMDDYY) : 062904		Min	27.86	159.80	0.07	6.77	2.31	29.70	0.85	
Stopping Time (HHMMSS) : 235959		Max	30.24	169.80	0.08	7.52	6.72	88.20	0.91	
Interval (HHMMSS) : 001500										
Sensor warmup (HHMMSS) : 000200										
Circltr warmup (HHMMSS) : 000200										
Date	Time	Temp	SpCond	Sal	pH	DO	DO%	Dep10		
MMDDYY	HHMMSS	øC	æS/cm	ppt	Units	mg/l	Sat	meters		
6/22/2004	9:45:00	27.2	161	0.1	6.8	1.9	23.4	0.85		
6/22/2004	10:00:00	27.2	161	0.1	6.8	1.9	24.0	0.85		
6/22/2004	10:15:00	27.1	162	0.1	6.8	1.8	22.2	0.85		
6/22/2004	10:30:00	27.1	162	0.1	6.8	1.5	19.2	0.85		
6/22/2004	10:45:00	27.7	160	0.1	6.8	2.2	27.6	0.85		
6/22/2004	11:00:00	27.4	161	0.1	6.8	2.1	26.1	0.86		
6/22/2004	11:15:00	27.4	162	0.1	6.8	2.3	28.4	0.86		

6/22/2004	11:30:00			27.6	162	0.1	6.8	2.5	31.2	0.85
6/22/2004	11:45:00			27.6	162	0.1	6.8	2.4	30.0	0.85
6/22/2004	12:00:00			29.5	164	0.1	7.1	5.6	73.8	0.86
6/22/2004	12:15:00			29.8	165	0.1	7.2	6.0	79.2	0.86
6/22/2004	12:30:00			30.5	166	0.1	7.5	6.8	90.4	0.87
6/22/2004	12:45:00			30.8	166	0.1	7.8	7.4	99.6	0.87
6/22/2004	13:00:00			31.0	166	0.1	7.9	7.3	98.8	0.88
6/22/2004	13:15:00			31.1	167	0.1	8.1	7.8	104.8	0.87
6/22/2004	13:30:00			31.1	166	0.1	8.0	7.4	100.2	0.87
6/22/2004	13:45:00			31.1	167	0.1	8.1	7.7	103.4	0.88
6/22/2004	14:00:00			31.1	167	0.1	8.1	7.7	103.3	0.88
6/22/2004	14:15:00			31.1	167	0.1	8.2	7.8	105.5	0.88
6/22/2004	14:30:00			31.1	167	0.1	8.2	7.8	105.4	0.88
6/22/2004	14:45:00			31.1	167	0.1	8.1	7.5	100.6	0.88
6/22/2004	15:00:00			31.1	167	0.1	8.2	8.0	107.8	0.88
6/22/2004	15:15:00			31.1	167	0.1	8.1	7.7	104.0	0.88
6/22/2004	15:30:00			31.1	167	0.1	8.0	7.3	98.0	0.88
6/22/2004	15:45:00			31.1	167	0.1	8.0	7.4	99.6	0.88
6/22/2004	16:00:00			31.1	167	0.1	8.2	7.8	104.7	0.88
6/22/2004	16:15:00			31.1	167	0.1	8.2	7.9	106.2	0.88
6/22/2004	16:30:00			31.1	167	0.1	8.3	8.1	108.9	0.88
6/22/2004	16:45:00			31.1	167	0.1	8.3	8.0	107.8	0.88
6/22/2004	17:00:00			31.1	167	0.1	8.3	8.0	107.2	0.89
6/22/2004	17:15:00			31.1	167	0.1	8.2	7.5	101.6	0.88
6/22/2004	17:30:00			31.1	167	0.1	8.1	7.5	101.3	0.89
6/22/2004	17:45:00			31.1	167	0.1	8.1	7.5	100.6	0.88
6/22/2004	18:00:00			31.1	167	0.1	8.1	7.4	99.9	0.89
6/22/2004	18:15:00			31.1	167	0.1	8.1	7.2	96.6	0.89
6/22/2004	18:30:00			31.0	167	0.1	8.3	7.6	102.5	0.89
6/22/2004	18:45:00			31.0	167	0.1	8.2	7.4	99.8	0.89
6/22/2004	19:00:00			31.0	167	0.1	8.2	7.5	100.8	0.89
6/22/2004	19:15:00			31.0	167	0.1	8.1	7.3	98.5	0.89
6/22/2004	19:30:00			31.0	167	0.1	8.1	7.1	95.2	0.88
6/22/2004	19:45:00			30.9	167	0.1	8.0	6.7	90.6	0.89
6/22/2004	20:00:00			30.9	167	0.1	8.1	7.0	94.4	0.89
6/22/2004	20:15:00			30.9	167	0.1	8.0	6.7	90.6	0.88
6/22/2004	20:30:00			30.9	167	0.1	7.9	6.5	87.3	0.88
6/22/2004	20:45:00			30.9	167	0.1	8.0	6.7	90.1	0.88
6/22/2004	21:00:00			30.8	167	0.1	8.0	6.7	89.5	0.89
6/22/2004	21:15:00			30.8	167	0.1	8.0	6.8	90.9	0.88
6/22/2004	21:30:00			30.8	167	0.1	7.9	6.5	86.6	0.88
6/22/2004	21:45:00			30.8	167	0.1	7.8	6.3	84.0	0.88
6/22/2004	22:00:00			30.8	168	0.1	7.8	6.1	82.4	0.88
6/22/2004	22:15:00			30.7	167	0.1	7.8	6.0	80.4	0.88
6/22/2004	22:30:00			30.7	168	0.1	7.7	5.9	78.9	0.88
6/22/2004	22:45:00			30.7	168	0.1	7.7	5.9	79.0	0.88
6/22/2004	23:00:00			30.6	167	0.1	7.7	5.9	78.4	0.87
6/22/2004	23:15:00			30.3	167	0.1	7.4	4.9	65.6	0.87

6/22/2004	23:30:00			30.4	167	0.1	7.4	5.2	68.6	0.87
6/22/2004	23:45:00			30.3	167	0.1	7.4	5.1	67.3	0.87
6/23/2004	0:00:00			30.2	166	0.1	7.4	5.1	67.2	0.87
6/23/2004	0:15:00			30.2	166	0.1	7.3	4.9	65.6	0.88
6/23/2004	0:30:00			30.1	166	0.1	7.3	4.9	64.4	0.88
6/23/2004	0:45:00			30.2	166	0.1	7.3	4.9	64.6	0.88
6/23/2004	1:00:00			30.1	166	0.1	7.3	4.8	64.0	0.88
6/23/2004	1:15:00			30.1	166	0.1	7.3	4.8	63.2	0.88
6/23/2004	1:30:00			30.1	166	0.1	7.3	4.7	62.4	0.88
6/23/2004	1:45:00			30.1	166	0.1	7.3	4.6	61.6	0.88
6/23/2004	2:00:00			30.0	167	0.1	7.3	4.6	60.7	0.88
6/23/2004	2:15:00			30.0	166	0.1	7.3	4.5	59.8	0.87
6/23/2004	2:30:00			30.0	167	0.1	7.2	4.4	57.7	0.88
6/23/2004	2:45:00			29.9	167	0.1	7.2	4.2	55.1	0.88
6/23/2004	3:00:00			29.9	167	0.1	7.2	4.0	53.1	0.87
6/23/2004	3:15:00			29.8	167	0.1	7.2	3.9	52.0	0.87
6/23/2004	3:30:00			29.7	167	0.1	7.2	3.9	51.7	0.87
6/23/2004	3:45:00			29.7	167	0.1	7.2	3.8	50.3	0.88
6/23/2004	4:00:00			29.6	167	0.1	7.1	3.8	49.8	0.88
6/23/2004	4:15:00			29.6	167	0.1	7.1	3.7	48.7	0.87
6/23/2004	4:30:00			29.5	167	0.1	7.1	3.5	46.3	0.88
6/23/2004	4:45:00			29.4	167	0.1	7.1	3.4	44.8	0.88
6/23/2004	5:00:00			29.4	167	0.1	7.1	3.3	43.1	0.88
6/23/2004	5:15:00			29.4	167	0.1	7.1	3.2	41.7	0.88
6/23/2004	5:30:00			29.3	167	0.1	7.1	3.2	41.8	0.88
6/23/2004	5:45:00			29.3	167	0.1	7.1	3.1	41.0	0.88
6/23/2004	6:00:00			29.3	167	0.1	7.1	3.1	40.6	0.89
6/23/2004	6:15:00			29.5	168	0.1	7.1	2.7	35.3	0.89
6/23/2004	6:30:00			29.6	170	0.1	7.2	2.8	36.8	0.88
6/23/2004	6:45:00			29.6	170	0.1	7.2	3.0	39.8	0.89
6/23/2004	7:00:00			29.6	170	0.1	7.4	4.0	52.7	0.91
6/23/2004	7:15:00			29.6	170	0.1	7.4	4.0	52.6	0.89
6/23/2004	7:30:00			29.5	170	0.1	7.3	3.4	44.6	0.86
6/23/2004	7:45:00			29.4	169	0.1	7.2	3.1	41.2	0.88
6/23/2004	8:00:00			29.4	169	0.1	7.2	3.1	40.8	0.88
6/23/2004	8:15:00			29.3	169	0.1	7.1	2.8	37.0	0.87
6/23/2004	8:30:00			29.2	168	0.1	7.1	2.8	36.1	0.87
6/23/2004	8:45:00			29.0	168	0.1	7.0	2.5	32.4	0.86
6/23/2004	9:00:00			28.9	167	0.1	7.0	2.5	32.9	0.87
6/23/2004	9:15:00			28.9	167	0.1	7.0	2.6	33.2	0.87
6/23/2004	9:30:00			28.9	167	0.1	7.0	2.7	35.2	0.87
6/23/2004	9:45:00			28.9	167	0.1	7.0	2.9	38.1	0.86
6/23/2004	10:00:00			28.8	167	0.1	7.0	2.7	34.4	0.86
6/23/2004	10:15:00			28.6	166	0.1	6.9	2.6	33.3	0.86
6/23/2004	10:30:00			28.4	166	0.1	6.9	2.7	34.7	0.86
6/23/2004	10:45:00			28.5	166	0.1	6.9	2.7	35.3	0.86
6/23/2004	11:00:00			28.4	165	0.1	6.9	2.7	34.6	0.86
6/23/2004	11:15:00			28.2	165	0.1	6.9	2.6	33.8	0.86

6/23/2004	11:30:00			28.2	166	0.1	6.9	2.3	29.7	0.86
6/23/2004	11:45:00			28.1	166	0.1	6.9	2.7	34.6	0.86
6/23/2004	12:00:00			28.1	165	0.1	6.8	2.7	34.6	0.86
6/23/2004	12:15:00			28.1	165	0.1	6.8	2.7	34.2	0.85
6/23/2004	12:30:00			28.1	165	0.1	6.8	2.8	35.2	0.85
6/23/2004	12:45:00			28.0	165	0.1	6.8	2.8	35.2	0.87
6/23/2004	13:00:00			28.0	165	0.1	6.8	2.8	35.2	0.89
6/23/2004	13:15:00			28.1	164	0.1	6.8	3.0	38.2	0.90
6/23/2004	13:30:00			28.0	164	0.1	6.8	2.8	36.4	0.85
6/23/2004	13:45:00			28.0	163	0.1	6.8	3.0	38.1	0.85
6/23/2004	14:00:00			28.0	162	0.1	6.8	2.8	35.8	0.88
6/23/2004	14:15:00			28.1	163	0.1	6.8	3.2	41.2	0.87
6/23/2004	14:30:00			28.0	163	0.1	6.8	3.2	40.5	0.86
6/23/2004	14:45:00			28.0	163	0.1	6.8	3.2	40.5	0.87
6/23/2004	15:00:00			28.0	163	0.1	6.8	3.2	41.1	0.87
6/23/2004	15:15:00			27.9	162	0.1	6.8	3.2	40.1	0.87
6/23/2004	15:30:00			28.0	162	0.1	6.8	3.3	42.7	0.86
6/23/2004	15:45:00			27.9	161	0.1	6.8	3.2	40.9	0.86
6/23/2004	16:00:00			27.9	161	0.1	6.8	3.1	40.0	0.86
6/23/2004	16:15:00			28.0	161	0.1	6.8	3.6	45.6	0.87
6/23/2004	16:30:00			28.0	161	0.1	6.8	3.3	41.9	0.87
6/23/2004	16:45:00			28.0	161	0.1	6.8	3.2	41.3	0.87
6/23/2004	17:00:00			27.9	160	0.1	6.8	3.2	40.3	0.87
6/23/2004	17:15:00			27.9	160	0.1	6.8	3.2	40.6	0.87
6/23/2004	17:30:00			27.9	160	0.1	6.8	3.1	39.0	0.87
6/23/2004	17:45:00			27.9	160	0.1	6.8	3.1	39.0	0.87
6/23/2004	18:00:00			27.9	160	0.1	6.8	3.1	39.7	0.87
6/23/2004	18:15:00			27.9	160	0.1	6.8	3.1	39.3	0.87
6/23/2004	18:30:00			27.9	160	0.1	6.8	3.1	39.7	0.87
6/23/2004	18:45:00			28.0	160	0.1	6.8	3.2	40.6	0.87
6/23/2004	19:00:00			27.9	160	0.1	6.8	3.0	38.5	0.87
6/23/2004	19:15:00			28.0	160	0.1	6.8	3.0	37.9	0.87
6/23/2004	19:30:00			27.9	160	0.1	6.8	2.8	36.2	0.88
6/23/2004	19:45:00			28.0	160	0.1	6.8	3.0	38.9	0.90
6/23/2004	20:00:00			28.3	161	0.1	6.9	3.6	46.1	0.88
6/23/2004	20:15:00			28.7	163	0.1	7.0	4.5	58.1	0.89
6/23/2004	20:30:00			28.6	163	0.1	7.0	4.3	55.9	0.89
6/23/2004	20:45:00			29.1	165	0.1	7.1	5.0	65.0	0.89
6/23/2004	21:00:00			29.4	166	0.1	7.3	6.5	85.4	0.89
6/23/2004	21:15:00			29.4	167	0.1	7.4	6.1	79.4	0.90
6/23/2004	21:30:00			29.5	167	0.1	7.5	6.7	88.2	0.89
6/23/2004	21:45:00			29.4	167	0.1	7.4	5.9	77.2	0.89
6/23/2004	22:00:00			29.3	167	0.1	7.2	4.9	63.9	0.89
6/23/2004	22:15:00			29.1	165	0.1	7.1	4.8	61.9	0.89
6/23/2004	22:30:00			29.0	165	0.1	7.1	4.4	57.5	0.89
6/23/2004	22:45:00			28.7	164	0.1	7.0	3.9	49.9	0.89
6/23/2004	23:00:00			28.5	163	0.1	6.9	3.3	42.3	0.89
6/23/2004	23:15:00			28.4	163	0.1	6.9	3.3	42.3	0.89

6/23/2004	23:30:00			28.6	163	0.1	6.9	3.6	47.1	0.89
6/23/2004	23:45:00			28.5	162	0.1	6.9	3.2	41.0	0.89
6/24/2004	0:00:00			28.9	165	0.1	7.0	4.2	54.7	0.89
6/24/2004	0:15:00			29.0	165	0.1	7.1	4.6	59.5	0.89
6/24/2004	0:30:00			29.0	166	0.1	7.1	4.2	54.7	0.89
6/24/2004	0:45:00			28.8	165	0.1	7.0	3.9	50.3	0.89
6/24/2004	1:00:00			29.0	167	0.1	7.2	4.3	55.3	0.89
6/24/2004	1:15:00			29.0	168	0.1	7.2	4.3	55.8	0.89
6/24/2004	1:30:00			29.0	168	0.1	7.2	4.3	55.7	0.89
6/24/2004	1:45:00			29.0	168	0.1	7.2	4.3	56.3	0.89
6/24/2004	2:00:00			29.0	168	0.1	7.2	4.2	54.7	0.89
6/24/2004	2:15:00			29.0	167	0.1	7.2	4.5	58.6	0.89
6/24/2004	2:30:00			28.9	167	0.1	7.2	4.2	54.9	0.89
6/24/2004	2:45:00			28.9	167	0.1	7.1	3.9	51.1	0.89
6/24/2004	3:00:00			28.8	167	0.1	7.2	4.2	53.9	0.89
6/24/2004	3:15:00			28.7	166	0.1	7.1	3.8	49.1	0.88
6/24/2004	3:30:00			28.5	165	0.1	7.0	3.6	46.5	0.89
6/24/2004	3:45:00			28.2	164	0.1	6.9	2.3	29.9	0.89
6/24/2004	4:00:00			28.0	162	0.1	6.8	2.3	29.4	0.88
6/24/2004	4:15:00			27.9	161	0.1	6.8	2.2	27.5	0.88
6/24/2004	4:30:00			27.7	161	0.1	6.8	1.9	24.7	0.88
6/24/2004	4:45:00			27.6	161	0.1	6.8	1.8	23.2	0.88
6/24/2004	5:00:00			27.5	161	0.1	6.8	1.7	21.8	0.88
6/24/2004	5:15:00			27.3	161	0.1	6.7	1.6	20.3	0.88
6/24/2004	5:30:00			27.2	161	0.1	6.7	1.6	19.7	0.88
6/24/2004	5:45:00			27.2	161	0.1	6.7	1.5	19.2	0.88
6/24/2004	6:00:00			27.1	161	0.1	6.7	1.5	18.8	0.88
6/24/2004	6:15:00			27.1	161	0.1	6.7	1.5	18.6	0.88
6/24/2004	6:30:00			27.0	160	0.1	6.7	1.5	18.4	0.88
6/24/2004	6:45:00			27.0	160	0.1	6.7	1.4	18.0	0.88
6/24/2004	7:00:00			26.9	160	0.1	6.7	1.5	18.3	0.88
6/24/2004	7:15:00			26.9	160	0.1	6.7	1.4	17.8	0.88
6/24/2004	7:30:00			26.9	160	0.1	6.7	1.4	17.7	0.88
6/24/2004	7:45:00			26.9	160	0.1	6.7	1.4	17.2	0.88
6/24/2004	8:00:00			26.8	160	0.1	6.7	1.4	18.0	0.88
6/24/2004	8:15:00			26.8	160	0.1	6.7	1.4	17.4	0.88
6/24/2004	8:30:00			26.8	160	0.1	6.7	1.4	17.2	0.88
6/24/2004	8:45:00			26.8	159	0.1	6.7	1.5	18.1	0.87
6/24/2004	9:00:00			26.8	160	0.1	6.7	1.5	18.1	0.87
6/24/2004	9:15:00			26.7	159	0.1	6.7	1.5	18.2	0.87
6/24/2004	9:30:00			26.8	160	0.1	6.7	1.5	18.5	0.87
6/24/2004	9:45:00			26.7	159	0.1	6.7	1.5	18.8	0.87
6/24/2004	10:00:00			26.8	159	0.1	6.7	1.5	18.6	0.87
6/24/2004	10:15:00			26.8	159	0.1	6.7	1.6	20.5	0.87
6/24/2004	10:30:00			26.8	159	0.1	6.7	1.6	19.9	0.87
6/24/2004	10:45:00			26.9	159	0.1	6.7	1.8	22.1	0.87
6/24/2004	11:00:00			27.0	158	0.1	6.7	1.9	23.3	0.87
6/24/2004	11:15:00			27.0	159	0.1	6.7	1.9	24.0	0.88

6/24/2004	11:30:00			27.6	161	0.1	6.8	2.4	30.0	0.88
6/24/2004	11:45:00			28.8	166	0.1	7.1	4.2	54.2	0.89
6/24/2004	12:00:00			29.2	168	0.1	7.2	5.2	68.3	0.89
6/24/2004	12:15:00			29.2	168	0.1	7.2	5.2	67.9	0.89
6/24/2004	12:30:00			29.3	169	0.1	7.3	5.3	69.6	0.89
6/24/2004	12:45:00			29.4	169	0.1	7.5	6.0	78.9	0.90
6/24/2004	13:00:00			29.5	168	0.1	7.5	6.2	81.5	0.89
6/24/2004	13:15:00			29.4	169	0.1	7.5	6.1	80.3	0.90
6/24/2004	13:30:00			29.4	168	0.1	7.6	6.7	87.6	0.89
6/24/2004	13:45:00			29.4	168	0.1	7.4	6.0	78.9	0.88
6/24/2004	14:00:00			29.5	168	0.1	7.5	6.9	90.9	0.90
6/24/2004	14:15:00			29.5	168	0.1	7.6	6.5	85.6	0.90
6/24/2004	14:30:00			29.5	167	0.1	7.7	7.4	97.4	0.91
6/24/2004	14:45:00			29.4	167	0.1	7.8	7.4	97.5	0.92
6/24/2004	15:00:00			29.5	167	0.1	7.8	7.6	99.0	0.90
6/24/2004	15:15:00			29.4	167	0.1	7.5	6.6	85.9	0.91
6/24/2004	15:30:00			29.4	167	0.1	7.6	7.0	91.6	0.89
6/24/2004	15:45:00			29.3	166	0.1	7.5	6.5	84.4	0.91
6/24/2004	16:00:00			29.4	167	0.1	7.5	6.2	81.0	0.92
6/24/2004	16:15:00			29.4	166	0.1	7.8	6.8	89.3	0.91
6/24/2004	16:30:00			29.1	165	0.1	7.4	5.7	74.6	0.84
6/24/2004	16:45:00			29.0	163	0.1	7.3	5.5	71.5	0.90
6/24/2004	17:00:00			29.0	163	0.1	7.3	5.5	72.0	0.89
6/24/2004	17:15:00			28.9	163	0.1	7.2	5.3	68.4	0.90
6/24/2004	17:30:00			28.8	162	0.1	7.2	5.4	69.4	0.90
6/24/2004	17:45:00			28.8	163	0.1	7.2	5.4	69.7	0.90
6/24/2004	18:00:00			28.8	163	0.1	7.2	5.1	65.9	0.91
6/24/2004	18:15:00			28.8	163	0.1	7.2	4.7	61.1	0.91
6/24/2004	18:30:00			28.8	163	0.1	7.2	4.8	62.8	0.90
6/24/2004	18:45:00			28.7	163	0.1	7.2	4.6	59.2	0.90
6/24/2004	19:00:00			28.7	163	0.1	7.2	4.6	58.9	0.89
6/24/2004	19:15:00			28.7	162	0.1	7.1	4.5	58.6	0.90
6/24/2004	19:30:00			28.7	162	0.1	7.1	4.6	59.6	0.90
6/24/2004	19:45:00			28.6	162	0.1	7.1	4.6	59.7	0.90
6/24/2004	20:00:00			28.5	162	0.1	7.1	4.5	57.9	0.90
6/24/2004	20:15:00			28.5	162	0.1	7.1	4.4	56.5	0.90
6/24/2004	20:30:00			28.5	162	0.1	7.1	4.5	58.1	0.90
6/24/2004	20:45:00			28.5	162	0.1	7.1	4.5	58.2	0.91
6/24/2004	21:00:00			28.5	162	0.1	7.1	4.3	55.3	0.91
6/24/2004	21:15:00			28.5	162	0.1	7.1	4.1	52.5	0.91
6/24/2004	21:30:00			28.4	164	0.1	7.2	3.9	50.1	0.92
6/24/2004	21:45:00			28.4	164	0.1	7.4	5.2	67.5	0.91
6/24/2004	22:00:00			28.5	166	0.1	7.5	5.8	75.2	0.91
6/24/2004	22:15:00			28.4	166	0.1	7.7	6.0	77.6	0.91
6/24/2004	22:30:00			28.4	167	0.1	7.6	5.9	76.0	0.92
6/24/2004	22:45:00			28.4	167	0.1	7.6	5.8	74.6	0.92
6/24/2004	23:00:00			28.3	167	0.1	7.7	6.0	77.1	0.92
6/24/2004	23:15:00			28.3	167	0.1	7.7	5.8	74.7	0.92

6/24/2004	23:30:00			28.3	167	0.1	7.6	5.7	73.7	0.92
6/24/2004	23:45:00			28.2	168	0.1	7.6	5.9	75.2	0.93
6/25/2004	0:00:00			28.2	168	0.1	7.7	5.8	74.9	0.92
6/25/2004	0:15:00			28.2	168	0.1	7.6	5.8	74.7	0.93
6/25/2004	0:30:00			28.1	168	0.1	7.6	5.9	75.1	0.93
6/25/2004	0:45:00			28.1	167	0.1	7.6	5.6	71.7	0.93
6/25/2004	1:00:00			28.1	167	0.1	7.6	5.4	68.8	0.93
6/25/2004	1:15:00			28.1	168	0.1	7.5	5.1	65.1	0.93
6/25/2004	1:30:00			28.1	168	0.1	7.5	5.2	66.6	0.93
6/25/2004	1:45:00			28.0	169	0.1	7.5	5.3	67.9	0.93
6/25/2004	2:00:00			28.0	169	0.1	7.5	5.3	68.2	0.93
6/25/2004	2:15:00			27.9	169	0.1	7.5	5.1	65.6	0.93
6/25/2004	2:30:00			27.9	169	0.1	7.5	5.0	64.0	0.92
6/25/2004	2:45:00			27.9	170	0.1	7.5	5.2	66.7	0.93
6/25/2004	3:00:00			27.8	170	0.1	7.5	5.2	65.9	0.93
6/25/2004	3:15:00			27.7	169	0.1	7.4	4.8	61.1	0.93
6/25/2004	3:30:00			27.7	169	0.1	7.4	4.7	60.3	0.92
6/25/2004	3:45:00			27.7	169	0.1	7.4	4.7	59.2	0.92
6/25/2004	4:00:00			27.7	170	0.1	7.4	4.5	57.4	0.92
6/25/2004	4:15:00			27.7	169	0.1	7.4	4.5	57.8	0.92
6/25/2004	4:30:00			27.7	169	0.1	7.4	4.4	55.9	0.92
6/25/2004	4:45:00			27.6	169	0.1	7.3	4.4	55.9	0.92
6/25/2004	5:00:00			27.6	169	0.1	7.3	4.3	54.7	0.92
6/25/2004	5:15:00			27.6	169	0.1	7.3	4.3	54.1	0.92
6/25/2004	5:30:00			27.5	170	0.1	7.3	4.5	56.8	0.92
6/25/2004	5:45:00			27.5	170	0.1	7.3	4.4	56.2	0.93
6/25/2004	6:00:00			27.4	169	0.1	7.3	3.9	49.5	0.93
6/25/2004	6:15:00			27.4	169	0.1	7.3	4.0	50.2	0.91
6/25/2004	6:30:00			27.4	169	0.1	7.2	3.8	48.5	0.92
6/25/2004	6:45:00			27.4	169	0.1	7.2	3.7	46.1	0.91
6/25/2004	7:00:00			27.4	169	0.1	7.2	3.7	46.9	0.91
6/25/2004	7:15:00			27.4	169	0.1	7.2	3.7	46.2	0.91
6/25/2004	7:30:00			27.4	169	0.1	7.2	3.5	44.2	0.91
6/25/2004	7:45:00			27.4	168	0.1	7.2	3.4	43.5	0.91
6/25/2004	8:00:00			27.4	168	0.1	7.2	3.4	42.7	0.91
6/25/2004	8:15:00			27.3	168	0.1	7.1	3.2	40.7	0.91
6/25/2004	8:30:00			27.3	168	0.1	7.1	3.2	40.9	0.91
6/25/2004	8:45:00			27.3	167	0.1	7.1	3.1	39.6	0.91
6/25/2004	9:00:00			27.3	167	0.1	7.1	3.2	40.0	0.91
6/25/2004	9:15:00			27.3	166	0.1	7.1	3.1	38.9	0.91
6/25/2004	9:30:00			27.2	167	0.1	7.1	2.9	36.6	0.91
6/25/2004	9:45:00			27.2	166	0.1	7.0	2.9	35.8	0.90
6/25/2004	10:00:00			27.1	166	0.1	7.0	2.8	35.0	0.90
6/25/2004	10:15:00			27.1	164	0.1	7.0	2.9	36.1	0.90
6/25/2004	10:30:00			27.0	164	0.1	7.0	2.8	35.3	0.90
6/25/2004	10:45:00			27.0	164	0.1	7.0	2.8	35.5	0.90
6/25/2004	11:00:00			26.9	164	0.1	7.0	2.7	33.7	0.90
6/25/2004	11:15:00			26.9	163	0.1	7.0	2.8	35.3	0.91

6/25/2004	11:30:00			26.9	163	0.1	7.0	2.7	34.4	0.90
6/25/2004	11:45:00			26.8	163	0.1	6.9	2.7	33.8	0.91
6/25/2004	12:00:00			26.8	163	0.1	6.9	2.7	33.4	0.89
6/25/2004	12:15:00			26.7	163	0.1	6.9	2.5	31.7	0.89
6/25/2004	12:30:00			26.6	162	0.1	6.9	2.6	32.7	0.90
6/25/2004	12:45:00			26.5	160	0.1	6.9	2.7	33.5	0.88
6/25/2004	13:00:00			26.1	153	0.1	6.8	2.7	33.0	0.87
6/25/2004	13:15:00			26.0	152	0.1	6.8	2.9	35.6	0.93
6/25/2004	13:30:00			25.9	151	0.1	6.8	3.0	37.2	0.92
6/25/2004	13:45:00			25.8	148	0.1	6.8	3.1	38.1	0.90
6/25/2004	14:00:00			25.7	149	0.1	6.9	3.4	41.5	0.91
6/25/2004	14:15:00			25.7	146	0.1	6.9	3.3	40.2	0.90
6/25/2004	14:30:00			25.6	146	0.1	6.8	3.6	43.4	0.91
6/25/2004	14:45:00			25.6	148	0.1	6.9	3.6	44.1	0.92
6/25/2004	15:00:00			25.6	147	0.1	6.9	3.5	43.2	0.91
6/25/2004	15:15:00			25.6	147	0.1	6.9	3.6	44.2	0.92
6/25/2004	15:30:00			25.6	146	0.1	6.8	3.5	42.8	0.92
6/25/2004	15:45:00			25.5	146	0.1	6.8	3.6	44.0	0.92
6/25/2004	16:00:00			25.5	146	0.1	6.8	3.7	45.2	0.92
6/25/2004	16:15:00			25.5	145	0.1	6.8	3.5	43.2	0.92
6/25/2004	16:30:00			25.5	145	0.1	6.8	3.5	42.9	0.92
6/25/2004	16:45:00			25.5	145	0.1	6.8	3.6	43.5	0.93
6/25/2004	17:00:00			25.4	144	0.1	6.8	3.3	40.5	0.92
6/25/2004	17:15:00			25.4	145	0.1	6.8	3.6	43.5	0.92
6/25/2004	17:30:00			25.4	144	0.1	6.8	3.5	42.5	0.92
6/25/2004	17:45:00			25.3	142	0.1	6.8	3.2	38.5	0.92
6/25/2004	18:00:00			25.3	143	0.1	6.8	3.3	40.5	0.93
6/25/2004	18:15:00			25.2	143	0.1	6.8	3.5	42.3	0.93
6/25/2004	18:30:00			25.2	143	0.1	6.8	3.4	41.5	0.93
6/25/2004	18:45:00			25.2	142	0.1	6.8	3.3	40.3	0.93
6/25/2004	19:00:00			25.2	142	0.1	6.8	3.3	39.8	0.93
6/25/2004	19:15:00			25.1	142	0.1	6.8	3.3	40.3	0.93
6/25/2004	19:30:00			25.1	142	0.1	6.8	3.3	40.3	0.93
6/25/2004	19:45:00			25.1	141	0.1	6.8	3.1	37.4	0.93
6/25/2004	20:00:00			25.1	141	0.1	6.8	3.2	38.8	0.93
6/25/2004	20:15:00			25.0	140	0.1	6.8	3.2	38.3	0.93
6/25/2004	20:30:00			25.0	140	0.1	6.8	3.2	38.4	0.93
6/25/2004	20:45:00			24.9	139	0.1	6.8	3.2	38.5	0.93
6/25/2004	21:00:00			24.9	139	0.1	6.7	3.2	38.1	0.93
6/25/2004	21:15:00			24.8	138	0.1	6.7	3.2	38.1	0.93
6/25/2004	21:30:00			24.8	138	0.1	6.7	3.1	37.5	0.93
6/25/2004	21:45:00			24.8	137	0.1	6.7	3.1	37.2	0.93
6/25/2004	22:00:00			24.8	137	0.1	6.7	3.1	37.1	0.93
6/25/2004	22:15:00			24.7	136	0.1	6.7	2.9	34.8	0.93
6/25/2004	22:30:00			24.7	136	0.1	6.7	3.0	36.1	0.93
6/25/2004	22:45:00			24.7	136	0.1	6.7	2.9	34.4	0.93
6/25/2004	23:00:00			24.6	135	0.1	6.7	2.9	34.8	0.93
6/25/2004	23:15:00			24.6	136	0.1	6.7	3.0	35.5	0.93

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6/25/2004	23:45:00			24.5	135	0.1	6.7	2.9	34.5	0.93
6/26/2004	0:00:00			24.5	134	0.1	6.7	2.8	33.9	0.93
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6/26/2004	0:30:00			24.4	134	0.1	6.7	2.8	33.4	0.93
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6/26/2004	1:30:00			24.3	132	0.1	6.7	2.8	32.9	0.93
6/26/2004	1:45:00			24.3	132	0.1	6.7	2.7	32.8	0.93
6/26/2004	2:00:00			24.3	133	0.1	6.7	2.8	33.7	0.93
6/26/2004	2:15:00			24.2	132	0.1	6.7	2.8	33.7	0.93
6/26/2004	2:30:00			24.2	132	0.1	6.7	2.9	34.1	0.93
6/26/2004	2:45:00			24.2	132	0.1	6.7	2.8	33.6	0.93
6/26/2004	3:00:00			24.2	130	0.1	6.7	2.8	32.9	0.93
6/26/2004	3:15:00			24.1	132	0.1	6.7	2.8	33.5	0.93
6/26/2004	3:30:00			24.1	132	0.1	6.7	2.8	33.8	0.93
6/26/2004	3:45:00			24.1	131	0.1	6.7	2.8	33.0	0.93
6/26/2004	4:00:00			24.1	133	0.1	6.7	2.9	34.7	0.93
6/26/2004	4:15:00			24.0	133	0.1	6.7	3.0	35.3	0.93
6/26/2004	4:30:00			24.0	130	0.1	6.7	2.7	32.6	0.93
6/26/2004	4:45:00			24.0	133	0.1	6.7	3.0	35.7	0.93
6/26/2004	5:00:00			24.0	131	0.1	6.7	2.9	34.3	0.93
6/26/2004	5:15:00			24.0	128	0.1	6.7	2.8	33.4	0.93
6/26/2004	5:30:00			23.9	130	0.1	6.7	2.9	33.9	0.93
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6/26/2004	6:15:00			23.9	130	0.1	6.6	2.7	32.2	0.92
6/26/2004	6:30:00			23.9	131	0.1	6.6	2.7	32.3	0.92
6/26/2004	6:45:00			23.9	130	0.1	6.7	2.8	32.8	0.92
6/26/2004	7:00:00			23.9	128	0.1	6.6	2.5	29.2	0.92
6/26/2004	7:15:00			23.8	131	0.1	6.6	2.3	27.8	0.92
6/26/2004	7:30:00			23.8	130	0.1	6.6	2.4	28.3	0.92
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6/26/2004	8:30:00			23.8	130	0.1	6.7	2.9	34.5	0.92
6/26/2004	8:45:00			23.8	131	0.1	6.6	3.0	35.8	0.92
6/26/2004	9:00:00			23.8	131	0.1	6.7	3.1	36.2	0.92
6/26/2004	9:15:00			23.8	131	0.1	6.7	3.1	37.1	0.92
6/26/2004	9:30:00			23.9	131	0.1	6.7	3.2	37.5	0.92
6/26/2004	9:45:00			23.9	130	0.1	6.7	3.1	37.1	0.93
6/26/2004	10:00:00			23.9	131	0.1	6.7	3.2	37.9	0.93
6/26/2004	10:15:00			23.8	129	0.1	6.7	3.2	38.3	0.89
6/26/2004	10:30:00			23.8	131	0.1	6.7	3.3	39.0	0.91
6/26/2004	10:45:00			23.8	130	0.1	6.7	3.4	40.6	0.90
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6/26/2004	11:30:00			23.8	129	0.1	6.7	3.5	41.1	0.92
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6/26/2004	12:00:00			23.8	129	0.1	6.7	3.5	41.0	0.92
6/26/2004	12:15:00			23.8	129	0.1	6.7	3.4	40.5	0.91
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6/26/2004	12:45:00			23.8	129	0.1	6.7	3.5	41.3	0.91
6/26/2004	13:00:00			23.8	129	0.1	6.7	3.4	40.4	0.91
6/26/2004	13:15:00			23.9	130	0.1	6.7	3.4	40.5	0.92
6/26/2004	13:30:00			23.9	130	0.1	6.7	3.4	40.5	0.92
6/26/2004	13:45:00			23.9	130	0.1	6.7	3.3	39.4	0.92
6/26/2004	14:00:00			23.9	130	0.1	6.7	3.4	40.3	0.93
6/26/2004	14:15:00			23.9	130	0.1	6.7	3.4	39.8	0.92
6/26/2004	14:30:00			23.9	130	0.1	6.7	3.3	39.7	0.92
6/26/2004	14:45:00			24.0	129	0.1	6.7	3.3	39.0	0.92
6/26/2004	15:00:00			24.0	130	0.1	6.7	3.4	40.3	0.93
6/26/2004	15:15:00			24.0	130	0.1	6.7	3.4	40.4	0.93
6/26/2004	15:30:00			24.0	131	0.1	6.7	3.4	40.0	0.93
6/26/2004	15:45:00			24.0	130	0.1	6.7	3.2	37.5	0.92
6/26/2004	16:00:00			24.0	130	0.1	6.7	3.4	39.8	0.92
6/26/2004	16:15:00			24.0	130	0.1	6.7	3.3	39.4	0.93
6/26/2004	16:30:00			24.0	130	0.1	6.7	3.4	40.4	0.93
6/26/2004	16:45:00			24.0	131	0.1	6.7	3.3	39.1	0.93
6/26/2004	17:00:00			24.1	130	0.1	6.7	3.3	38.8	0.93
6/26/2004	17:15:00			24.1	130	0.1	6.7	3.3	38.7	0.93
6/26/2004	17:30:00			24.1	130	0.1	6.7	3.3	39.3	0.94
6/26/2004	17:45:00			24.1	130	0.1	6.6	3.2	38.6	0.93
6/26/2004	18:00:00			24.1	130	0.1	6.6	3.2	38.3	0.93
6/26/2004	18:15:00			24.1	130	0.1	6.6	3.1	37.3	0.93
6/26/2004	18:30:00			24.2	130	0.1	6.6	3.1	37.0	0.93
6/26/2004	18:45:00			24.1	131	0.1	6.6	3.0	35.7	0.93
6/26/2004	19:00:00			24.2	130	0.1	6.6	3.0	36.3	0.93
6/26/2004	19:15:00			24.2	131	0.1	6.6	3.0	35.9	0.93
6/26/2004	19:30:00			24.1	131	0.1	6.6	2.9	34.9	0.93
6/26/2004	19:45:00			24.1	130	0.1	6.6	3.0	35.5	0.93
6/26/2004	20:00:00			24.1	131	0.1	6.6	2.8	33.2	0.93
6/26/2004	20:15:00			24.1	129	0.1	6.6	2.9	34.6	0.93
6/26/2004	20:30:00			24.1	130	0.1	6.6	2.8	33.1	0.93
6/26/2004	20:45:00			24.1	129	0.1	6.6	2.9	33.9	0.93
6/26/2004	21:00:00			24.1	128	0.1	6.6	2.8	33.4	0.93
6/26/2004	21:15:00			24.1	129	0.1	6.6	2.8	32.7	0.93
6/26/2004	21:30:00			24.1	129	0.1	6.6	2.6	30.8	0.93
6/26/2004	21:45:00			24.1	129	0.1	6.6	2.7	32.2	0.93
6/26/2004	22:00:00			24.1	129	0.1	6.6	2.6	31.1	0.93
6/26/2004	22:15:00			24.1	129	0.1	6.6	2.6	31.2	0.93
6/26/2004	22:30:00			24.0	128	0.1	6.6	2.6	31.1	0.93
6/26/2004	22:45:00			24.0	128	0.1	6.6	2.5	30.0	0.93
6/26/2004	23:00:00			24.0	129	0.1	6.6	2.5	30.0	0.93
6/26/2004	23:15:00			24.0	130	0.1	6.6	2.3	27.9	0.93

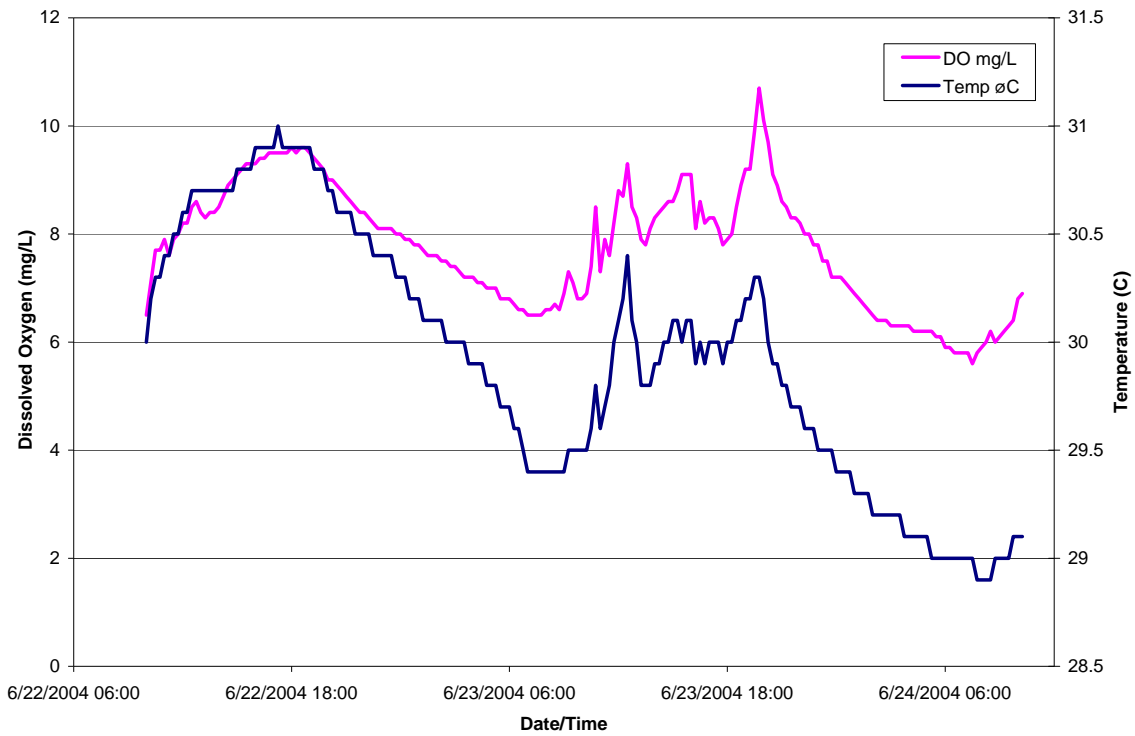
6/26/2004	23:30:00			24.0	129	0.1	6.6	2.5	29.8	0.93
6/26/2004	23:45:00			24.0	126	0.1	6.6	2.6	30.5	0.92
6/27/2004	0:00:00			24.0	129	0.1	6.6	2.5	30.0	0.92
6/27/2004	0:15:00			24.0	128	0.1	6.6	2.5	30.0	0.92
6/27/2004	0:30:00			23.9	126	0.1	6.6	2.5	29.9	0.93
6/27/2004	0:45:00			23.9	128	0.1	6.6	2.5	30.2	0.93
6/27/2004	1:00:00			23.9	129	0.1	6.6	2.4	27.9	0.93
6/27/2004	1:15:00			23.9	128	0.1	6.6	2.4	28.3	0.93
6/27/2004	1:30:00			23.9	128	0.1	6.6	2.5	29.6	0.93
6/27/2004	1:45:00			23.9	126	0.1	6.6	2.5	29.8	0.93
6/27/2004	2:00:00			23.9	128	0.1	6.6	2.4	28.1	0.92
6/27/2004	2:15:00			23.9	126	0.1	6.6	2.5	30.1	0.93
6/27/2004	2:30:00			23.9	127	0.1	6.6	2.5	29.4	0.92
6/27/2004	2:45:00			23.9	127	0.1	6.6	2.6	30.3	0.93
6/27/2004	3:00:00			23.9	128	0.1	6.6	2.5	29.9	0.93
6/27/2004	3:15:00			23.8	127	0.1	6.6	2.5	29.3	0.93
6/27/2004	3:30:00			23.8	125	0.1	6.6	2.6	30.6	0.93
6/27/2004	3:45:00			23.8	124	0.1	6.6	2.6	31.0	0.92
6/27/2004	4:00:00			23.8	126	0.1	6.6	2.6	30.3	0.92
6/27/2004	4:15:00			23.8	125	0.1	6.6	2.6	31.0	0.92
6/27/2004	4:30:00			23.8	125	0.1	6.6	2.6	30.6	0.92
6/27/2004	4:45:00			23.8	124	0.1	6.6	2.6	30.6	0.92
6/27/2004	5:00:00			23.8	128	0.1	6.6	2.5	29.8	0.92
6/27/2004	5:15:00			23.8	127	0.1	6.6	2.6	31.0	0.92
6/27/2004	5:30:00			23.8	125	0.1	6.6	2.7	31.4	0.92
6/27/2004	5:45:00			23.8	127	0.1	6.6	2.6	30.3	0.92
6/27/2004	6:00:00			23.8	127	0.1	6.6	2.4	28.5	0.92
6/27/2004	6:15:00			23.8	127	0.1	6.6	2.4	28.4	0.92
6/27/2004	6:30:00			23.8	129	0.1	6.6	2.4	28.2	0.92
6/27/2004	6:45:00			23.7	125	0.1	6.6	2.5	29.5	0.92
6/27/2004	7:00:00			23.7	124	0.1	6.6	2.4	28.3	0.92
6/27/2004	7:15:00			23.7	124	0.1	6.6	2.3	26.8	0.92
6/27/2004	7:30:00			23.7	124	0.1	6.6	2.3	26.7	0.92
6/27/2004	7:45:00			23.8	126	0.1	6.6	2.4	27.8	0.92
6/27/2004	8:00:00			23.7	124	0.1	6.6	2.4	28.1	0.92
6/27/2004	8:15:00			23.8	124	0.1	6.6	2.4	28.6	0.92
6/27/2004	8:30:00			23.8	122	0.1	6.6	2.5	29.5	0.92
6/27/2004	8:45:00			23.8	125	0.1	6.6	2.5	29.9	0.92
6/27/2004	9:00:00			23.8	124	0.1	6.6	2.6	30.6	0.92
6/27/2004	9:15:00			23.9	124	0.1	6.6	2.7	31.6	0.92
6/27/2004	9:30:00			23.9	123	0.1	6.6	2.7	32.1	0.92
6/27/2004	9:45:00			23.9	125	0.1	6.6	2.6	31.1	0.92
6/27/2004	10:00:00			23.9	123	0.1	6.6	2.7	32.2	0.92
6/27/2004	10:15:00			24.0	125	0.1	6.6	2.7	32.4	0.92
6/27/2004	10:30:00			24.0	125	0.1	6.6	2.8	32.9	0.93
6/27/2004	10:45:00			24.1	123	0.1	6.6	2.8	32.7	0.92
6/27/2004	11:00:00			24.1	125	0.1	6.6	2.8	33.0	0.93
6/27/2004	11:15:00			24.4	126	0.1	6.6	2.8	33.0	0.93

6/27/2004	11:30:00			24.2	133	0.1	6.6	2.2	26.3	0.93
6/27/2004	11:45:00			24.2	125	0.1	6.6	2.7	32.2	0.93
6/27/2004	12:00:00			24.3	123	0.1	6.6	2.7	31.9	0.93
6/27/2004	12:15:00			24.6	127	0.1	6.6	2.7	32.9	0.93
6/27/2004	12:30:00			24.4	126	0.1	6.6	2.5	30.1	0.93
6/27/2004	12:45:00			24.9	126	0.1	6.6	2.9	34.5	0.93
6/27/2004	13:00:00			24.8	124	0.1	6.6	2.8	33.2	0.94
6/27/2004	13:15:00			25.0	126	0.1	6.6	2.9	34.8	0.94
6/27/2004	13:30:00			24.9	127	0.1	6.6	2.7	32.3	0.94
6/27/2004	13:45:00			25.1	125	0.1	6.6	2.8	33.5	0.94
6/27/2004	14:00:00			25.1	126	0.1	6.6	2.7	32.7	0.94
6/27/2004	14:15:00			25.7	127	0.1	6.6	3.0	37.2	0.94
6/27/2004	14:30:00			25.3	129	0.1	6.6	2.8	33.5	0.94
6/27/2004	14:45:00			25.4	132	0.1	6.6	2.7	33.3	0.94
6/27/2004	15:00:00			25.1	128	0.1	6.6	2.5	30.6	0.94
6/27/2004	15:15:00			25.2	127	0.1	6.6	2.6	31.0	0.94
6/27/2004	15:30:00			25.3	126	0.1	6.6	2.6	31.4	0.93
6/27/2004	15:45:00			25.4	126	0.1	6.6	2.6	31.5	0.94
6/27/2004	16:00:00			25.8	125	0.1	6.6	2.8	34.1	0.94
6/27/2004	16:15:00			25.5	125	0.1	6.6	2.6	31.1	0.94
6/27/2004	16:30:00			25.5	127	0.1	6.6	2.5	30.0	0.94
6/27/2004	16:45:00			25.5	127	0.1	6.6	2.4	29.0	0.93
6/27/2004	17:00:00			25.6	126	0.1	6.6	2.5	31.1	0.93
6/27/2004	17:15:00			25.6	124	0.1	6.6	2.5	30.4	0.93
6/27/2004	17:30:00			25.6	125	0.1	6.6	2.5	30.1	0.93
6/27/2004	17:45:00			25.6	125	0.1	6.6	2.5	30.4	0.93
6/27/2004	18:00:00			25.6	125	0.1	6.6	2.4	29.0	0.93
6/27/2004	18:15:00			25.7	126	0.1	6.6	2.4	28.8	0.93
6/27/2004	18:30:00			25.7	125	0.1	6.6	2.3	28.5	0.93
6/27/2004	18:45:00			25.7	124	0.1	6.6	2.3	27.8	0.93
6/27/2004	19:00:00			25.6	129	0.1	6.5	2.0	23.9	0.93
6/27/2004	19:15:00			25.6	126	0.1	6.5	2.1	26.2	0.93
6/27/2004	19:30:00			25.6	125	0.1	6.5	2.1	25.6	0.92
6/27/2004	19:45:00			25.6	127	0.1	6.5	1.9	22.9	0.92
6/27/2004	20:00:00			25.6	126	0.1	6.5	2.0	24.0	0.92
6/27/2004	20:15:00			25.5	125	0.1	6.5	1.9	23.2	0.93
6/27/2004	20:30:00			25.5	126	0.1	6.5	1.8	22.5	0.93
6/27/2004	20:45:00			25.5	125	0.1	6.5	1.8	22.3	0.93
6/27/2004	21:00:00			25.4	126	0.1	6.5	1.9	22.6	0.93
6/27/2004	21:15:00			25.4	128	0.1	6.5	1.7	21.2	0.93
6/27/2004	21:30:00			25.4	128	0.1	6.5	1.8	21.4	0.93
6/27/2004	21:45:00			25.4	129	0.1	6.5	1.7	20.5	0.93
6/27/2004	22:00:00			25.4	129	0.1	6.5	1.6	19.9	0.93
6/27/2004	22:15:00			25.3	128	0.1	6.5	1.7	20.6	0.93
6/27/2004	22:30:00			25.3	129	0.1	6.5	1.6	19.7	0.93
6/27/2004	22:45:00			25.3	128	0.1	6.5	1.7	20.2	0.93
6/27/2004	23:00:00			25.2	127	0.1	6.5	1.7	20.1	0.93
6/27/2004	23:15:00			25.2	128	0.1	6.5	1.6	19.4	0.93

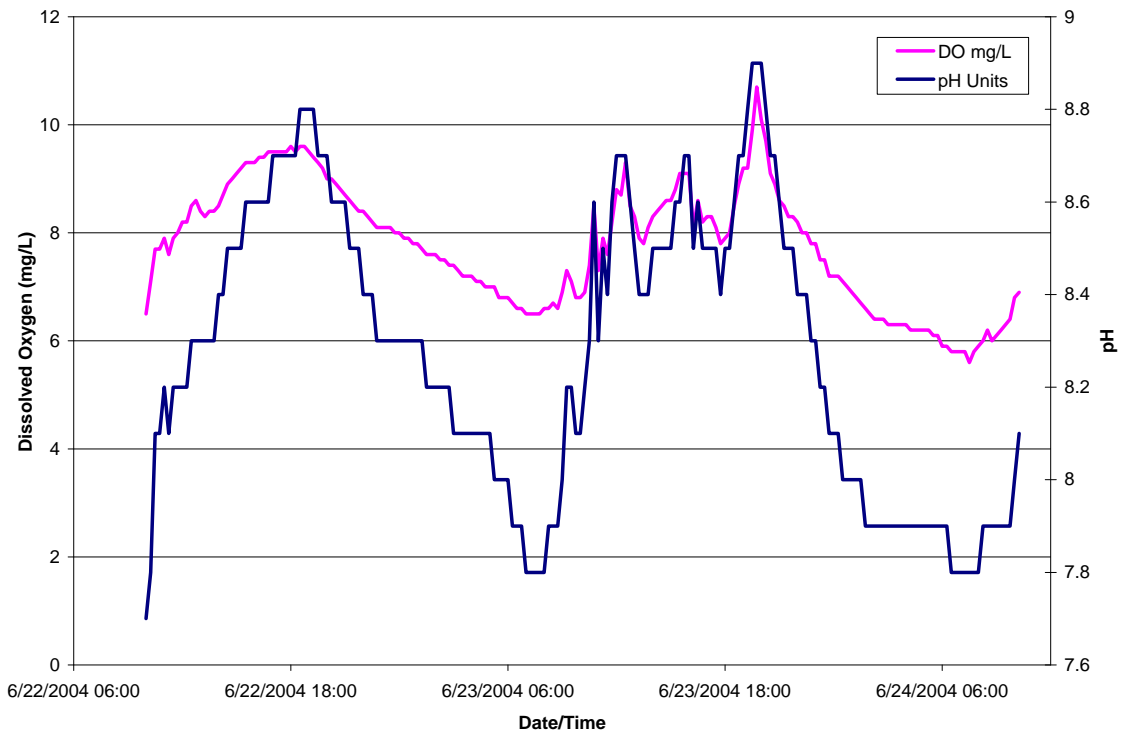
6/27/2004	23:30:00			25.2	128	0.1	6.5	1.6	19.8	0.92
6/27/2004	23:45:00			25.2	128	0.1	6.5	1.7	20.0	0.93
6/28/2004	0:00:00			25.2	128	0.1	6.5	1.6	19.5	0.92
6/28/2004	0:15:00			25.2	128	0.1	6.5	1.6	19.7	0.93
6/28/2004	0:30:00			25.1	128	0.1	6.5	1.7	20.0	0.93
6/28/2004	0:45:00			25.1	127	0.1	6.5	1.6	19.8	0.92
6/28/2004	1:00:00			25.1	127	0.1	6.5	1.7	20.2	0.93
6/28/2004	1:15:00			25.1	127	0.1	6.5	1.6	19.9	0.93
6/28/2004	1:30:00			25.0	127	0.1	6.5	1.7	20.5	0.93
6/28/2004	1:45:00			25.0	126	0.1	6.5	1.7	20.8	0.93
6/28/2004	2:00:00			25.0	126	0.1	6.5	1.7	20.8	0.92
6/28/2004	2:15:00			25.0	127	0.1	6.5	1.7	20.5	0.92
6/28/2004	2:30:00			25.0	128	0.1	6.5	1.7	21.1	0.93
6/28/2004	2:45:00			25.0	127	0.1	6.5	1.8	21.4	0.93
6/28/2004	3:00:00			25.0	126	0.1	6.5	1.8	21.5	0.92
6/28/2004	3:15:00			25.0	128	0.1	6.5	1.8	21.2	0.92
6/28/2004	3:30:00			25.0	128	0.1	6.5	1.8	21.3	0.92
6/28/2004	3:45:00			24.9	127	0.1	6.5	1.8	21.9	0.92
6/28/2004	4:00:00			24.9	127	0.1	6.5	1.8	22.2	0.92
6/28/2004	4:15:00			24.9	126	0.1	6.5	1.9	22.9	0.92
6/28/2004	4:30:00			24.9	127	0.1	6.5	1.9	22.7	0.92
6/28/2004	4:45:00			24.9	128	0.1	6.5	1.9	22.5	0.92
6/28/2004	5:00:00			24.9	128	0.1	6.5	1.9	22.7	0.92
6/28/2004	5:15:00			24.8	125	0.1	6.5	1.9	23.0	0.92
6/28/2004	5:30:00			24.8	126	0.1	6.5	2.0	23.7	0.92
6/28/2004	5:45:00			24.8	128	0.1	6.5	2.0	23.8	0.92
6/28/2004	6:00:00			24.8	127	0.1	6.5	2.0	23.7	0.92
6/28/2004	6:15:00			24.8	127	0.1	6.5	2.0	24.0	0.92
6/28/2004	6:30:00			24.8	128	0.1	6.5	2.0	24.3	0.92
6/28/2004	6:45:00			24.8	128	0.1	6.5	2.0	24.3	0.92
6/28/2004	7:00:00			24.7	127	0.1	6.5	2.0	24.4	0.92
6/28/2004	7:15:00			24.8	128	0.1	6.5	2.1	24.9	0.92
6/28/2004	7:30:00			24.8	128	0.1	6.5	2.1	24.9	0.91
6/28/2004	7:45:00			24.8	128	0.1	6.5	2.1	25.1	0.91
6/28/2004	8:00:00			24.7	126	0.1	6.5	2.1	24.9	0.91
6/28/2004	8:15:00			24.7	128	0.1	6.5	2.1	25.6	0.91
6/28/2004	8:30:00			24.8	128	0.1	6.5	2.2	26.1	0.91
6/28/2004	8:45:00			24.8	128	0.1	6.5	2.1	25.5	0.91
6/28/2004	9:00:00			24.8	129	0.1	6.5	2.2	26.4	0.91
6/28/2004	9:15:00			24.8	129	0.1	6.5	2.2	26.5	0.91
6/28/2004	9:30:00			24.9	129	0.1	6.5	2.2	26.5	0.91
6/28/2004	9:45:00			24.9	128	0.1	6.5	2.2	26.8	0.91
6/28/2004	10:00:00			24.9	127	0.1	6.5	2.2	26.7	0.91
6/28/2004	10:15:00			25.0	127	0.1	6.5	2.2	27.1	0.91
6/28/2004	10:30:00			25.0	127	0.1	6.5	2.3	27.2	0.91
6/28/2004	10:45:00			25.1	127	0.1	6.5	2.2	26.6	0.91
6/28/2004	11:00:00			25.1	127	0.1	6.5	2.3	27.5	0.91
6/28/2004	11:15:00			25.2	128	0.1	6.5	2.3	27.5	0.91

6/28/2004	11:30:00			25.3	129	0.1	6.5	2.3	27.7	0.91
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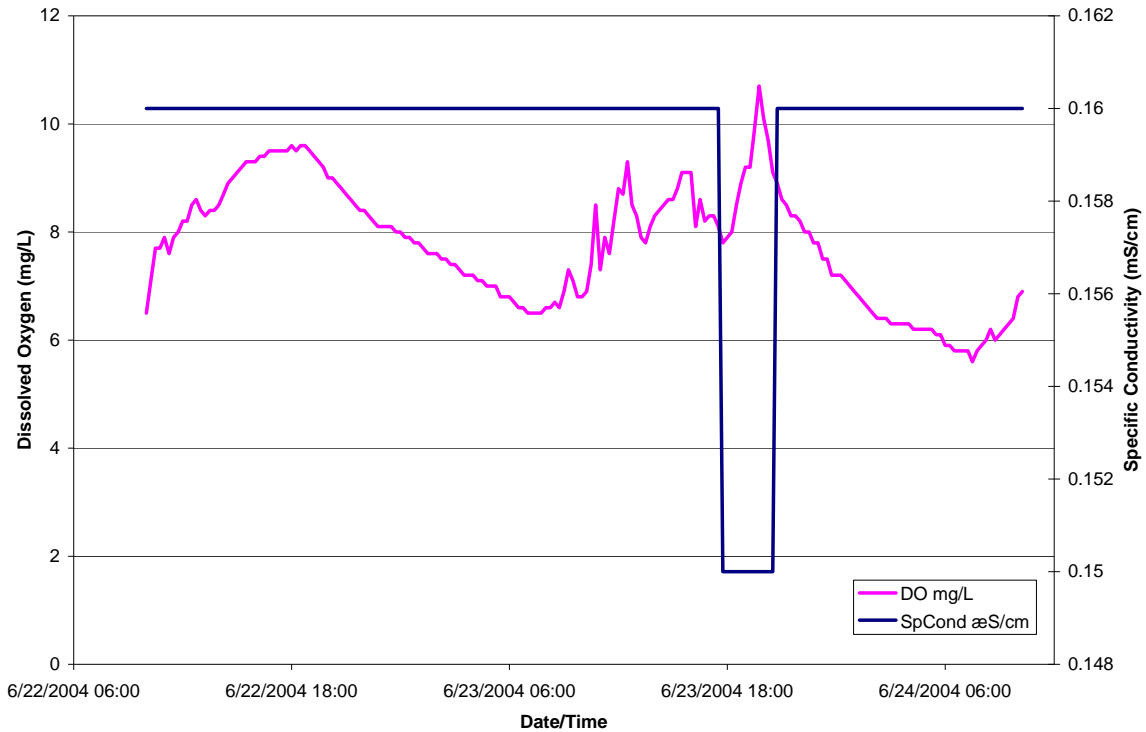
LV2: DO & Temp v. Date/Time



LV2: DO & pH v. Date/Time



LV2: DO & SpCond v. Date/Time



MiniSonde 4a 39895

Log File Name : LV2

Setup Date (MMDDYY) : 062104

Setup Time (HHMMSS) : 102838

Starting Date (MMDDYY) : 062104

Starting Time (HHMMSS) : 110000

Stopping Date (MMDDYY) : 062404

Stopping Time (HHMMSS) : 235959

Interval (HHMMSS) : 001500

Sensor warmup (HHMMSS) : 000200

Circltr warmup (HHMMSS) : 000200

Summary:

06/23/2004 00:00:00 to 06/24/2004 00:00:00

	Temp	pH	SpCond	Sal	DO%	DO	Dep10
	øC	Units	mS/cm	ppt	Sat	mg/l	meters
Average	29.84	8.32	0.16	0.07	103.64	7.85	0.61
Min	29.37	7.78	0.16	0.07	84.60	6.46	0.57
Max	30.44	8.93	0.16	0.07	141.90	10.67	0.64

Date	Time	Temp	pH	SpCond	Sal	DO%	DO	Dep10
MMDDYY	HHMMSS	øC	Units	mS/cm	ppt	Sat	mg/l	meters
6/22/2004	10:00:00	30.0	7.7	0.1625	0.1	85.6	6.5	0.59
6/22/2004	10:15:00	30.2	7.8	0.1627	0.1	93.8	7.1	0.58
6/22/2004	10:30:00	30.3	8.1	0.1627	0.1	102.1	7.7	0.59
6/22/2004	10:45:00	30.3	8.1	0.1627	0.1	102.3	7.7	0.58
6/22/2004	11:00:00	30.4	8.2	0.1626	0.1	105.6	7.9	0.59
6/22/2004	11:15:00	30.4	8.1	0.1624	0.1	101.1	7.6	0.59
6/22/2004	11:30:00	30.5	8.2	0.1622	0.1	105.8	7.9	0.57
6/22/2004	11:45:00	30.5	8.2	0.1625	0.1	106.4	8.0	0.60

6/22/2004	12:00:00			30.6	8.2	0.1623	0.1	109.4	8.2	0.63
6/22/2004	12:15:00			30.6	8.2	0.1623	0.1	109.3	8.2	0.58
6/22/2004	12:30:00			30.7	8.3	0.1621	0.1	113.2	8.5	0.58
6/22/2004	12:45:00			30.7	8.3	0.162	0.1	114.7	8.6	0.62
6/22/2004	13:00:00			30.7	8.3	0.1618	0.1	111.9	8.4	0.66
6/22/2004	13:15:00			30.7	8.3	0.162	0.1	111.0	8.3	0.60
6/22/2004	13:30:00			30.7	8.3	0.162	0.1	112.5	8.4	0.64
6/22/2004	13:45:00			30.7	8.3	0.1618	0.1	112.2	8.4	0.63
6/22/2004	14:00:00			30.7	8.4	0.1617	0.1	113.7	8.5	0.61
6/22/2004	14:15:00			30.7	8.4	0.1618	0.1	116.7	8.7	0.60
6/22/2004	14:30:00			30.7	8.5	0.1617	0.1	119.4	8.9	0.59
6/22/2004	14:45:00			30.7	8.5	0.1616	0.1	121.0	9.0	0.63
6/22/2004	15:00:00			30.8	8.5	0.1617	0.1	122.2	9.1	0.60
6/22/2004	15:15:00			30.8	8.5	0.1616	0.1	123.3	9.2	0.64
6/22/2004	15:30:00			30.8	8.6	0.1616	0.1	125.3	9.3	0.64
6/22/2004	15:45:00			30.8	8.6	0.1618	0.1	125.4	9.3	0.65
6/22/2004	16:00:00			30.9	8.6	0.1618	0.1	125.5	9.3	0.62
6/22/2004	16:15:00			30.9	8.6	0.1617	0.1	126.0	9.4	0.63
6/22/2004	16:30:00			30.9	8.6	0.1616	0.1	126.1	9.4	0.63
6/22/2004	16:45:00			30.9	8.6	0.1615	0.1	127.2	9.5	0.62
6/22/2004	17:00:00			31.0	8.7	0.1616	0.1	128.2	9.5	0.62
6/22/2004	17:15:00			31.0	8.7	0.1615	0.1	127.5	9.5	0.62
6/22/2004	17:30:00			30.9	8.7	0.1614	0.1	127.3	9.5	0.64
6/22/2004	17:45:00			31.0	8.7	0.1612	0.1	128.1	9.5	0.65
6/22/2004	18:00:00			31.0	8.7	0.161	0.1	128.8	9.6	0.60
6/22/2004	18:15:00			30.9	8.7	0.1609	0.1	128.0	9.5	0.62
6/22/2004	18:30:00			30.9	8.8	0.161	0.1	128.5	9.6	0.59
6/22/2004	18:45:00			30.9	8.8	0.1608	0.1	128.6	9.6	0.63
6/22/2004	19:00:00			30.9	8.8	0.1608	0.1	127.0	9.5	0.63
6/22/2004	19:15:00			30.8	8.8	0.1607	0.1	126.1	9.4	0.63
6/22/2004	19:30:00			30.8	8.7	0.161	0.1	124.8	9.3	0.64
6/22/2004	19:45:00			30.8	8.7	0.1613	0.1	122.8	9.2	0.61
6/22/2004	20:00:00			30.7	8.7	0.1618	0.1	121.1	9.0	0.64
6/22/2004	20:15:00			30.7	8.6	0.162	0.1	120.0	9.0	0.64
6/22/2004	20:30:00			30.6	8.6	0.1621	0.1	118.7	8.9	0.62
6/22/2004	20:45:00			30.6	8.6	0.1623	0.1	117.6	8.8	0.62
6/22/2004	21:00:00			30.6	8.6	0.1625	0.1	116.1	8.7	0.62
6/22/2004	21:15:00			30.6	8.5	0.1628	0.1	115.1	8.6	0.62
6/22/2004	21:30:00			30.5	8.5	0.1631	0.1	113.3	8.5	0.61
6/22/2004	21:45:00			30.5	8.5	0.1631	0.1	112.7	8.4	0.62
6/22/2004	22:00:00			30.5	8.4	0.1635	0.1	111.9	8.4	0.63
6/22/2004	22:15:00			30.5	8.4	0.1636	0.1	110.6	8.3	0.61
6/22/2004	22:30:00			30.4	8.4	0.1637	0.1	109.8	8.2	0.62
6/22/2004	22:45:00			30.4	8.3	0.1641	0.1	107.8	8.1	0.61
6/22/2004	23:00:00			30.4	8.3	0.164	0.1	108.1	8.1	0.61
6/22/2004	23:15:00			30.4	8.3	0.164	0.1	107.5	8.1	0.60
6/22/2004	23:30:00			30.4	8.3	0.164	0.1	107.4	8.1	0.60
6/22/2004	23:45:00			30.3	8.3	0.1638	0.1	106.4	8.0	0.60

6/23/2004	0:00:00			30.3	8.3	0.1637	0.1	105.9	8.0	0.60
6/23/2004	0:15:00			30.3	8.3	0.1637	0.1	105.4	7.9	0.61
6/23/2004	0:30:00			30.2	8.3	0.1635	0.1	104.7	7.9	0.61
6/23/2004	0:45:00			30.2	8.3	0.1636	0.1	104.0	7.8	0.61
6/23/2004	1:00:00			30.2	8.3	0.1637	0.1	103.1	7.8	0.61
6/23/2004	1:15:00			30.1	8.3	0.1636	0.1	102.6	7.7	0.61
6/23/2004	1:30:00			30.1	8.2	0.1637	0.1	101.2	7.6	0.61
6/23/2004	1:45:00			30.1	8.2	0.1637	0.1	101.3	7.6	0.61
6/23/2004	2:00:00			30.1	8.2	0.1638	0.1	100.7	7.6	0.61
6/23/2004	2:15:00			30.1	8.2	0.1639	0.1	99.8	7.5	0.61
6/23/2004	2:30:00			30.0	8.2	0.1639	0.1	98.7	7.5	0.61
6/23/2004	2:45:00			30.0	8.2	0.1639	0.1	97.9	7.4	0.61
6/23/2004	3:00:00			30.0	8.1	0.164	0.1	97.4	7.4	0.60
6/23/2004	3:15:00			30.0	8.1	0.1639	0.1	96.9	7.3	0.61
6/23/2004	3:30:00			30.0	8.1	0.164	0.1	95.8	7.2	0.60
6/23/2004	3:45:00			29.9	8.1	0.164	0.1	95.1	7.2	0.61
6/23/2004	4:00:00			29.9	8.1	0.1639	0.1	94.7	7.2	0.60
6/23/2004	4:15:00			29.9	8.1	0.1638	0.1	94.0	7.1	0.61
6/23/2004	4:30:00			29.9	8.1	0.164	0.1	93.1	7.1	0.61
6/23/2004	4:45:00			29.8	8.1	0.164	0.1	92.4	7.0	0.60
6/23/2004	5:00:00			29.8	8.1	0.1639	0.1	92.3	7.0	0.61
6/23/2004	5:15:00			29.8	8.0	0.1639	0.1	91.9	7.0	0.61
6/23/2004	5:30:00			29.7	8.0	0.164	0.1	90.1	6.8	0.61
6/23/2004	5:45:00			29.7	8.0	0.1641	0.1	89.4	6.8	0.61
6/23/2004	6:00:00			29.7	8.0	0.1643	0.1	88.8	6.8	0.60
6/23/2004	6:15:00			29.6	7.9	0.1643	0.1	88.1	6.7	0.60
6/23/2004	6:30:00			29.6	7.9	0.1645	0.1	87.3	6.6	0.63
6/23/2004	6:45:00			29.5	7.9	0.1648	0.1	86.5	6.6	0.61
6/23/2004	7:00:00			29.4	7.8	0.1648	0.1	85.4	6.5	0.62
6/23/2004	7:15:00			29.4	7.8	0.1649	0.1	85.0	6.5	0.58
6/23/2004	7:30:00			29.4	7.8	0.1649	0.1	84.6	6.5	0.60
6/23/2004	7:45:00			29.4	7.8	0.1649	0.1	84.6	6.5	0.62
6/23/2004	8:00:00			29.4	7.8	0.1647	0.1	85.7	6.6	0.60
6/23/2004	8:15:00			29.4	7.9	0.1645	0.1	86.4	6.6	0.62
6/23/2004	8:30:00			29.4	7.9	0.1639	0.1	87.7	6.7	0.60
6/23/2004	8:45:00			29.4	7.9	0.1637	0.1	86.9	6.6	0.60
6/23/2004	9:00:00			29.4	8.0	0.1632	0.1	89.8	6.9	0.60
6/23/2004	9:15:00			29.5	8.2	0.1627	0.1	95.3	7.3	0.61
6/23/2004	9:30:00			29.5	8.2	0.1626	0.1	92.5	7.1	0.60
6/23/2004	9:45:00			29.5	8.1	0.1627	0.1	89.8	6.8	0.60
6/23/2004	10:00:00			29.5	8.1	0.1625	0.1	88.7	6.8	0.59
6/23/2004	10:15:00			29.5	8.2	0.1624	0.1	90.5	6.9	0.60
6/23/2004	10:30:00			29.6	8.3	0.1619	0.1	97.3	7.4	0.60
6/23/2004	10:45:00			29.8	8.6	0.1612	0.1	112.1	8.5	0.60
6/23/2004	11:00:00			29.6	8.3	0.162	0.1	95.9	7.3	0.60
6/23/2004	11:15:00			29.7	8.5	0.1614	0.1	103.7	7.9	0.60
6/23/2004	11:30:00			29.8	8.4	0.1614	0.1	100.3	7.6	0.59
6/23/2004	11:45:00			30.0	8.6	0.1609	0.1	108.9	8.2	0.60

6/23/2004	12:00:00			30.1	8.7	0.1607	0.1	117.1	8.8	0.59
6/23/2004	12:15:00			30.2	8.7	0.1609	0.1	115.7	8.7	0.59
6/23/2004	12:30:00			30.4	8.7	0.1607	0.1	123.4	9.3	0.59
6/23/2004	12:45:00			30.1	8.6	0.1611	0.1	112.2	8.5	0.59
6/23/2004	13:00:00			30.0	8.5	0.1612	0.1	110.4	8.3	0.63
6/23/2004	13:15:00			29.8	8.4	0.1609	0.1	104.7	7.9	0.57
6/23/2004	13:30:00			29.8	8.4	0.1613	0.1	102.7	7.8	0.60
6/23/2004	13:45:00			29.8	8.4	0.1611	0.1	106.4	8.1	0.60
6/23/2004	14:00:00			29.9	8.5	0.161	0.1	109.8	8.3	0.60
6/23/2004	14:15:00			29.9	8.5	0.1607	0.1	111.5	8.4	0.60
6/23/2004	14:30:00			30.0	8.5	0.1607	0.1	112.7	8.5	0.60
6/23/2004	14:45:00			30.0	8.5	0.1607	0.1	113.4	8.6	0.61
6/23/2004	15:00:00			30.1	8.5	0.1607	0.1	114.2	8.6	0.60
6/23/2004	15:15:00			30.1	8.6	0.1606	0.1	116.7	8.8	0.61
6/23/2004	15:30:00			30.0	8.6	0.1605	0.1	120.1	9.1	0.60
6/23/2004	15:45:00			30.1	8.7	0.1605	0.1	120.4	9.1	0.60
6/23/2004	16:00:00			30.1	8.7	0.1605	0.1	120.2	9.1	0.60
6/23/2004	16:15:00			29.9	8.5	0.1609	0.1	106.4	8.1	0.61
6/23/2004	16:30:00			30.0	8.6	0.1604	0.1	114.2	8.6	0.60
6/23/2004	16:45:00			29.9	8.5	0.1607	0.1	108.8	8.2	0.60
6/23/2004	17:00:00			30.0	8.5	0.1601	0.1	110.4	8.3	0.60
6/23/2004	17:15:00			30.0	8.5	0.1604	0.1	109.6	8.3	0.61
6/23/2004	17:30:00			30.0	8.5	0.1608	0.1	106.7	8.1	0.60
6/23/2004	17:45:00			30.0	8.4	0.1598	0.1	103.4	7.8	0.61
6/23/2004	18:00:00			30.0	8.5	0.1597	0.1	104.5	7.9	0.61
6/23/2004	18:15:00			30.0	8.5	0.1591	0.1	105.2	8.0	0.61
6/23/2004	18:30:00			30.1	8.6	0.1588	0.1	111.9	8.5	0.61
6/23/2004	18:45:00			30.1	8.7	0.1588	0.1	118.3	8.9	0.61
6/23/2004	19:00:00			30.2	8.7	0.1588	0.1	121.5	9.2	0.61
6/23/2004	19:15:00			30.2	8.8	0.1589	0.1	122.1	9.2	0.61
6/23/2004	19:30:00			30.3	8.9	0.159	0.1	132.0	9.9	0.61
6/23/2004	19:45:00			30.3	8.9	0.1592	0.1	141.9	10.7	0.64
6/23/2004	20:00:00			30.2	8.9	0.1595	0.1	133.8	10.1	0.63
6/23/2004	20:15:00			30.0	8.8	0.1596	0.1	129.0	9.7	0.61
6/23/2004	20:30:00			29.9	8.7	0.1598	0.1	120.7	9.1	0.62
6/23/2004	20:45:00			29.9	8.7	0.16	0.1	118.0	8.9	0.62
6/23/2004	21:00:00			29.8	8.6	0.16	0.1	113.6	8.6	0.62
6/23/2004	21:15:00			29.8	8.5	0.1601	0.1	112.2	8.5	0.62
6/23/2004	21:30:00			29.7	8.5	0.1603	0.1	109.5	8.3	0.61
6/23/2004	21:45:00			29.7	8.5	0.1605	0.1	108.9	8.3	0.62
6/23/2004	22:00:00			29.7	8.4	0.1603	0.1	108.1	8.2	0.62
6/23/2004	22:15:00			29.6	8.4	0.1607	0.1	105.6	8.0	0.62
6/23/2004	22:30:00			29.6	8.4	0.1608	0.1	104.6	8.0	0.62
6/23/2004	22:45:00			29.6	8.3	0.1608	0.1	103.0	7.8	0.62
6/23/2004	23:00:00			29.5	8.3	0.1608	0.1	101.8	7.8	0.61
6/23/2004	23:15:00			29.5	8.2	0.161	0.1	98.9	7.5	0.61
6/23/2004	23:30:00			29.5	8.2	0.161	0.1	97.8	7.5	0.62
6/23/2004	23:45:00			29.5	8.1	0.1614	0.1	94.8	7.2	0.62

6/24/2004	0:00:00			29.4	8.1	0.1611	0.1	94.4	7.2	0.62
6/24/2004	0:15:00			29.4	8.1	0.1613	0.1	94.1	7.2	0.62
6/24/2004	0:30:00			29.4	8.0	0.1613	0.1	92.8	7.1	0.61
6/24/2004	0:45:00			29.4	8.0	0.1613	0.1	91.5	7.0	0.62
6/24/2004	1:00:00			29.3	8.0	0.1616	0.1	90.4	6.9	0.63
6/24/2004	1:15:00			29.3	8.0	0.1615	0.1	89.4	6.8	0.61
6/24/2004	1:30:00			29.3	8.0	0.1616	0.1	88.0	6.7	0.63
6/24/2004	1:45:00			29.3	7.9	0.1616	0.1	86.8	6.6	0.62
6/24/2004	2:00:00			29.2	7.9	0.1617	0.1	85.4	6.5	0.63
6/24/2004	2:15:00			29.2	7.9	0.1618	0.1	84.2	6.4	0.62
6/24/2004	2:30:00			29.2	7.9	0.1619	0.1	83.7	6.4	0.62
6/24/2004	2:45:00			29.2	7.9	0.1619	0.1	83.1	6.4	0.61
6/24/2004	3:00:00			29.2	7.9	0.1617	0.1	82.8	6.3	0.62
6/24/2004	3:15:00			29.2	7.9	0.1619	0.1	82.0	6.3	0.61
6/24/2004	3:30:00			29.2	7.9	0.162	0.1	81.9	6.3	0.62
6/24/2004	3:45:00			29.1	7.9	0.1618	0.1	81.6	6.3	0.61
6/24/2004	4:00:00			29.1	7.9	0.1618	0.1	81.6	6.3	0.61
6/24/2004	4:15:00			29.1	7.9	0.1618	0.1	80.9	6.2	0.61
6/24/2004	4:30:00			29.1	7.9	0.1619	0.1	80.4	6.2	0.61
6/24/2004	4:45:00			29.1	7.9	0.1618	0.1	80.7	6.2	0.61
6/24/2004	5:00:00			29.1	7.9	0.1619	0.1	80.7	6.2	0.61
6/24/2004	5:15:00			29.0	7.9	0.1619	0.1	80.4	6.2	0.61
6/24/2004	5:30:00			29.0	7.9	0.1619	0.1	79.9	6.1	0.61
6/24/2004	5:45:00			29.0	7.9	0.162	0.1	78.9	6.1	0.61
6/24/2004	6:00:00			29.0	7.9	0.1618	0.1	77.2	5.9	0.62
6/24/2004	6:15:00			29.0	7.9	0.162	0.1	76.9	5.9	0.61
6/24/2004	6:30:00			29.0	7.8	0.162	0.1	75.3	5.8	0.61
6/24/2004	6:45:00			29.0	7.8	0.162	0.1	74.9	5.8	0.61
6/24/2004	7:00:00			29.0	7.8	0.1621	0.1	75.4	5.8	0.61
6/24/2004	7:15:00			29.0	7.8	0.1618	0.1	75.1	5.8	0.61
6/24/2004	7:30:00			29.0	7.8	0.162	0.1	72.2	5.6	0.61
6/24/2004	7:45:00			28.9	7.8	0.162	0.1	75.6	5.8	0.62
6/24/2004	8:00:00			28.9	7.8	0.162	0.1	76.6	5.9	0.62
6/24/2004	8:15:00			28.9	7.9	0.1619	0.1	78.0	6.0	0.62
6/24/2004	8:30:00			29.0	7.9	0.1617	0.1	80.3	6.2	0.61
6/24/2004	8:45:00			29.0	7.9	0.1617	0.1	78.3	6.0	0.61
6/24/2004	9:00:00			29.0	7.9	0.1615	0.1	79.0	6.1	0.61
6/24/2004	9:15:00			29.0	7.9	0.1614	0.1	80.0	6.2	0.61
6/24/2004	9:30:00			29.0	7.9	0.1609	0.1	82.4	6.3	0.60
6/24/2004	9:45:00			29.1	7.9	0.1609	0.1	83.7	6.4	0.61
6/24/2004	10:00:00			29.1	8.0	0.161	0.1	88.9	6.8	0.60
6/24/2004	10:15:00			29.1	8.1	0.1612	0.1	90.3	6.9	0.61

Appendix F6 – BOD Calculations

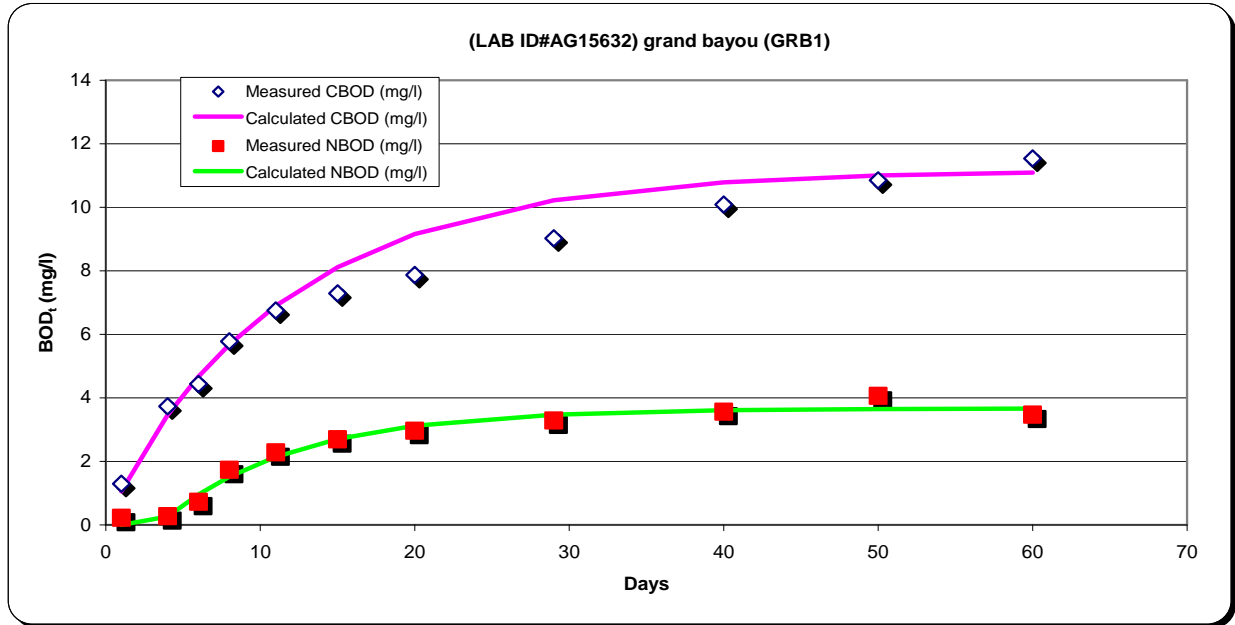
Grand Bayou

		Total BOD data															
Item No.	Sample No.	Initial	Daily analysis start dates:														
		06/24/04	06/25/04	06/28/04	06/30/04	07/02/04	07/05/04	07/09/04	07/14/04	07/23/04	08/03/04	08/13/04	08/23/04				
1	(LAB ID#AG15783) bayou alcide (BA1)		0.70	1.90	2.30	2.80	3.50	4.10	4.70	5.50	6.20	6.70	7.30				
2	(LAB ID#AG15754) bayou croix (BYC1)		0.80	2.20	2.70	3.10	3.90	4.70	5.50	6.60	7.60	8.10	8.60				
3	(LAB ID#AG15766) bayou come (BYCO1)		0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.40	0.20	0.30	0.30				
4	(LAB ID#AG15724) bayou sigur (BYS1)		1.70	5.00	6.60	8.40	10.90	12.30	13.60	15.40	16.80	17.80	18.60				
5	(LAB ID#AG15664) east grand bayou (EGB1)		0.70	2.00	2.40	3.20	4.10	4.70	5.30	6.30	7.10	7.60	8.20				
6	(LAB ID#AG15632) grand bayou (GRB1)		1.30	4.00	5.40	7.30	8.90	10.00	11.00	12.50	13.70	14.50	15.20				
7	(LAB ID#AG15788) little bayou long (LBL1)		0.70	1.90	2.20	2.50	3.20	3.90	4.60	5.50	6.10	6.60	7.10				
8	(LAB ID#AG15690) lake verret (LV1)		0.30	0.40	0.40	0.20	0.20	0.10	0.20	0.50	0.10	0.30	0.40				
9	(LAB ID#AG15729) muddy bayou (MB1)		0.30	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.60	0.50	0.60				
10	(LAB ID#AG15762) point source (PST1)		1.00	3.40	4.50	5.70	6.80	7.80	8.70	10.20	11.60	12.40	13.10				
11	(LAB ID#AG15758) bayou croix (BYC2)		1.20	3.40	4.40	5.30	6.90	8.20	9.40	10.80	12.00	12.80	13.50				
12	(LAB ID#AG15637) grand bayou (GRB2)		1.10	3.30	4.60	5.90	7.00	8.10	9.10	10.40	11.70	12.60	13.40				
13	(LAB ID#AG15779) unnamed canal (UNC2)		0.80	2.10	2.50	2.90	3.60	4.30	4.90	5.90	6.40	6.90	7.30				
14	(LAB ID#AG15641) grand bayou (GRB3)		0.80	2.50	3.60	5.00	6.10	6.90	7.70	9.00	10.10	11.10	11.90				
15	(LAB ID#AG15646) grand bayou (GRB4)		1.00	3.40	4.90	6.50	7.70	8.70	9.70	11.00	12.20	13.10	13.90				
16	(LAB ID#AG15651) grand bayou (GRB5)		0.60	1.60	2.00	2.50	3.30	3.90	4.50	5.30	6.10	6.60	7.10				
17	(LAB ID#AG15659) grand bayou (GRB6)		0.40	1.50	2.00	2.60	3.50	4.10	4.70	5.60	6.60	7.20	7.70				
18	(LAB ID#AG15668) grand bayou (GRB7)		0.50	1.60	1.90	2.40	3.20	3.70	4.30	5.10	6.00	6.50	7.00				
19	(LAB ID#AG15673) grand bayou (GRB8)		0.40	1.50	1.80	2.20	3.00	3.60	4.10	5.00	5.80	6.30	6.80				
20	(LAB ID#AG15677) grand bayou (GRB9)		0.50	1.90	2.40	3.00	3.80	4.50	5.10	6.20	7.10	7.50	8.10				

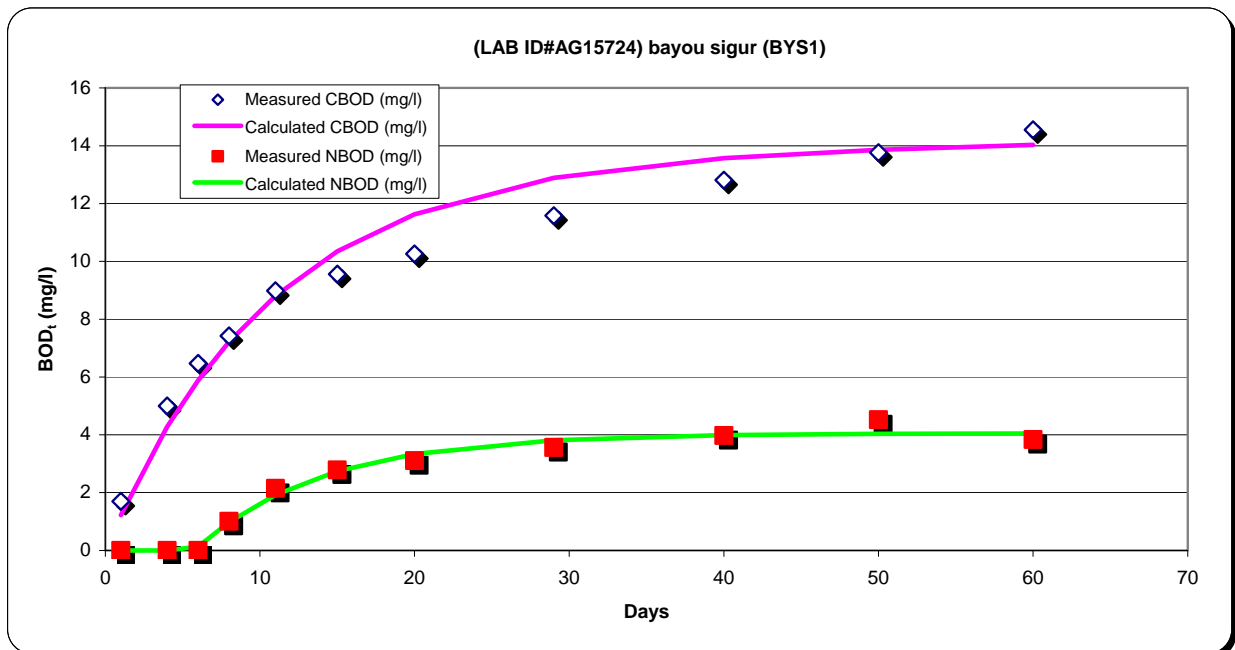
		(NO ₂ +NO ₃) as Nitrogen data (mg/l)															
Item No.	Sample No.	Initial	Daily analysis start dates:														
		06/24/04	06/25/04	06/28/04	06/30/04	07/02/04	07/05/04	07/09/04	07/14/04	07/23/04	08/03/04	08/13/04	08/23/04				
1	(LAB ID#AG15783) bayou alcide (BA1)	0.00	0.00	0.00	0.00	0.00	0.09	0.16	0.18	0.23	0.25	0.30	0.25				
2	(LAB ID#AG15754) bayou croix (BYC1)	0.00	0.00	0.00	0.00	0.00	0.06	0.12	0.18	0.22	0.23	0.34	0.29				
3	(LAB ID#AG15766) bayou come (BYCO1)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
4	(LAB ID#AG15724) bayou sigur (BYS1)	0.00	0.00	0.00	0.00	0.22	0.47	0.61	0.68	0.78	0.87	0.99	0.84				
5	(LAB ID#AG15664) east grand bayou (EGB1)	0.00	0.00	0.00	0.00	0.00	0.09	0.16	0.17	0.23	0.29	0.30	0.26				
6	(LAB ID#AG15632) grand bayou (GRB1)	0.00	0.05	0.06	0.16	0.38	0.50	0.59	0.65	0.72	0.78	0.89	0.76				
7	(LAB ID#AG15788) little bayou long (LBL1)	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.13	0.16	0.20	0.22	0.20				
8	(LAB ID#AG15690) lake verret (LV1)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
9	(LAB ID#AG15729) muddy bayou (MB1)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
10	(LAB ID#AG15762) point source (PST1)	0.00	0.00	0.00	0.00	0.11	0.22	0.29	0.30	0.38	0.46	0.51	0.43				
11	(LAB ID#AG15758) bayou croix (BYC2)	0.00	0.00	0.00	0.00	0.05	0.21	0.34	0.40	0.48	0.52	0.61	0.51				
12	(LAB ID#AG15637) grand bayou (GRB2)	0.00	0.00	0.00	0.08	0.21	0.29	0.36	0.44	0.48	0.53	0.59	0.51				
13	(LAB ID#AG15779) unnamed canal (UNC2)	0.00	0.00	0.00	0.00	0.00	0.08	0.14	0.19	0.25	0.28	0.32	0.28				
14	(LAB ID#AG15641) grand bayou (GRB3)	0.00	0.00	0.00	0.06	0.23	0.31	0.35	0.40	0.47	0.52	0.62	0.51				
15	(LAB ID#AG15646) grand bayou (GRB4)	0.00	0.00	0.00	0.12	0.26	0.34	0.38	0.44	0.49	0.56	0.66	0.54				
16	(LAB ID#AG15651) grand bayou (GRB5)	0.00	0.00	0.00	0.00	0.00	0.09	0.15	0.18	0.22	0.25	0.28	0.26				
17	(LAB ID#AG15659) grand bayou (GRB6)	0.00	0.00	0.00	0.00	0.05	0.13	0.17	0.20	0.24	0.27	0.32	0.27				
18	(LAB ID#AG15668) grand bayou (GRB7)	0.00	0.00	0.00	0.00	0.00	0.07	0.13	0.15	0.18	0.22	0.25	0.21				
19	(LAB ID#AG15673) grand bayou (GRB8)	0.00	0.00	0.00	0.00	0.00	0.06	0.12	0.13	0.17	0.20	0.23	0.20				
20	(LAB ID#AG15677) grand bayou (GRB9)	0.00	0.00	0.00	0.00	0.00	0.10	0.16	0.17	0.23	0.26	0.30	0.25				

1 Component		NBOD		UBOD (mg/l)		Lag time (days)		CBOD	
Site ID	UBOD (mg/l)	k rate (1/day)	Lag time (days)	UBOD (mg/l)	k rate (1/day)	Lag time (days)	UBOD (mg/l)	k rate (1/day)	Lag time (days)
(LAB ID#AG15783) bayou alcide (BA1)	1.226	0.106	7.681	5.537	0.073	0.000	5.537	0.073	0.000
(LAB ID#AG15754) bayou crouix (BYC1)	1.445	0.060	7.583	6.908	0.068	0.000	6.908	0.068	0.000
(LAB ID#AG15766) bayou corne (BYCO1)	0.000	0.005	0.000	0.288	0.595	0.000	0.288	0.595	0.000
(LAB ID#AG15724) bayou sigur (BYS1)	4.052	0.122	5.736	13.411	0.095	0.000	13.411	0.095	0.000
(LAB ID#AG15664) east grand bayou (EGB1)	1.302	0.092	7.583	6.452	0.071	0.000	6.452	0.071	0.000
(LAB ID#AG15632) grand bayou (GRB1)	3.666	0.115	3.354	10.722	0.084	0.000	10.722	0.084	0.000
(LAB ID#AG15788) little bayou long (LBL1)	0.965	0.096	10.889	5.774	0.069	0.000	5.774	0.069	0.000
(LAB ID#AG15690) lake verret (LV1)	0.000	0.005	0.000	0.290	0.595	0.000	0.290	0.595	0.000
(LAB ID#AG15729) muddy bayou (MB1)	0.000	0.005	0.000	0.508	0.128	0.000	0.508	0.128	0.000
(LAB ID#AG15762) point source (PST1)	2.131	0.091	5.396	10.259	0.076	0.000	10.259	0.076	0.000
(LAB ID#AG15758) bayou crouix (BYC2)	2.514	0.108	6.903	10.311	0.077	0.000	10.311	0.077	0.000
(LAB ID#AG15637) grand bayou (GRB2)	2.487	0.104	4.035	10.158	0.073	0.000	10.158	0.073	0.000
(LAB ID#AG15779) unnamed canal (UNC2)	1.380	0.086	7.826	5.475	0.085	0.000	5.475	0.085	0.000
(LAB ID#AG15641) grand bayou (GRB3)	2.501	0.097	3.889	8.790	0.065	0.000	8.790	0.065	0.000
(LAB ID#AG15646) grand bayou (GRB4)	2.633	0.104	3.549	10.443	0.079	0.000	10.443	0.079	0.000
(LAB ID#AG15651) grand bayou (GRB5)	1.165	0.129	8.021	5.614	0.061	0.000	5.614	0.061	0.000
(LAB ID#AG15659) grand bayou (GRB6)	1.324	0.091	5.736	6.297	0.052	0.000	6.297	0.052	0.000
(LAB ID#AG15668) grand bayou (GRB7)	1.035	0.098	7.632	5.784	0.057	0.000	5.784	0.057	0.000
(LAB ID#AG15673) grand bayou (GRB8)	0.975	0.089	7.632	5.685	0.054	0.000	5.685	0.054	0.000
(LAB ID#AG15677) grand bayou (GRB9)	1.239	0.100	7.438	6.534	0.063	0.000	6.534	0.063	0.000

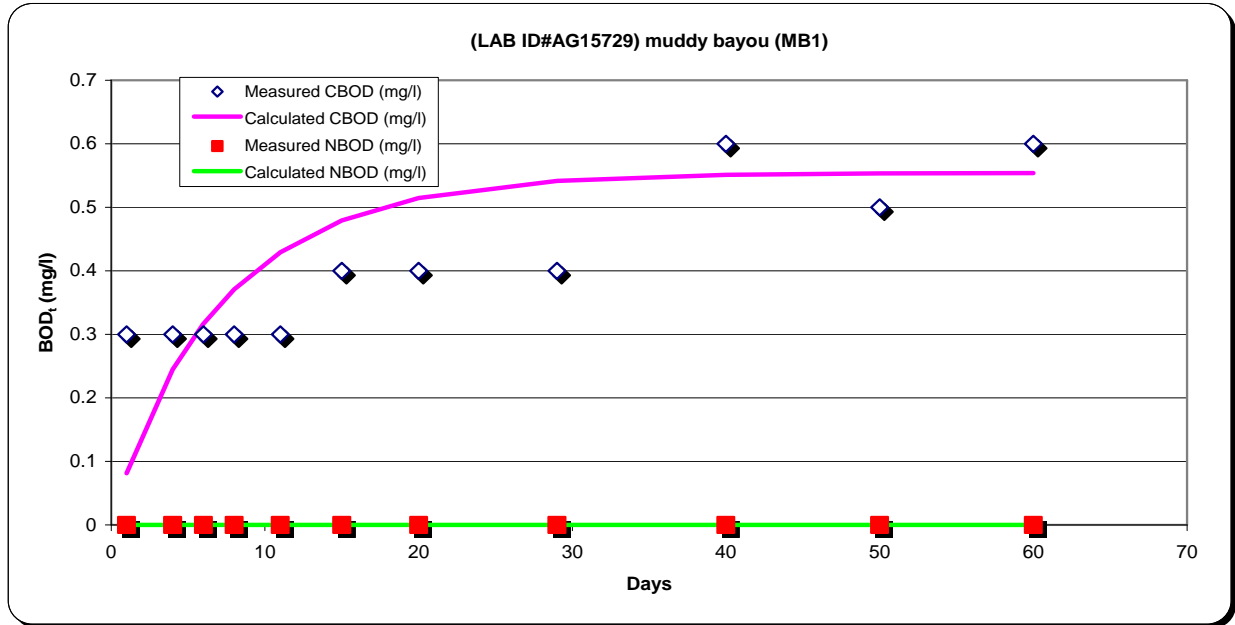
	NBOD	CBOD
UBOD (mg/l)	3.6661556	10.722357
k rate (1/day)	0.115	0.0838715
Lag time (days)	3.3541665	0



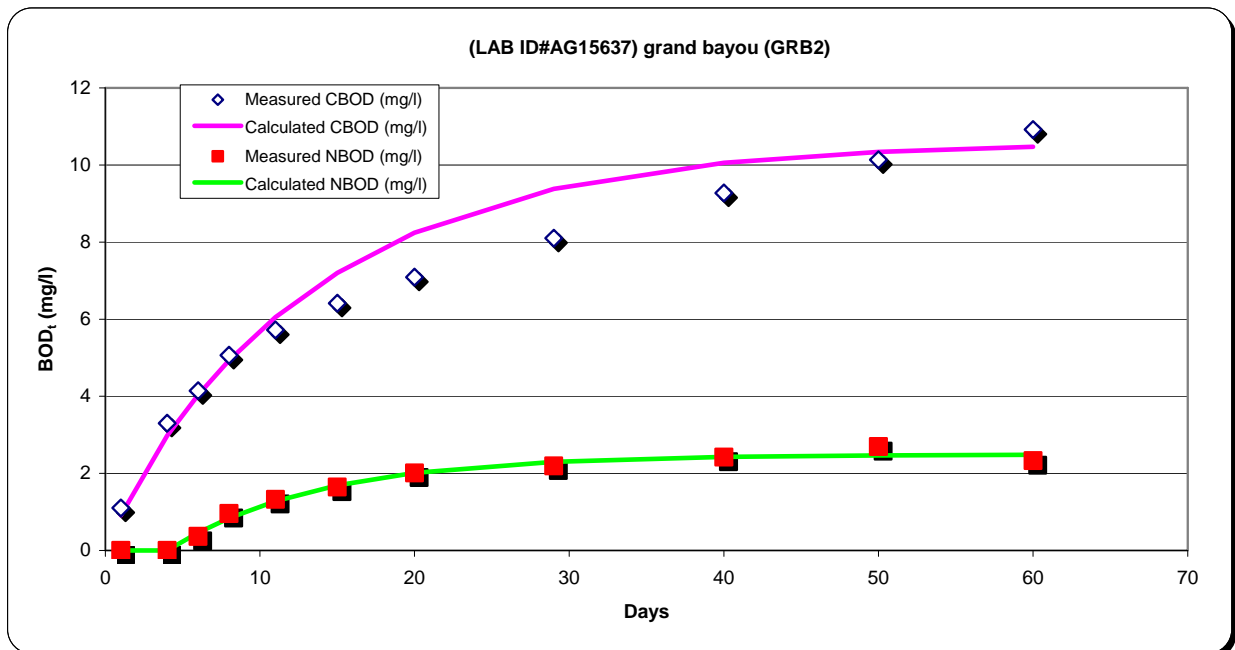
	NBOD	CBOD
UBOD (mg/l)	4.0520668	13.410775
k rate (1/day)	0.121875	0.094566
Lag time (days)	5.7361107	0



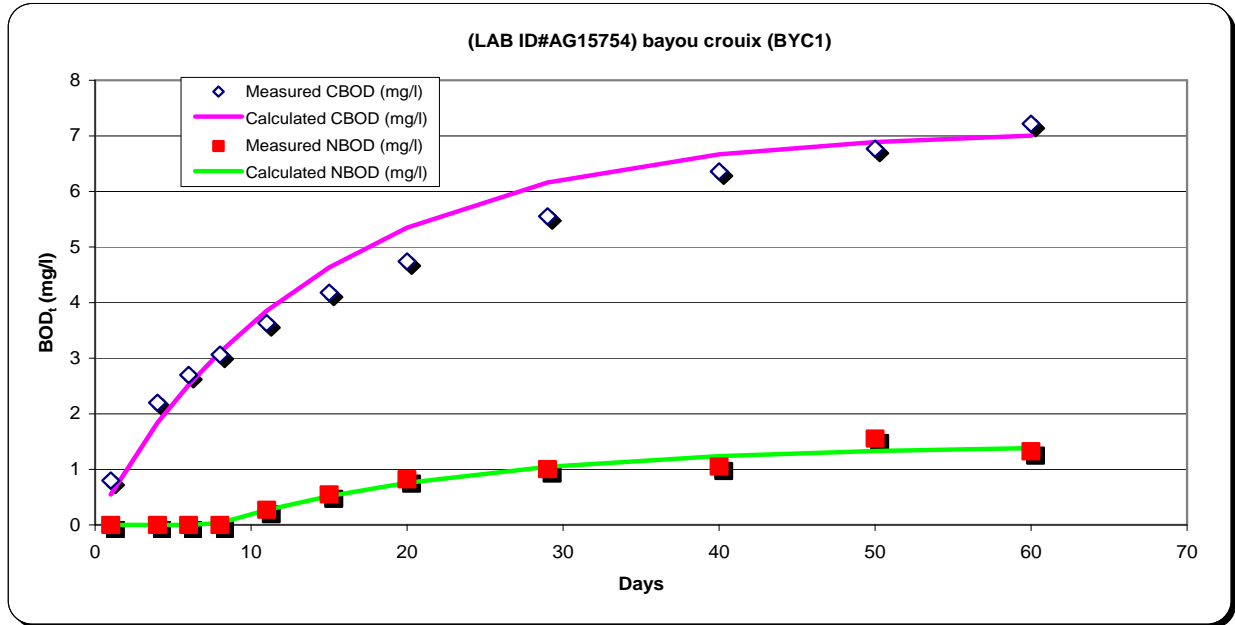
	NBOD	CBOD
UBOD (mg/l)	0	0.5083333
k rate (1/day)	0.005	0.1276042
Lag time (days)	0	0



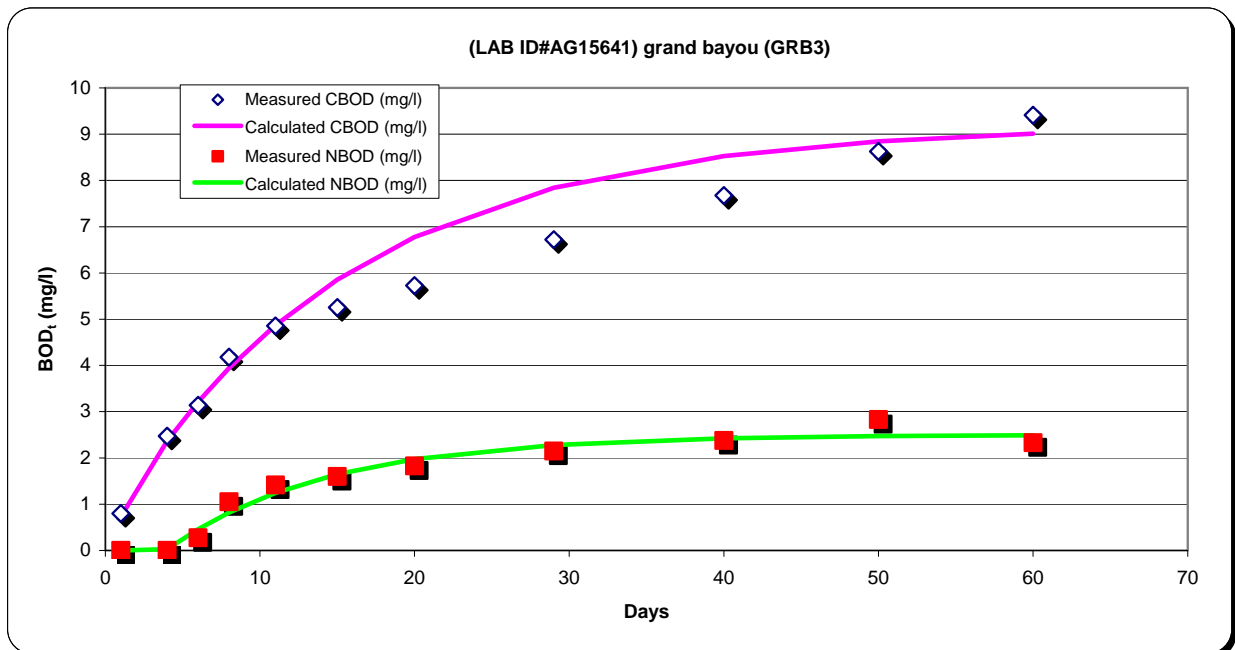
	NBOD	CBOD
UBOD (mg/l)	2.487159	10.157836
k rate (1/day)	0.1035417	0.0729861
Lag time (days)	4.0347219	0



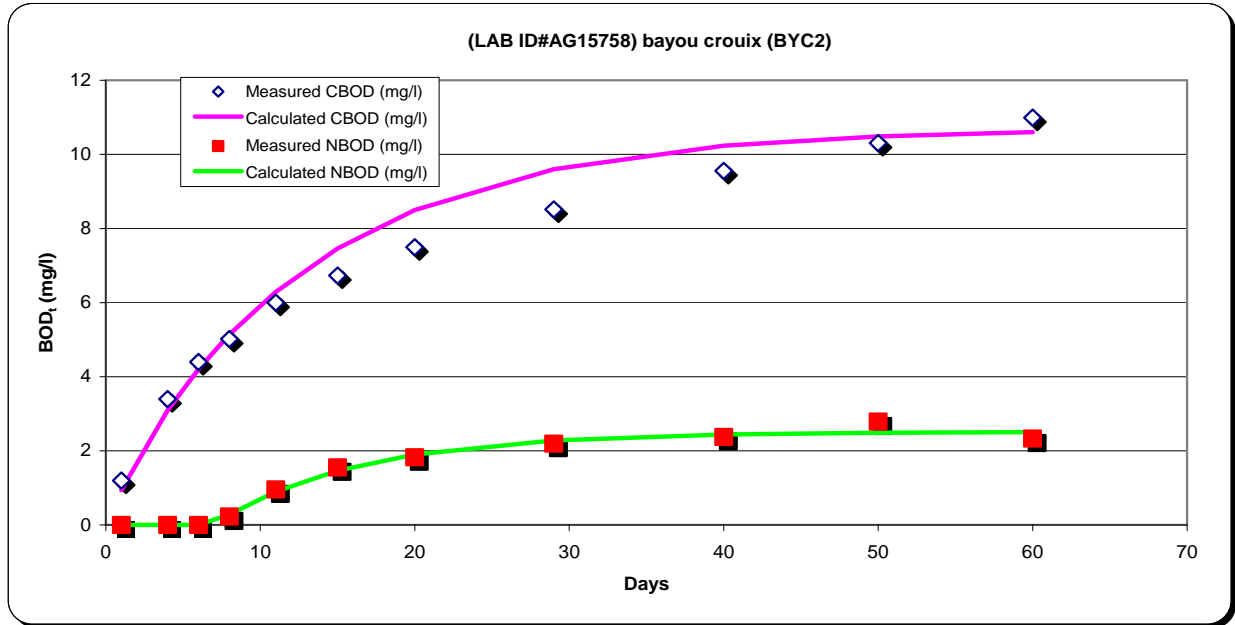
	NBOD	CBOD
UBOD (mg/l)	1.4449451	6.9082108
k rate (1/day)	0.06	0.0680208
Lag time (days)	7.583333	0



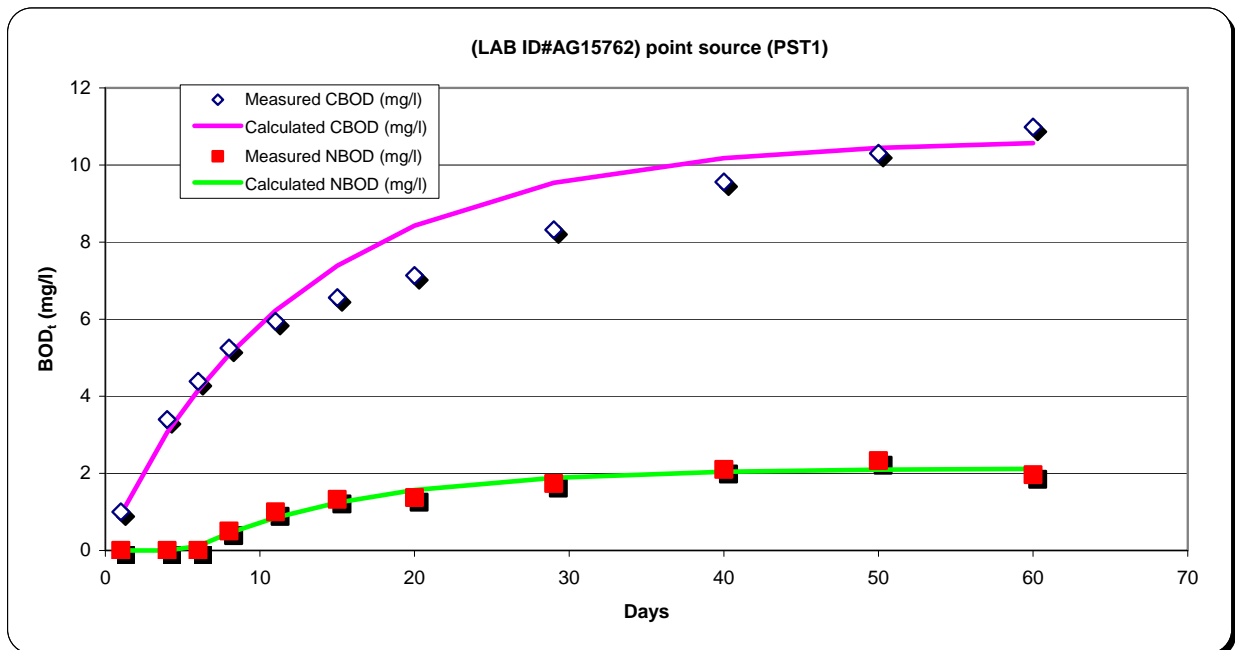
	NBOD	CBOD
UBOD (mg/l)	2.5006471	8.7895546
k rate (1/day)	0.0966667	0.0645833
Lag time (days)	3.8888886	0



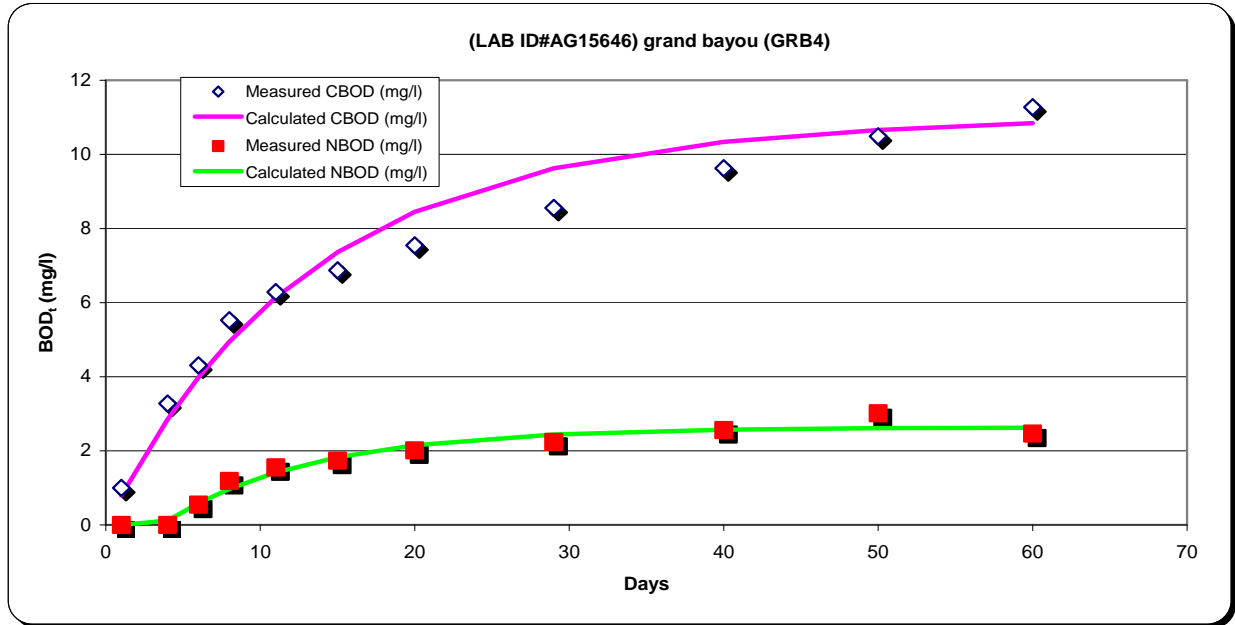
	NBOD	CBOD
UBOD (mg/l)	2.5141349	10.311058
k rate (1/day)	0.108125	0.0771875
Lag time (days)	6.9027772	0



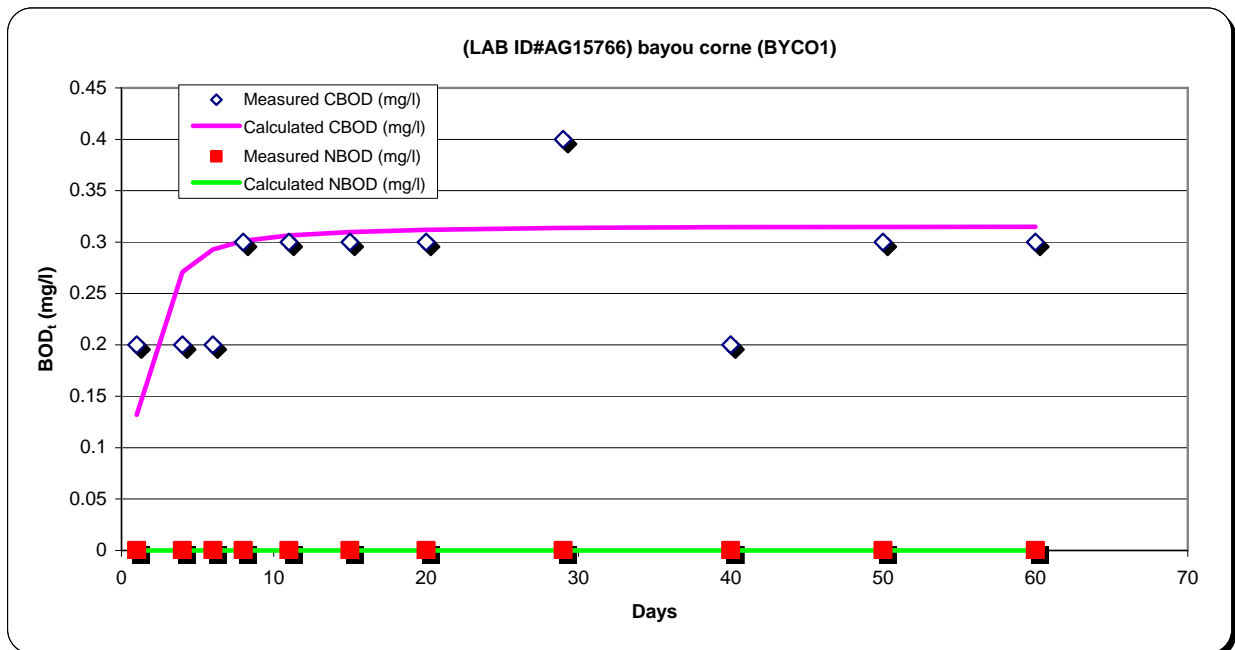
	NBOD	CBOD
UBOD (mg/l)	2.1311328	10.259109
k rate (1/day)	0.0909375	0.0758507
Lag time (days)	5.395833	0



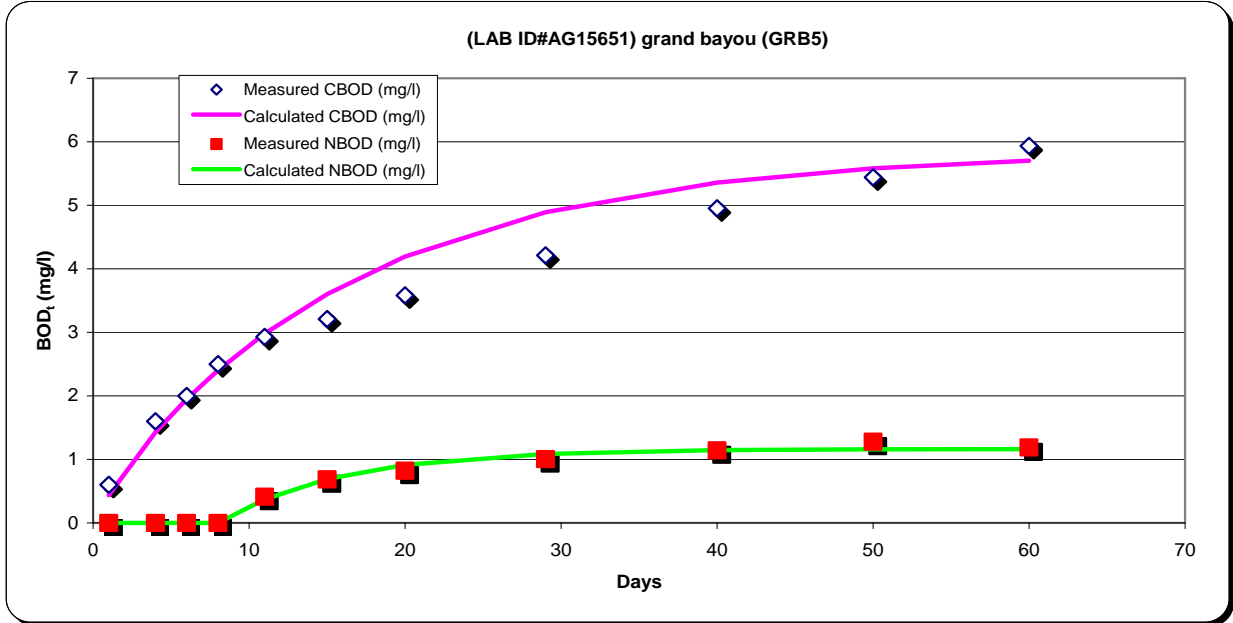
	NBOD	CBOD
UBOD (mg/l)	2.6334627	10.443387
k rate (1/day)	0.1035417	0.0785243
Lag time (days)	3.5486109	0



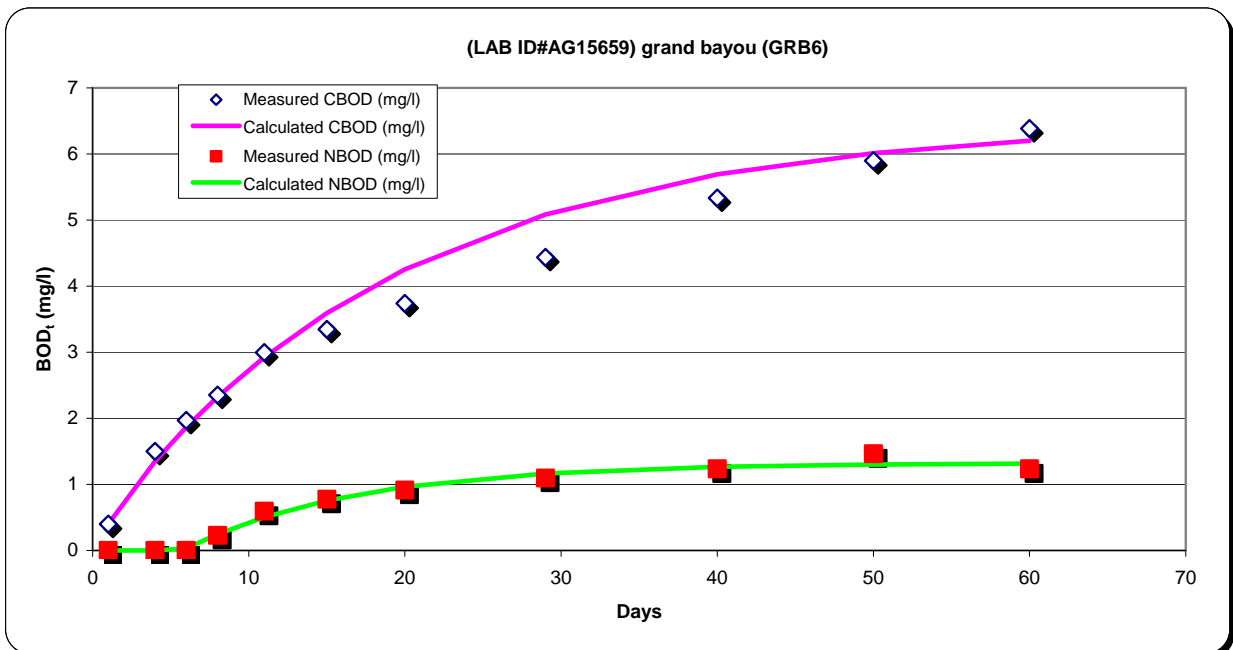
	NBOD	CBOD
UBOD (mg/l)	0	0.2878762
k rate (1/day)	0.005	0.5950994
Lag time (days)	0	0



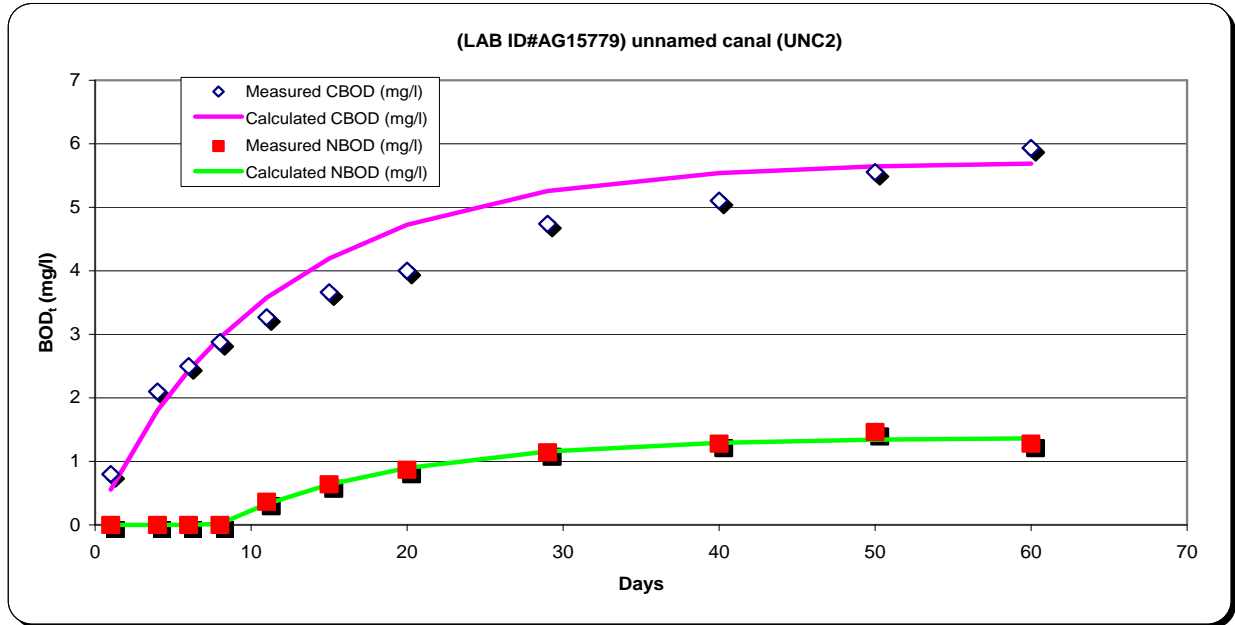
	NBOD	CBOD
UBOD (mg/l)	1.1648211	5.6136823
k rate (1/day)	0.12875	0.0611458
Lag time (days)	8.020834	0



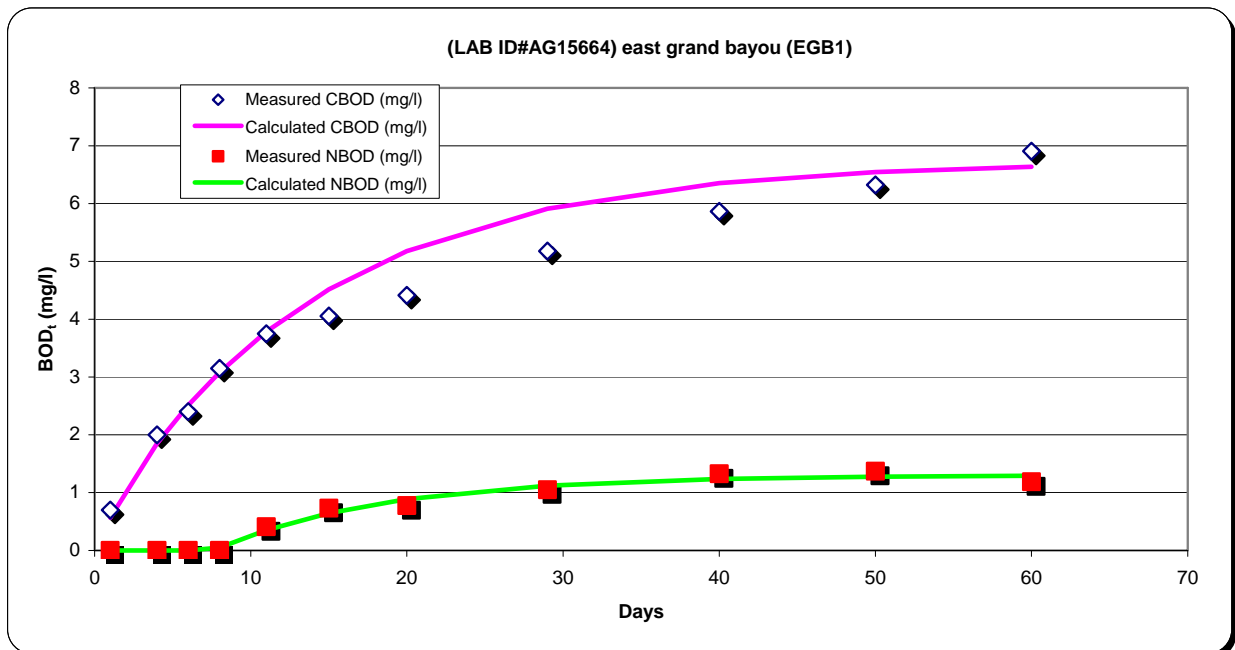
	NBOD	CBOD
UBOD (mg/l)	1.3238719	6.2969613
k rate (1/day)	0.0909375	0.0519792
Lag time (days)	5.7361107	0



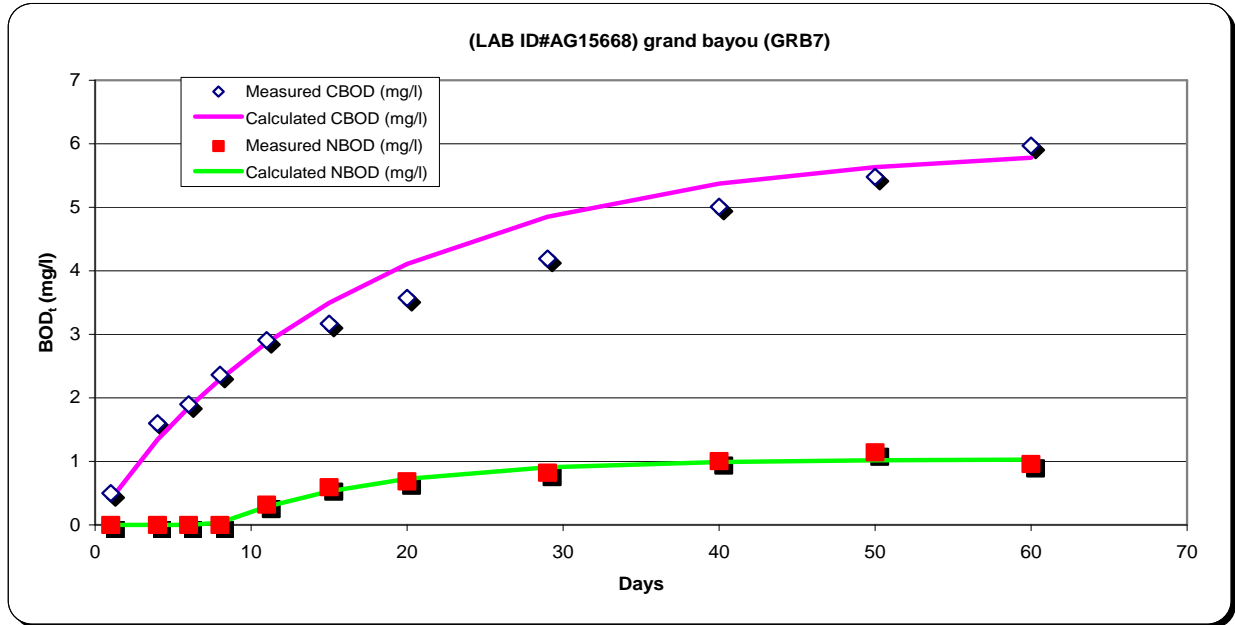
	NBOD	CBOD
UBOD (mg/l)	1.3803092	5.474709
k rate (1/day)	0.0863542	0.0852083
Lag time (days)	7.8263888	0



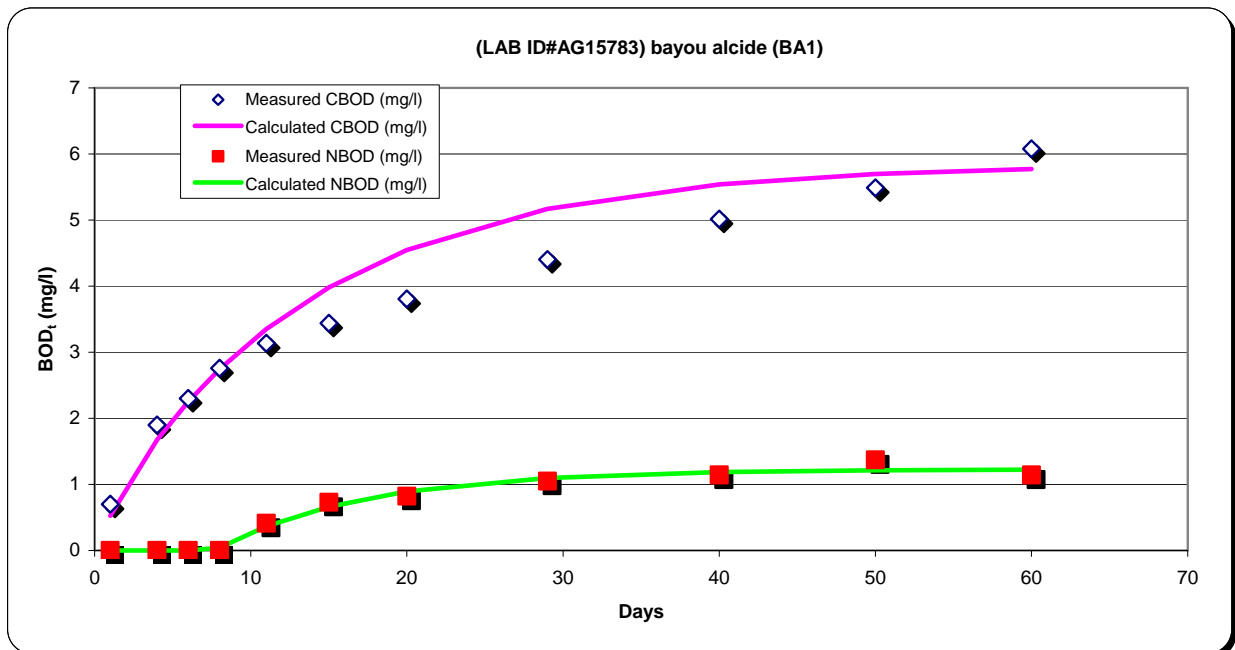
	NBOD	CBOD
UBOD (mg/l)	1.3023442	6.4523492
k rate (1/day)	0.0920833	0.0714583
Lag time (days)	7.583333	0



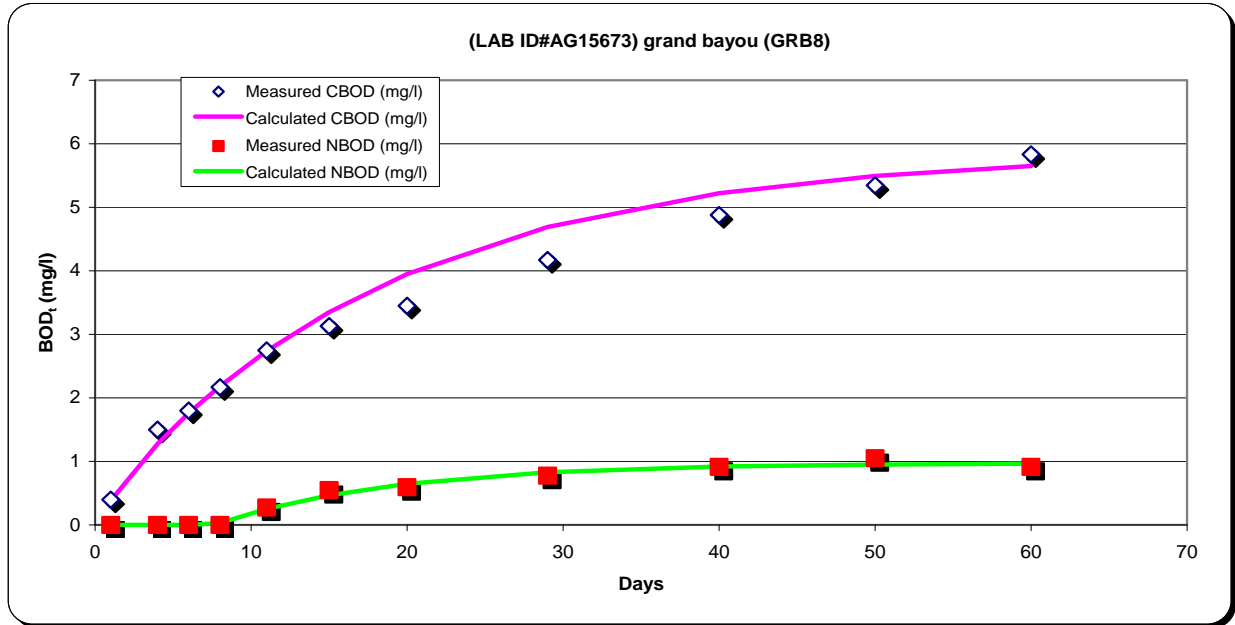
	NBOD	CBOD
UBOD (mg/l)	1.0352318	5.7843494
k rate (1/day)	0.0978125	0.0565625
Lag time (days)	7.6319442	0



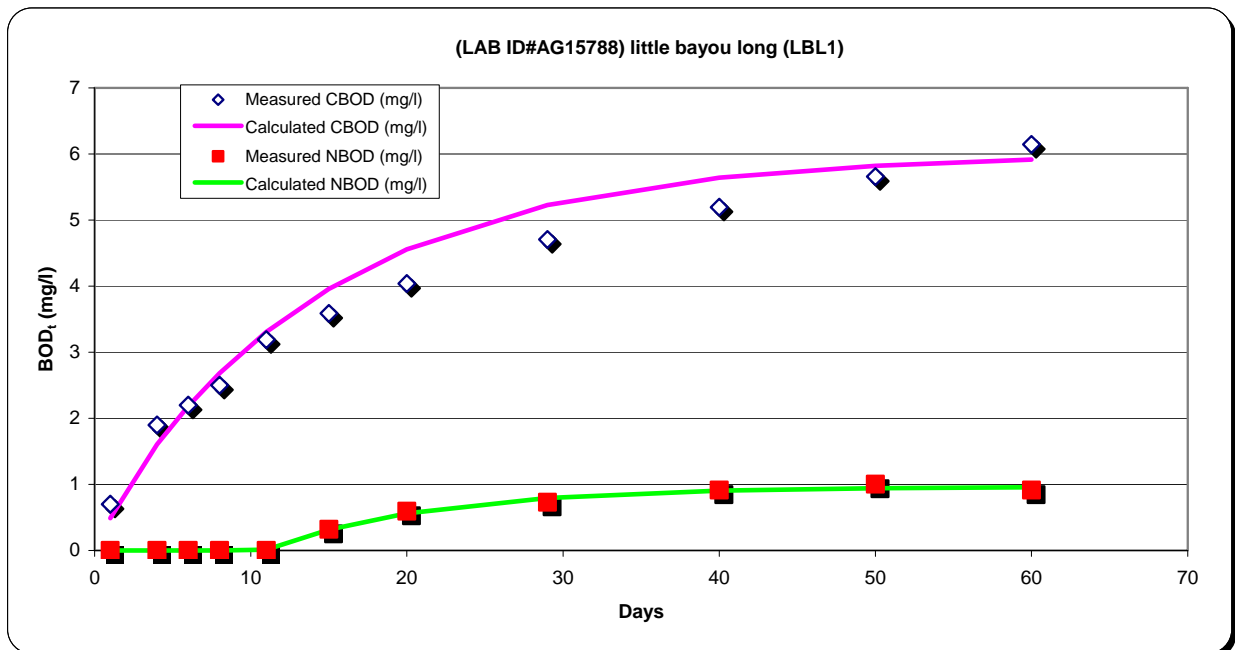
	NBOD	CBOD
UBOD (mg/l)	1.2258072	5.5372548
k rate (1/day)	0.1058333	0.0726042
Lag time (days)	7.6805553	0



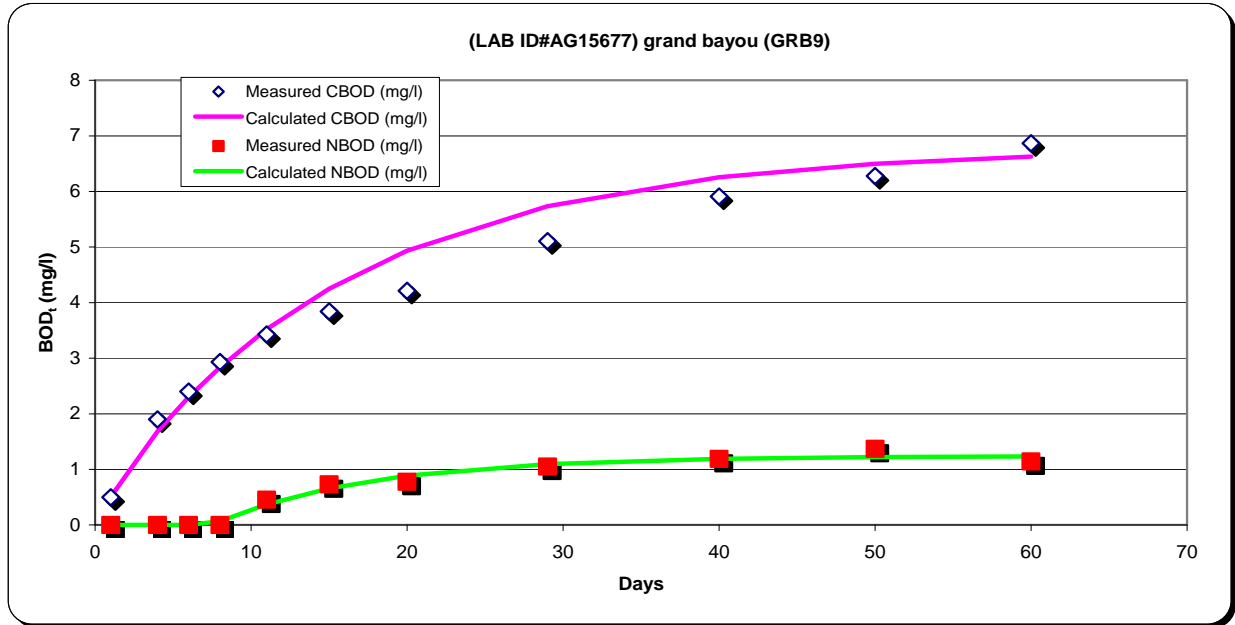
	NBOD	CBOD
UBOD (mg/l)	0.9753565	5.6854906
k rate (1/day)	0.0886458	0.0542708
Lag time (days)	7.6319447	0



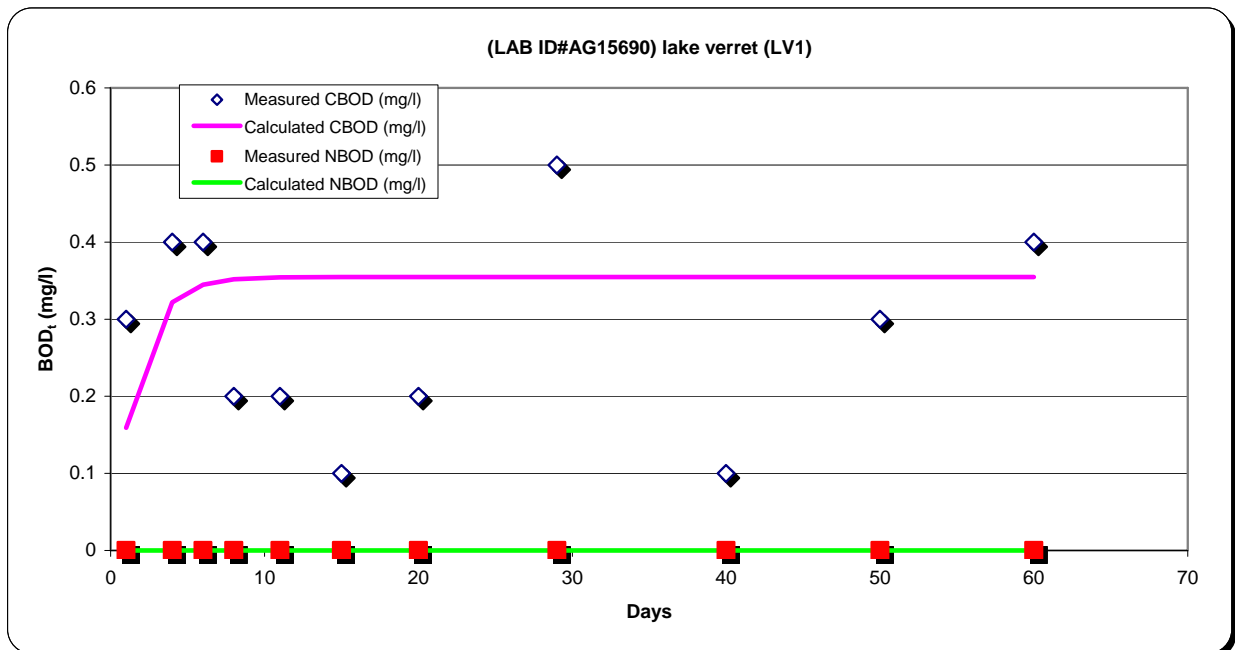
	NBOD	CBOD
UBOD (mg/l)	0.9647778	5.7742925
k rate (1/day)	0.0955208	0.0691667
Lag time (days)	10.888888	0



	NBOD	CBOD
UBOD (mg/l)	1.2390306	6.5335636
k rate (1/day)	0.1001042	0.0634375
Lag time (days)	7.4375	0

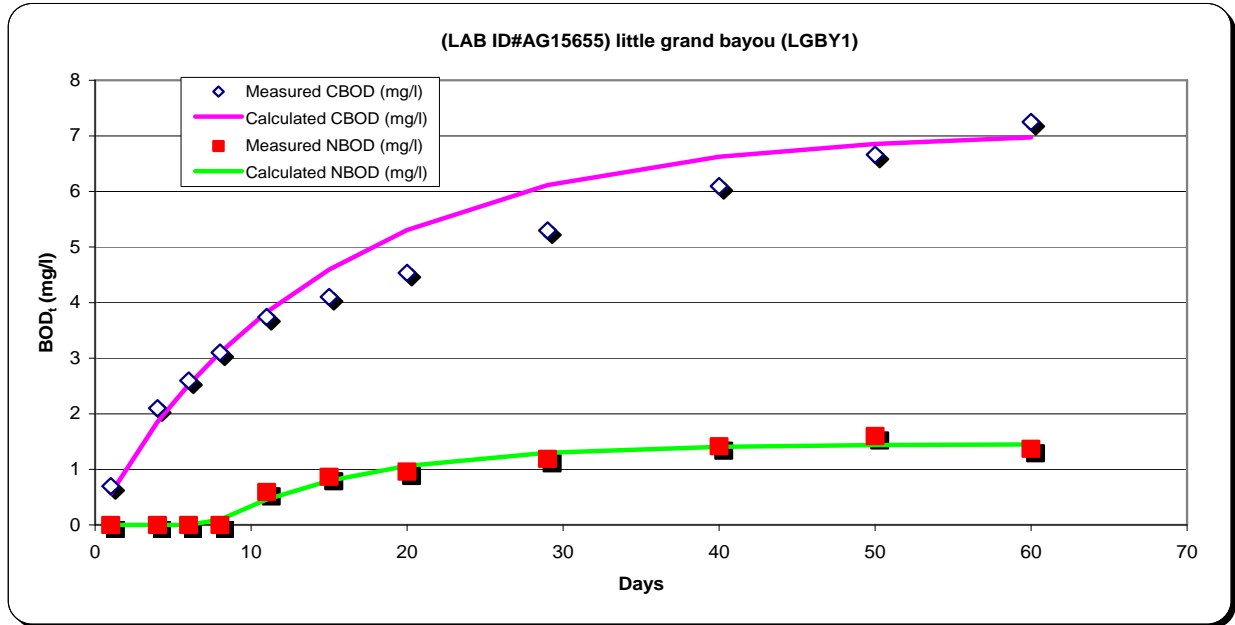


	NBOD	CBOD
UBOD (mg/l)	0	0.2899241
k rate (1/day)	0.005	0.5950994
Lag time (days)	0	0

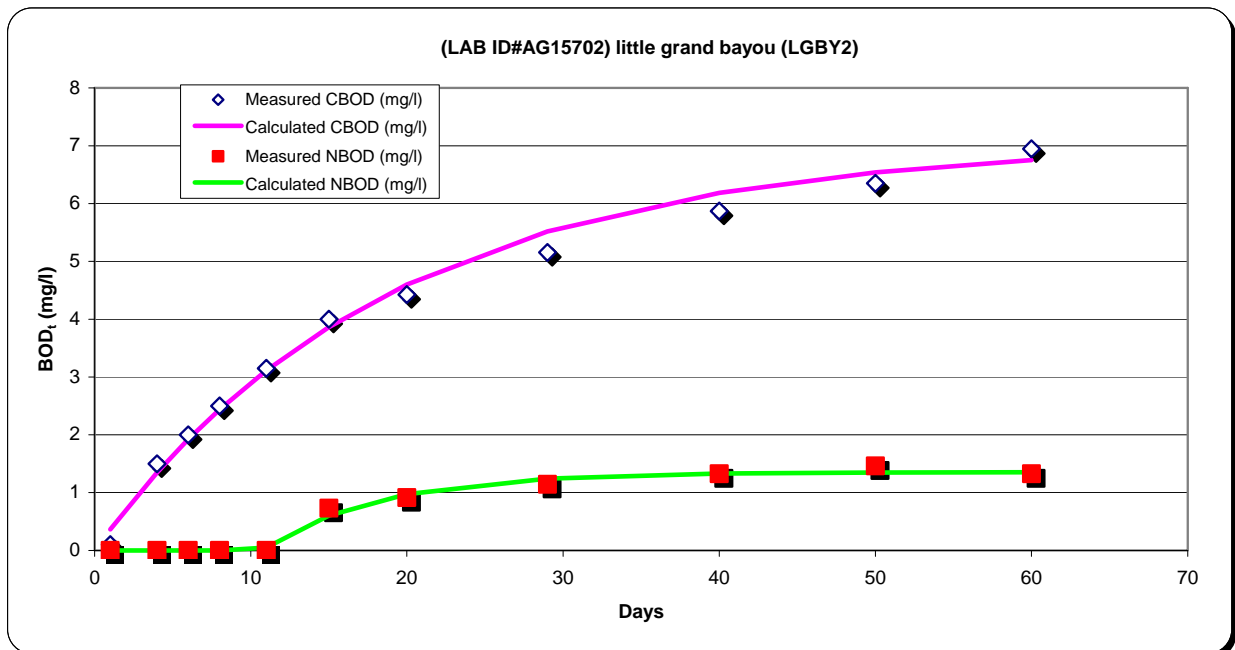


1 Component		NBOD		UBOD		CBOD	
Component	Site ID	UBOD (mg/l)	k rate (1/day)	Lag time (days)	UBOD (mg/l)	k rate (1/day)	Lag time (days)
(LAB ID#AG15655) little grand bayou (		1.455	0.104	7.340	6.815	0.067	0.000
(LAB ID#AG15792) westfield canal (W		2.770	0.090	6.368	7.939	0.086	0.000
(LAB ID#AG15796) whitmel canal (WC		2.474	0.102	5.931	9.374	0.091	0.000
(LAB ID#AG15702) little grand bayou (		1.354	0.137	10.727	6.851	0.054	0.000
(LAB ID#AG15719) lake verret (LV2)		4.119	0.089	6.174	16.174	0.110	0.000
(LAB ID#AG15707) little grand bayou (		1.527	0.115	7.632	6.352	0.060	0.000
(LAB ID#AG15711) little grand bayou (		1.471	0.094	5.979	6.007	0.055	0.000
(LAB ID#AG15715) little grand bayou (		2.416	0.109	6.417	8.663	0.085	0.000

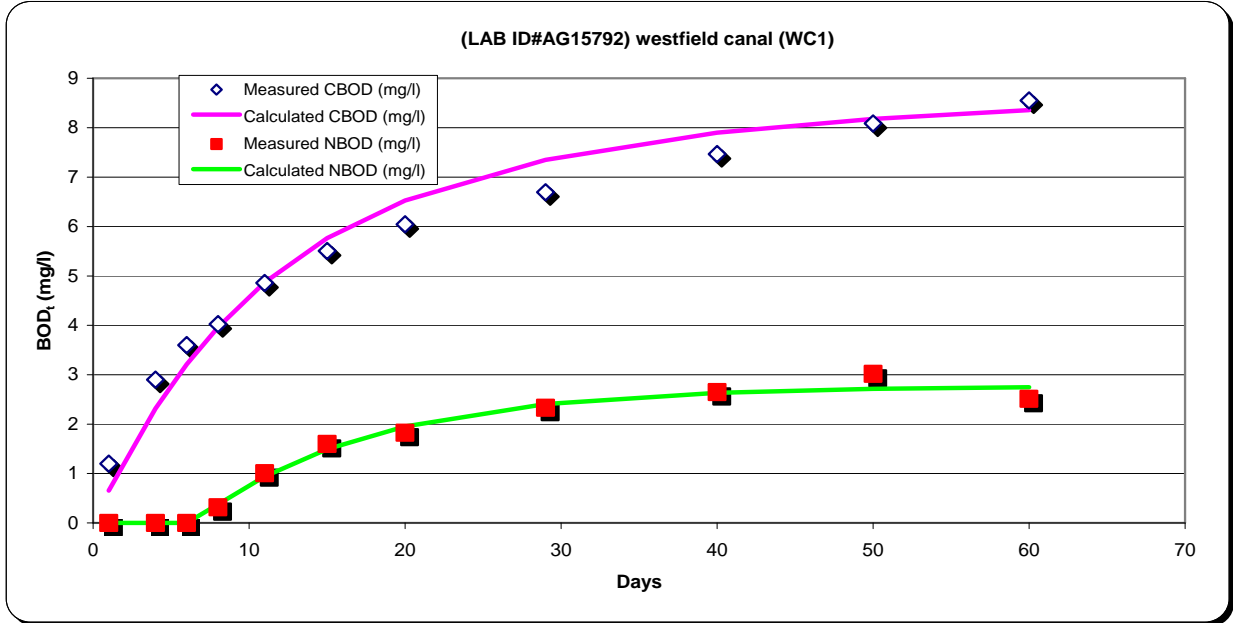
	NBOD	CBOD
UBOD (mg/l)	1.4551008	6.814724
k rate (1/day)	0.1035417	0.066875
Lag time (days)	7.3402777	0



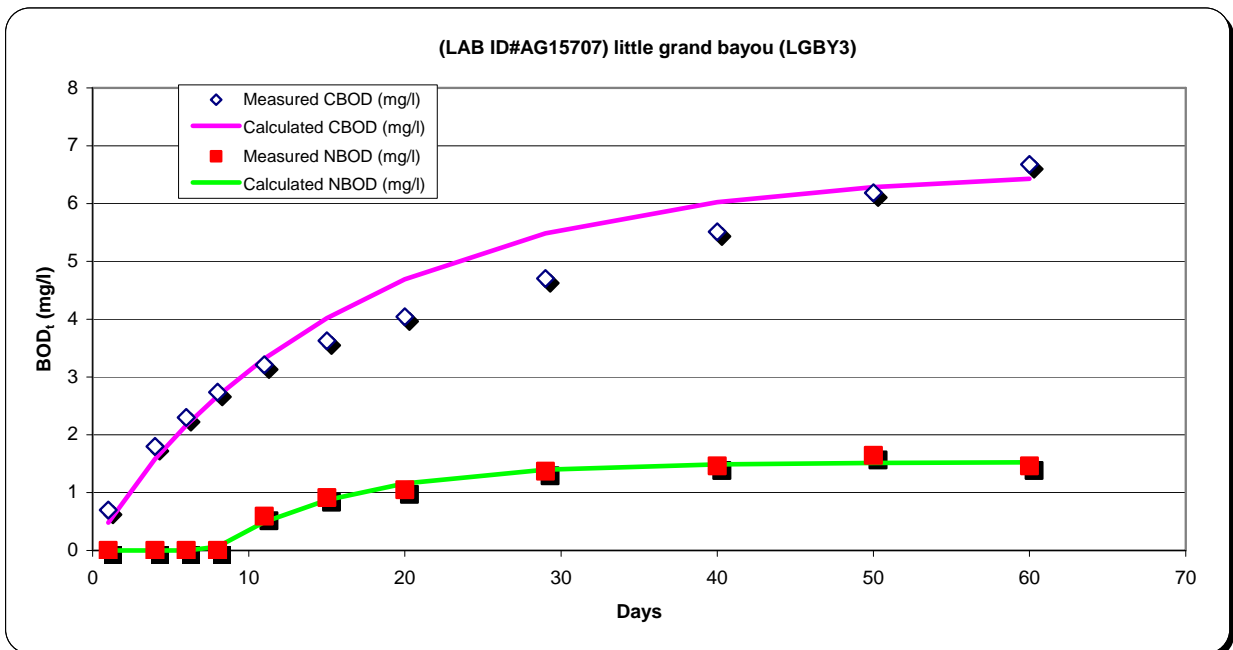
	NBOD	CBOD
UBOD (mg/l)	1.3541887	6.8508821
k rate (1/day)	0.137296	0.0542708
Lag time (days)	10.726851	0



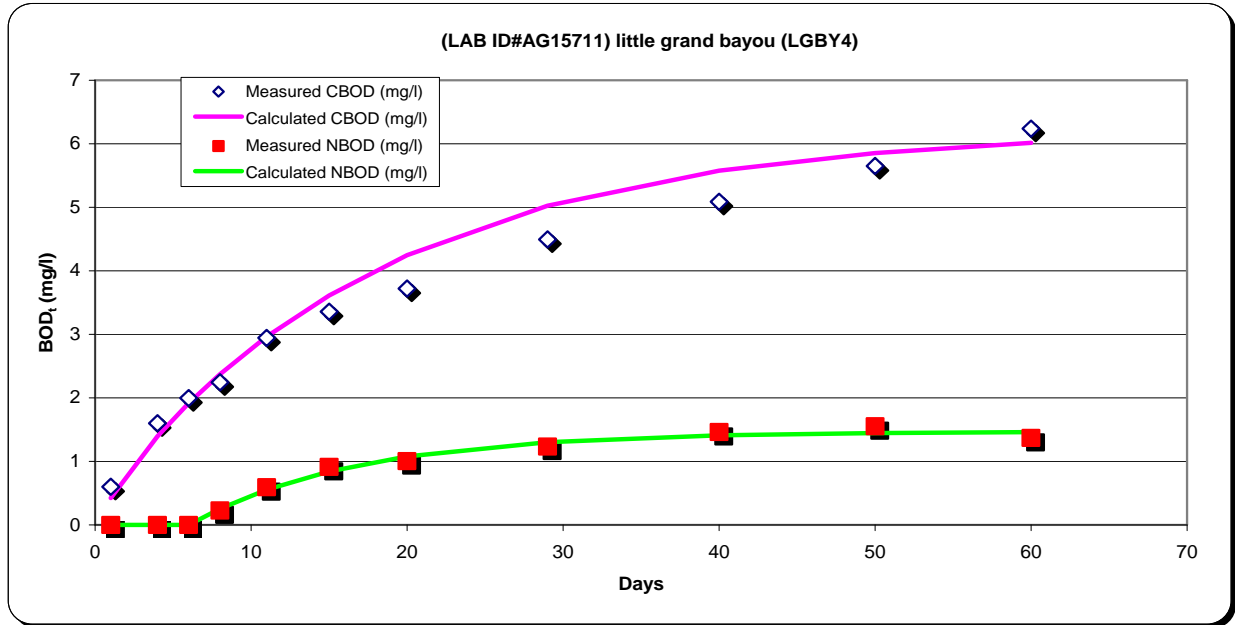
	NBOD	CBOD
UBOD (mg/l)	2.7695045	7.9391804
k rate (1/day)	0.0897917	0.0863542
Lag time (days)	6.3680553	0



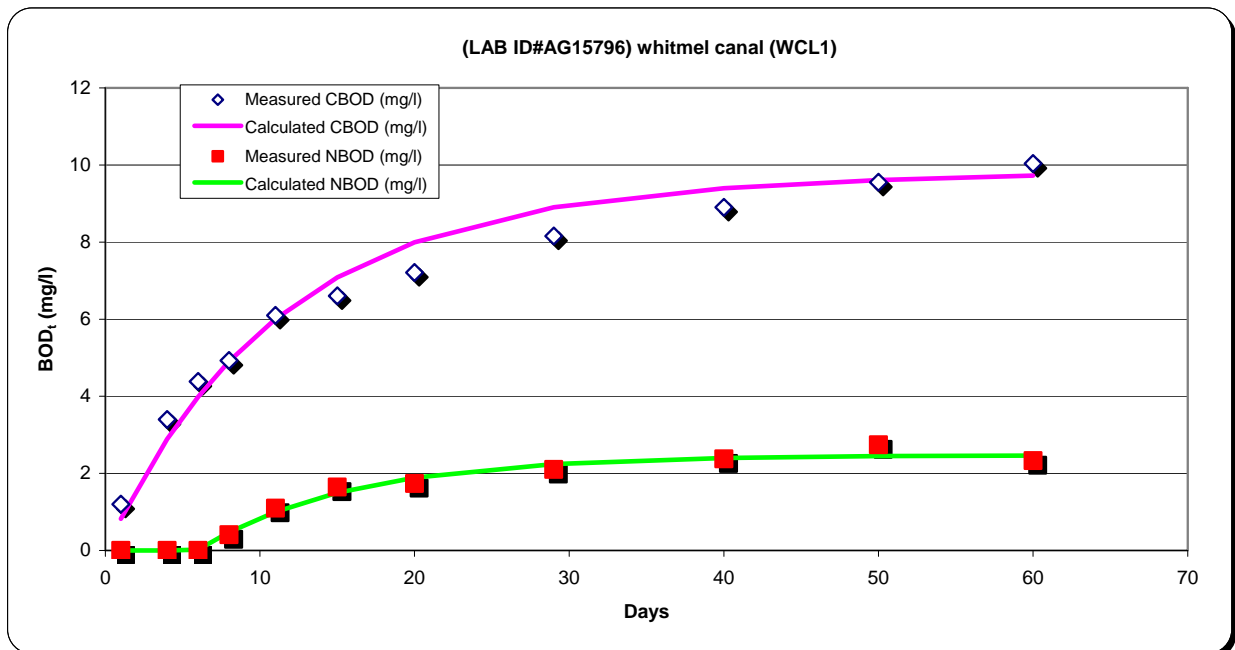
	NBOD	CBOD
UBOD (mg/l)	1.5267185	6.352407
k rate (1/day)	0.115	0.06
Lag time (days)	7.6319442	0



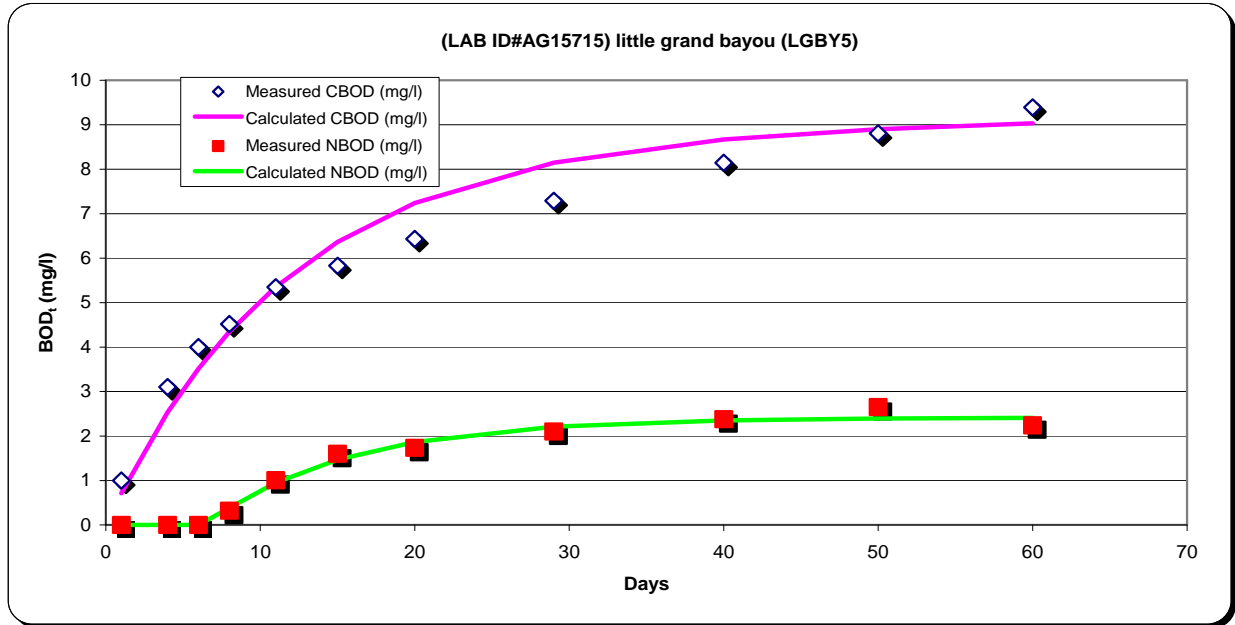
	NBOD	CBOD
UBOD (mg/l)	1.4709687	6.0069776
k rate (1/day)	0.094375	0.0554167
Lag time (days)	5.979167	0



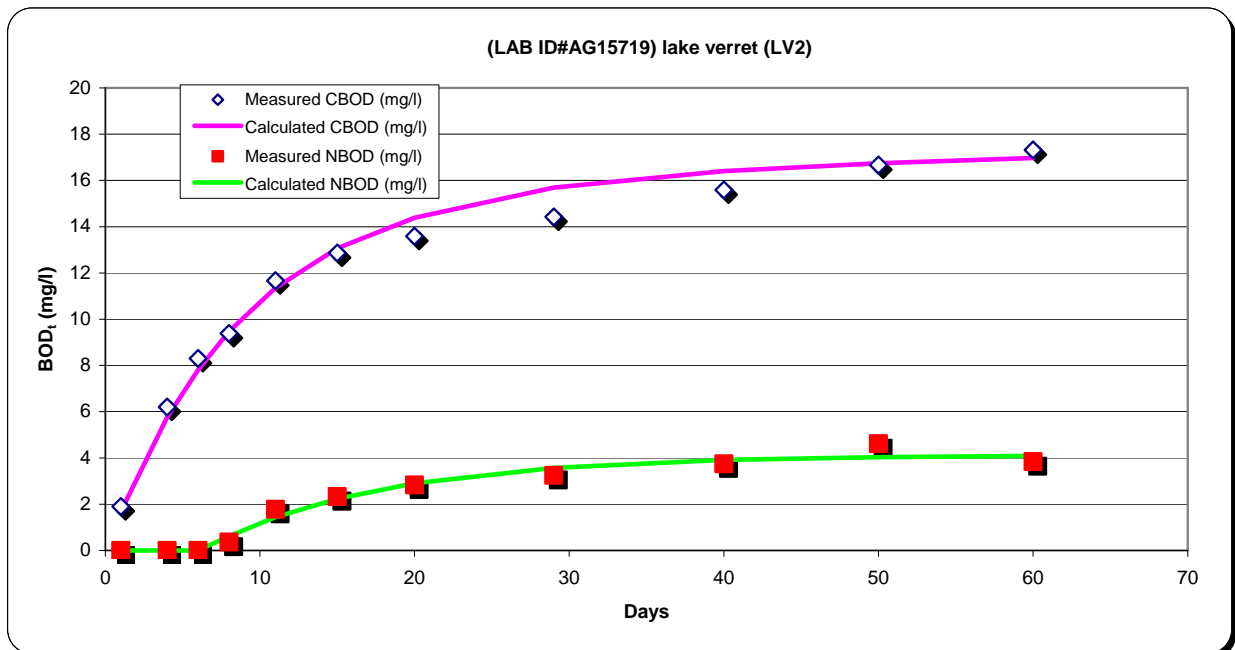
	NBOD	CBOD
UBOD (mg/l)	2.4736712	9.3739738
k rate (1/day)	0.1023958	0.0909375
Lag time (days)	5.9305553	0



	NBOD	CBOD
UBOD (mg/l)	2.4155412	8.6631126
k rate (1/day)	0.1092708	0.0852083
Lag time (days)	6.4166665	0



	NBOD	CBOD
UBOD (mg/l)	4.1187124	16.173779
k rate (1/day)	0.0886458	0.1100347
Lag time (days)	6.1736112	0



Appendix F7 – Dispersion and Dye Data

Site GRB3

Grand Bayou/Little Grand Dye Study 6/23-24/04 Page 1 of 3

Y	X	RUN	Adjusted Value	River Value	Meters	Meters Distance from Dye Dump	TEMP	DATE	TIME	Date + Time	Run - Dump	PROJECTION	ZONE
3326374	679577	Dye Dump	0	0	18600	0	28	6/23/2004	7:00:00am	6/23/04 7:00 AM		NAD 83 CONUS	Zone 15 North
3324898	680037	background	-1.4	0	17000	1600	28	6/23/2004	11:17:00am	6/23/04 11:17 AM	0.178472	NAD 83 CONUS	Zone 15 North
3325363	679880	1	6.97	8.37	17525	1075	28.1	6/23/2004	11:25:00am	6/23/04 11:25 AM	0.184028	NAD 83 CONUS	Zone 15 North
3325389	679870	2	26.4	27.8	17550	1050	28.1	6/23/2004	11:30:00am	6/23/04 11:30 AM	0.187500	NAD 83 CONUS	Zone 15 North
3325417	679856	3	41	42.4	17580	1020	28.1	6/23/2004	11:33:00am	6/23/04 11:33 AM	0.189583	NAD 83 CONUS	Zone 15 North
3325469	679831	4	63	64.4	17650	950	28.1	6/23/2004	11:38:00am	6/23/04 11:38 AM	0.193056	NAD 83 CONUS	Zone 15 North
3325534	679814	5	73.1	74.5	17700	900	28.1	6/23/2004	11:40:00am	6/23/04 11:40 AM	0.194444	NAD 83 CONUS	Zone 15 North
3325580	679794	6	49	50.4	17780	820	28.2	6/23/2004	11:42:00am	6/23/04 11:42 AM	0.195833	NAD 83 CONUS	Zone 15 North
3325657	679770	7	27	28.4	17850	750	28.2	6/23/2004	11:45:00am	6/23/04 11:45 AM	0.197917	NAD 83 CONUS	Zone 15 North
3325735	679785	8	17.3	18.7	17925	675	28.2	6/23/2004	11:47:00am	6/23/04 11:47 AM	0.199306	NAD 83 CONUS	Zone 15 North
3325853	679793	9	4.37	5.77	18050	550	28.2	6/23/2004	11:49:00am	6/23/04 11:49 AM	0.200694	NAD 83 CONUS	Zone 15 North
3325976	679746	10	0.653	2.053	18157	443	28.3	6/23/2004	11:52:00am	6/23/04 11:52 AM	0.202778	NAD 83 CONUS	Zone 15 North
3326023	679727	11	0	1.4	18225	375	28.4	6/23/2004	11:53:00am	6/23/04 11:53 AM	0.203472	NAD 83 CONUS	Zone 15 North
											Average Time	0.193924	
											Average Time in Hours	4.654167	
											Average Time in Seconds	16755.000000	

Grand Bayou/Little Grand Dye Study 6/23-24/04 Page 2 of 3

Y	X	RUN	Adjusted Value	River Value	Meters Distance from Dye Dump	TEMP	DATE	TIME	Date + Time	Run - Dump	PROJECTION	ZONE
3326374	679577	Dye Dump	0	0	18600	0	28	6/23/2004	7:00:00am	6/23/04 7:00 AM	NAD 83 CONUS	Zone 15 North
3324018	680244	background	-1.4	0	16100	2500	28.3	6/23/2004	05:45:00pm	6/23/04 5:45 PM	0.447917 NAD 83 CONUS	Zone 15 North
3324291	680233	1	0.07	1.47	16370	2230	28.4	6/23/2004	05:51:00pm	6/23/04 5:51 PM	0.452083 NAD 83 CONUS	Zone 15 North
3324346	680233	2	6.15	7.55	16430	2170	28.5	6/23/2004	05:55:00pm	6/23/04 5:55 PM	0.454861 NAD 83 CONUS	Zone 15 North
3324383	680236	3	14.4	15.8	16460	2140	28.6	6/23/2004	05:56:00pm	6/23/04 5:56 PM	0.455556 NAD 83 CONUS	Zone 15 North
3324465	680225	4	23.2	24.6	16550	2050	28.6	6/23/2004	05:58:00pm	6/23/04 5:58 PM	0.456944 NAD 83 CONUS	Zone 15 North
3324532	680196	5	28.1	29.5	16630	1970	28.6	6/23/2004	06:00:00pm	6/23/04 6:00 PM	0.458333 NAD 83 CONUS	Zone 15 North
3324613	680162	6	31.9	33.3	16700	1900	28.5	6/23/2004	06:07:00pm	6/23/04 6:07 PM	0.463194 NAD 83 CONUS	Zone 15 North
3324656	680152	7	25.5	26.9	16750	1850	28.7	6/23/2004	06:13:00pm	6/23/04 6:13 PM	0.467361 NAD 83 CONUS	Zone 15 North
3324955	680009	8	17.6	19	17080	1520	28.7	6/24/2004	06:23:00pm	6/23/04 6:23 PM	0.474306 NAD 83 CONUS	Zone 15 North
3325008	679992	9	11.1	12.5	17145	1455	28.6	6/23/2004	06:25:00pm	6/23/04 6:25 PM	0.475694 NAD 83 CONUS	Zone 15 North
3325154	679996	10	3.55	4.95	17280	1320	28.7	6/23/2004	06:28:00pm	6/23/04 6:28 PM	0.477778 NAD 83 CONUS	Zone 15 North
3325303	679898	11	1.17	2.57	17460	1140	28.9	6/23/2004	06:32:00pm	6/23/04 6:32 PM	0.480556 NAD 83 CONUS	Zone 15 North
3325550	679807	12	0.003	1.403	17730	870	29	6/24/2004	06:40:00pm	6/23/04 6:40 PM	0.486111 NAD 83 CONUS	Zone 15 North
3326252	679645	13	-1.3	0.1	18470	130	29	6/23/2004	06:50:00pm	6/23/04 6:50 PM	0.493056 NAD 83 CONUS	Zone 15 North
										Average Time	0.467411	
										Average Time in Hours	11.217857	
										Average Time in Seconds	40384.285715	

Grand Bayou/Little Grand Dye Study 06/23-24/04 Page 3 of 3

Y	X	RUN	Meters			TEMP	DATE	TIME	Date + Time	Run - Dump	PROJECTION	ZONE
			Adjusted Value	River Value	Distance from Dye Dump							
3326374	679577	Dye Dump	0	0	18600	0	28	6/23/2004	7:00:00am	6/23/04 7:00 AM	NAD 83 CONUS	Zone 15 North
3322356	680171	background	-1	0	14400	4200	27.6	6/24/2004	07:56:00am	6/24/04 7:56 AM	1.038889 NAD 83 CONUS	Zone 15 North
3322511	680191	1	0.308	1.308	14560	4040	27.6	6/24/2004	07:58:00am	6/24/04 7:58 AM	1.040278 NAD 83 CONUS	Zone 15 North
3322584	680210	2	1.53	2.53	14640	3960	27.6	6/24/2004	08:01:00am	6/24/04 8:01 AM	1.042361 NAD 83 CONUS	Zone 15 North
3322657	680223	3	2.7	3.7	14710	3890	27.6	6/24/2004	08:03:00am	6/24/04 8:03 AM	1.043750 NAD 83 CONUS	Zone 15 North
3322735	680231	4	5.74	6.74	14790	3810	27.7	6/24/2004	08:04:00am	6/24/04 8:04 AM	1.044444 NAD 83 CONUS	Zone 15 North
3322816	680244	5	9.71	10.71	14870	3730	27.7	6/24/2004	08:06:00am	6/24/04 8:06 AM	1.045833 NAD 83 CONUS	Zone 15 North
3322869	680229	6	13.1	14.1	14930	3670	27.7	6/24/2004	08:08:00am	6/24/04 8:08 AM	1.047222 NAD 83 CONUS	Zone 15 North
3322950	680197	7	18.1	19.1	15020	3580	27.7	6/24/2004	08:10:00am	6/24/04 8:10 AM	1.048611 NAD 83 CONUS	Zone 15 North
3323023	680180	8	21.1	22.1	15090	3510	27.7	6/24/2004	08:11:00am	6/24/04 8:11 AM	1.049306 NAD 83 CONUS	Zone 15 North
3323107	680170	9	24.1	25.1	15170	3430	27.7	6/24/2004	08:13:00am	6/24/04 8:13 AM	1.050694 NAD 83 CONUS	Zone 15 North
3323305	680173	10	23	24	15370	3230	27.8	6/24/2004	08:18:00am	6/24/04 8:18 AM	1.054167 NAD 83 CONUS	Zone 15 North
3323400	680218	11	18.7	19.7	15470	3130	27.8	6/24/2004	08:20:00am	6/24/04 8:20 AM	1.055556 NAD 83 CONUS	Zone 15 North
3323485	680247	12	14.2	15.2	15560	3040	27.8	6/24/2004	08:22:00am	6/24/04 8:22 AM	1.056944 NAD 83 CONUS	Zone 15 North
3323580	680253	13	9.93	10.93	15660	2940	27.8	6/24/2004	08:24:00am	6/24/04 8:24 AM	1.058333 NAD 83 CONUS	Zone 15 North
3323689	680258	14	6.54	7.54	15770	2830	27.8	6/24/2004	08:26:00am	6/24/04 8:26 AM	1.059722 NAD 83 CONUS	Zone 15 North
3323832	680253	15	3.46	4.46	15910	2690	27.9	6/24/2004	08:29:00am	6/24/04 8:29 AM	1.061806 NAD 83 CONUS	Zone 15 North
3323963	680248	16	1.71	2.71	16050	2550	27.9	6/24/2004	08:31:00am	6/24/04 8:31 AM	1.063194 NAD 83 CONUS	Zone 15 North
3324143	680237	17	0.491	1.491	16230	2370	27.9	6/24/2004	08:34:00am	6/24/04 8:34 AM	1.065278 NAD 83 CONUS	Zone 15 North
3325024	679988	18	-1	0	17150	1450	27.8	6/24/2004	08:49:00am	6/24/04 8:49 AM	1.075694 NAD 83 CONUS	Zone 15 North
										Average Time	1.052741	
										Average Time in Hours	25.265788	
										Average Time in Seconds	90956.837369	

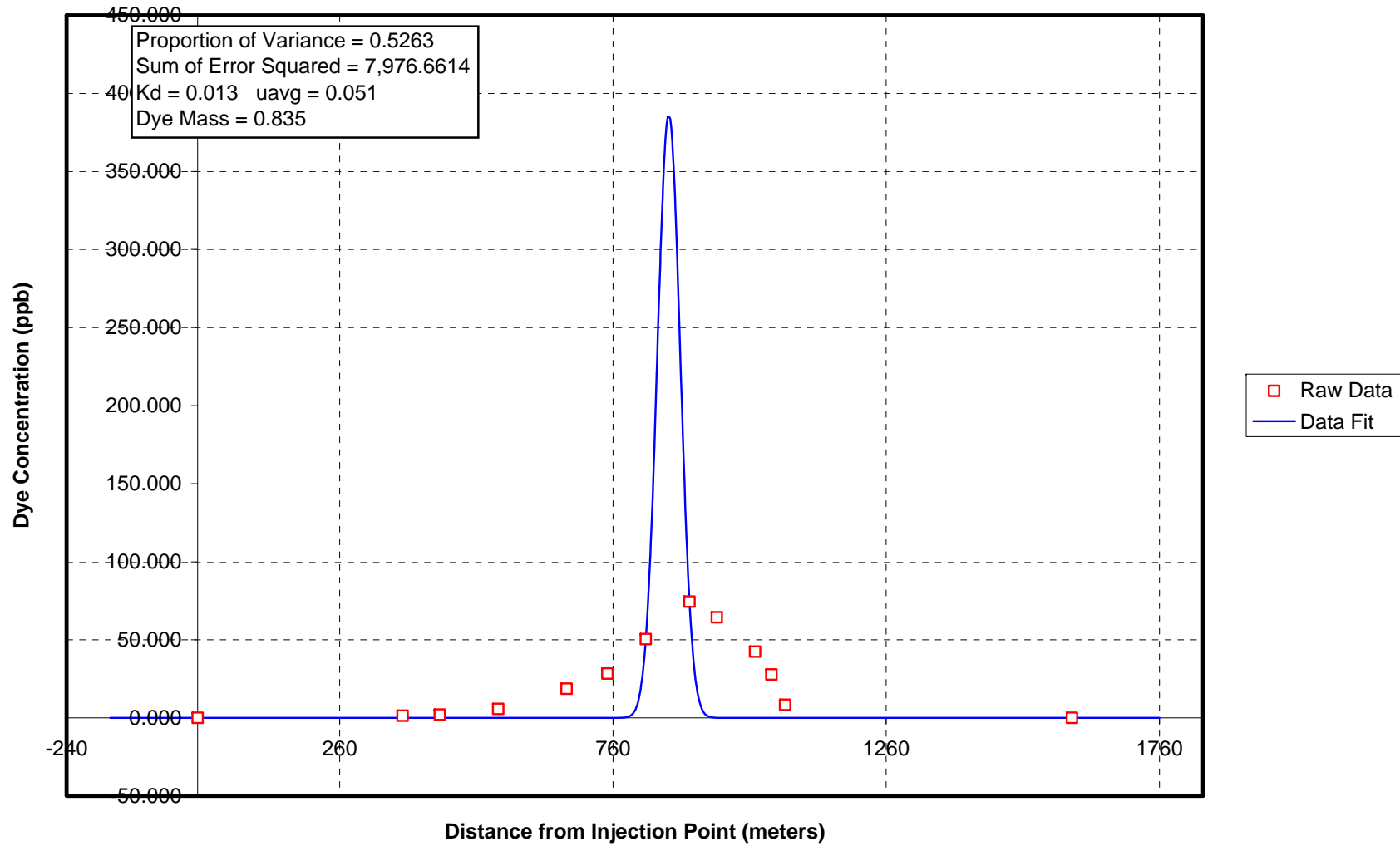
User Inputs	Depth of Stream (meters)	1.670	Run Dispersion Routine
	Width of Stream (meters)	24.700	
	Time Elapsed Since Dye Injection (sec)	16755	
	¹ Mass of Solution Injected (kg)	40.000	
	Number of Iterations	10	
²Initial Guess	K_d : Diffusion (m^2/s)	1.0000	

¹Mass of solution injected is multiplied by 0.2 since the solution is 20% dye

²Initial guesses must be chosen carefully chosen since they control to a great degree the success and rate of convergence of the Gauss-Newton algorithm

Observed Dye Data	
f(X): Concentration (ppb)	X: Distance From Injection Point (meters)
0.000	0
0.000	1600
8.370	1075
27.800	1050
42.400	1020
64.400	950
74.500	900
50.400	820
28.400	750
18.700	675
5.770	550
2.053	443
1.400	375

Non Linear Regression of Dye Data



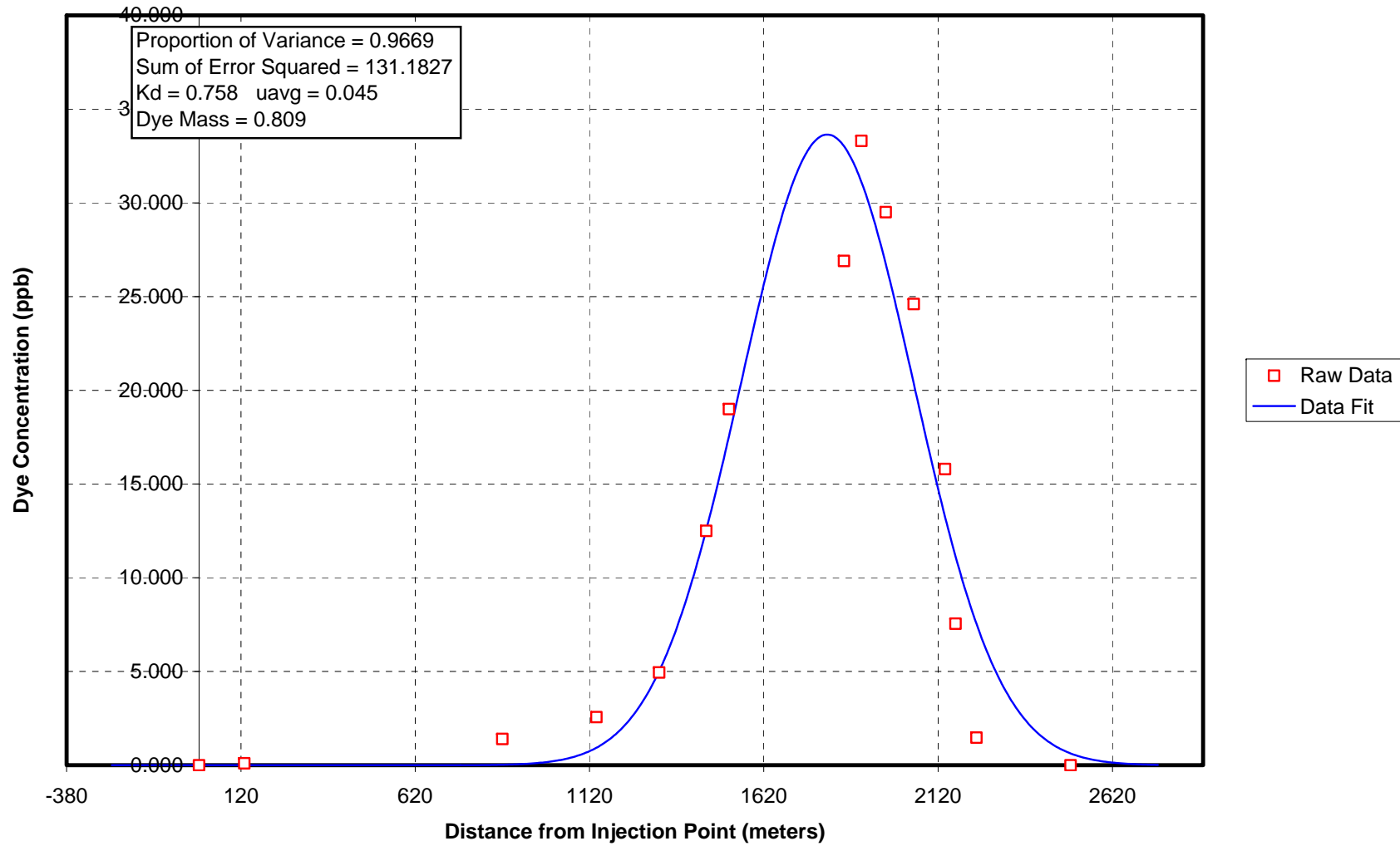
User Inputs	Depth of Stream (meters)	1.630	Run Dispersion Routine
	Width of Stream (meters)	23.800	
	Time Elapsed Since Dye Injection (sec)	40384	
	¹ Mass of Solution Injected (kg)	40.000	
	Number of Iterations	10	
²Initial Guess	K_d : Diffusion (m^2/s)	1.0000	

¹Mass of solution injected is multiplied by 0.2 since the solution is 20% dye

²Initial guesses must be chosen carefully chosen since they control to a great degree the success and rate of convergence of the Gauss-Newton algorithm

Observed Dye Data	
f(X): Concentration (ppb)	X: Distance From Injection Point (meters)
0.000	0
0.000	2500
1.470	2230
7.550	2170
15.800	2140
24.600	2050
29.500	1970
33.300	1900
26.900	1850
19.000	1520
12.500	1455
4.950	1320
2.570	1140
1.403	870
0.100	130

Non Linear Regression of Dye Data



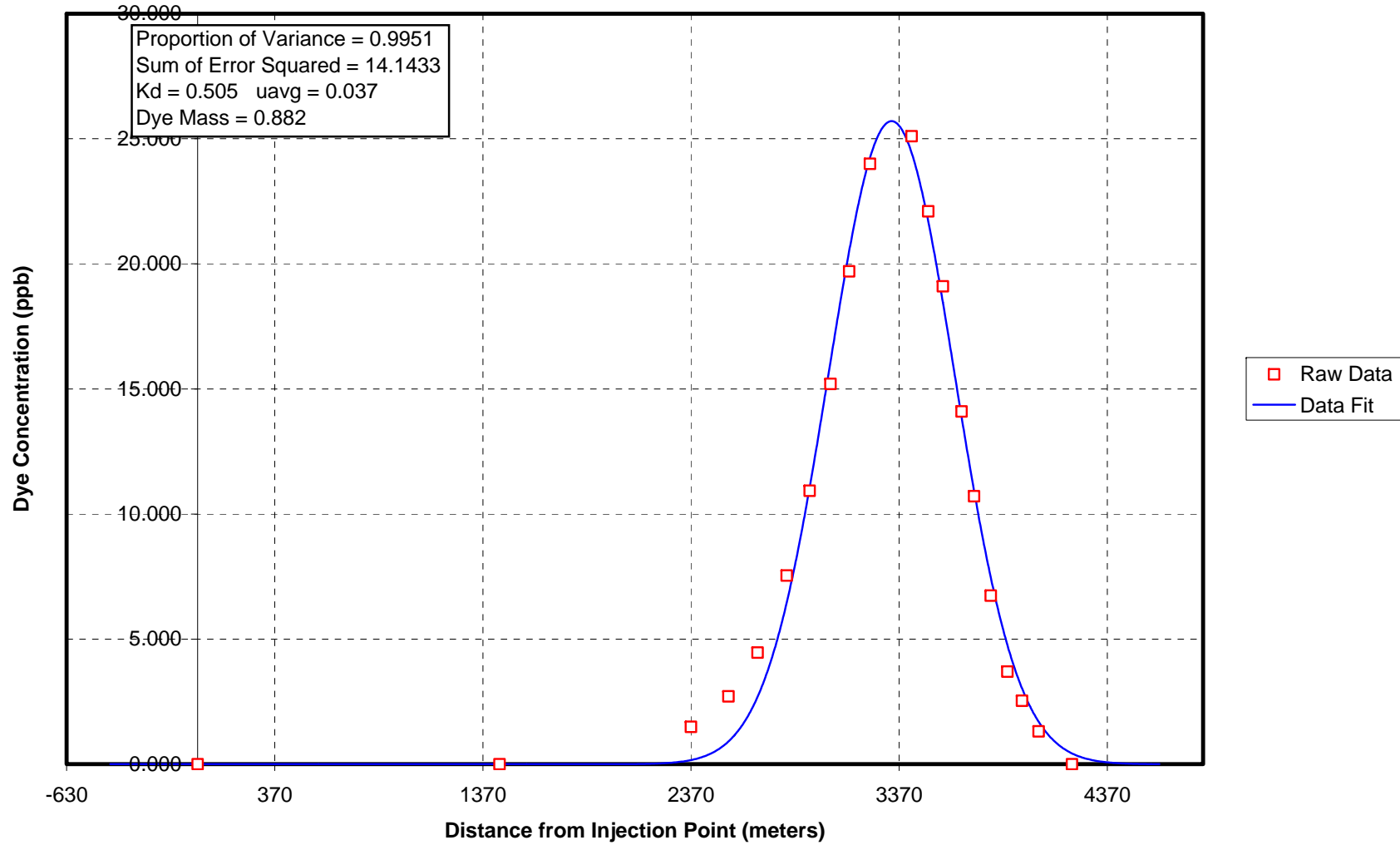
User Inputs	Depth of Stream (meters)	1.590	Run Dispersion Routine
	Width of Stream (meters)	28.400	
	Time Elapsed Since Dye Injection (sec)	90957	
	¹ Mass of Solution Injected (kg)	40.000	
	Number of Iterations	10	
²Initial Guess	K _d : Diffusion (m ² /s)	1.0000	

¹Mass of solution injected is multiplied by 0.2 since the solution is 20% dye

²Initial guesses must be chosen carefully chosen since they control to a great degree the success and rate of convergence of the Gauss-Newton algorithm

Observed Dye Data	
f(X): Concentration (ppb)	X: Distance From Injection Point (meters)
0.000	0
0.000	4200
1.308	4040
2.530	3960
3.700	3890
6.740	3810
10.710	3730
14.100	3670
19.100	3580
22.100	3510
25.100	3430
24.000	3230
19.700	3130
15.200	3040
10.930	2940
7.540	2830
4.46	2690
2.71	2550
1.49	2370
0.00	1450

Non Linear Regression of Dye Data



Site GRB6

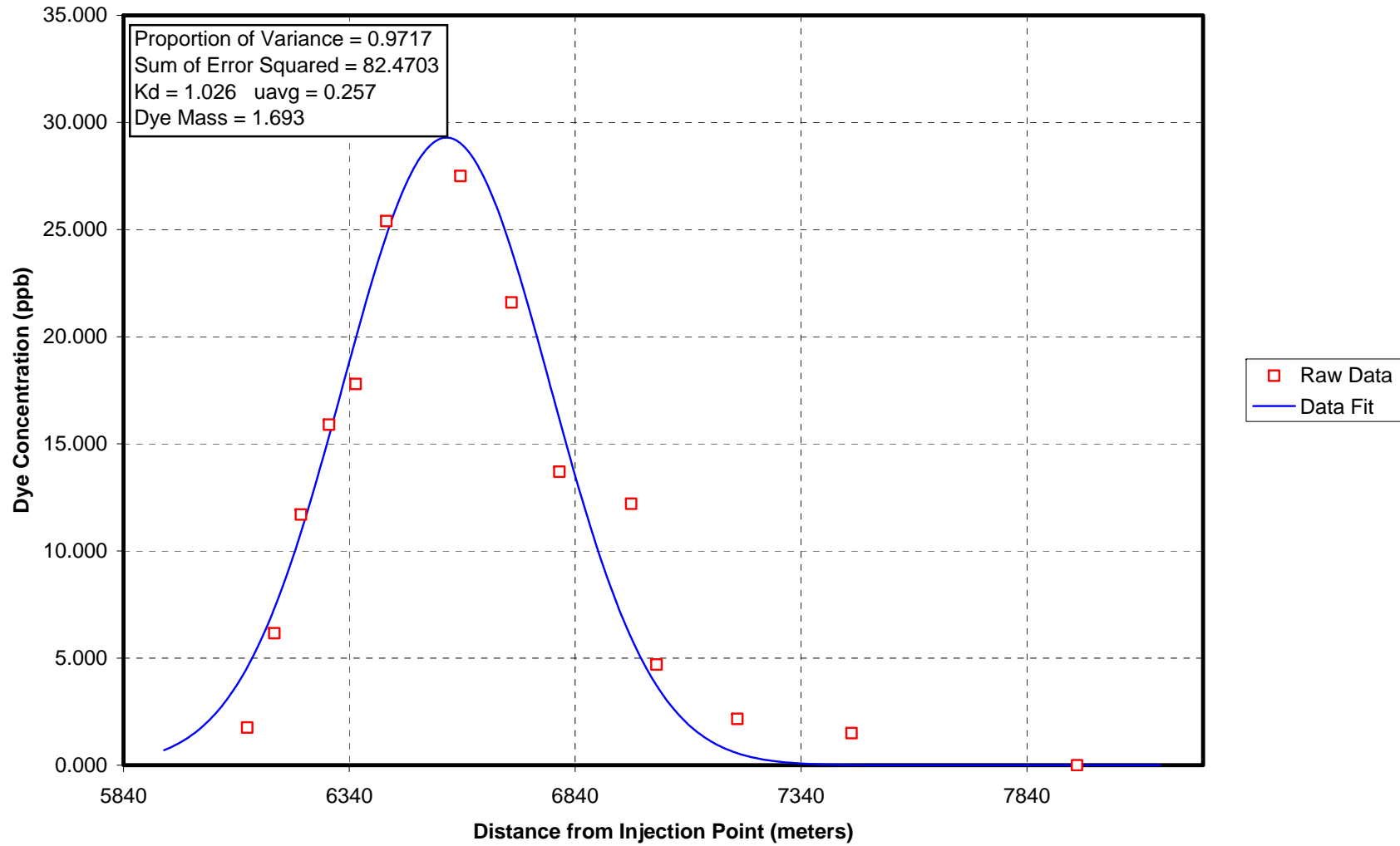
User Inputs	Depth of Stream (meters)	2.195	Run Dispersion Routine
	Width of Stream (meters)	45.872	
	Time Elapsed Since Dye Injection (sec)	25526	
	¹ Mass of Solution Injected (kg)	12.500	
	Number of Iterations	100	
²Initial Guess	K _d : Diffusion (m ² /s)	1.0000	

¹Mass of solution injected is multiplied by 0.2 since the solution is 20% dye

²Initial guesses must be chosen carefully chosen since they control to a great degree the success and rate of convergence of the Gauss-Newton algorithm

Observed Dye Data	
f(X): Concentration (ppb)	X: Distance From Injection Point (meters)
1.755	6114
6.160	6174
11.700	6233
15.900	6295
17.800	6354
25.400	6422
31.400	6505
27.500	6586
21.600	6699
13.700	6805
12.200	6964
4.700	7020
2.163	7199
1.500	7452
0.000	7951

Non Linear Regression of Dye Data



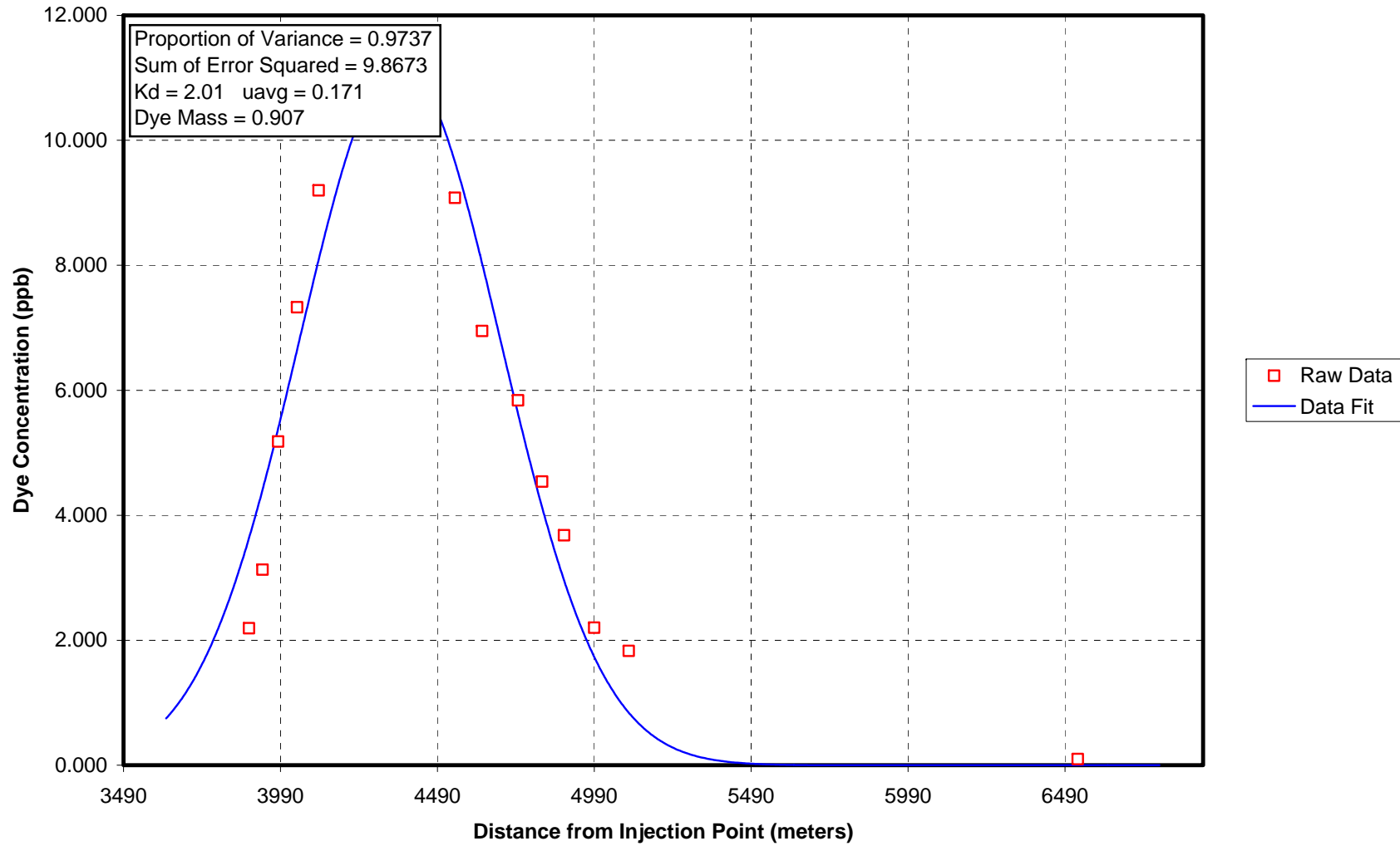
User Inputs	Depth of Stream (meters)	2.195	Run Dispersion Routine
	Width of Stream (meters)	45.872	
	Time Elapsed Since Dye Injection (sec)	25526	
	¹ Mass of Solution Injected (kg)	12.500	
	Number of Iterations	100	
²Initial Guess	K_d : Diffusion (m^2/s)	1.0000	

¹Mass of solution injected is multiplied by 0.2 since the solution is 20% dye

²Initial guesses must be chosen carefully since they control to a great degree the success and rate of convergence of the Gauss-Newton algorithm

Observed Dye Data	
f(X): Concentration (ppb)	X: Distance From Injection Point (meters)
2.192	3890
3.130	3933
5.180	3983
7.330	4043
9.200	4112
10.550	4194
11.200	4330
10.740	4420
9.080	4546
6.950	4633
5.840	4747
4.540	4824
3.680	4894
2.202	4990
1.830	5100
0.100	6531

Non Linear Regression of Dye Data



Appendix G – Historical and Ambient Data

Appendix G1 – Ambient Data

Grand Bayou

Critical Temperature and DO Determinations:

SITE NUMBER: 82

SITE DESCRIPTION: Grand Bayou at Grand Bayou, Louisiana

	<i>Summer Season</i>	<i>Winter Season</i>
<i>90th Percentile Temperature(°C):</i>	28.13	18.50
<i>90 % DO Sat (mg/L):</i>	7.03	8.43
<i>Months:</i>	May To Oct	Nov To Apr

<i>Date</i>	<i>Water Temp. (°C)</i>	<i>DO (mg/L)</i>
5/11/1998	24.70	1.80
3/9/1998	15.60	3.40
1/12/1998	13.90	2.90
11/17/1997	11.40	1.20
9/8/1997	27.60	4.40
7/14/1997	25.00	4.70
5/12/1997	21.00	0.80
3/10/1997	18.50	1.70
1/6/1997	19.00	0.15
11/18/1996	17.30	0.40
9/9/1996	27.80	6.10
7/8/1996	28.40	4.50
5/13/1996	25.40	4.90
3/11/1996	10.57	6.26
1/8/1996	6.96	5.69
11/13/1995	13.70	4.01
9/11/1995	25.90	3.80
7/10/1995	28.10	2.80
5/8/1995	26.00	2.50
3/13/1995	17.30	3.30
1/9/1995	12.40	3.30

Little Grand Bayou

Critical Temperature and DO Determinations:

SITE NUMBER: 980

SITE DESCRIPTION: Grand Bayou, Louisiana

	<i>Summer Season</i>	<i>Winter Season</i>
<i>90th Percentile Temperature(°C):</i>	28.81	19.55
<i>90 % DO Sat (mg/L):</i>	6.95	8.26
<i>Months:</i>	May To Oct	Nov To Apr

<i>Date</i>	<i>Water Temp. (°C)</i>	<i>DO (mg/L)</i>
6/28/2005	28.59	4.33
6/7/2005	26.45	2.75
5/3/2005	20.12	2.12
4/5/2005	20.81	4.23
3/1/2005	15.17	5.62
2/1/2005	12.03	6.12
1/11/2005	17.61	5.77
11/29/2000	12.61	2.55
10/25/2000	22.35	2.93
9/27/2000	20.13	1.30
8/30/2000	29.68	0.62
8/2/2000	27.41	0.66
6/7/2000	25.56	2.08
5/9/2000	26.34	2.90
4/11/2000	19.24	7.20
3/14/2000	18.91	5.84
2/8/2000	12.31	5.58
1/11/2000	15.00	4.48

Appendix G2 – Land Use

Land Use Summary

Subsegment: 120206

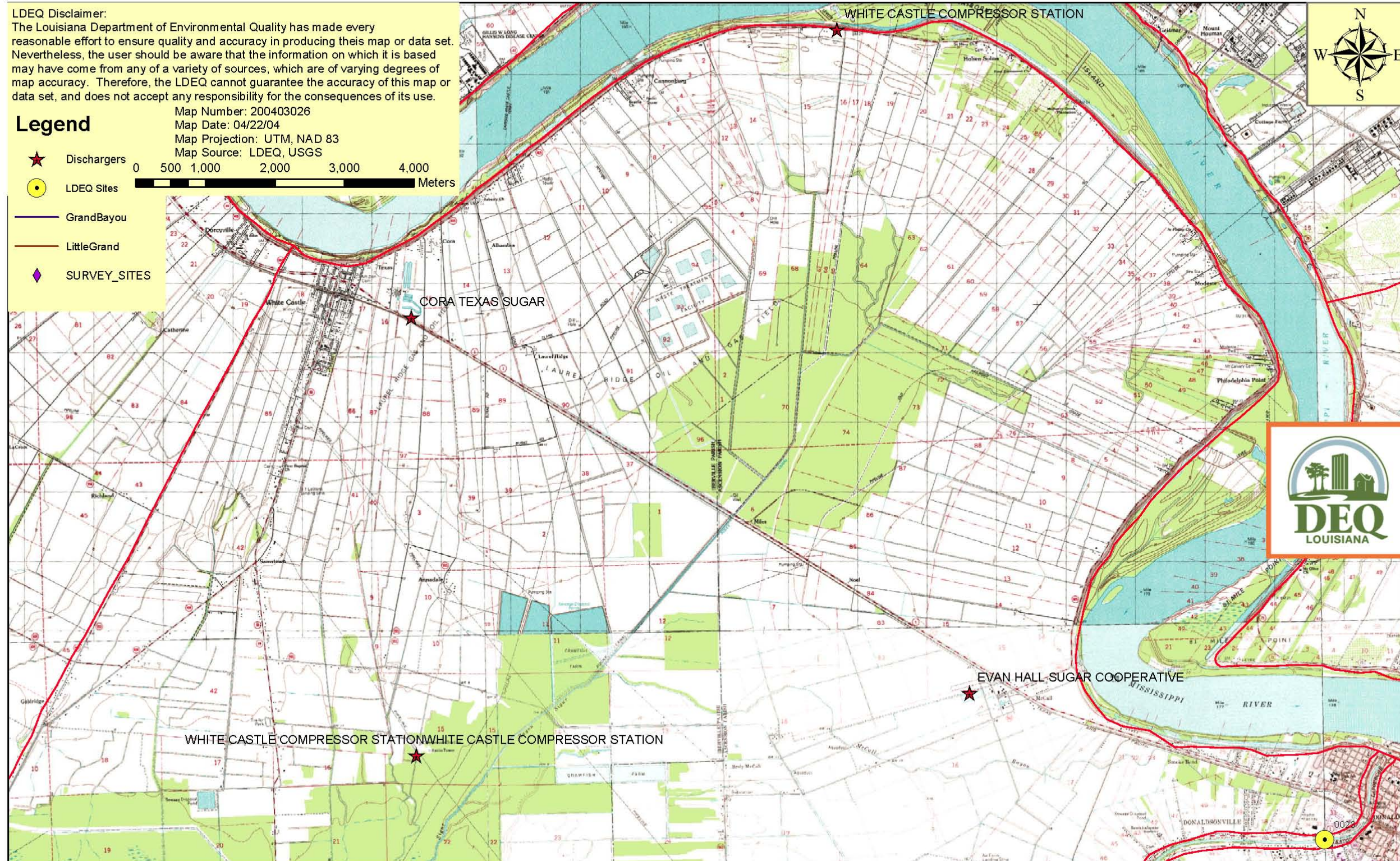
Data Source Name: LA-GAP June 2000

<i>Grid Name</i>	<i>Area (Acres)</i>	<i>% Land Use</i>
Agriculture/Cropland/Grassland	48175.10	47.98
Wetland Forest Deciduous	40085.05	39.92
Water	6139.20	6.11
Vegetated Urban	3493.15	3.48
Fresh Marsh	948.73	0.94
Upland Forest Mixed	768.37	0.77
Wetland S/S Deciduous	565.99	0.56
Non-Vegetated Urban	137.22	0.14
Upland S/S Mixed	53.15	0.05
Upland Forest Deciduous	18.90	0.02
Upland Barren	13.12	0.01
Wetland Barren	8.01	0.01
Upland S/S Deciduous	5.78	0.01
Upland Forest Evergreen	4.23	0.00
Upland S/S Evergreen	0.89	0.00

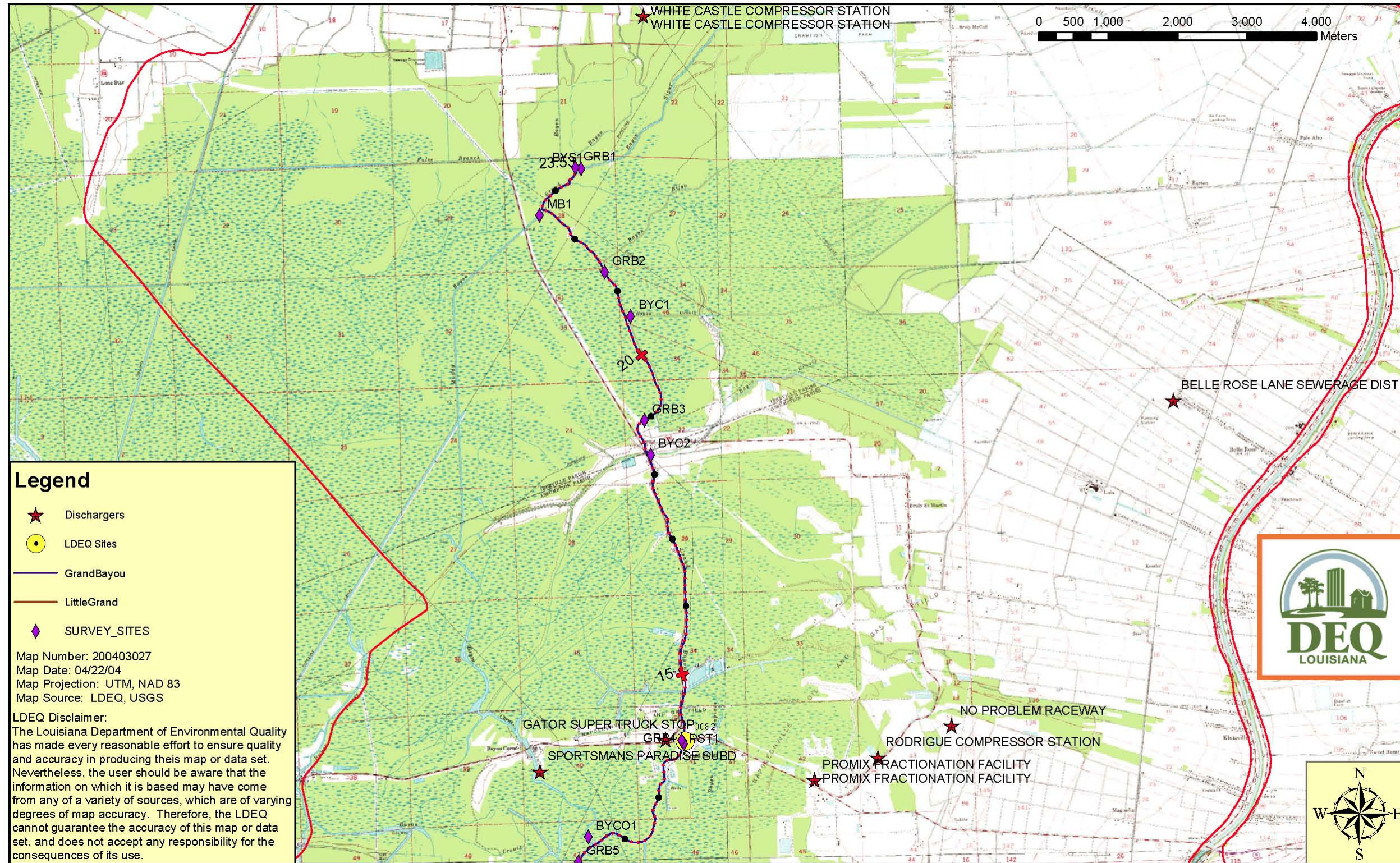
Appendix H – Maps and Diagrams

Appendix H1 – Overview Maps

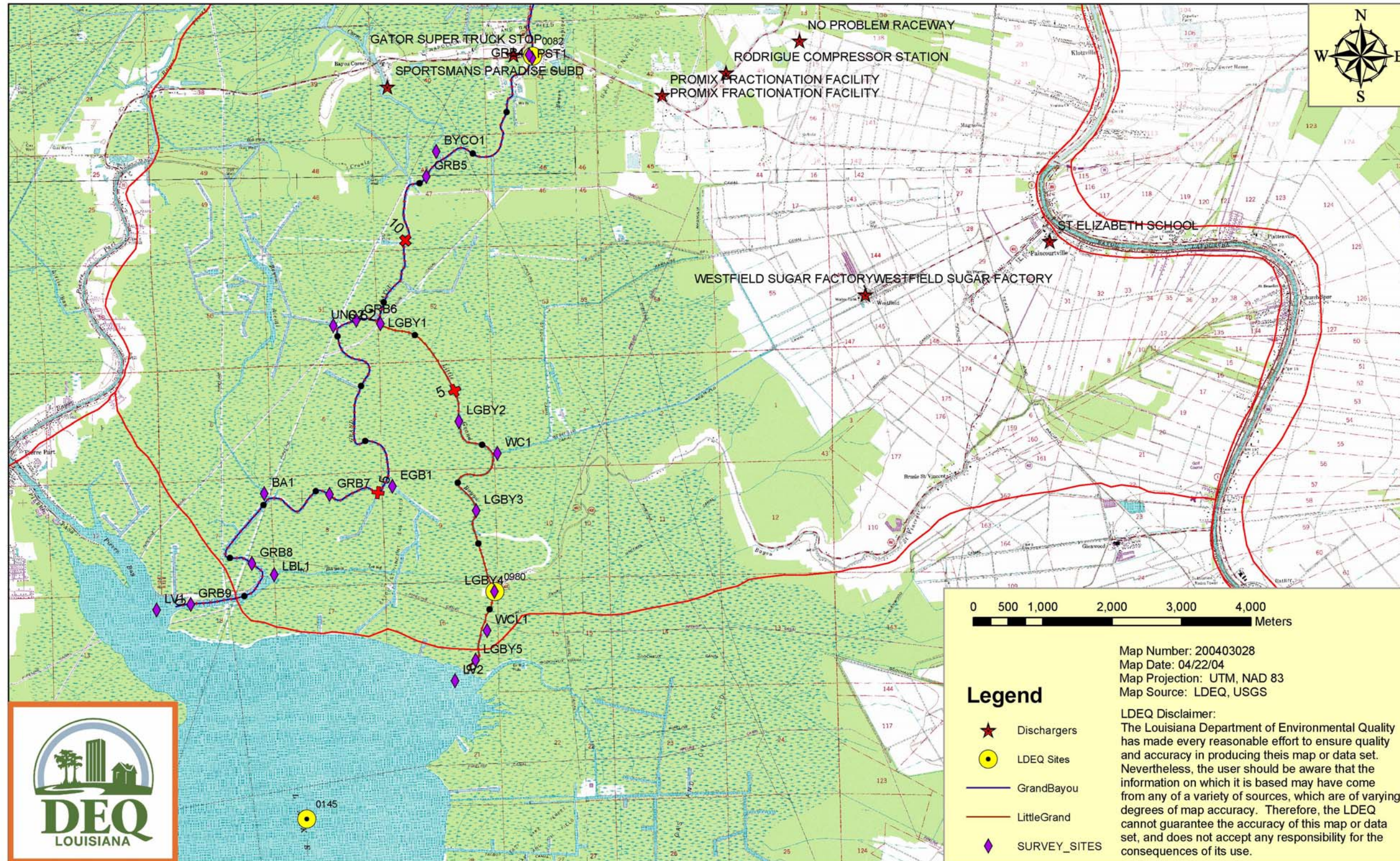
Upper Grand Bayou (120206)

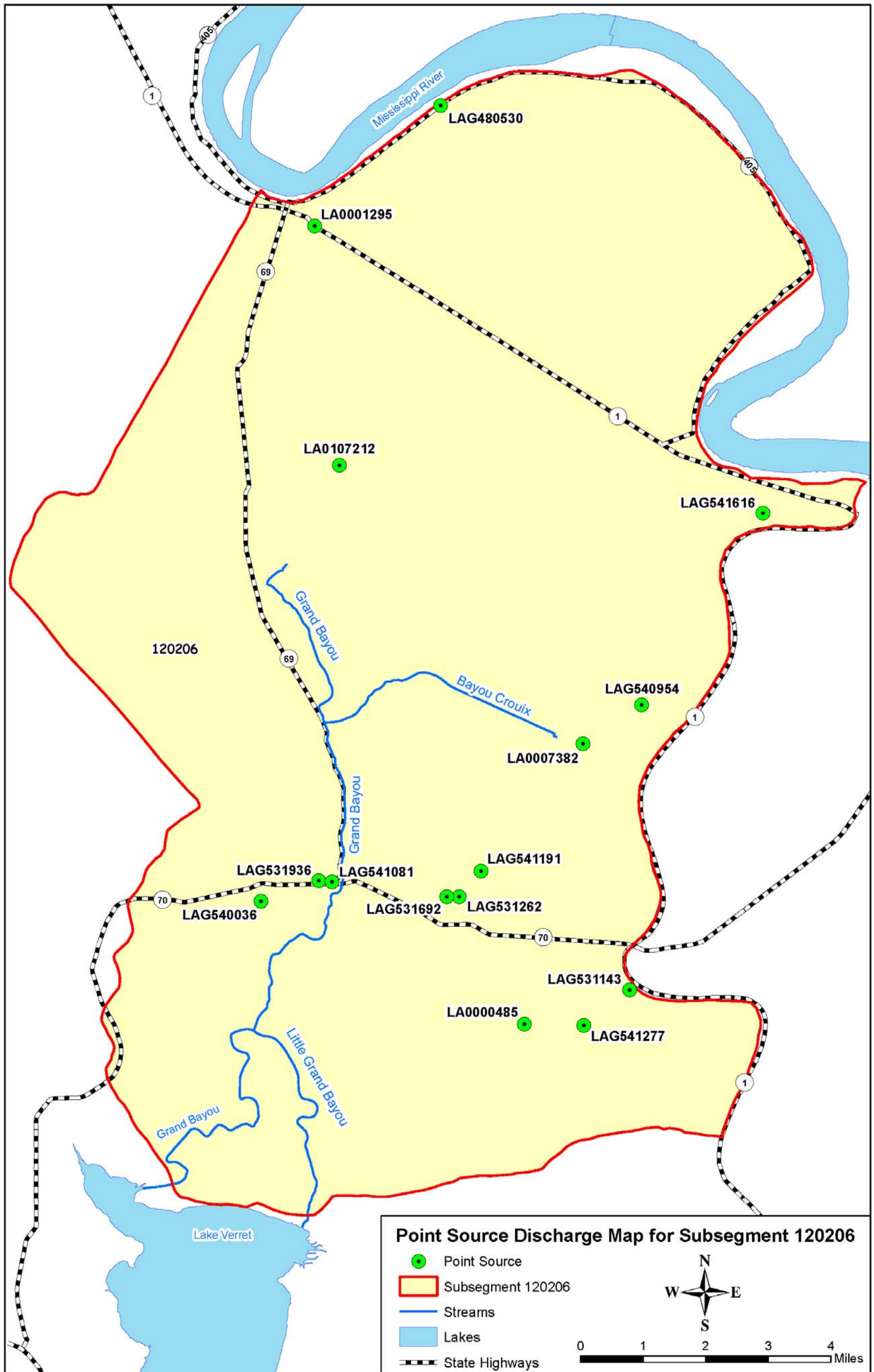


Middle Grand Bayou (120206)

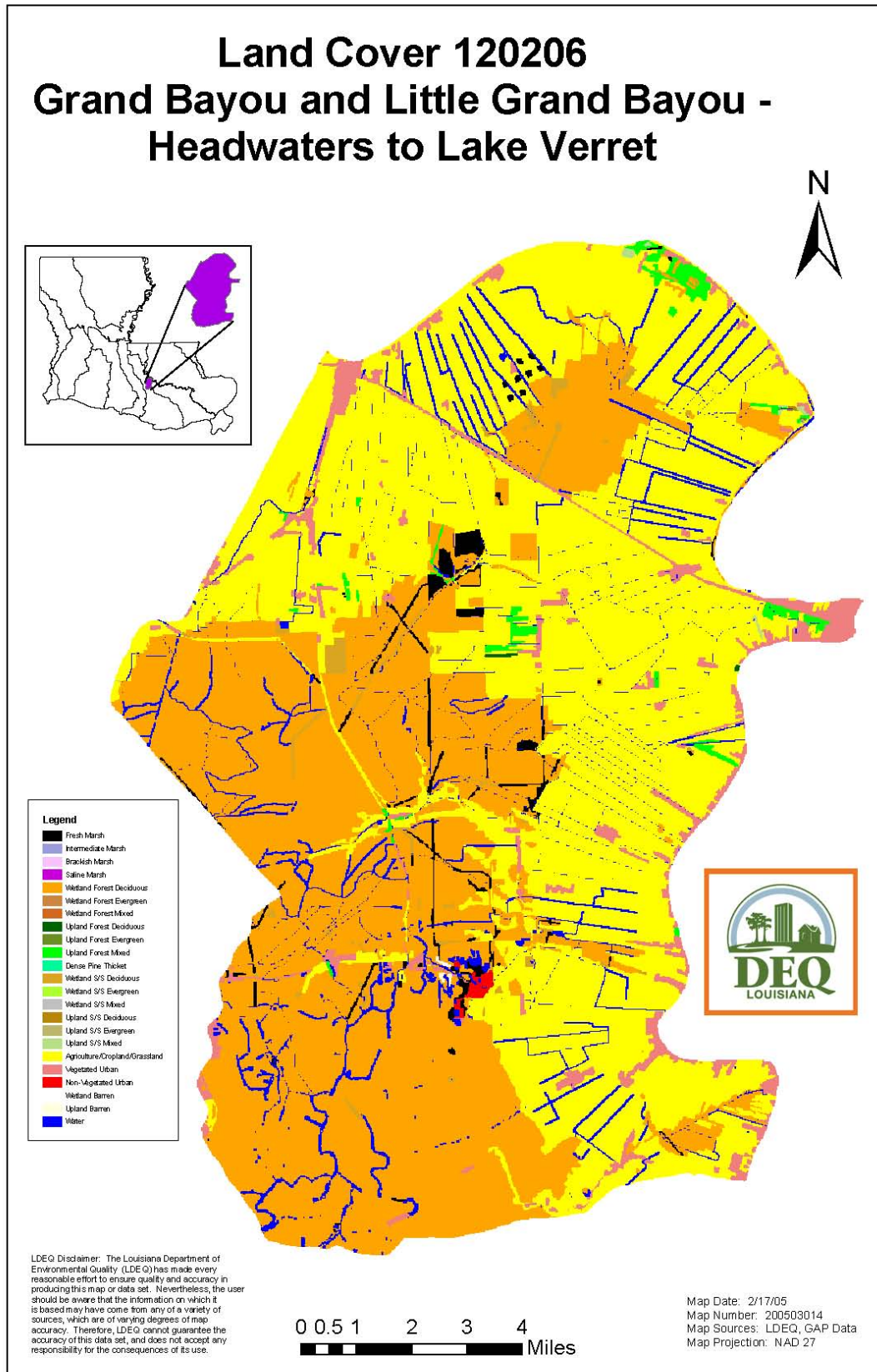


Lower Grand Bayou (120206)



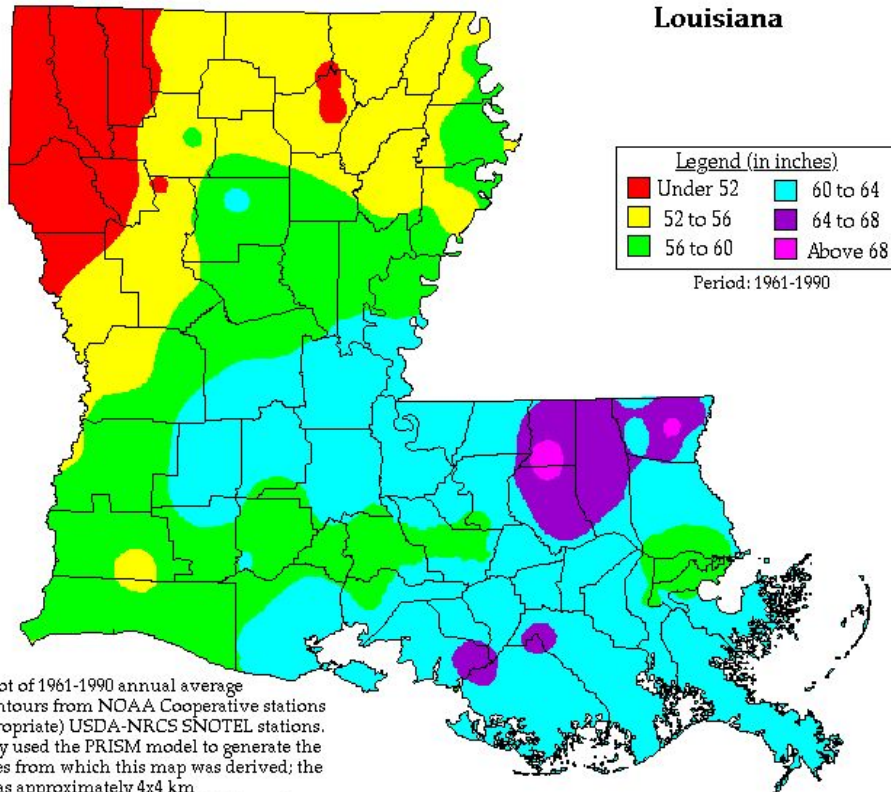


Appendix H2 – Land Use Map



Appendix H3 – LA Precipitation Map

Average Annual Precipitation Louisiana

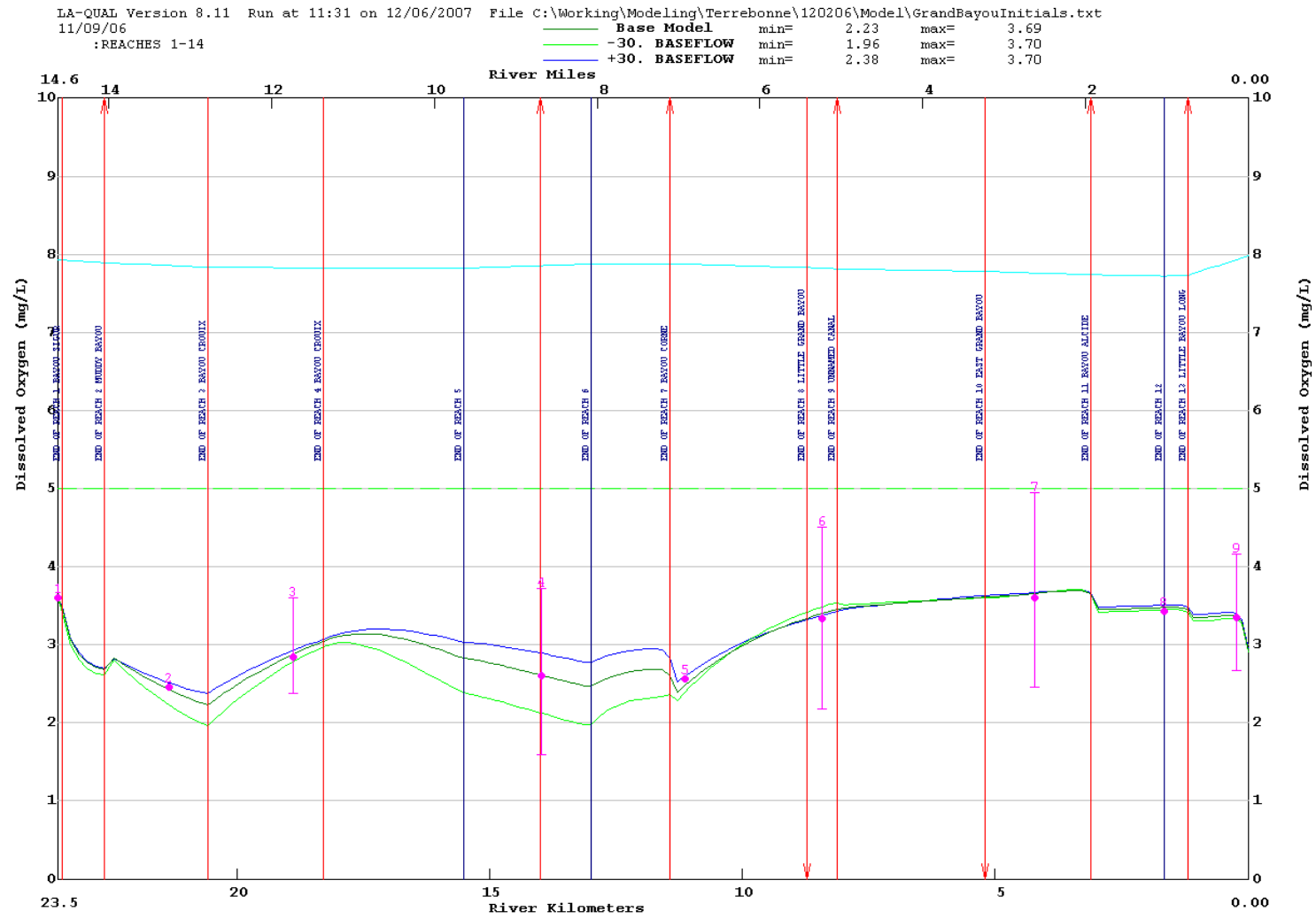


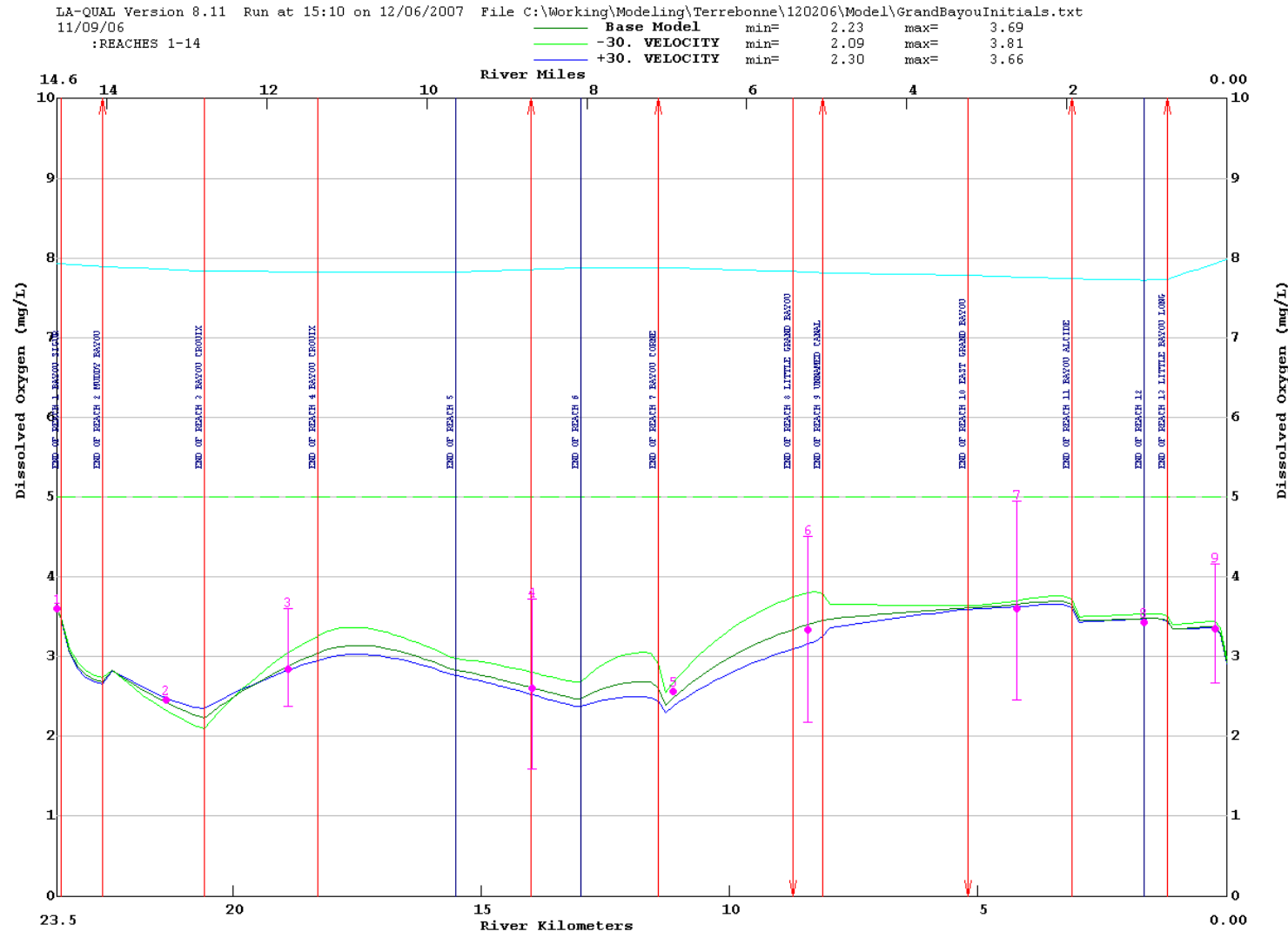
This map is a plot of 1961-1990 annual average precipitation contours from NOAA Cooperative stations and (where appropriate) USDA-NRCS SNOTEL stations. Christopher Daly used the PRISM model to generate the gridded estimates from which this map was derived; the modeled grid was approximately 4x4 km latitude/longitude, and was resampled to 2x2 km using a Gaussian filter. Mapping was performed by Jenny Weisburg. Funding was provided by USDA-NRCS National Water and Climate Center.

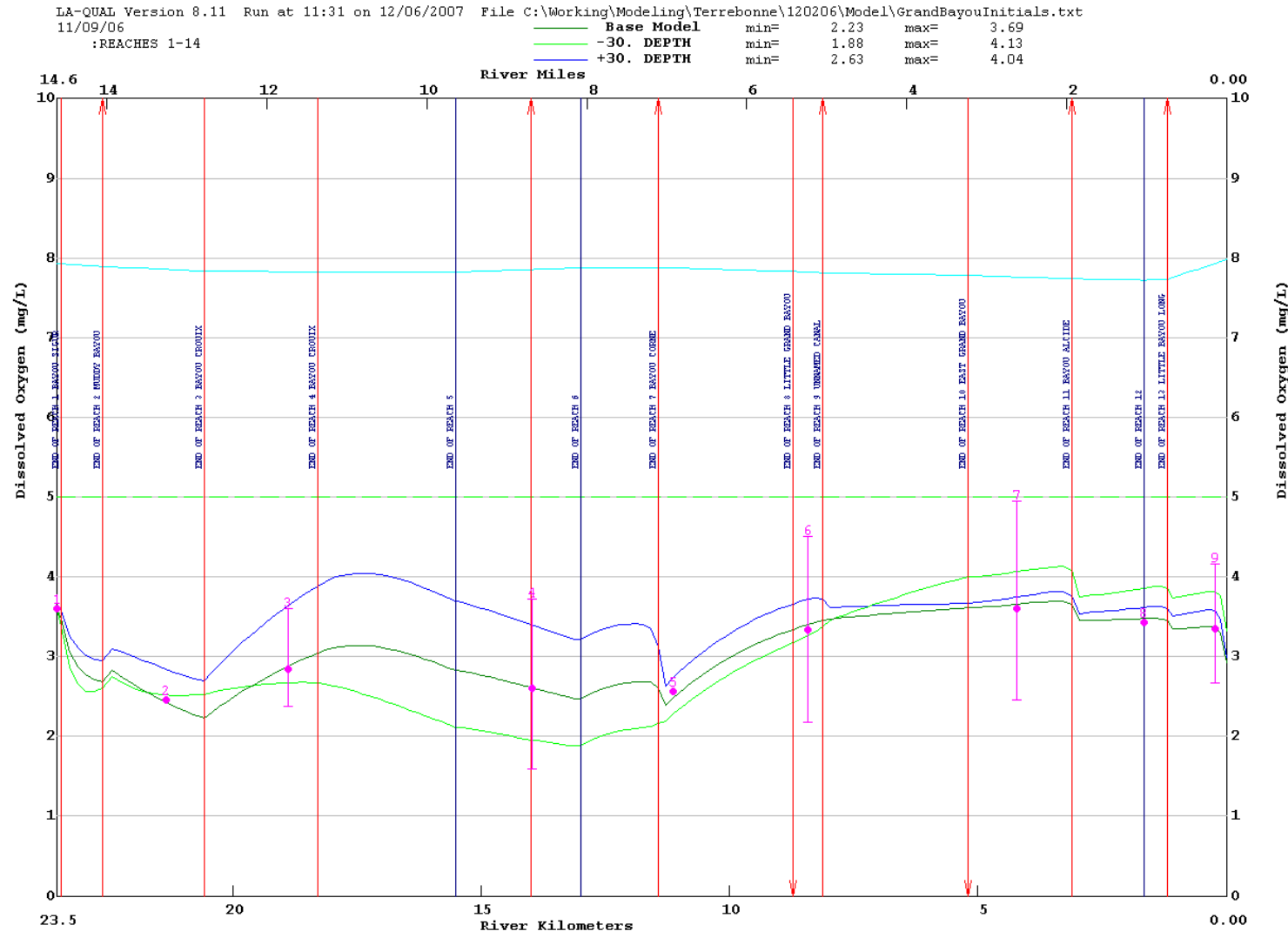
Appendix I – Sensitivity Analysis

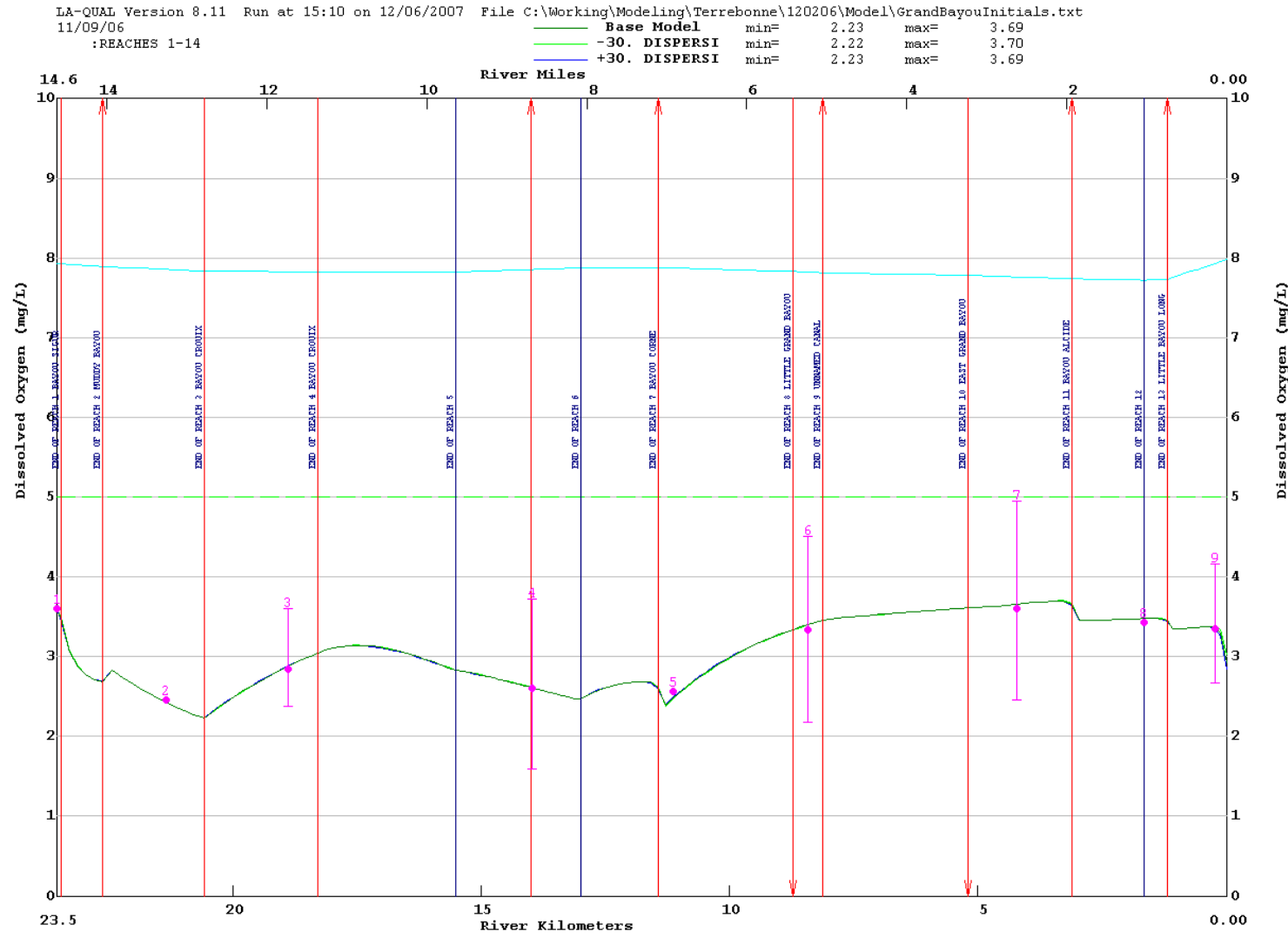
Appendix I1 – Grand Bayou

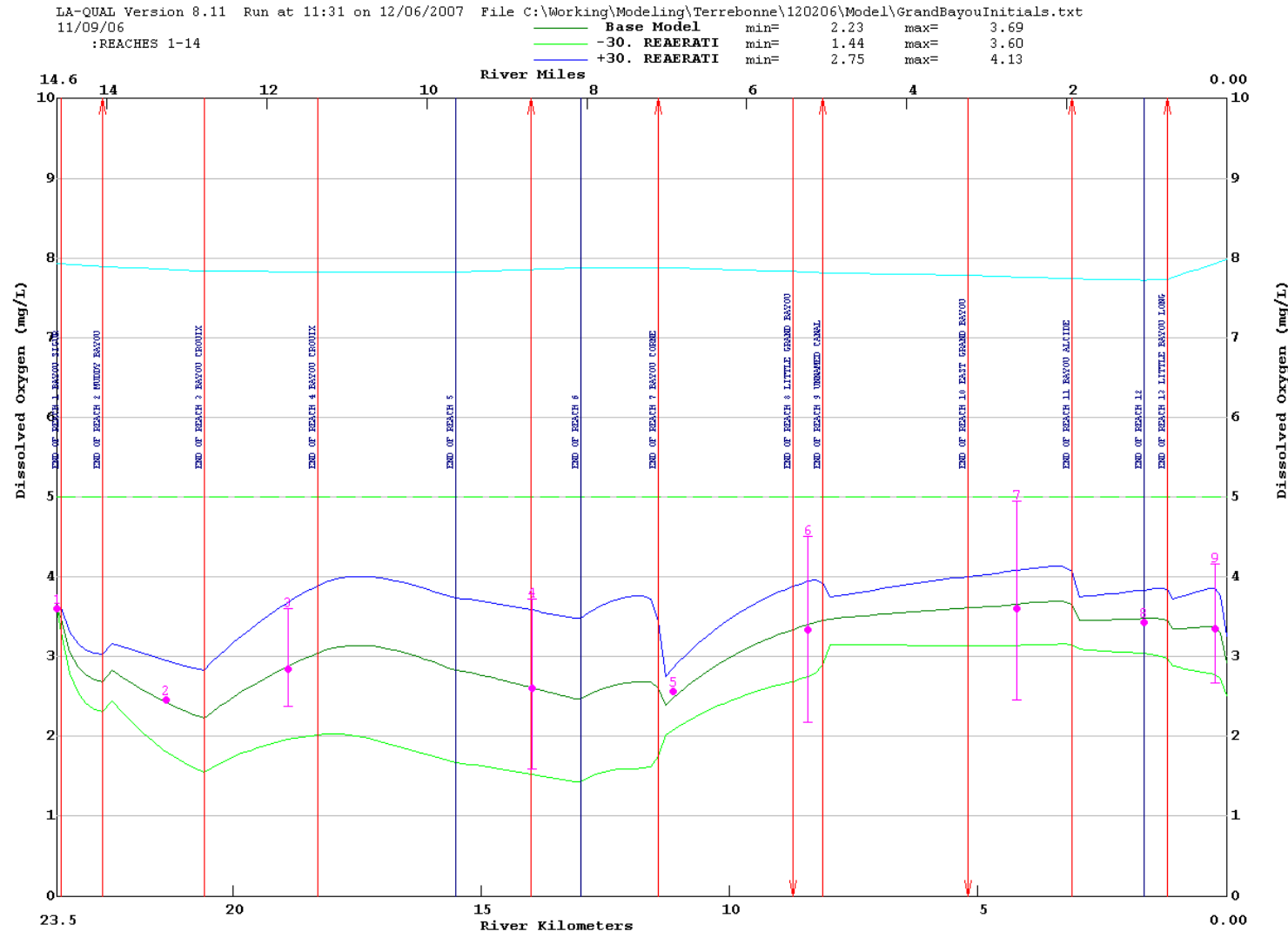
Sensitivity Output Graphs

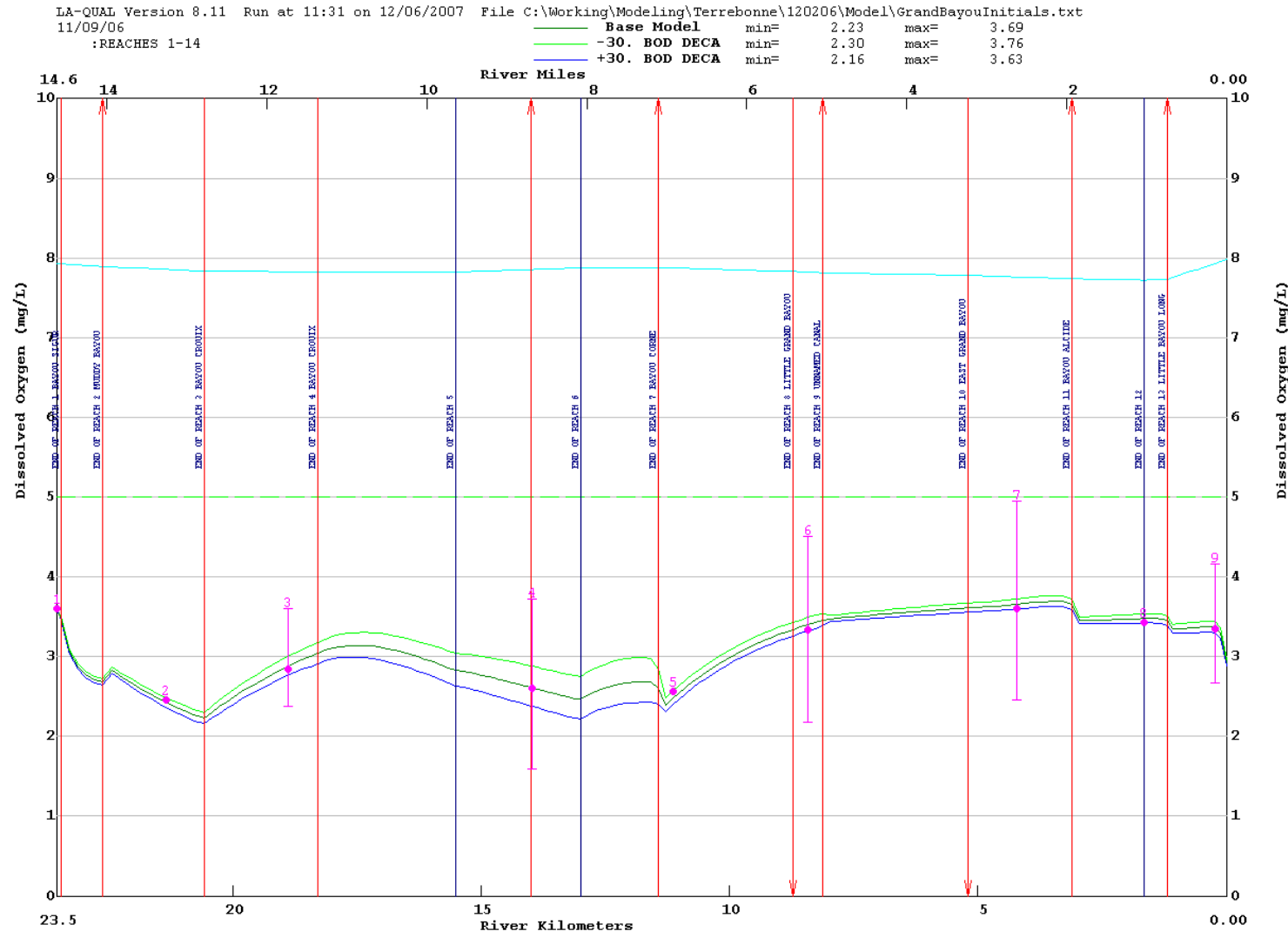


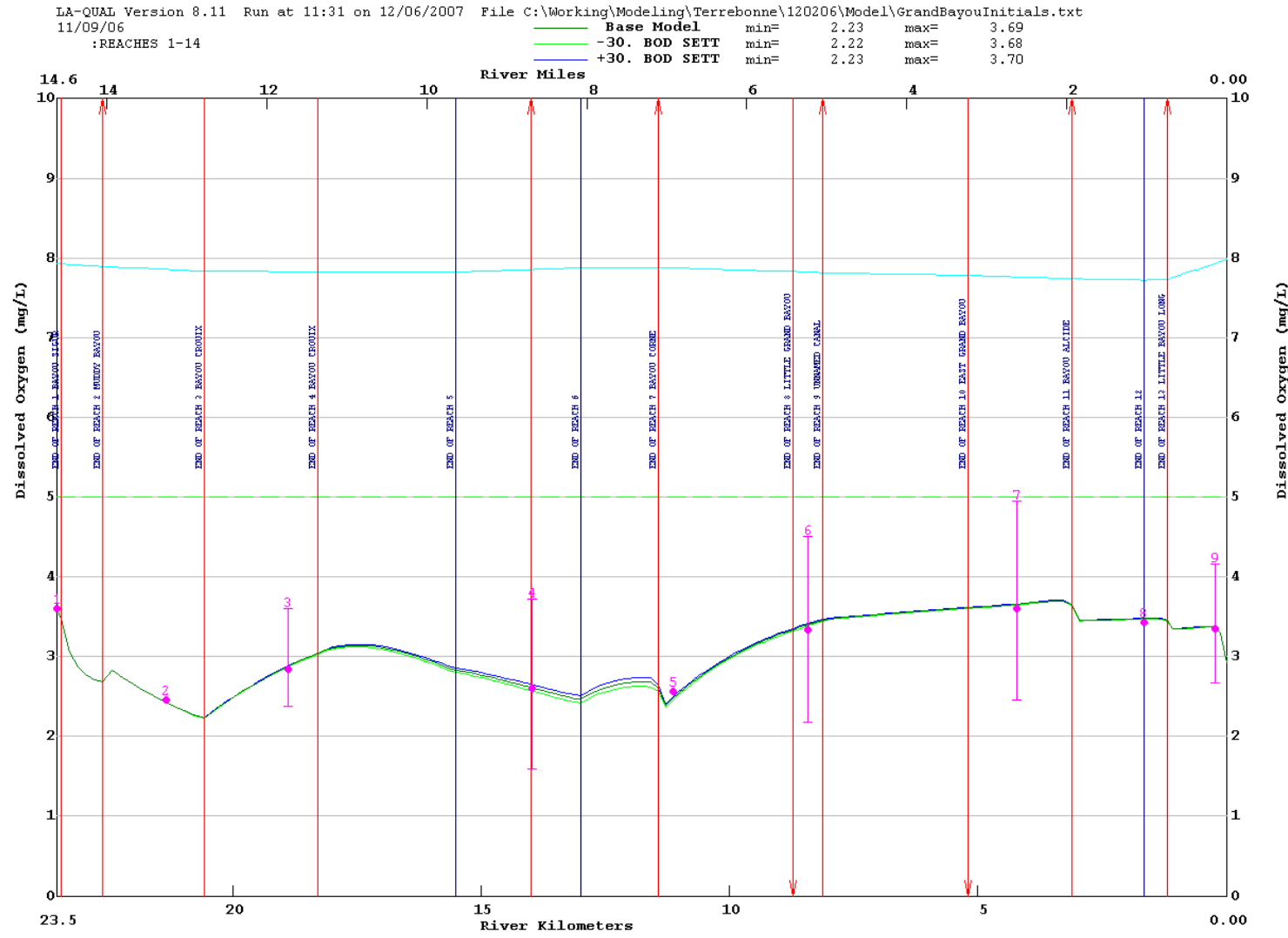


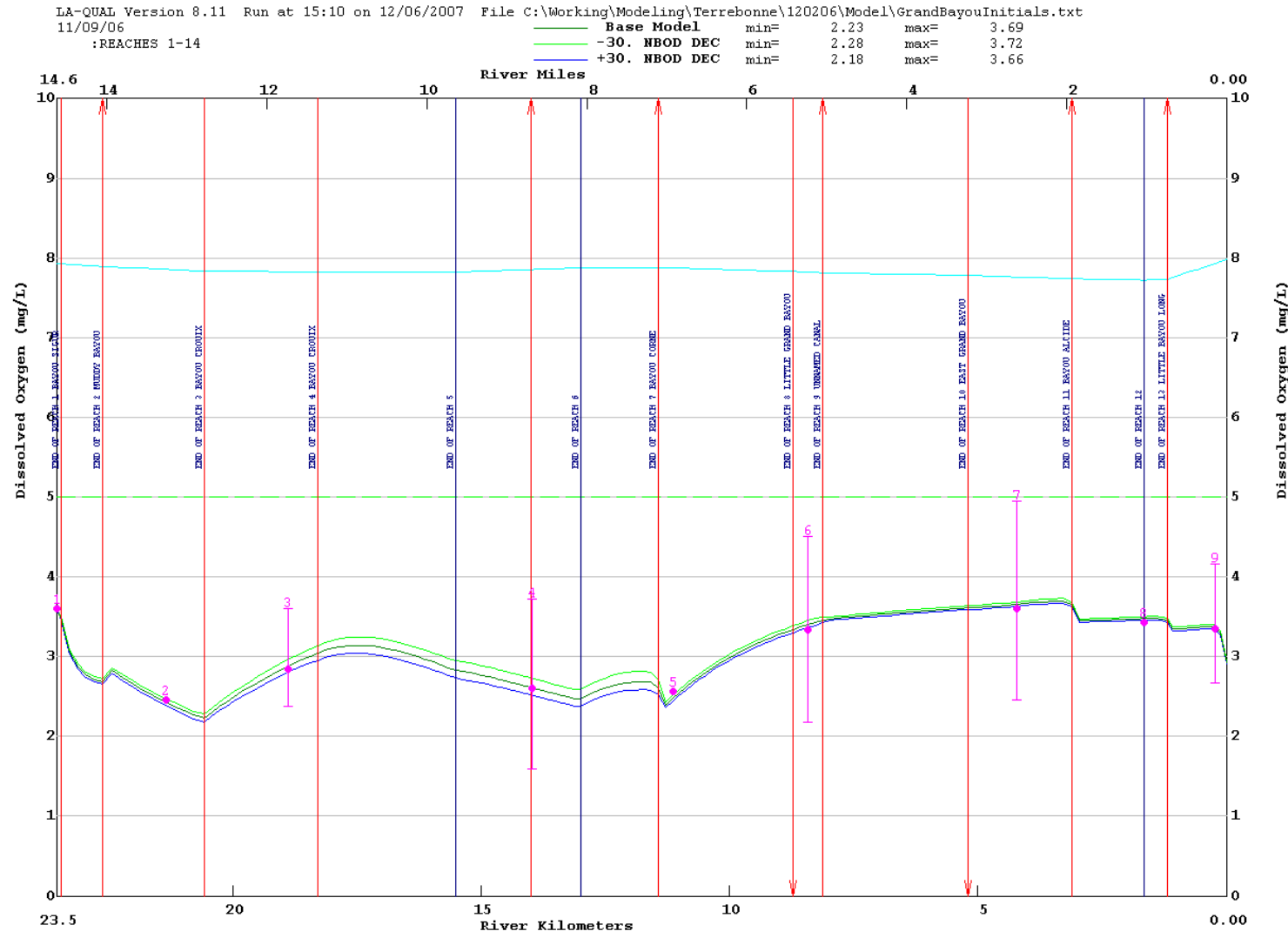






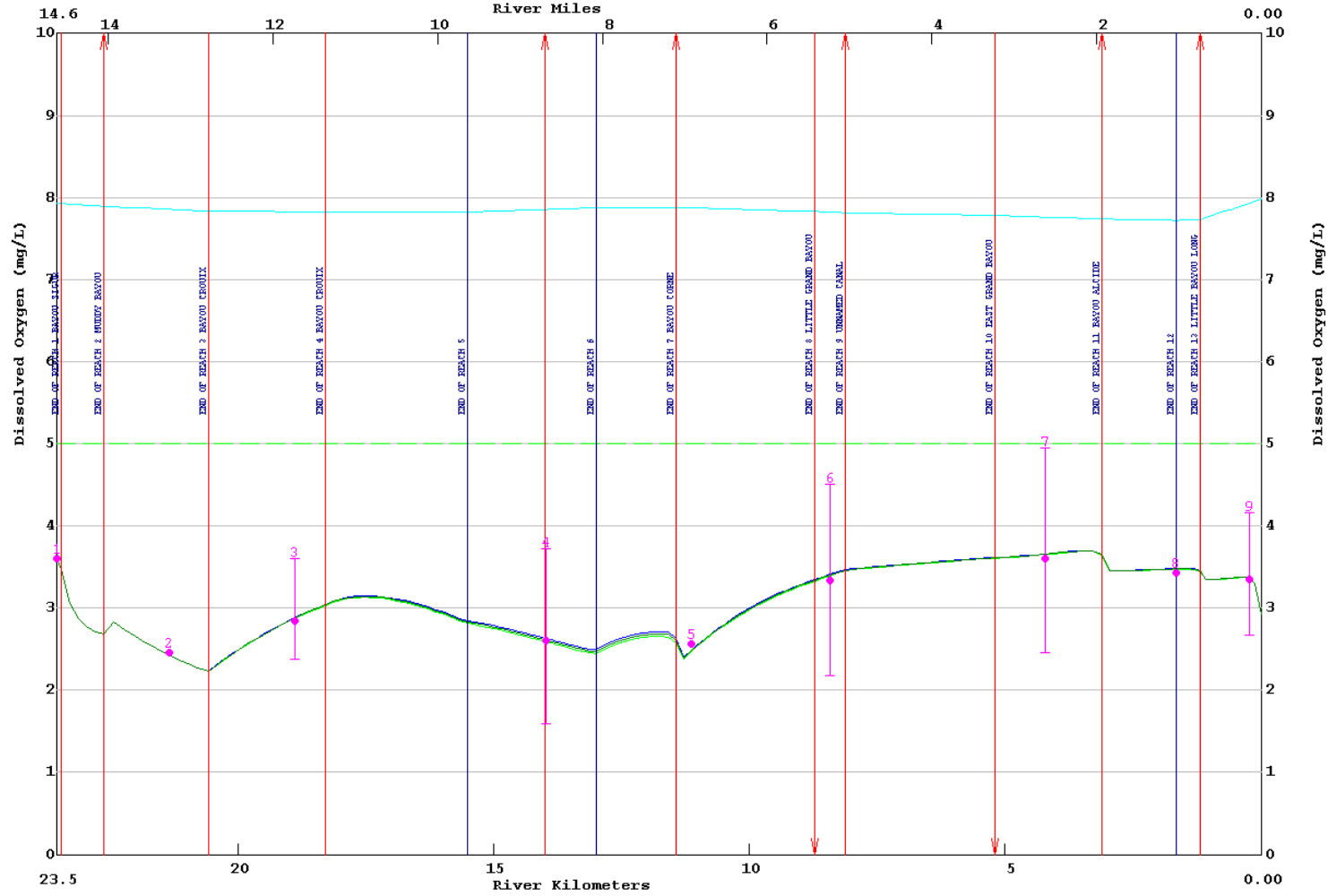


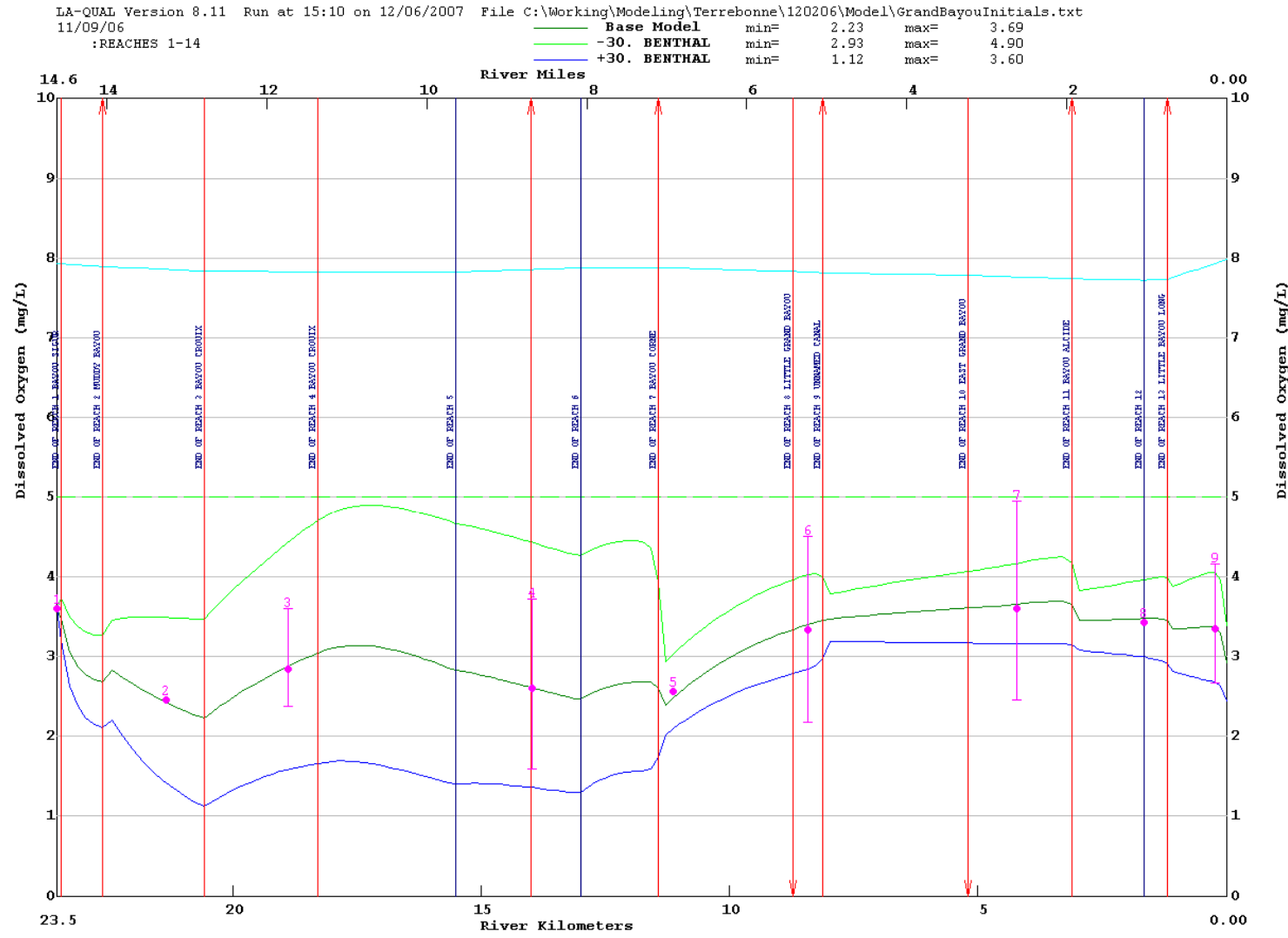


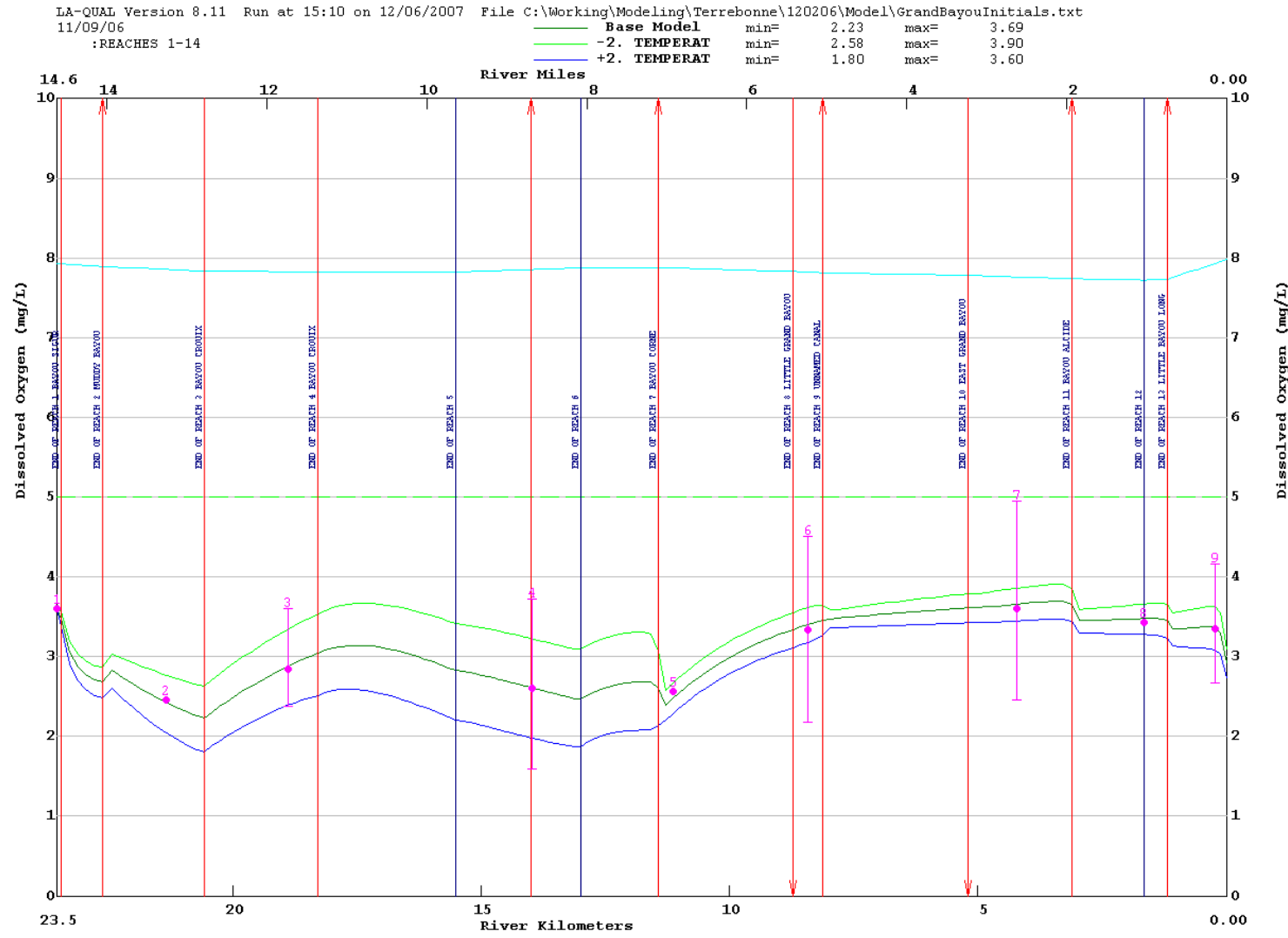


LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06
 :REACHES 1-14

—	Base Model	min=	2.23	max=	3.69
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—	+30. NBOD SET	min=	2.23	max=	3.70

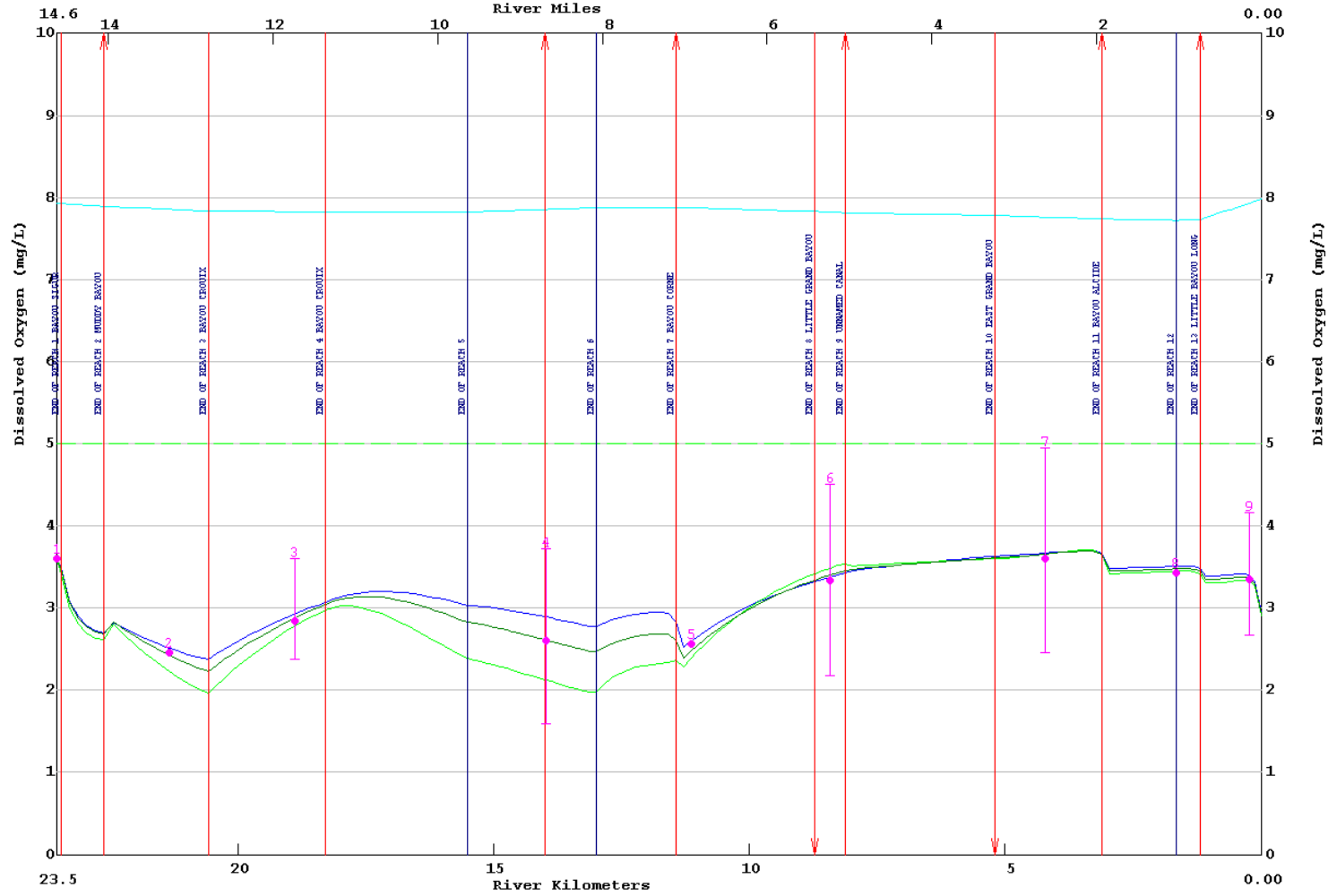


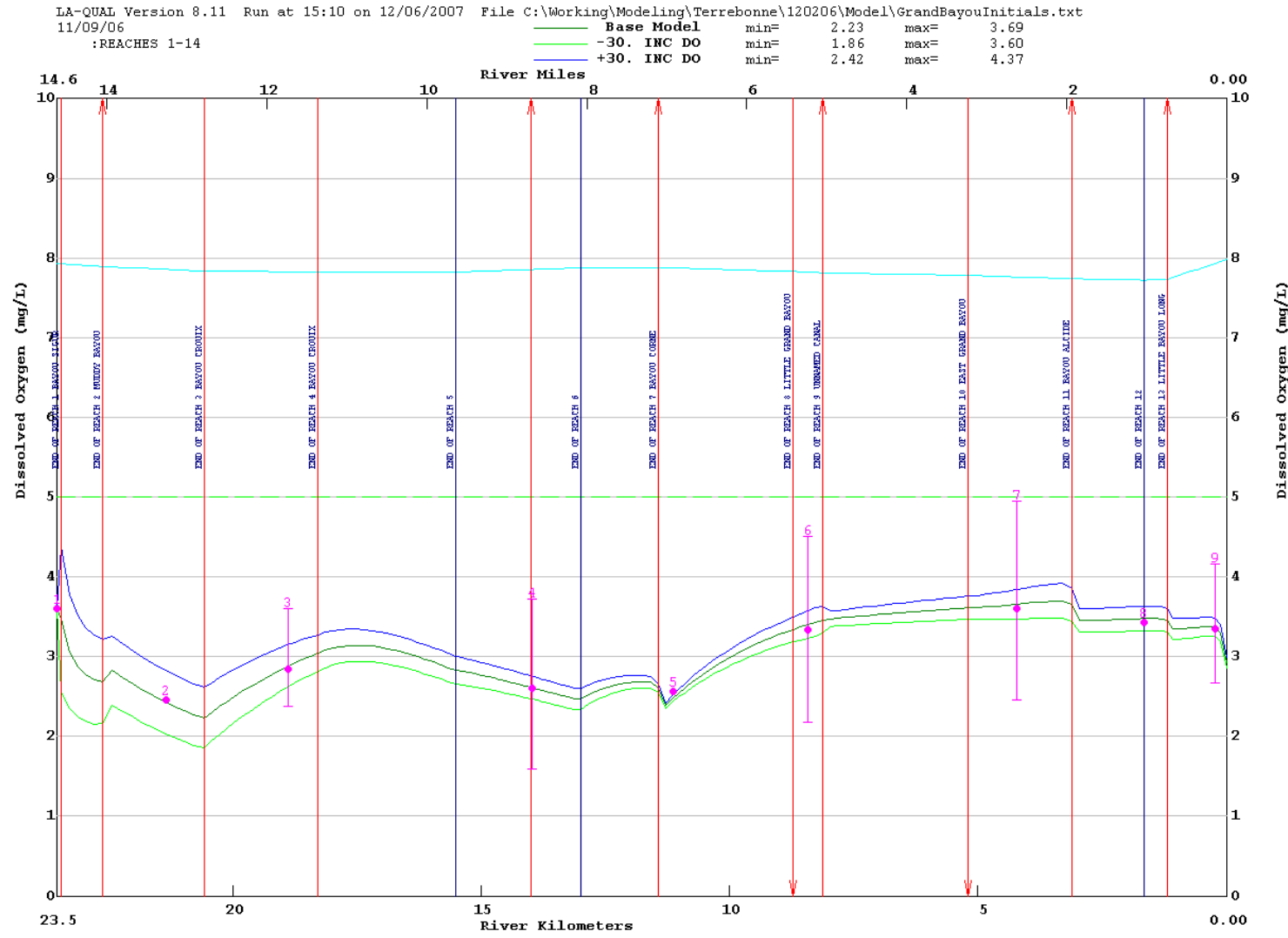




LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06
 :REACHES 1-14

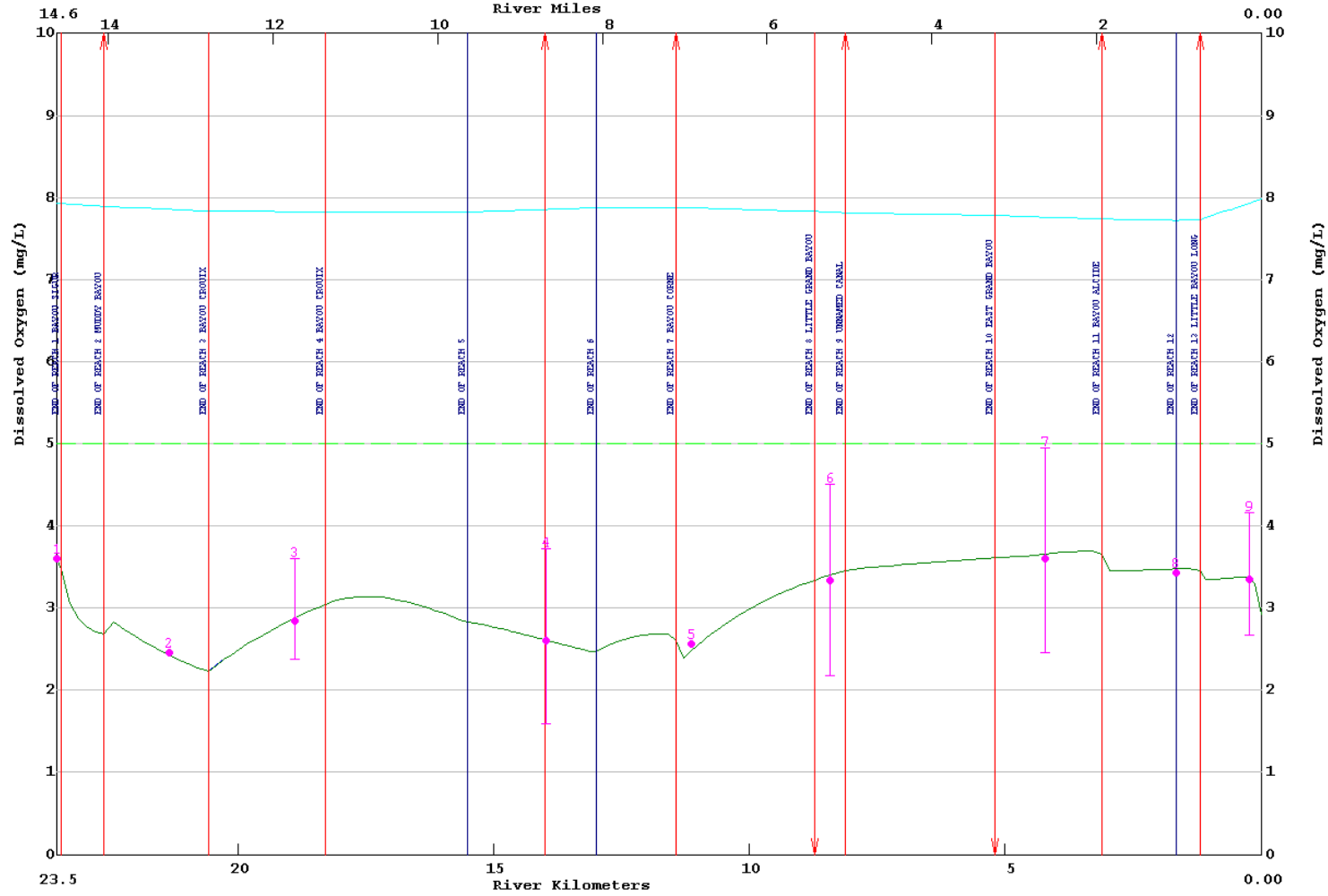
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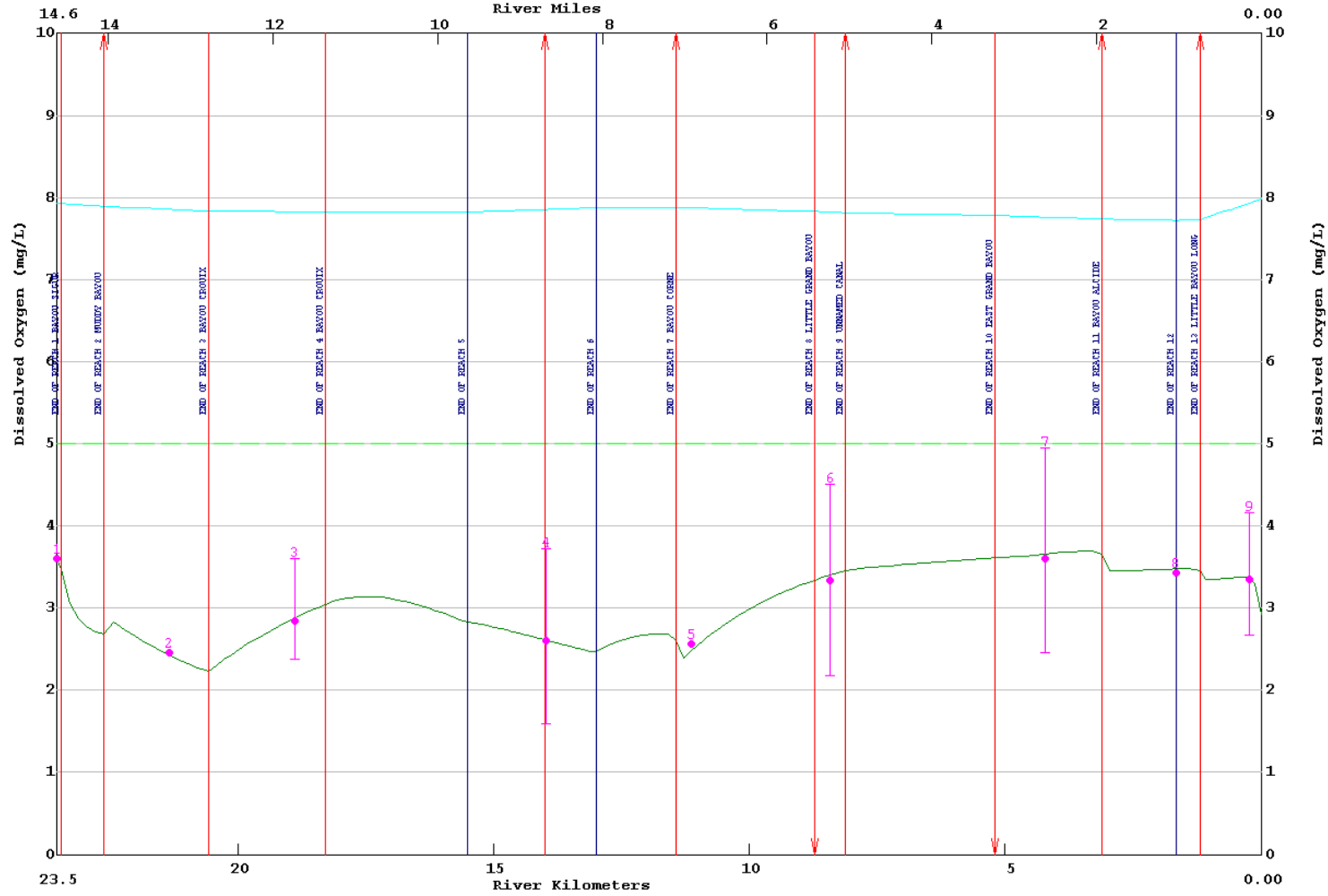
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 11/09/06
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—	+30. HDW FLOW	min=	2.23	max=	3.69



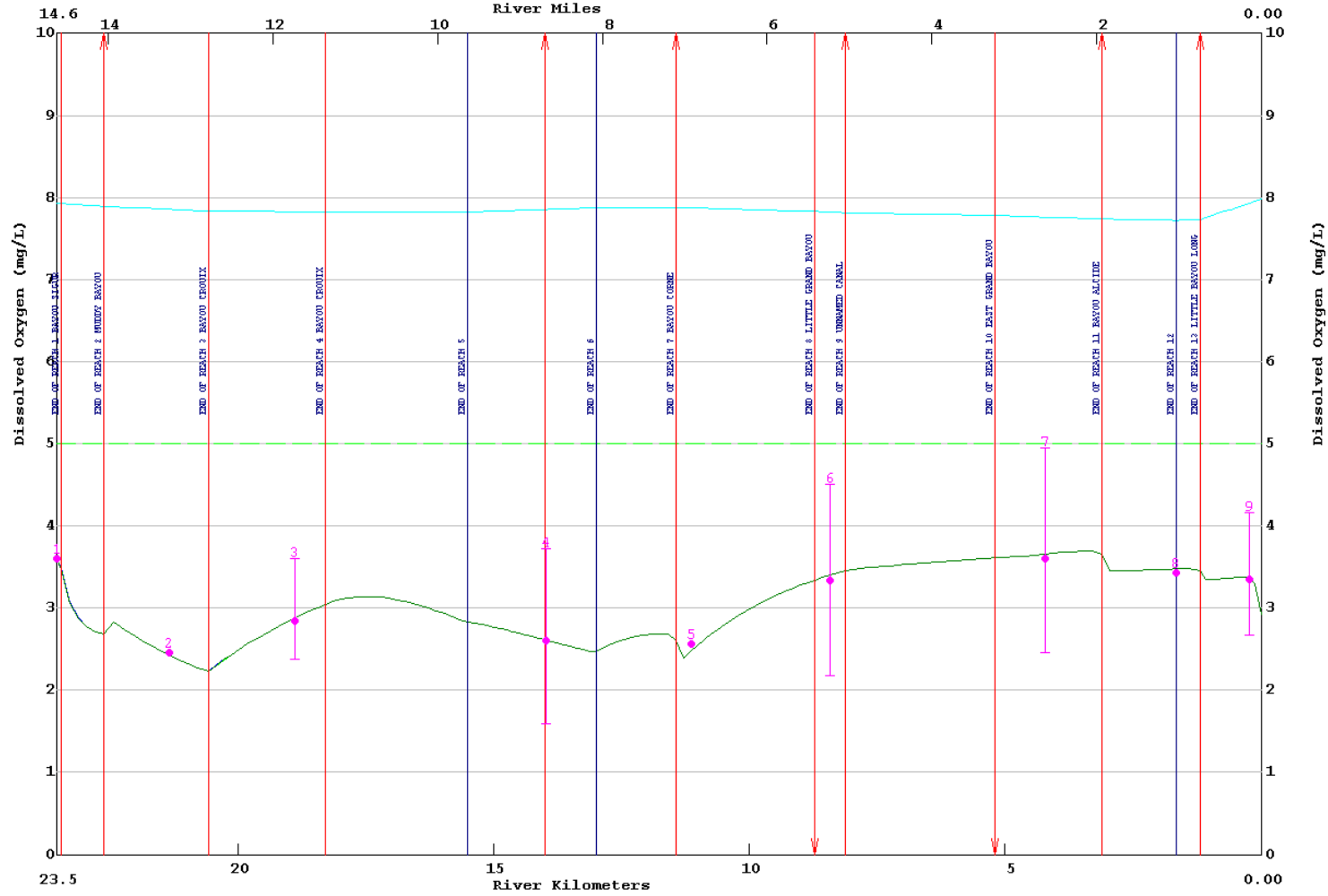
LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06
 :REACHES 1-14

—	Base Model	min=	2.23	max=	3.69
—	-2. HDW TEMP	min=	2.23	max=	3.69
—	+2. HDW TEMP	min=	2.23	max=	3.69

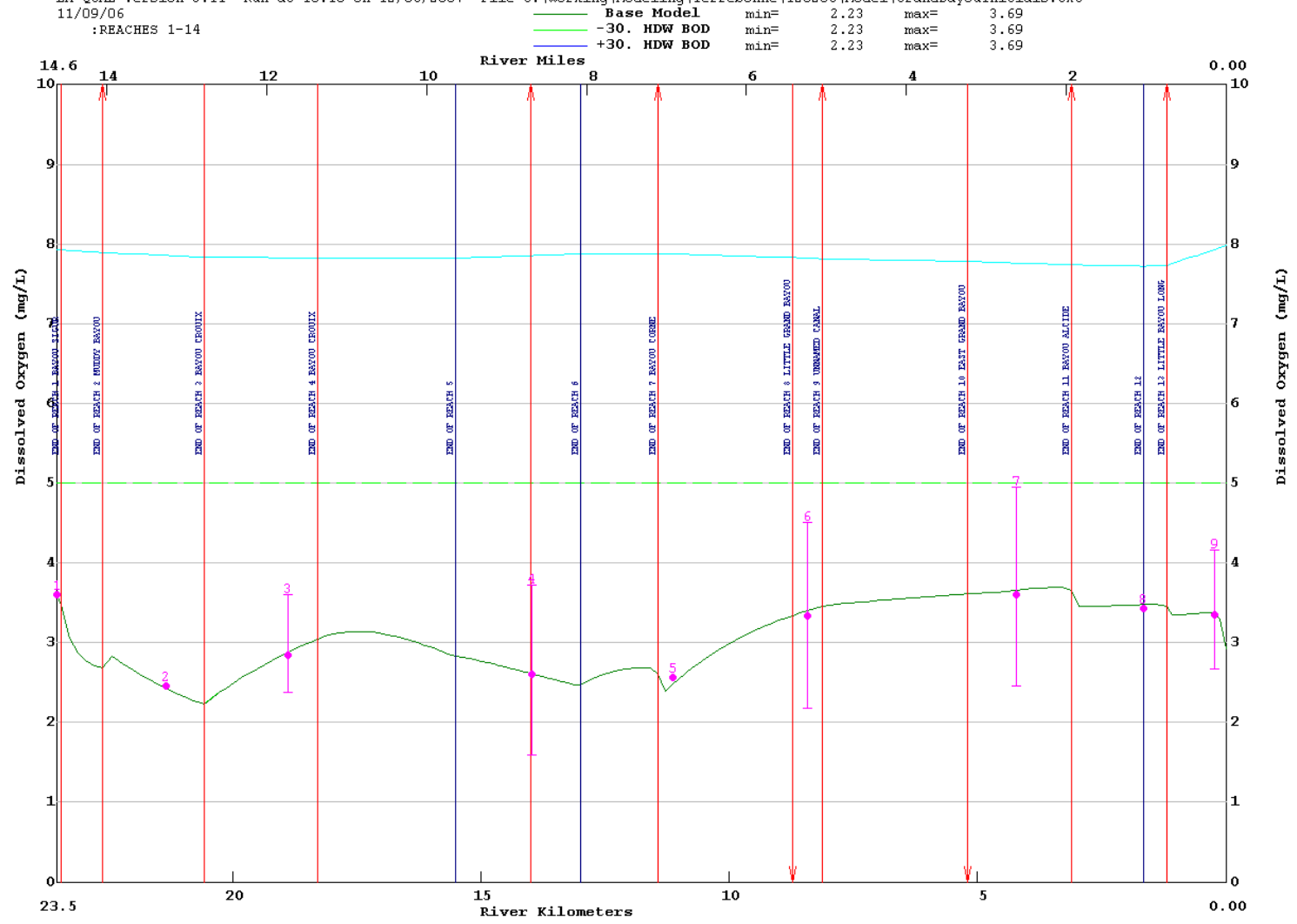


LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06
 : REACHES 1-14

—	Base Model	min=	2.23	max=	3.69
—	-30% HDW DO	min=	2.23	max=	3.69
—	+30% HDW DO	min=	2.23	max=	3.69

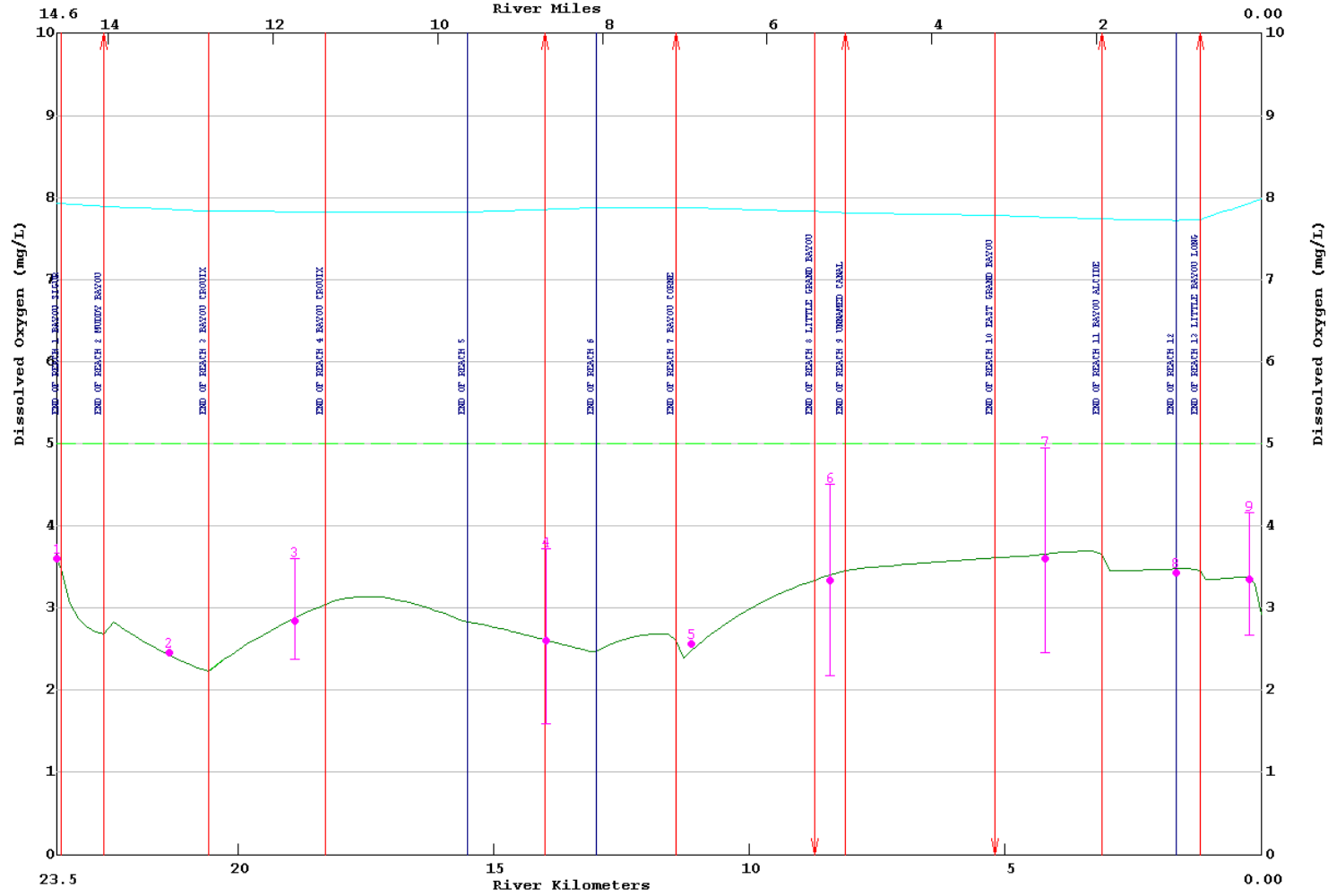


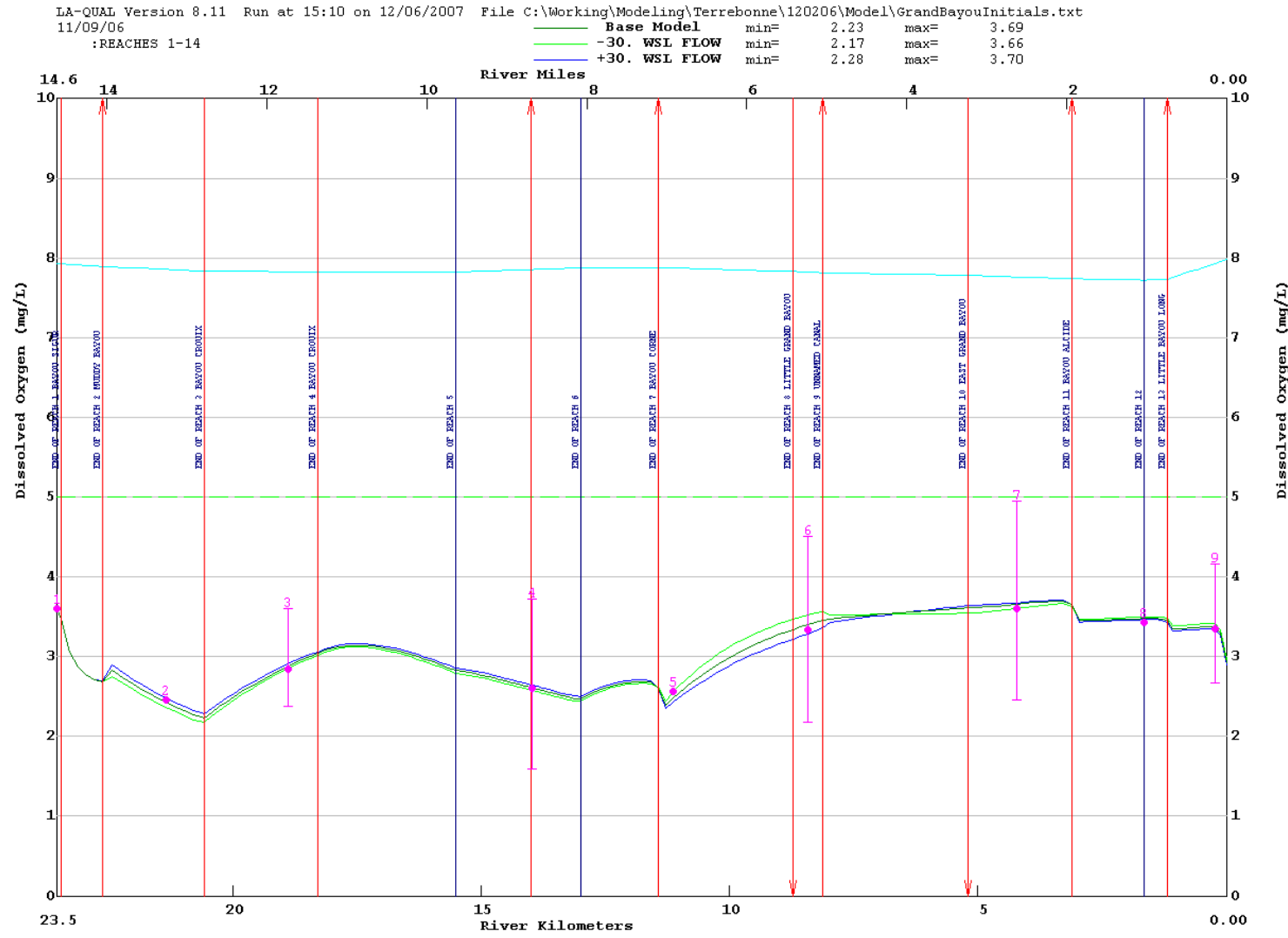
LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06
 :REACHES 1-14

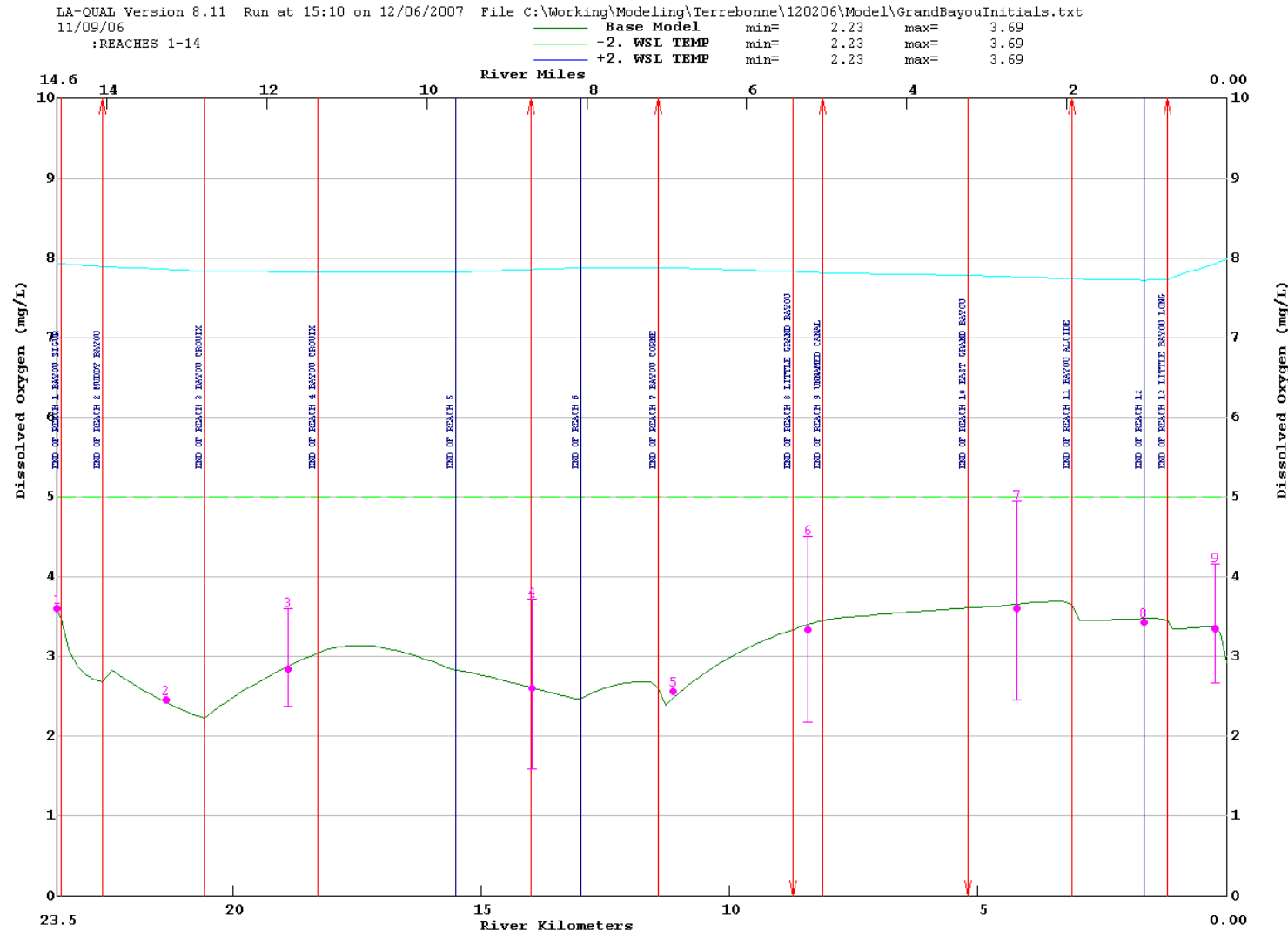


LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06
 :REACHES 1-14

—	Base Model	min=	2.23	max=	3.69
—	-30. HDW NBOD	min=	2.23	max=	3.69
—	+30. HDW NBOD	min=	2.23	max=	3.69

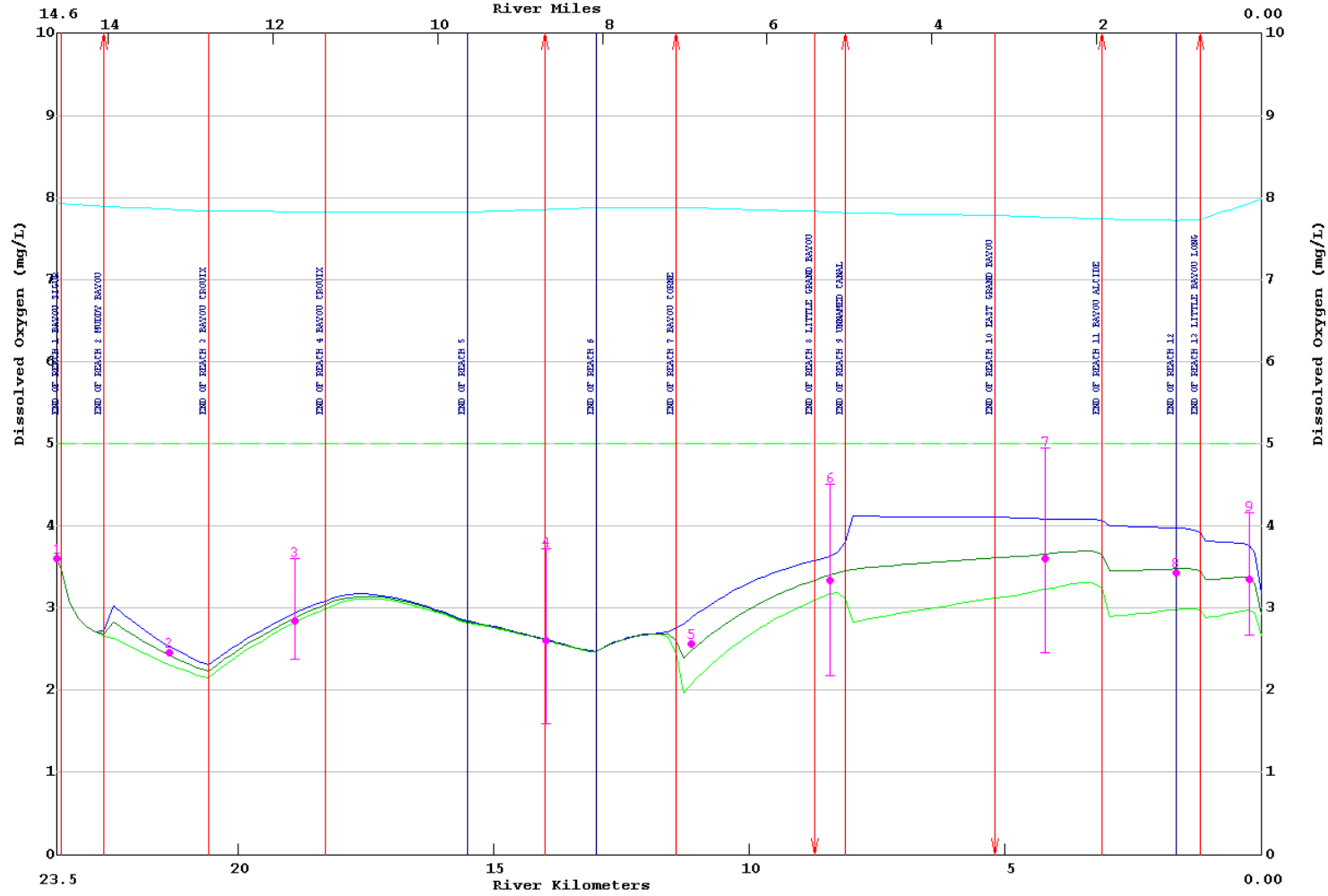






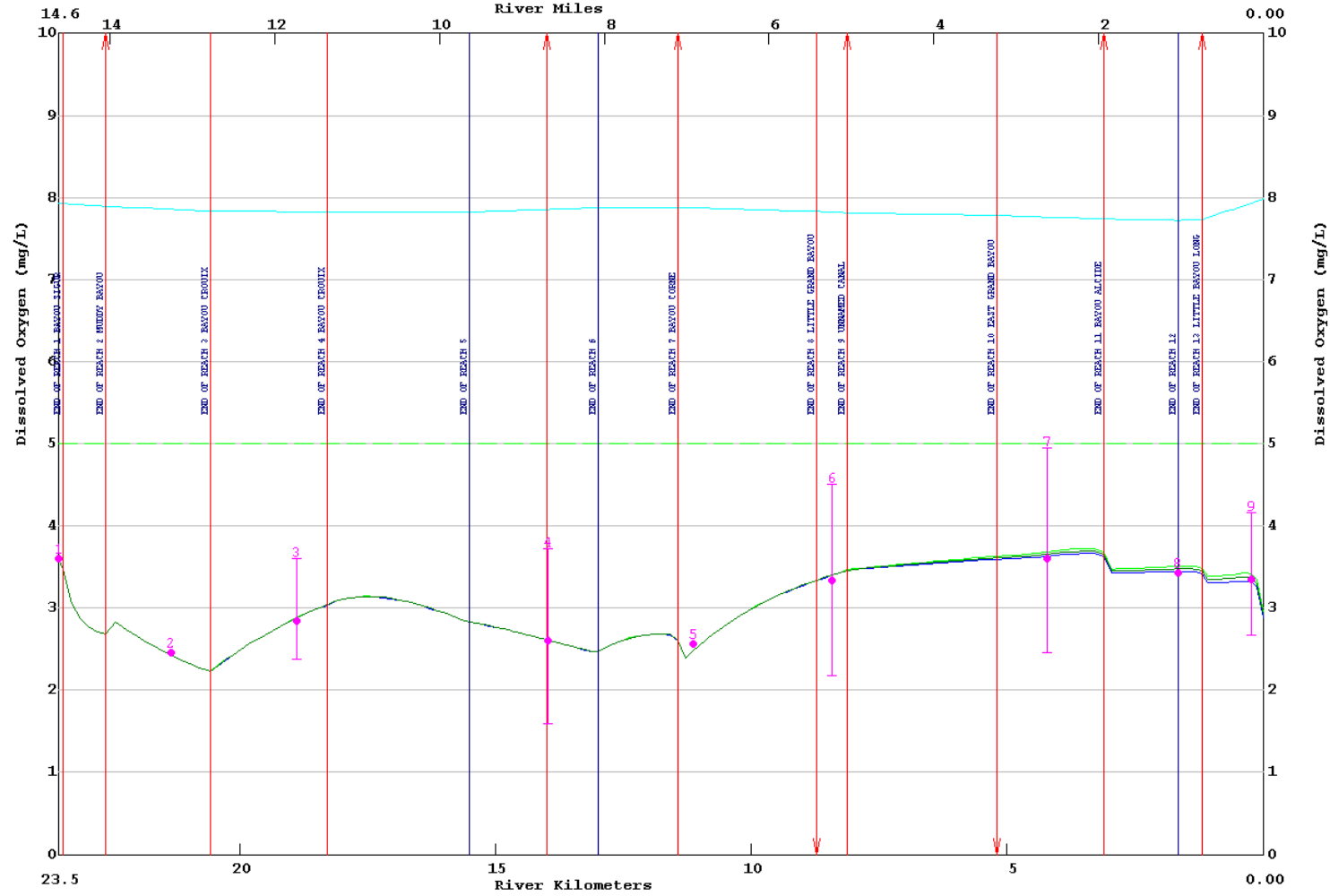
LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06
 :REACHES 1-14

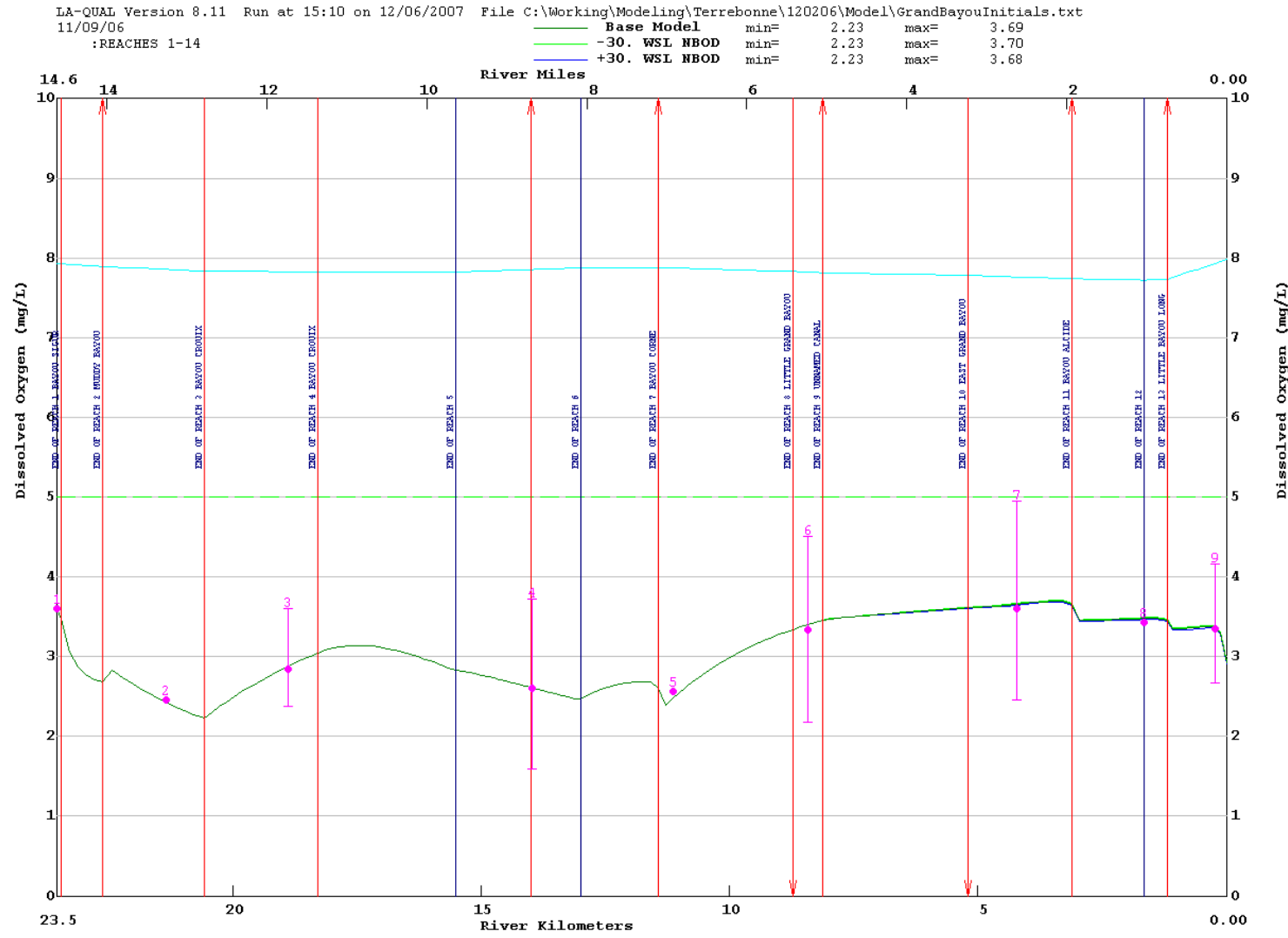
—	Base Model	min=	2.23	max=	3.69
—	-30. WSL DO	min=	1.97	max=	3.60
—	+30. WSL DO	min=	2.31	max=	4.11

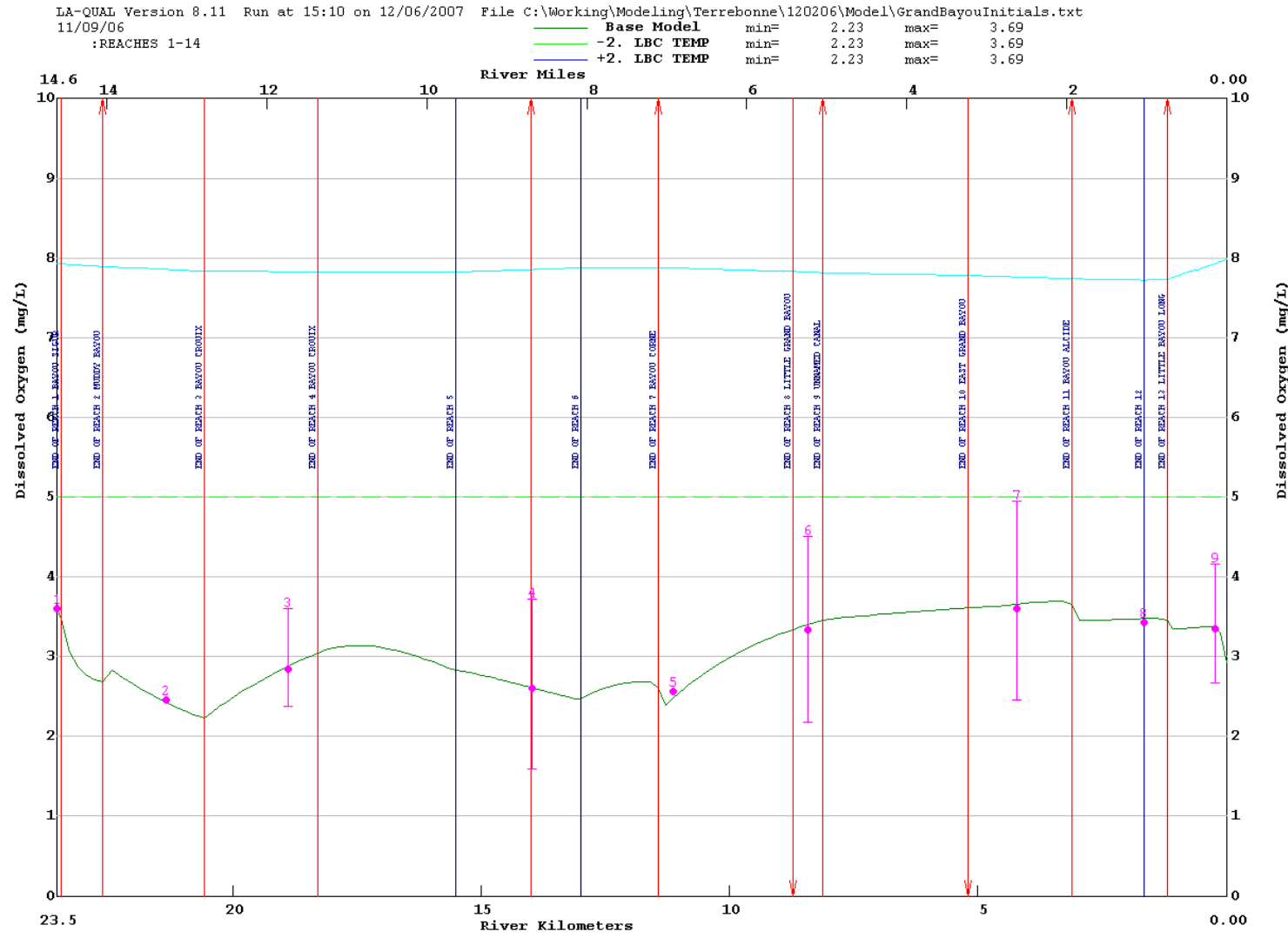


LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06
 :REACHES 1-14

—	Base Model	min=	2.23	max=	3.69
—	-30. WSL BOD	min=	2.23	max=	3.72
—	+30. WSL BOD	min=	2.23	max=	3.66

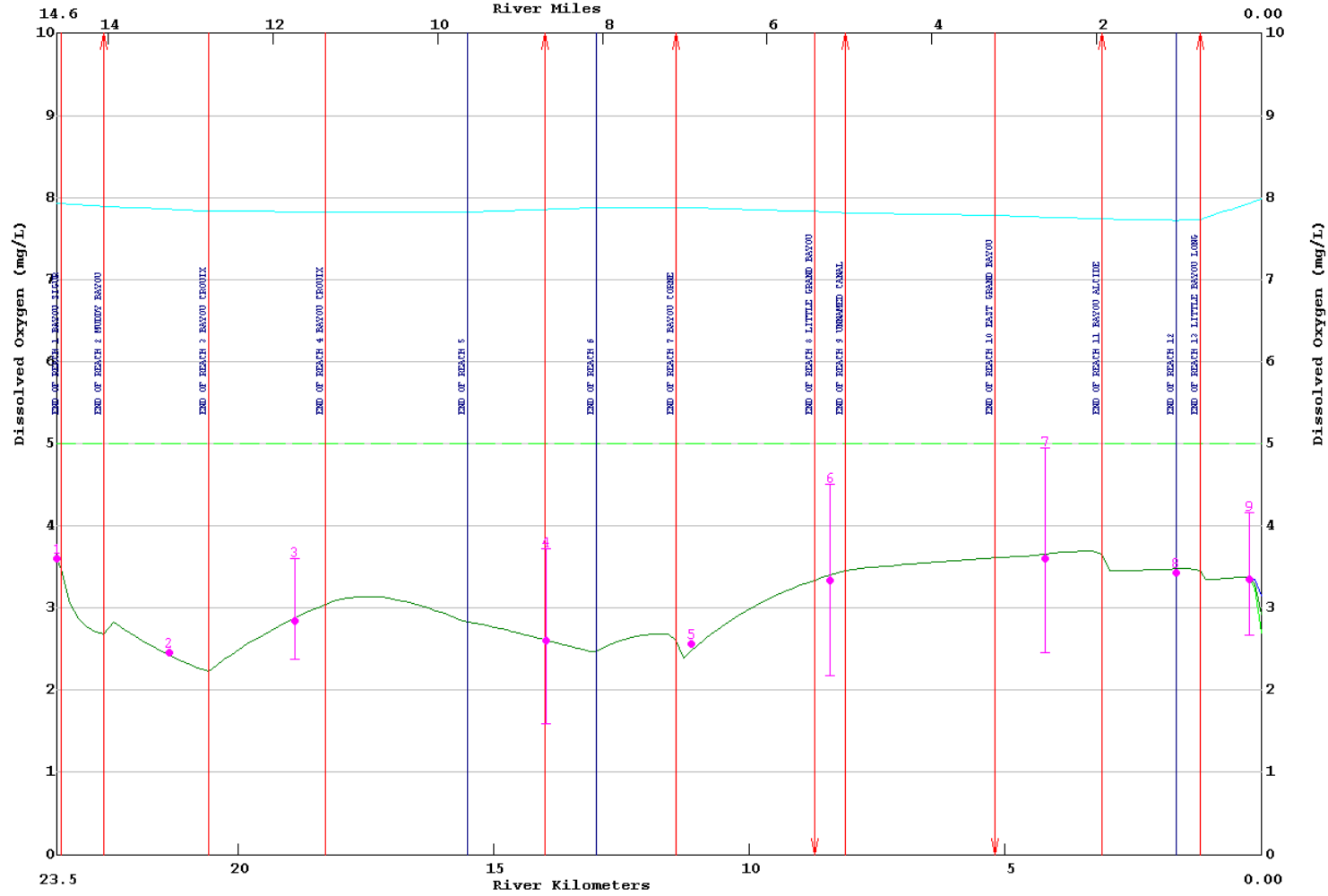




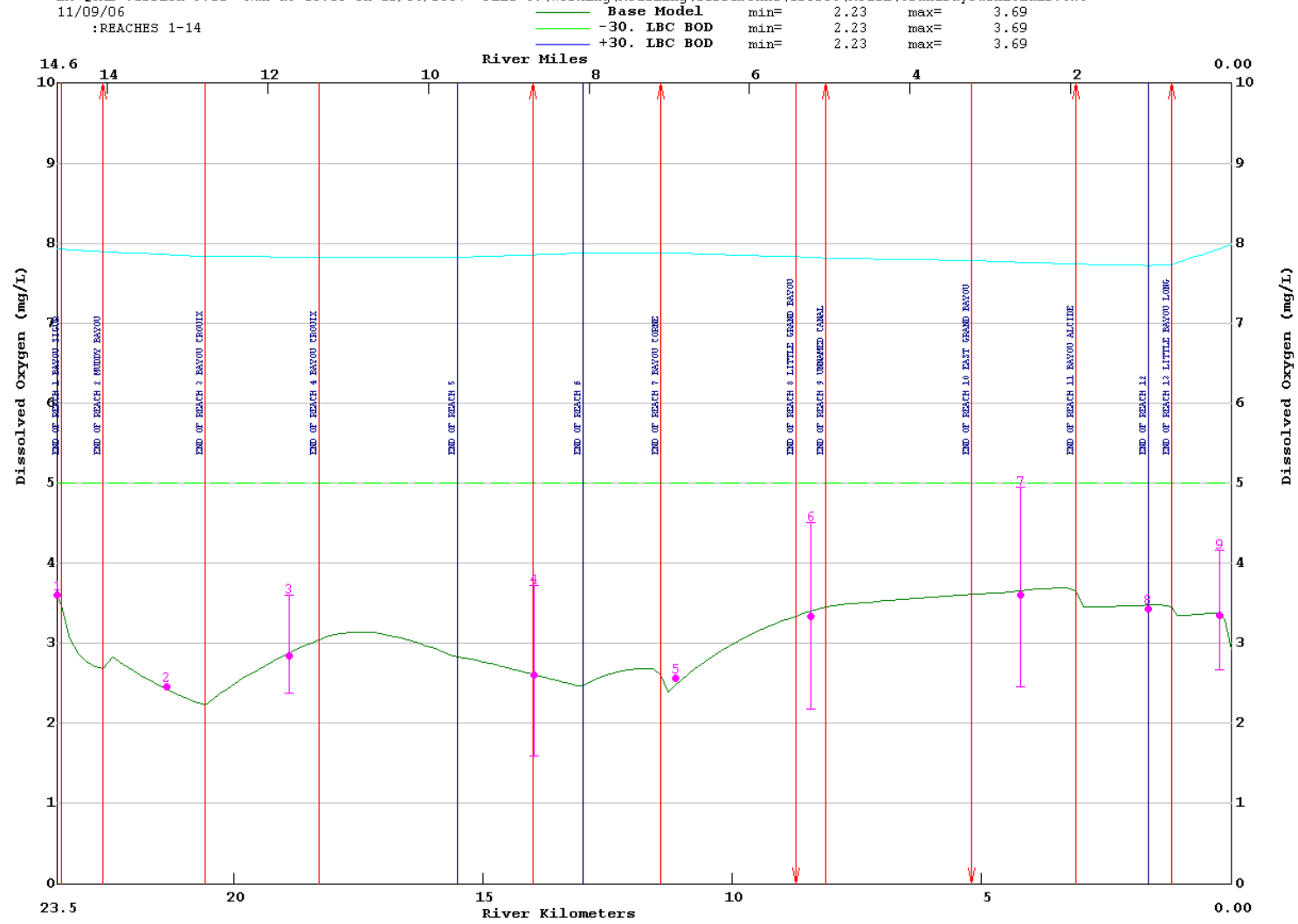


LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06
 : REACHES 1-14

—	Base Model	min=	2.23	max=	3.69
—	-30. LBC DO	min=	2.23	max=	3.69
—	+30. LBC DO	min=	2.23	max=	3.69

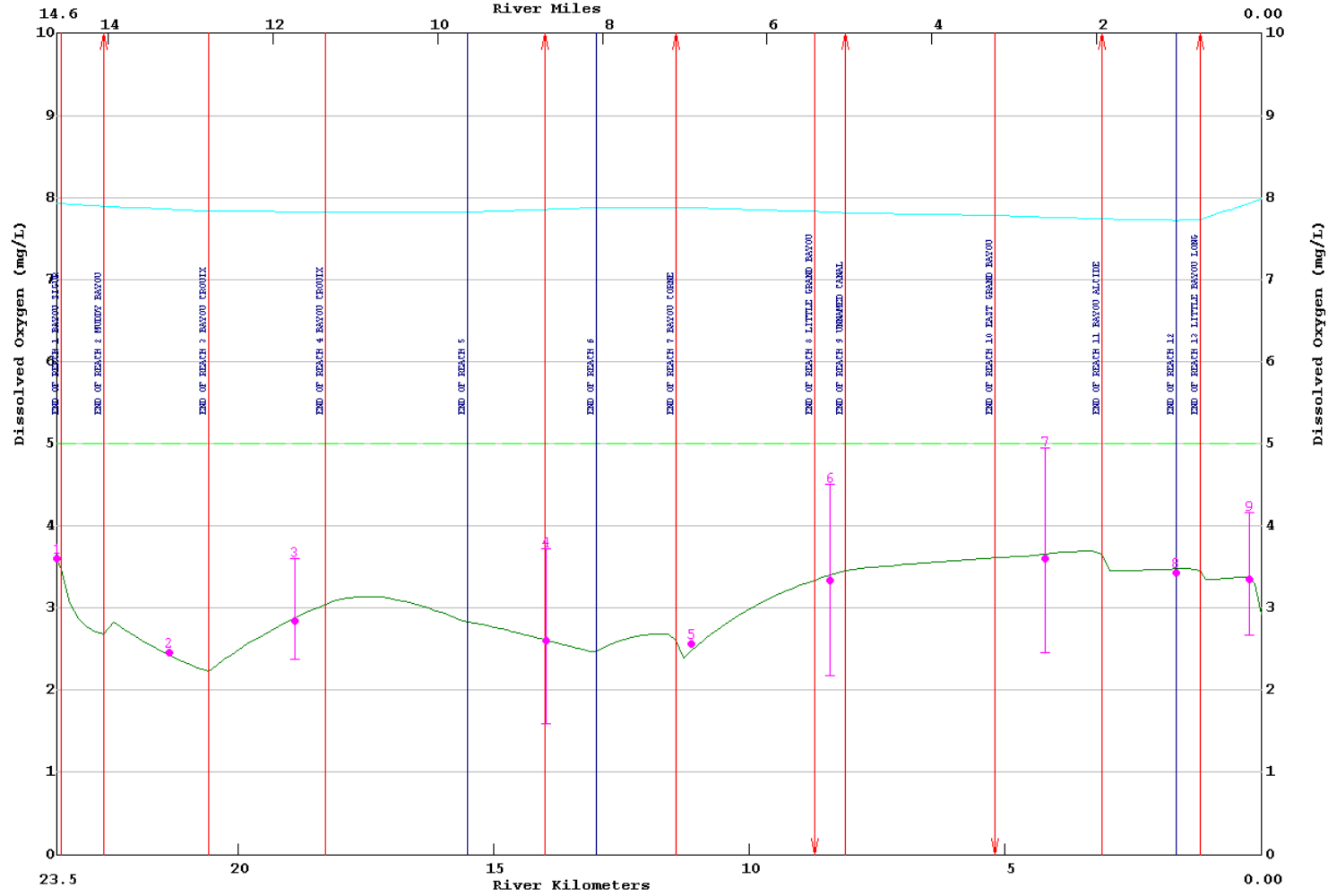


LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06
 :REACHES 1-14



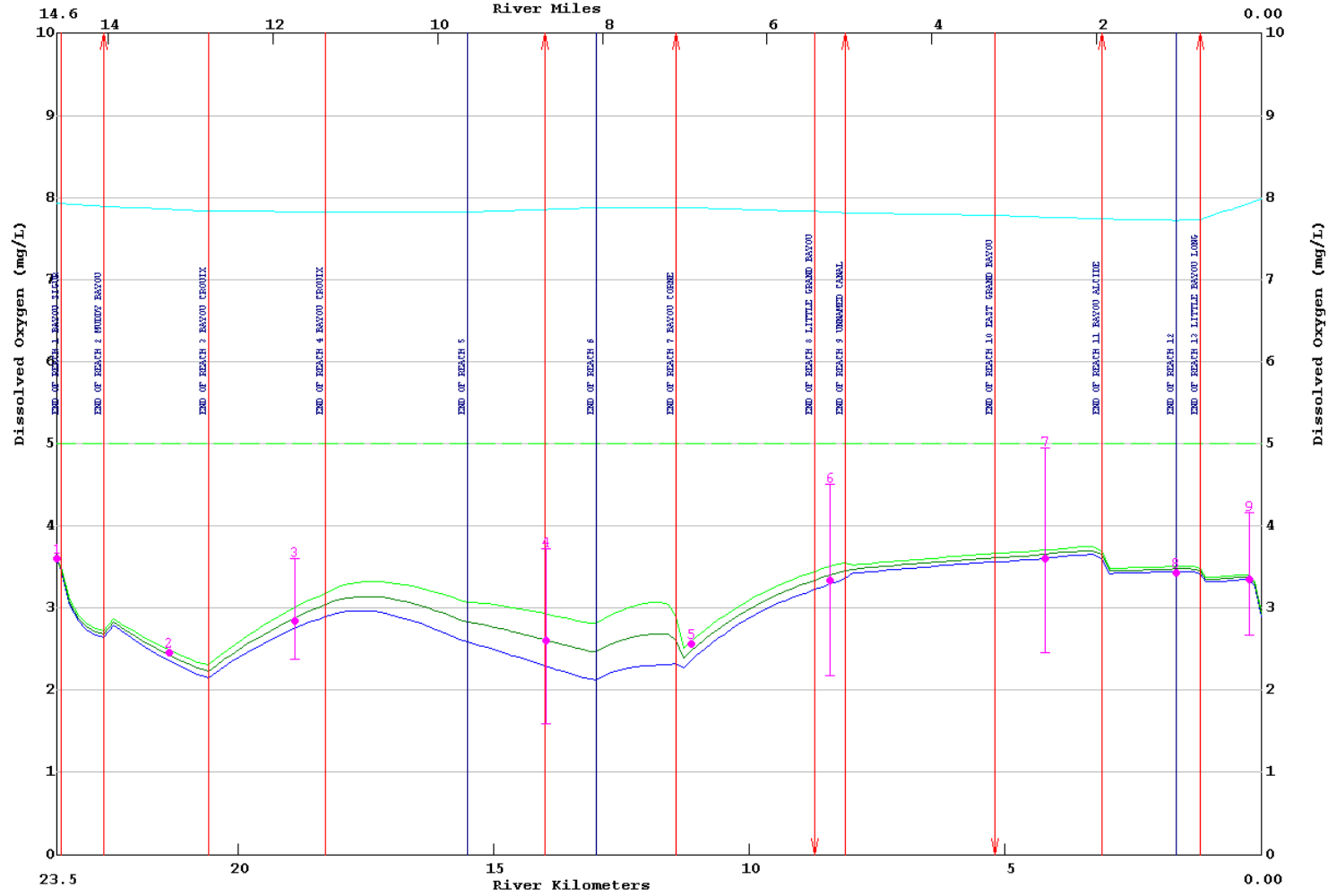
LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06
 :REACHES 1-14

—	Base Model	min=	2.23	max=	3.69
—	-30. LBC NBOD	min=	2.23	max=	3.69
—	+30. LBC NBOD	min=	2.23	max=	3.69



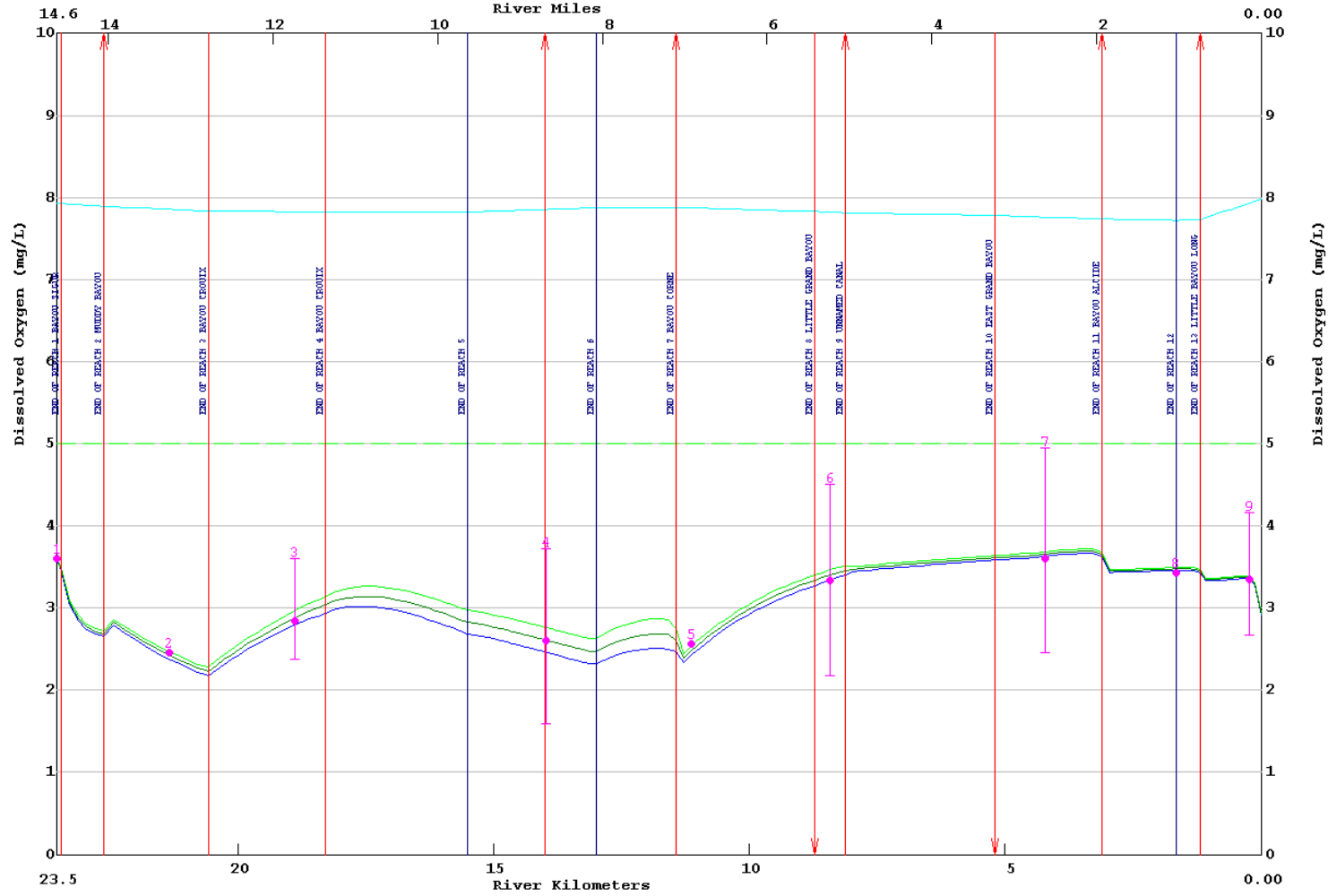
LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06
 :REACHES 1-14

—	Base Model	min=	2.23	max=	3.69
—	-30. NPS BOD	min=	2.30	max=	3.74
—	+30. NPS BOD	min=	2.12	max=	3.64



LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 11/09/06
 :REACHES 1-14

Base Model	min=	2.23	max=	3.69
-30. NPS NBOD	min=	2.28	max=	3.72
+30. NPS NBOD	min=	2.17	max=	3.67



Sensitivity Output Data Set

LA-QUAL Version 8.11
 Louisiana Department of Environmental Quality

Input file is C:\Documents and Settings\shane\My Documents\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
 Output produced at 08:55 on 02/08/2008

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE CONTROL TITLES

TITLE01 GRAND BAYOU
 TITLE02 11/09/06
 CNTROL12 YES METRIC UNITS
 ENDATA01

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE MODEL OPTION

MODEPT01 NO TEMPERATURE
 MODEPT02 YES SALINITY
 MODEPT03 YES CONSERVATIVE MATERIAL I = CHLORIDES IN MG/L
 MODEPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY IN MG/L
 MODEPT05 YES DISSOLVED OXYGEN
 MODEPT06 YES BOD1 BIOCHEMICAL OXYGEN DEMAND
 MODEPT07 NO BOD2 BIOCHEMICAL OXYGEN DEMAND
 MODEPT08 YES NBOD OXYGEN DEMAND
 MODEPT09 NO PHOSPHORUS
 MODEPT10 NO CHLOROPHYLL A
 MODEPT11 NO MACROPHYTES
 MODEPT12 NO COLIFORM
 MODEPT13 NO NONCONSERVATIVE MATERIAL
 ENDATA02

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
PROGRAM	DISPERSION EQUATION	= 3.00000 (values entered as a function of D,Q,Vmean)
PROGRAM	TIDE HEIGHT	= 0.07000 meters
PROGRAM	KL MINIMUM	= 0.70000 meters/day
PROGRAM	INHIBITION CONTROL VALUE	= 3.00000 (inhibit all rates but SOD)

```

PROGRAM      EFFECTIVE BOD DUE TO ALGAE      =      0.10000 mg/L BOD per ug/L chl a
PROGRAM      ALGAE OXYGEN PRODUCTION          =      0.05000 mg O/ug chl a/day
PROGRAM      K2 MAXIMUM                       =      25.00000 per day
PROGRAM      HYDRAULIC CALCULATION METHOD      =      2.00000 (widths and depths)
PROGRAM      SETTLED RATE UNITS                =      2.00000 (values entered as per day)
ENDATA03
  
```

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

```

CARD TYPE    RATE CODE    THETA VALUE

ENDATA04
  
```

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

```

CARD TYPE    DESCRIPTION OF CONSTANT          VALUE

ENDATA05
  
```

\$\$\$ DATA TYPE 6 (ALGAE CONSTANTS) \$\$\$

```

CARD TYPE    DESCRIPTION OF CONSTANT          VALUE

ENDATA06
  
```

\$\$\$ DATA TYPE 7 (MACROPHYTE CONSTANTS) \$\$\$

```

CARD TYPE    DESCRIPTION OF CONSTANT          VALUE

ENDATA07
  
```

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN REACH km	END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM
REACH ID	1	GB	SITE GRB1-BAYOU SIGUR	23.53	TO 23.44	0.0900	0.09	1	1	1
REACH ID	2	GB	BAYOU SIGUR-MUDDY BAYOU	23.44	TO 22.62	0.1640	0.82	5	2	6
REACH ID	3	GB	MUDDY BAYOU-BAYOU CROUIX(BYC1)	22.62	TO 20.57	0.2050	2.05	10	7	16
REACH ID	4	GB	B CROUIX(BYC1)-B CROUIX(BYC2)	20.57	TO 18.29	0.1520	2.28	15	17	31
REACH ID	5	GB	B CROUIX(BYC2)-km 15.5	18.29	TO 15.50	0.1550	2.79	18	32	49
REACH ID	6	GB	km 15.5-km 13.0	15.50	TO 13.00	0.1250	2.50	20	50	69
REACH ID	7	GB	km 13.0-BAYOU CORNE	13.00	TO 11.43	0.1570	1.57	10	70	79
REACH ID	8	GB	B CORNE-LITTLE GRAND BAYOU	11.43	TO 8.72	0.1355	2.71	20	80	99
REACH ID	9	GB	LITTLE GRAND-UNNAMED CANAL	8.72	TO 8.12	0.1500	0.60	4	100	103

REACH ID	10	GB	UNNAMED CANAL-E GRAND BAYOU	8.12	TO	5.20	0.1460	2.92	20	104	123
REACH ID	11	GB	E GRAND BAYOU-BAYOU ALCIDE	5.20	TO	3.11	0.1900	2.09	11	124	134
REACH ID	12	GB	BAYOU ALCIDE-SITE GRB8	3.11	TO	1.66	0.1450	1.45	10	135	144
REACH ID	13	GB	SITE GRB8-LITTLE BAYOU LONG	1.66	TO	1.20	0.1150	0.46	4	145	148
REACH ID	14	GB	L BAYOU LONG-LAKE VERRET	1.20	TO	0.00	0.1200	1.20	10	149	158

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1	1	GB	0.000	0.000	12.192	0.000	0.000	0.853	0.00010	0.035
HYDR-1	2	GB	0.000	0.000	16.500	0.000	0.000	0.900	0.00010	0.035
HYDR-1	3	GB	0.000	0.000	21.336	0.000	0.000	1.006	0.00010	0.035
HYDR-1	4	GB	0.000	0.000	16.459	0.000	0.000	1.570	0.00010	0.035
HYDR-1	5	GB	0.000	0.000	30.000	0.000	0.000	1.550	0.00010	0.035
HYDR-1	6	GB	0.000	0.000	44.196	0.000	0.000	1.515	0.00010	0.035
HYDR-1	7	GB	0.000	0.000	43.000	0.000	0.000	1.550	0.00010	0.035
HYDR-1	8	GB	0.000	0.000	42.062	0.000	0.000	1.622	0.00010	0.035
HYDR-1	9	GB	0.000	0.000	48.768	0.000	0.000	1.478	0.00010	0.035
HYDR-1	10	GB	0.000	0.000	45.000	0.000	0.000	1.550	0.00010	0.035
HYDR-1	11	GB	0.000	0.000	42.946	0.000	0.000	1.615	0.00010	0.035
HYDR-1	12	GB	0.000	0.000	55.000	0.000	0.000	1.734	0.00010	0.035
HYDR-1	13	GB	0.000	0.000	85.000	0.000	0.000	1.500	0.00010	0.035
HYDR-1	14	GB	0.000	0.000	152.400	0.000	0.000	1.225	0.00010	0.035

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"
HYDR	1	GB	0.00	30.000	0.833	0.000	1.000
HYDR	2	GB	0.00	30.000	0.833	0.000	1.000
HYDR	3	GB	0.00	30.000	0.833	0.000	1.000
HYDR	4	GB	0.00	30.000	0.833	0.000	1.000
HYDR	5	GB	0.00	30.000	0.833	0.000	1.000
HYDR	6	GB	0.00	30.000	0.833	0.000	1.000
HYDR	7	GB	0.10	30.000	0.833	0.000	1.000
HYDR	8	GB	0.25	30.000	0.833	0.000	1.000
HYDR	9	GB	0.29	30.000	0.833	0.000	1.000
HYDR	10	GB	0.50	30.000	0.833	0.000	1.000
HYDR	11	GB	0.75	30.000	0.833	0.000	1.000
HYDR	12	GB	0.80	30.000	0.833	0.000	1.000

HYDR 13 GB 1.00 30.000 0.833 0.000 1.000
 HYDR 14 GB 1.00 30.000 0.833 0.000 1.000

ENDATA10

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL	1	GB	27.01	0.15	3.58	0.00	0.00	0.00	64.43	0.00
INITIAL	2	GB	27.26	0.14	2.18	0.00	0.00	0.00	62.75	0.00
INITIAL	3	GB	27.49	0.11	2.58	0.00	0.00	0.00	57.44	0.00
INITIAL	4	GB	27.88	0.09	2.75	0.00	0.00	0.00	49.43	0.00
INITIAL	5	GB	27.98	0.09	2.74	0.00	0.00	0.00	41.08	0.00
INITIAL	6	GB	27.99	0.10	2.61	0.00	0.00	0.00	32.66	0.00
INITIAL	7	GB	27.60	0.08	2.58	0.00	0.00	0.00	27.96	0.00
INITIAL	8	GB	27.59	0.07	2.86	0.00	0.00	0.00	23.30	0.00
INITIAL	9	GB	27.94	0.07	3.33	0.00	0.00	0.00	19.70	0.00
INITIAL	10	GB	28.08	0.07	3.44	0.00	0.00	0.00	18.53	0.00
INITIAL	11	GB	28.29	0.08	3.60	0.00	0.00	0.00	17.02	0.00
INITIAL	12	GB	28.61	0.08	3.48	0.00	0.00	0.00	20.20	0.00
INITIAL	13	GB	28.73	0.08	3.42	0.00	0.00	0.00	21.92	0.00
INITIAL	14	GB	28.68	0.07	3.37	0.00	0.00	0.00	23.42	0.00

ENDATA11

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD	BOD DECAT	BOD SETT	BOD CONV TO SOD	ANAER BOD2 DECAT	BOD2 DECAT	BOD2 SETT	BOD2 CONV TO SOD	ANAER BOD2 DECAT
							g/m ² /d	per day	m/d		per day	per day	m/d		per day
COEF-1	1	GB	4 OWENS <5 FPS	0.000	0.000	0.000	4.000	0.084	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	2	GB	4 OWENS <5 FPS	0.000	0.000	0.000	4.100	0.081	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	3	GB	4 OWENS <5 FPS	0.000	0.000	0.000	5.150	0.074	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	4	GB	4 OWENS <5 FPS	0.000	0.000	0.000	4.000	0.067	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	5	GB	4 OWENS <5 FPS	0.000	0.000	0.000	4.000	0.071	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	6	GB	4 OWENS <5 FPS	0.000	0.000	0.000	3.650	0.078	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	7	GB	4 OWENS <5 FPS	0.000	0.000	0.000	3.000	0.068	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	8	GB	4 OWENS <5 FPS	0.000	0.000	0.000	2.000	0.054	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	9	GB	4 OWENS <5 FPS	0.000	0.000	0.000	2.150	0.052	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	10	GB	4 OWENS <5 FPS	0.000	0.000	0.000	2.750	0.054	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	11	GB	4 OWENS <5 FPS	0.000	0.000	0.000	2.500	0.057	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	12	GB	4 OWENS <5 FPS	0.000	0.000	0.000	3.000	0.055	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	13	GB	4 OWENS <5 FPS	0.000	0.000	0.000	3.000	0.055	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	14	GB	4 OWENS <5 FPS	0.000	0.000	0.000	3.000	0.061	0.050	0.000	0.000	0.000	0.050	0.000	0.000

ENDATA12

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	NBOD DECA	NBOD SETT	ORGN CONV TO NH3 SRCE	NH3 DECA	NH3 SRCE	PHOS SRCE	DENIT RATE
COEF-2	1	GB	0.115	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	2	GB	0.112	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	3	GB	0.105	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	4	GB	0.099	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	5	GB	0.100	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	6	GB	0.104	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	7	GB	0.120	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	8	GB	0.138	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	9	GB	0.091	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	10	GB	0.094	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	11	GB	0.098	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	12	GB	0.092	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	13	GB	0.091	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	14	GB	0.097	0.050	1.000	0.000	0.000	0.000	0.000

ENDATA13

\$\$\$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP	SHADING
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ENDATA14

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM CONV TO SOD
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ENDATA15

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST	OUT/DIST
INCR-1	1	GB	0.00000	0.10000	0.00	0.15	13.66	298.89	1.11111	0.00000
INCR-1	2	GB	0.00000	0.35000	0.00	0.14	18.08	214.22	0.42683	0.00000
INCR-1	3	GB	0.00000	0.35000	0.00	0.11	16.16	218.81	0.17073	0.00000
INCR-1	4	GB	-0.35000	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.15351
INCR-1	5	GB	0.00000	0.20000	0.00	0.09	14.32	207.48	0.07168	0.00000

INCR-1	6	GB	0.00000	0.20000	0.00	0.10	14.48	218.85	0.08000	0.00000
INCR-1	7	GB	-0.15000	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.09554
INCR-1	8	GB	0.00000	0.65000	0.00	0.07	11.25	159.20	0.23985	0.00000
INCR-1	9	GB	0.00000	0.25000	0.00	0.07	11.80	166.50	0.41667	0.00000
INCR-1	10	GB	0.00000	0.65000	0.00	0.07	11.34	168.72	0.22260	0.00000
INCR-1	11	GB	0.00000	0.65000	0.00	0.08	10.68	171.75	0.31100	0.00000
INCR-1	12	GB	0.00000	0.25000	0.00	0.08	10.20	170.29	0.17241	0.00000
INCR-1	13	GB	-0.65000	0.00000	0.00	0.00	0.00	0.00	0.00000	-1.41304
INCR-1	14	GB	-0.65000	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.54167

ENDATA16

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	REACH	ID	DO	BOD	NBOD	BOD#2
INCR-2	1	GB	3.58	0.00	0.00	0.00
INCR-2	2	GB	2.18	0.00	0.00	0.00
INCR-2	3	GB	2.58	0.00	0.00	0.00
INCR-2	4	GB	0.00	0.00	0.00	0.00
INCR-2	5	GB	2.74	0.00	0.00	0.00
INCR-2	6	GB	2.61	0.00	0.00	0.00
INCR-2	7	GB	0.00	0.00	0.00	0.00
INCR-2	8	GB	2.86	0.00	0.00	0.00
INCR-2	9	GB	3.33	0.00	0.00	0.00
INCR-2	10	GB	3.44	0.00	0.00	0.00
INCR-2	11	GB	3.60	0.00	0.00	0.00
INCR-2	12	GB	3.48	0.00	0.00	0.00
INCR-2	13	GB	0.00	0.00	0.00	0.00
INCR-2	14	GB	0.00	0.00	0.00	0.00

ENDATA17

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	PHOS	CHL A	COLI	NCM
INCR-3	1	GB	0.00	0.00	0.00	0.00
INCR-3	2	GB	0.00	0.00	0.00	0.00
INCR-3	3	GB	0.00	0.00	0.00	0.00
INCR-3	4	GB	0.00	0.00	0.00	0.00
INCR-3	5	GB	0.00	0.00	0.00	0.00
INCR-3	6	GB	0.00	0.00	0.00	0.00
INCR-3	7	GB	0.00	0.00	0.00	0.00
INCR-3	8	GB	0.00	0.00	0.00	0.00
INCR-3	9	GB	0.00	0.00	0.00	0.00
INCR-3	10	GB	0.00	0.00	0.00	0.00

INCR-3	11	GB	0.00	0.00	0.00	0.00
INCR-3	12	GB	0.00	0.00	0.00	0.00
INCR-3	13	GB	0.00	0.00	0.00	0.00
INCR-3	14	GB	0.00	0.00	0.00	0.00

ENDATA18

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH	ID	BOD#1	NBOD	COLI	NCM	DO	BOD#2
NONPOINT	1	GB	40.00	30.00	0.00	0.00	0.00	0.00
NONPOINT	2	GB	150.00	95.00	0.00	0.00	0.00	0.00
NONPOINT	3	GB	250.00	100.00	0.00	0.00	0.00	0.00
NONPOINT	4	GB	0.00	27.00	0.00	0.00	0.00	0.00
NONPOINT	5	GB	350.00	115.00	0.00	0.00	0.00	0.00
NONPOINT	6	GB	425.00	132.00	0.00	0.00	0.00	0.00
NONPOINT	7	GB	225.00	75.00	0.00	0.00	0.00	0.00
NONPOINT	8	GB	675.00	245.00	0.00	0.00	0.00	0.00
NONPOINT	9	GB	150.00	15.00	0.00	0.00	0.00	0.00
NONPOINT	10	GB	0.00	0.00	0.00	0.00	0.00	0.00
NONPOINT	11	GB	0.00	0.00	0.00	0.00	0.00	0.00
NONPOINT	12	GB	0.00	0.00	0.00	0.00	0.00	0.00
NONPOINT	13	GB	25.00	50.00	0.00	0.00	0.00	0.00
NONPOINT	14	GB	140.00	250.00	0.00	0.00	0.00	0.00

ENDATA19

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m ³ /s	FLOW cfs	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L	
HDWTR-1	1	Grand Bayou Upstream	0	0.00100	0.035	27.00	0.15	13.600	300.800	0.00

ENDATA20

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L	mg/L	mg/L	BOD#2 mg/L
HDWTR-2	1	Grand Bayou Upstream	3.60	10.72	3.67	0.00	0.00	0.00

ENDATA21

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS	CHL A	COLI	NCM
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			mg/L	mg/L	mg/L	mg/L
HDWTR-3	1	Grand Bayou Upstream	0.00	64.60	0.00	0.00
ENDATA22						

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	RIVER KILOM	NAME
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ENDATA23

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	RKILO	NAME	FLOW m ³ /s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L
WSTLD-1	2	23.44	BAYOU SIGUR	0.00000	0.00000	0.000	28.64	0.17	15.000	345.000
WSTLD-1	7	22.62	MUDDY BAYOU	0.10200	3.60169	2.328	27.74	0.08	16.900	169.200
WSTLD-1	17	20.57	BAYOU CROUX (BYC1)	0.00000	0.00000	0.000	28.18	0.12	8.400	250.200
WSTLD-1	32	18.29	BAYOU CROUX (BYC2)	0.00000	0.00000	0.000	28.60	0.14	17.400	296.800
WSTLD-1	62	14.00	GATOR SUPER STOP	0.00034	0.01201	0.008	27.17	0.11	13.800	234.100
WSTLD-1	80	11.43	BAYOU CORNE	1.93000	68.14972	44.053	26.95	0.07	10.200	154.130
WSTLD-1	100	8.72	LITTLE GRAND BAYOU	-0.14000	-4.94350	-3.196	27.95	0.07	11.700	167.200
WSTLD-1	104	8.12	UNNAMED CANAL	4.02800	142.23164	91.940	27.93	0.07	10.100	166.800
WSTLD-1	124	5.20	EAST GRAND BAYOU	-3.80600	-134.39265	-86.873	28.29	0.08	10.900	170.700
WSTLD-1	135	3.11	BAYOU ALCIDE	2.98400	105.36723	68.111	27.96	0.07	8.800	160.110
WSTLD-1	149	1.20	LITTLE BAYOU LONG	0.70700	24.96469	16.137	28.27	0.07	9.000	153.600
ENDATA24										

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD RMVL	NBOD mg/L	mg/L	% NITRIF	mg/L	BOD#2 mg/L
WSTLD-2	2	BAYOU SIGUR	2.63	13.41	0.00	4.05	0.00	0.00	0.00	0.00
WSTLD-2	7	MUDDY BAYOU	4.17	0.51	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	17	BAYOU CROUX (BYC1)	2.48	6.91	0.00	1.45	0.00	0.00	0.00	0.00
WSTLD-2	32	BAYOU CROUX (BYC2)	2.75	10.31	0.00	2.51	0.00	0.00	0.00	0.00
WSTLD-2	62	GATOR SUPER STOP	2.11	10.26	0.00	2.13	0.00	0.00	0.00	0.00
WSTLD-2	80	BAYOU CORNE	2.08	0.29	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	100	LITTLE GRAND BAYOU	2.92	6.82	0.00	1.46	0.00	0.00	0.00	0.00
WSTLD-2	104	UNNAMED CANAL	3.47	5.47	0.00	1.38	0.00	0.00	0.00	0.00
WSTLD-2	124	EAST GRAND BAYOU	3.16	6.45	0.00	1.30	0.00	0.00	0.00	0.00
WSTLD-2	135	BAYOU ALCIDE	2.99	5.54	0.00	1.23	0.00	0.00	0.00	0.00

WSTLD-2	149	LITTLE BAYOU LONG	1.86	5.77	0.00	0.96	0.00	0.00	0.00	0.00
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ENDATA25

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
WSTLD-3	2	BAYOU SIGUR	0.00	78.10	0.00	0.00
WSTLD-3	7	MUDDY BAYOU	0.00	78.10	0.00	0.00
WSTLD-3	17	BAYOU CROUX (BYC1)	0.00	78.10	0.00	0.00
WSTLD-3	32	BAYOU CROUX (BYC2)	0.00	78.10	0.00	0.00
WSTLD-3	62	GATOR SUPER STOP	0.00	0.00	0.00	0.00
WSTLD-3	80	BAYOU CORNE	0.00	6.60	0.00	0.00
WSTLD-3	100	LITTLE GRAND BAYOU	0.00	23.80	0.00	0.00
WSTLD-3	104	UNNAMED CANAL	0.00	23.80	0.00	0.00
WSTLD-3	124	EAST GRAND BAYOU	0.00	23.80	0.00	0.00
WSTLD-3	135	BAYOU ALCIDE	0.00	23.80	0.00	0.00
WSTLD-3	149	LITTLE BAYOU LONG	0.00	23.80	0.00	0.00

ENDATA26

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENTRATION
LOWER BC	TEMPERATURE	= 26.840 deg C
LOWER BC	SALINITY	= 0.090 ppt
LOWER BC	CONSERVATIVE MATERIAL I	= 12.000 MG/L
LOWER BC	CONSERVATIVE MATERIAL II	= 202.140 MG/L
LOWER BC	DISSOLVED OXYGEN	= 2.040 mg/L
LOWER BC	BOD1 BIOCHEMICAL OXYGEN DEMAND	= 0.290 mg/L
LOWER BC	NBOD	= 0.000 mg/L
LOWER BC	PHOSPHORUS	= 0.000 mg/L
LOWER BC	CHLOROPHYLL A	= 25.000 µg/L
LOWER BC	COLIFORM	= 0.000 #/100 mL
LOWER BC	NONCONSERVATIVE MATERIAL	= 0.000

ENDATA27

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD TYPE	ELEMENT	NAME	EQN	"A"	"B"	"H"

ENDATA28

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE	PARAMETER	COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
SENSIT	BASEFLOW	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	VELOCITY	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	DEPTH	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	DISPERSI	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	REAERATI	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	BOD DECA	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	BOD SETT	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	NBOD DEC	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	NBOD SET	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	BENTHAL	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	TEMPERAT	2.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	INC INFL	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	INC DO	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	HDW FLOW	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	HDW TEMP	2.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	HDW DO	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	HDW BOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	HDW NBOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	WSL FLOW	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	WSL TEMP	2.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	WSL DO	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	WSL BOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	WSL NBOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	LBC TEMP	2.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	LBC DO	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	LBC BOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	LBC NBOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	NPS BOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	NPS NBOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0

ENDATA29

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

NUMBER OF PLOTS = 1
 NUMBER OF REACHES IN PLOT 1 = 14
 PLOT RCH 1 2 3 4 5 6 7 8 9 10 11 12 13 14
 ENDATA30

\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da	
2	23.276	7.92	0.89	0.11	0.06	0.00	0.00	0.00	0.00	6.50	6.50	6.50	0.14	0.06	0.00	0.00	0.00	0.00	4.31	0.00	0.00	0.00	0.00	
3	23.112	7.91	0.89	0.11	0.06	0.00	0.00	0.00	0.00	6.51	6.51	6.51	0.14	0.06	0.00	0.00	0.00	0.00	4.25	0.00	0.00	0.00	0.00	
4	22.948	7.91	0.89	0.11	0.06	0.00	0.00	0.00	0.00	6.53	6.53	6.53	0.14	0.06	0.00	0.00	0.00	0.00	4.18	0.00	0.00	0.00	0.00	
5	22.784	7.90	0.89	0.11	0.06	0.00	0.00	0.00	0.00	6.55	6.55	6.55	0.14	0.06	0.00	0.00	0.00	0.00	4.12	0.00	0.00	0.00	0.00	
6	22.620	7.89	0.90	0.11	0.06	0.00	0.00	0.00	0.00	6.57	6.57	6.57	0.14	0.06	0.00	0.00	0.00	0.00	4.05	0.00	0.00	0.00	0.00	
AVG 20 DEG C RATE			0.78	0.08	0.05	0.00	0.00	0.05	0.00	4.10			0.11	0.05	0.00	0.00	0.00	0.00				0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
2	23.276	27.31	0.15	15.61	261.56	3.05	4.58	0.00	10.75	0.00	3.17	0.00	0.00	0.00	0.00	61.69	0.00	0.	0.00
3	23.112	27.35	0.14	16.30	248.28	2.87	4.60	0.00	10.66	0.00	3.09	0.00	0.00	0.00	0.00	60.63	0.00	0.	0.00
4	22.948	27.40	0.14	16.69	240.80	2.77	4.61	0.00	10.56	0.00	3.05	0.00	0.00	0.00	0.00	59.56	0.00	0.	0.00
5	22.784	27.44	0.14	16.93	235.84	2.71	4.60	0.00	10.45	0.00	3.01	0.00	0.00	0.00	0.00	58.50	0.00	0.	0.00
6	22.620	27.49	0.14	17.08	231.32	2.68	4.54	0.00	10.28	0.00	2.92	0.00	0.00	0.00	0.00	57.44	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU
 REACH NO. 3 MUDDY BAYOU-BAYOU CROUX(BYC1) 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
7	UPR RCH	0.45100	27.49	0.14	17.08	231.32	2.68	4.54	0.00	10.28	0.00	2.92	0.00	0.00	0.00	57.44	0.00	0.00
EACH	INCR	0.03500	0.00	0.11	16.16	218.81	2.58	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	
7	WSTLD	0.10200	27.74	0.08	16.90	169.20	4.17	0.51	0.00	0.51	0.00	0.00	0.00	0.00	0.00	78.10	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
7	22.62	22.42	0.58800	17.3	0.02739	0.09	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.826	0.027
8	22.42	22.21	0.62300	16.4	0.02903	0.08	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.875	0.029
9	22.21	22.01	0.65800	15.5	0.03066	0.08	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.924	0.031
10	22.01	21.80	0.69300	14.7	0.03229	0.07	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.973	0.032
11	21.80	21.60	0.72800	14.0	0.03392	0.07	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	1.023	0.034
12	21.60	21.39	0.76300	13.4	0.03555	0.07	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	1.072	0.036
13	21.39	21.19	0.79800	12.8	0.03718	0.06	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	1.121	0.037
14	21.19	20.98	0.83300	12.2	0.03881	0.06	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	1.170	0.039
15	20.98	20.78	0.86800	11.8	0.04044	0.06	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	1.219	0.040
16	20.78	20.57	0.90300	11.3	0.04207	0.06	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	1.268	0.042
TOT						0.70			44001.24	43738.79					
AVG					0.0341		1.01	21.34			21.46				
CUM						1.31									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD#1 DECAY	BOD#1 SETT	ABOD#1 DECAY	BOD#2 DECAY	BOD#2 SETT	ABOD#2 DECAY	BKGD SOD	FULL SOD	CORR SOD	ORGN DECAY	ORGN SETT	NH3 DECAY	NH3 SRCE	DENIT RATE	PO4 SRCE	ALG PROD	MAC PROD	COLI DECAY	NCM DECAY	NCM SETT
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	*	**	**	1/da	1/da	1/da
7	22.415	7.89	0.80	0.10	0.06	0.00	0.00	0.00	0.00	8.27	8.27	8.27	0.13	0.06	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00	0.00
8	22.210	7.88	0.80	0.10	0.06	0.00	0.00	0.00	0.00	8.29	8.29	8.29	0.13	0.06	0.00	0.00	0.00	0.00	3.95	0.00	0.00	0.00	0.00
9	22.005	7.88	0.80	0.10	0.06	0.00	0.00	0.00	0.00	8.31	8.31	8.31	0.13	0.06	0.00	0.00	0.00	0.00	3.90	0.00	0.00	0.00	0.00
10	21.800	7.87	0.80	0.11	0.06	0.00	0.00	0.00	0.00	8.34	8.34	8.34	0.13	0.06	0.00	0.00	0.00	0.00	3.85	0.00	0.00	0.00	0.00
11	21.595	7.87	0.80	0.11	0.06	0.00	0.00	0.00	0.00	8.36	8.36	8.36	0.13	0.06	0.00	0.00	0.00	0.00	3.80	0.00	0.00	0.00	0.00
12	21.390	7.86	0.80	0.11	0.06	0.00	0.00	0.00	0.00	8.38	8.38	8.38	0.13	0.06	0.00	0.00	0.00	0.00	3.75	0.00	0.00	0.00	0.00
13	21.185	7.85	0.80	0.11	0.06	0.00	0.00	0.00	0.00	8.40	8.40	8.40	0.13	0.06	0.00	0.00	0.00	0.00	3.70	0.00	0.00	0.00	0.00
14	20.980	7.85	0.81	0.11	0.06	0.00	0.00	0.00	0.00	8.42	8.42	8.42	0.13	0.06	0.00	0.00	0.00	0.00	3.65	0.00	0.00	0.00	0.00
15	20.775	7.84	0.81	0.11	0.06	0.00	0.00	0.00	0.00	8.44	8.44	8.44	0.13	0.06	0.00	0.00	0.00	0.00	3.60	0.00	0.00	0.00	0.00
16	20.570	7.84	0.81	0.11	0.06	0.00	0.00	0.00	0.00	8.46	8.46	8.46	0.13	0.06	0.00	0.00	0.00	0.00	3.55	0.00	0.00	0.00	0.00
AVG	20 DEG C	RATE	0.70	0.07	0.05	0.00	0.00	0.05	0.00	5.15			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00
*	g/m ² /d		** mg/L/day																				

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM	ENDING	TEMP	SALN	CM-I	CM-II	DO	BOD#1	BOD#2	EBOD#1	EBOD#2	ORGN	NH3	NO3+2	TOTN	PHOS	CHL A	MACRO	COLI	NCM
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NO.	DIST	DEG C	PPT	MG/L	MG/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	g/m ³	#/100mL	
7	22.415	27.53	0.13	16.99	221.21	2.82	4.09	0.00	9.75	0.00	2.46	0.00	0.00	0.00	0.00	0.00	56.64	0.00	0.	0.00
8	22.210	27.57	0.13	16.95	221.08	2.73	4.27	0.00	9.85	0.00	2.47	0.00	0.00	0.00	0.00	0.00	55.84	0.00	0.	0.00
9	22.005	27.61	0.13	16.91	220.96	2.65	4.42	0.00	9.92	0.00	2.48	0.00	0.00	0.00	0.00	0.00	55.04	0.00	0.	0.00
10	21.800	27.65	0.13	16.87	220.85	2.57	4.56	0.00	9.98	0.00	2.49	0.00	0.00	0.00	0.00	0.00	54.24	0.00	0.	0.00
11	21.595	27.68	0.13	16.84	220.75	2.50	4.68	0.00	10.03	0.00	2.49	0.00	0.00	0.00	0.00	0.00	53.44	0.00	0.	0.00
12	21.390	27.72	0.12	16.80	220.66	2.44	4.79	0.00	10.06	0.00	2.50	0.00	0.00	0.00	0.00	0.00	52.63	0.00	0.	0.00
13	21.185	27.76	0.12	16.78	220.58	2.38	4.89	0.00	10.08	0.00	2.50	0.00	0.00	0.00	0.00	0.00	51.83	0.00	0.	0.00
14	20.980	27.80	0.12	16.75	220.51	2.32	4.98	0.00	10.09	0.00	2.51	0.00	0.00	0.00	0.00	0.00	51.03	0.00	0.	0.00
15	20.775	27.84	0.12	16.73	220.44	2.26	5.06	0.00	10.09	0.00	2.51	0.00	0.00	0.00	0.00	0.00	50.23	0.00	0.	0.00
16	20.570	27.88	0.12	16.71	220.39	2.23	5.12	0.00	10.07	0.00	2.52	0.00	0.00	0.00	0.00	0.00	49.43	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU
 REACH NO. 4 B CROUX(BYC1)-B CROUX(BYC2) 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
17	UPR RCH	0.90300	27.88	0.12	16.71	220.39	2.23	5.12	0.00	10.07	0.00	2.52	0.00	0.00	0.00	49.43	0.00	0.00
EACH	INCR	-0.02333																

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
17	20.57	20.42	0.87967	11.3	0.03404	0.05	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.487	0.034
18	20.42	20.27	0.85633	11.3	0.03314	0.05	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.448	0.033
19	20.27	20.11	0.83300	11.3	0.03224	0.05	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.408	0.032
20	20.11	19.96	0.80967	11.3	0.03133	0.06	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.369	0.031
21	19.96	19.81	0.78633	11.3	0.03043	0.06	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.329	0.030
22	19.81	19.66	0.76300	11.3	0.02953	0.06	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.290	0.030
23	19.66	19.51	0.73967	11.3	0.02862	0.06	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.250	0.029
24	19.51	19.35	0.71633	11.3	0.02772	0.06	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.211	0.028
25	19.35	19.20	0.69300	11.3	0.02682	0.07	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.171	0.027
26	19.20	19.05	0.66967	11.3	0.02592	0.07	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.132	0.026
27	19.05	18.90	0.64633	11.3	0.02501	0.07	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.093	0.025
28	18.90	18.75	0.62300	11.3	0.02411	0.07	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.053	0.024

29	18.75	18.59	0.59967	11.3	0.02321	0.08	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	1.014	0.023
30	18.59	18.44	0.57633	11.3	0.02230	0.08	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.974	0.022
31	18.44	18.29	0.55300	11.3	0.02140	0.08	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.935	0.021
TOT						0.97			58916.64	37526.52					
AVG					0.0272		1.57	16.46			25.84				
CUM						2.28									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
17	20.418	7.84	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.57	6.57	6.57	0.12	0.06	0.00	0.00	0.00	0.00	3.51	0.00	0.00	0.00	0.00
18	20.266	7.84	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.58	6.58	6.58	0.12	0.06	0.00	0.00	0.00	0.00	3.47	0.00	0.00	0.00	0.00
19	20.114	7.84	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.58	6.58	6.58	0.12	0.06	0.00	0.00	0.00	0.00	3.43	0.00	0.00	0.00	0.00
20	19.962	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.58	6.58	6.58	0.13	0.06	0.00	0.00	0.00	0.00	3.39	0.00	0.00	0.00	0.00
21	19.810	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.58	6.58	6.58	0.13	0.06	0.00	0.00	0.00	0.00	3.35	0.00	0.00	0.00	0.00
22	19.658	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.59	6.59	6.59	0.13	0.06	0.00	0.00	0.00	0.00	3.32	0.00	0.00	0.00	0.00
23	19.506	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.59	6.59	6.59	0.13	0.06	0.00	0.00	0.00	0.00	3.28	0.00	0.00	0.00	0.00
24	19.354	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.59	6.59	6.59	0.13	0.06	0.00	0.00	0.00	0.00	3.24	0.00	0.00	0.00	0.00
25	19.202	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.60	6.60	6.60	0.13	0.06	0.00	0.00	0.00	0.00	3.20	0.00	0.00	0.00	0.00
26	19.050	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.60	6.60	6.60	0.13	0.06	0.00	0.00	0.00	0.00	3.16	0.00	0.00	0.00	0.00
27	18.898	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.60	6.60	6.60	0.13	0.06	0.00	0.00	0.00	0.00	3.12	0.00	0.00	0.00	0.00
28	18.746	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.60	6.60	6.60	0.13	0.06	0.00	0.00	0.00	0.00	3.08	0.00	0.00	0.00	0.00
29	18.594	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.13	0.06	0.00	0.00	0.00	0.00	3.04	0.00	0.00	0.00	0.00
30	18.442	7.83	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.13	0.06	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00
31	18.290	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.13	0.06	0.00	0.00	0.00	0.00	2.96	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.45	0.07	0.05	0.00	0.00	0.05	0.00	4.00			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00
*	g/m ² /d																						
**	mg/L/day																						

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
17	20.418	27.89	0.12	16.71	220.39	2.30	5.08	0.00	9.97	0.00	2.52	0.00	0.00	0.00	0.00	48.87	0.00	0.	0.00
18	20.266	27.89	0.12	16.71	220.39	2.37	5.04	0.00	9.87	0.00	2.52	0.00	0.00	0.00	0.00	48.32	0.00	0.	0.00
19	20.114	27.90	0.12	16.71	220.39	2.43	5.00	0.00	9.77	0.00	2.51	0.00	0.00	0.00	0.00	47.76	0.00	0.	0.00
20	19.962	27.91	0.12	16.71	220.39	2.50	4.95	0.00	9.68	0.00	2.51	0.00	0.00	0.00	0.00	47.20	0.00	0.	0.00

21	19.810	27.91	0.12	16.71	220.39	2.56	4.91	0.00	9.58	0.00	2.51	0.00	0.00	0.00	0.00	46.65	0.00	0.	0.00
22	19.658	27.92	0.12	16.71	220.39	2.61	4.87	0.00	9.48	0.00	2.51	0.00	0.00	0.00	0.00	46.09	0.00	0.	0.00
23	19.506	27.93	0.12	16.71	220.39	2.67	4.82	0.00	9.38	0.00	2.51	0.00	0.00	0.00	0.00	45.53	0.00	0.	0.00
24	19.354	27.93	0.12	16.71	220.39	2.72	4.78	0.00	9.27	0.00	2.51	0.00	0.00	0.00	0.00	44.98	0.00	0.	0.00
25	19.202	27.94	0.12	16.71	220.39	2.78	4.73	0.00	9.17	0.00	2.51	0.00	0.00	0.00	0.00	44.42	0.00	0.	0.00
26	19.050	27.95	0.12	16.71	220.39	2.82	4.68	0.00	9.07	0.00	2.51	0.00	0.00	0.00	0.00	43.86	0.00	0.	0.00
27	18.898	27.95	0.12	16.71	220.39	2.87	4.63	0.00	8.96	0.00	2.51	0.00	0.00	0.00	0.00	43.31	0.00	0.	0.00
28	18.746	27.96	0.12	16.71	220.39	2.92	4.58	0.00	8.86	0.00	2.50	0.00	0.00	0.00	0.00	42.75	0.00	0.	0.00
29	18.594	27.97	0.12	16.71	220.38	2.96	4.53	0.00	8.75	0.00	2.50	0.00	0.00	0.00	0.00	42.19	0.00	0.	0.00
30	18.442	27.97	0.12	16.71	220.37	3.00	4.49	0.00	8.66	0.00	2.50	0.00	0.00	0.00	0.00	41.64	0.00	0.	0.00
31	18.290	27.98	0.12	16.70	220.32	3.03	4.49	0.00	8.60	0.00	2.50	0.00	0.00	0.00	0.00	41.08	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU
 REACH NO. 5 B CROUX(BYC2)-km 15.5 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
32	UPR RCH	0.55300	27.98	0.12	16.70	220.32	3.03	4.49	0.00	8.60	0.00	2.50	0.00	0.00	0.00	41.08	0.00	0.00
EACH	INCR	0.01111	0.00	0.09	14.32	207.48	2.74	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
32	18.29	18.14	0.56411	11.1	0.01213	0.15	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.524	0.012
33	18.14	17.98	0.57522	10.9	0.01237	0.15	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.535	0.012
34	17.98	17.82	0.58633	10.7	0.01261	0.14	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.545	0.013
35	17.82	17.67	0.59745	10.5	0.01285	0.14	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.555	0.013
36	17.67	17.51	0.60856	10.3	0.01309	0.14	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.566	0.013
37	17.51	17.36	0.61967	10.1	0.01333	0.13	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.576	0.013
38	17.36	17.20	0.63078	9.9	0.01357	0.13	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.586	0.014
39	17.20	17.05	0.64189	9.7	0.01380	0.13	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.597	0.014
40	17.05	16.89	0.65300	9.6	0.01404	0.13	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.607	0.014
41	16.89	16.74	0.66411	9.4	0.01428	0.13	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.617	0.014
42	16.74	16.58	0.67522	9.3	0.01452	0.12	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.628	0.015
43	16.58	16.43	0.68633	9.1	0.01476	0.12	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.638	0.015
44	16.43	16.27	0.69745	9.0	0.01500	0.12	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.648	0.015

45	16.27	16.12	0.70856	8.8	0.01524	0.12	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.659	0.015
46	16.12	15.96	0.71967	8.7	0.01548	0.12	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.669	0.015
47	15.96	15.81	0.73078	8.5	0.01572	0.11	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.679	0.016
48	15.81	15.65	0.74189	8.4	0.01595	0.11	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.690	0.016
49	15.65	15.50	0.75300	8.3	0.01619	0.11	1.55	30.00	7207.50	4650.00	46.50	0.00	0.000	0.700	0.016
TOT							2.30		129735.00	83700.00					
AVG					0.0141		1.55	30.00			46.50				
CUM							4.58								

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
32	18.135	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.93	0.00	0.00	0.00	0.00
33	17.980	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.90	0.00	0.00	0.00	0.00
34	17.825	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.86	0.00	0.00	0.00	0.00
35	17.670	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.83	0.00	0.00	0.00	0.00
36	17.515	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.79	0.00	0.00	0.00	0.00
37	17.360	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.76	0.00	0.00	0.00	0.00
38	17.205	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.73	0.00	0.00	0.00	0.00
39	17.050	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.69	0.00	0.00	0.00	0.00
40	16.895	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.66	0.00	0.00	0.00	0.00
41	16.740	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.63	0.00	0.00	0.00	0.00
42	16.585	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.59	0.00	0.00	0.00	0.00
43	16.430	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.14	0.06	0.00	0.00	0.00	0.00	2.56	0.00	0.00	0.00	0.00
44	16.275	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.13	0.06	0.00	0.00	0.00	0.00	2.53	0.00	0.00	0.00	0.00
45	16.120	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.61	6.61	6.61	0.13	0.06	0.00	0.00	0.00	0.00	2.49	0.00	0.00	0.00	0.00
46	15.965	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.62	6.62	6.62	0.13	0.06	0.00	0.00	0.00	0.00	2.46	0.00	0.00	0.00	0.00
47	15.810	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.62	6.62	6.62	0.13	0.06	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
48	15.655	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.62	6.62	6.62	0.13	0.06	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
49	15.500	7.82	0.52	0.10	0.06	0.00	0.00	0.00	0.00	6.62	6.62	6.62	0.13	0.06	0.00	0.00	0.00	0.00	2.36	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 0.45 0.07 0.05 0.00 0.00 0.05 0.00 4.00 0.10 0.05 0.00 0.00 0.00 0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
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32	18.135	27.98	0.12	16.65	220.07	3.07	4.68	0.00	8.75	0.00	2.51	0.00	0.00	0.00	0.00	40.61	0.00	0.	0.00
33	17.980	27.98	0.12	16.60	219.83	3.10	4.87	0.00	8.88	0.00	2.52	0.00	0.00	0.00	0.00	40.14	0.00	0.	0.00
34	17.825	27.98	0.12	16.56	219.59	3.12	5.04	0.00	9.01	0.00	2.53	0.00	0.00	0.00	0.00	39.68	0.00	0.	0.00
35	17.670	27.98	0.12	16.52	219.37	3.13	5.20	0.00	9.12	0.00	2.53	0.00	0.00	0.00	0.00	39.21	0.00	0.	0.00
36	17.515	27.98	0.12	16.48	219.15	3.14	5.36	0.00	9.23	0.00	2.54	0.00	0.00	0.00	0.00	38.74	0.00	0.	0.00
37	17.360	27.98	0.12	16.44	218.94	3.13	5.50	0.00	9.33	0.00	2.55	0.00	0.00	0.00	0.00	38.27	0.00	0.	0.00
38	17.205	27.98	0.12	16.40	218.74	3.13	5.64	0.00	9.42	0.00	2.55	0.00	0.00	0.00	0.00	37.81	0.00	0.	0.00
39	17.050	27.98	0.12	16.37	218.55	3.11	5.77	0.00	9.50	0.00	2.56	0.00	0.00	0.00	0.00	37.34	0.00	0.	0.00
40	16.895	27.98	0.12	16.33	218.36	3.09	5.89	0.00	9.58	0.00	2.56	0.00	0.00	0.00	0.00	36.87	0.00	0.	0.00
41	16.740	27.99	0.12	16.30	218.18	3.07	6.01	0.00	9.65	0.00	2.57	0.00	0.00	0.00	0.00	36.40	0.00	0.	0.00
42	16.585	27.99	0.12	16.27	218.01	3.05	6.12	0.00	9.71	0.00	2.57	0.00	0.00	0.00	0.00	35.93	0.00	0.	0.00
43	16.430	27.99	0.12	16.24	217.84	3.02	6.22	0.00	9.77	0.00	2.58	0.00	0.00	0.00	0.00	35.47	0.00	0.	0.00
44	16.275	27.99	0.12	16.21	217.67	2.99	6.32	0.00	9.82	0.00	2.58	0.00	0.00	0.00	0.00	35.00	0.00	0.	0.00
45	16.120	27.99	0.12	16.18	217.51	2.96	6.42	0.00	9.87	0.00	2.59	0.00	0.00	0.00	0.00	34.53	0.00	0.	0.00
46	15.965	27.99	0.12	16.15	217.36	2.93	6.51	0.00	9.91	0.00	2.59	0.00	0.00	0.00	0.00	34.06	0.00	0.	0.00
47	15.810	27.99	0.11	16.12	217.21	2.89	6.59	0.00	9.95	0.00	2.60	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
48	15.655	27.99	0.11	16.09	217.07	2.86	6.68	0.00	9.99	0.00	2.60	0.00	0.00	0.00	0.00	33.13	0.00	0.	0.00
49	15.500	27.99	0.11	16.07	216.97	2.82	6.76	0.00	10.02	0.00	2.60	0.00	0.00	0.00	0.00	32.66	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream
 REACH NO. 6 km 15.5-km 13.0

GRAND BAYOU
 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
50	UPR RCH	0.75300	27.99	0.11	16.07	216.97	2.82	6.76	0.00	10.02	0.00	2.60	0.00	0.00	0.00	32.66	0.00	0.00
EACH	INCR	0.01000	0.00	0.10	14.48	218.85	2.61	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00
62	WSTLD	0.00034	27.17	0.11	13.80	234.10	2.11	10.26	0.00	10.26	0.00	2.13	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
50	15.50	15.38	0.76300	8.2	0.01140	0.13	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.483	0.011
51	15.38	15.25	0.77300	8.1	0.01154	0.13	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.490	0.012
52	15.25	15.12	0.78300	8.0	0.01169	0.12	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.496	0.012
53	15.12	15.00	0.79300	7.9	0.01184	0.12	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.502	0.012

54	15.00	14.88	0.80300	7.8	0.01199	0.12	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.509	0.012
55	14.88	14.75	0.81300	7.7	0.01214	0.12	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.515	0.012
56	14.75	14.62	0.82300	7.6	0.01229	0.12	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.521	0.012
57	14.62	14.50	0.83300	7.5	0.01244	0.12	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.528	0.012
58	14.50	14.38	0.84300	7.4	0.01259	0.11	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.534	0.013
59	14.38	14.25	0.85300	7.3	0.01274	0.11	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.540	0.013
60	14.25	14.12	0.86300	7.2	0.01289	0.11	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.547	0.013
61	14.12	14.00	0.87300	7.2	0.01304	0.11	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.553	0.013
62	14.00	13.88	0.88334	7.1	0.01319	0.11	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.559	0.013
63	13.88	13.75	0.89334	7.0	0.01334	0.11	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.566	0.013
64	13.75	13.62	0.90334	7.0	0.01349	0.11	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.572	0.013
65	13.62	13.50	0.91334	6.9	0.01364	0.11	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.578	0.014
66	13.50	13.38	0.92334	6.8	0.01379	0.10	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.585	0.014
67	13.38	13.25	0.93334	6.7	0.01394	0.10	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.591	0.014
68	13.25	13.12	0.94334	6.7	0.01409	0.10	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.597	0.014
69	13.12	13.00	0.95334	6.6	0.01424	0.10	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.604	0.014
TOT						2.27			167392.38	110490.00					
AVG					0.0128		1.51	44.20			66.96				
CUM						6.85									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAT 1/da	BOD#1 SETT 1/da	ABOD#1 DECAT 1/da	BOD#2 DECAT 1/da	BOD#2 SETT 1/da	ABOD#2 DECAT 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAT 1/da	ORGN SETT 1/da	NH3 DECAT 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAT 1/da	NCM DECAT 1/da	NCM SETT 1/da
50	15.375	7.83	0.54	0.11	0.06	0.00	0.00	0.00	0.00	6.03	6.03	6.03	0.14	0.06	0.00	0.00	0.00	0.00	2.34	0.00	0.00	0.00	0.00
51	15.250	7.83	0.54	0.11	0.06	0.00	0.00	0.00	0.00	6.02	6.02	6.02	0.14	0.06	0.00	0.00	0.00	0.00	2.32	0.00	0.00	0.00	0.00
52	15.125	7.83	0.54	0.11	0.06	0.00	0.00	0.00	0.00	6.01	6.01	6.01	0.14	0.06	0.00	0.00	0.00	0.00	2.30	0.00	0.00	0.00	0.00
53	15.000	7.83	0.54	0.11	0.06	0.00	0.00	0.00	0.00	6.01	6.01	6.01	0.14	0.06	0.00	0.00	0.00	0.00	2.28	0.00	0.00	0.00	0.00
54	14.875	7.84	0.54	0.11	0.06	0.00	0.00	0.00	0.00	6.00	6.00	6.00	0.14	0.06	0.00	0.00	0.00	0.00	2.26	0.00	0.00	0.00	0.00
55	14.750	7.84	0.54	0.11	0.06	0.00	0.00	0.00	0.00	5.99	5.99	5.99	0.14	0.06	0.00	0.00	0.00	0.00	2.24	0.00	0.00	0.00	0.00
56	14.625	7.84	0.54	0.11	0.06	0.00	0.00	0.00	0.00	5.99	5.99	5.99	0.13	0.06	0.00	0.00	0.00	0.00	2.22	0.00	0.00	0.00	0.00
57	14.500	7.85	0.54	0.11	0.06	0.00	0.00	0.00	0.00	5.98	5.98	5.98	0.13	0.06	0.00	0.00	0.00	0.00	2.21	0.00	0.00	0.00	0.00
58	14.375	7.85	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.97	5.97	5.97	0.13	0.06	0.00	0.00	0.00	0.00	2.19	0.00	0.00	0.00	0.00
59	14.250	7.85	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.96	5.96	5.96	0.13	0.06	0.00	0.00	0.00	0.00	2.17	0.00	0.00	0.00	0.00
60	14.125	7.85	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.96	5.96	5.96	0.13	0.06	0.00	0.00	0.00	0.00	2.15	0.00	0.00	0.00	0.00
61	14.000	7.86	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.95	5.95	5.95	0.13	0.06	0.00	0.00	0.00	0.00	2.13	0.00	0.00	0.00	0.00
62	13.875	7.86	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.94	5.94	5.94	0.13	0.06	0.00	0.00	0.00	0.00	2.11	0.00	0.00	0.00	0.00
63	13.750	7.86	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.93	5.93	5.93	0.13	0.06	0.00	0.00	0.00	0.00	2.09	0.00	0.00	0.00	0.00
64	13.625	7.86	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.93	5.93	5.93	0.13	0.06	0.00	0.00	0.00	0.00	2.07	0.00	0.00	0.00	0.00
65	13.500	7.87	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.92	5.92	5.92	0.13	0.06	0.00	0.00	0.00	0.00	2.06	0.00	0.00	0.00	0.00
66	13.375	7.87	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.91	5.91	5.91	0.13	0.06	0.00	0.00	0.00	0.00	2.04	0.00	0.00	0.00	0.00

67	13.250	7.87	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.90	5.90	5.90	0.13	0.06	0.00	0.00	0.00	0.00	2.02	0.00	0.00	0.00	0.00
68	13.125	7.88	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.90	5.90	5.90	0.13	0.06	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
69	13.000	7.88	0.53	0.11	0.06	0.00	0.00	0.00	0.00	5.89	5.89	5.89	0.13	0.06	0.00	0.00	0.00	0.00	1.98	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.46	0.08	0.05	0.00	0.00	0.05	0.00	3.65			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00
* g/m ² /d			** mg/L/day																				

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
50	15.375	27.97	0.11	16.05	216.99	2.81	6.84	0.00	10.08	0.00	2.60	0.00	0.00	0.00	0.00	32.42	0.00	0.	0.00
51	15.250	27.95	0.11	16.03	217.02	2.80	6.92	0.00	10.14	0.00	2.61	0.00	0.00	0.00	0.00	32.19	0.00	0.	0.00
52	15.125	27.93	0.11	16.01	217.04	2.78	7.00	0.00	10.19	0.00	2.61	0.00	0.00	0.00	0.00	31.95	0.00	0.	0.00
53	15.000	27.91	0.11	15.99	217.06	2.76	7.07	0.00	10.24	0.00	2.61	0.00	0.00	0.00	0.00	31.72	0.00	0.	0.00
54	14.875	27.89	0.11	15.97	217.09	2.75	7.14	0.00	10.29	0.00	2.61	0.00	0.00	0.00	0.00	31.48	0.00	0.	0.00
55	14.750	27.87	0.11	15.95	217.11	2.73	7.20	0.00	10.33	0.00	2.61	0.00	0.00	0.00	0.00	31.25	0.00	0.	0.00
56	14.625	27.85	0.11	15.93	217.13	2.71	7.27	0.00	10.37	0.00	2.61	0.00	0.00	0.00	0.00	31.01	0.00	0.	0.00
57	14.500	27.83	0.11	15.92	217.15	2.69	7.33	0.00	10.41	0.00	2.61	0.00	0.00	0.00	0.00	30.78	0.00	0.	0.00
58	14.375	27.81	0.11	15.90	217.17	2.67	7.39	0.00	10.44	0.00	2.61	0.00	0.00	0.00	0.00	30.55	0.00	0.	0.00
59	14.250	27.80	0.11	15.88	217.19	2.65	7.44	0.00	10.47	0.00	2.62	0.00	0.00	0.00	0.00	30.31	0.00	0.	0.00
60	14.125	27.78	0.11	15.87	217.21	2.63	7.50	0.00	10.50	0.00	2.62	0.00	0.00	0.00	0.00	30.07	0.00	0.	0.00
61	14.000	27.76	0.11	15.85	217.23	2.61	7.55	0.00	10.53	0.00	2.62	0.00	0.00	0.00	0.00	29.84	0.00	0.	0.00
62	13.875	27.74	0.11	15.83	217.25	2.59	7.60	0.00	10.56	0.00	2.62	0.00	0.00	0.00	0.00	29.60	0.00	0.	0.00
63	13.750	27.72	0.11	15.82	217.27	2.57	7.65	0.00	10.58	0.00	2.62	0.00	0.00	0.00	0.00	29.37	0.00	0.	0.00
64	13.625	27.70	0.11	15.80	217.29	2.55	7.69	0.00	10.61	0.00	2.62	0.00	0.00	0.00	0.00	29.13	0.00	0.	0.00
65	13.500	27.68	0.11	15.79	217.30	2.53	7.74	0.00	10.63	0.00	2.63	0.00	0.00	0.00	0.00	28.90	0.00	0.	0.00
66	13.375	27.66	0.11	15.78	217.32	2.51	7.78	0.00	10.65	0.00	2.63	0.00	0.00	0.00	0.00	28.66	0.00	0.	0.00
67	13.250	27.64	0.11	15.76	217.34	2.49	7.82	0.00	10.67	0.00	2.63	0.00	0.00	0.00	0.00	28.43	0.00	0.	0.00
68	13.125	27.62	0.11	15.75	217.35	2.47	7.87	0.00	10.69	0.00	2.63	0.00	0.00	0.00	0.00	28.19	0.00	0.	0.00
69	13.000	27.60	0.11	15.74	217.36	2.47	7.92	0.00	10.72	0.00	2.64	0.00	0.00	0.00	0.00	27.96	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream
 REACH NO. 7 km 13.0-BAYOU CORNE

GRAND BAYOU
 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
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70	UPR RCH	0.95334	27.60	0.11	15.74	217.36	2.47	7.92	0.00	10.72	0.00	2.64	0.00	0.00	0.00	27.96	0.00	0.00
EACH	INCR	-0.01500																

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
70	13.00	12.84	0.93834	6.6	0.01408	0.13	1.55	43.00	10464.05	6751.00	66.65	47.26	0.000	0.608	0.014
71	12.84	12.69	0.92334	6.6	0.01385	0.13	1.55	43.00	10464.05	6751.00	66.65	94.51	0.000	0.599	0.014
72	12.69	12.53	0.90834	6.6	0.01363	0.13	1.55	43.00	10464.05	6751.00	66.65	141.77	0.000	0.589	0.014
73	12.53	12.37	0.89334	6.6	0.01340	0.14	1.55	43.00	10464.05	6751.00	66.65	189.03	0.000	0.579	0.013
74	12.37	12.22	0.87834	6.6	0.01318	0.14	1.55	43.00	10464.05	6751.00	66.65	236.29	0.000	0.570	0.013
75	12.22	12.06	0.86334	6.6	0.01295	0.14	1.55	43.00	10464.05	6751.00	66.65	283.54	0.000	0.560	0.013
76	12.06	11.90	0.84834	6.6	0.01273	0.14	1.55	43.00	10464.05	6751.00	66.65	330.80	0.000	0.550	0.013
77	11.90	11.74	0.83334	6.6	0.01250	0.15	1.55	43.00	10464.05	6751.00	66.65	378.06	0.000	0.540	0.013
78	11.74	11.59	0.81834	6.6	0.01228	0.15	1.55	43.00	10464.05	6751.00	66.65	425.31	0.000	0.531	0.012
79	11.59	11.43	0.80334	6.6	0.01205	0.15	1.55	43.00	10464.05	6751.00	66.65	472.57	0.000	0.521	0.012
TOT						1.39			104640.49	67510.00					
AVG					0.0130		1.55	43.00			66.65				
CUM						8.24									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD#1 DECAY	BOD#1 SETT	ABOD#1 DECAY	BOD#2 DECAY	BOD#2 SETT	ABOD#2 DECAY	BKGD SOD	FULL SOD	CORR SOD	ORGN DECAY	ORGN SETT	NH3 DECAY	NH3 SRCE	DENIT RATE	PO4 SRCE	ALG PROD	MAC PROD	COLI DECAY	NCM DECAY	NCM SETT
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	*	**	**	1/da	1/da	1/da
70	12.843	7.88	0.52	0.10	0.06	0.00	0.00	0.00	0.00	4.84	4.84	4.84	0.15	0.06	0.00	0.00	0.00	0.00	1.95	0.00	0.00	0.00	0.00
71	12.686	7.88	0.52	0.10	0.06	0.00	0.00	0.00	0.00	4.84	4.84	4.84	0.15	0.06	0.00	0.00	0.00	0.00	1.92	0.00	0.00	0.00	0.00
72	12.529	7.88	0.52	0.10	0.06	0.00	0.00	0.00	0.00	4.84	4.84	4.84	0.15	0.06	0.00	0.00	0.00	0.00	1.88	0.00	0.00	0.00	0.00
73	12.372	7.88	0.52	0.10	0.06	0.00	0.00	0.00	0.00	4.84	4.84	4.84	0.15	0.06	0.00	0.00	0.00	0.00	1.85	0.00	0.00	0.00	0.00
74	12.215	7.88	0.52	0.10	0.06	0.00	0.00	0.00	0.00	4.84	4.84	4.84	0.15	0.06	0.00	0.00	0.00	0.00	1.82	0.00	0.00	0.00	0.00
75	12.058	7.88	0.52	0.10	0.06	0.00	0.00	0.00	0.00	4.84	4.84	4.84	0.15	0.06	0.00	0.00	0.00	0.00	1.78	0.00	0.00	0.00	0.00
76	11.901	7.88	0.52	0.10	0.06	0.00	0.00	0.00	0.00	4.84	4.84	4.84	0.15	0.06	0.00	0.00	0.00	0.00	1.75	0.00	0.00	0.00	0.00
77	11.744	7.88	0.52	0.10	0.06	0.00	0.00	0.00	0.00	4.84	4.84	4.84	0.15	0.06	0.00	0.00	0.00	0.00	1.72	0.00	0.00	0.00	0.00
78	11.587	7.88	0.52	0.10	0.06	0.00	0.00	0.00	0.00	4.84	4.84	4.84	0.15	0.06	0.00	0.00	0.00	0.00	1.68	0.00	0.00	0.00	0.00
79	11.430	7.88	0.52	0.10	0.06	0.00	0.00	0.00	0.00	4.84	4.84	4.84	0.15	0.06	0.00	0.00	0.00	0.00	1.65	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.45	0.07	0.05	0.00	0.00	0.05	0.00	3.00			0.12	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
70	12.843	27.60	0.11	15.74	217.36	2.52	8.03	0.00	10.78	0.00	2.66	0.00	0.00	0.00	0.00	27.49	0.00	0.	0.00
71	12.686	27.60	0.11	15.74	217.36	2.56	8.14	0.00	10.85	0.00	2.68	0.00	0.00	0.00	0.00	27.03	0.00	0.	0.00
72	12.529	27.60	0.11	15.74	217.36	2.60	8.26	0.00	10.91	0.00	2.70	0.00	0.00	0.00	0.00	26.56	0.00	0.	0.00
73	12.372	27.60	0.11	15.74	217.36	2.63	8.37	0.00	10.98	0.00	2.72	0.00	0.00	0.00	0.00	26.10	0.00	0.	0.00
74	12.215	27.60	0.11	15.74	217.36	2.66	8.48	0.00	11.04	0.00	2.74	0.00	0.00	0.00	0.00	25.63	0.00	0.	0.00
75	12.058	27.59	0.11	15.74	217.33	2.67	8.58	0.00	11.10	0.00	2.75	0.00	0.00	0.00	0.00	25.16	0.00	0.	0.00
76	11.901	27.59	0.11	15.72	217.20	2.68	8.68	0.00	11.15	0.00	2.77	0.00	0.00	0.00	0.00	24.70	0.00	0.	0.00
77	11.744	27.59	0.11	15.67	216.59	2.68	8.71	0.00	11.13	0.00	2.76	0.00	0.00	0.00	0.00	24.23	0.00	0.	0.00
78	11.587	27.59	0.11	15.42	213.71	2.67	8.44	0.00	10.82	0.00	2.66	0.00	0.00	0.00	0.00	23.77	0.00	0.	0.00
79	11.430	27.59	0.10	14.22	200.02	2.60	6.72	0.00	9.05	0.00	2.09	0.00	0.00	0.00	0.00	23.30	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream
 REACH NO. 8 B CORNE-LITTLE GRAND BAYOU

GRAND BAYOU
 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
80	UPR RCH	0.80334	27.59	0.10	14.22	200.02	2.60	6.72	0.00	9.05	0.00	2.09	0.00	0.00	0.00	23.30	0.00	0.00
EACH	INCR	0.03250	0.00	0.07	11.25	159.20	2.86	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	WSTLD	1.93000	26.95	0.07	10.20	154.13	2.08	0.29	0.00	0.29	0.00	0.00	0.00	0.00	0.00	6.60	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
80	11.43	11.29	2.76584	71.7	0.04054	0.04	1.62	42.06	9244.43	5699.40	68.22	572.31	0.000	1.820	0.041
81	11.29	11.16	2.79834	70.9	0.04102	0.04	1.62	42.06	9244.43	5699.40	68.22	672.05	0.000	1.841	0.041
82	11.16	11.02	2.83084	70.0	0.04149	0.04	1.62	42.06	9244.43	5699.40	68.22	771.79	0.000	1.862	0.041
83	11.02	10.89	2.86334	69.3	0.04197	0.04	1.62	42.06	9244.43	5699.40	68.22	871.53	0.000	1.884	0.042
84	10.89	10.75	2.89584	68.5	0.04245	0.04	1.62	42.06	9244.43	5699.40	68.22	971.27	0.000	1.905	0.042

85	10.75	10.62	2.92834	67.7	0.04292	0.04	1.62	42.06	9244.43	5699.40	68.22	1071.01	0.000	1.927	0.043
86	10.62	10.48	2.96084	67.0	0.04340	0.04	1.62	42.06	9244.43	5699.40	68.22	1170.75	0.000	1.948	0.043
87	10.48	10.35	2.99334	66.2	0.04387	0.04	1.62	42.06	9244.43	5699.40	68.22	1270.49	0.000	1.969	0.044
88	10.35	10.21	3.02584	65.5	0.04435	0.04	1.62	42.06	9244.43	5699.40	68.22	1370.23	0.000	1.991	0.044
89	10.21	10.08	3.05834	64.8	0.04483	0.03	1.62	42.06	9244.43	5699.40	68.22	1469.97	0.000	2.012	0.045
90	10.08	9.94	3.09084	64.2	0.04530	0.03	1.62	42.06	9244.43	5699.40	68.22	1569.70	0.001	2.033	0.045
91	9.94	9.80	3.12334	63.5	0.04578	0.03	1.62	42.06	9244.43	5699.40	68.22	1669.44	0.001	2.055	0.046
92	9.80	9.67	3.15584	62.8	0.04626	0.03	1.62	42.06	9244.43	5699.40	68.22	1769.18	0.001	2.076	0.046
93	9.67	9.53	3.18834	62.2	0.04673	0.03	1.62	42.06	9244.43	5699.40	68.22	1868.92	0.001	2.098	0.047
94	9.53	9.40	3.22084	61.6	0.04721	0.03	1.62	42.06	9244.43	5699.40	68.22	1968.66	0.001	2.119	0.047
95	9.40	9.26	3.25334	61.0	0.04769	0.03	1.62	42.06	9244.43	5699.40	68.22	2068.40	0.001	2.140	0.048
96	9.26	9.13	3.28584	60.3	0.04816	0.03	1.62	42.06	9244.43	5699.40	68.22	2168.14	0.001	2.162	0.048
97	9.13	8.99	3.31834	59.8	0.04864	0.03	1.62	42.06	9244.43	5699.40	68.22	2267.88	0.001	2.183	0.049
98	8.99	8.86	3.35084	59.2	0.04911	0.03	1.62	42.06	9244.43	5699.40	68.22	2367.62	0.001	2.204	0.049
99	8.86	8.72	3.38334	58.6	0.04959	0.03	1.62	42.06	9244.43	5699.40	68.22	2467.36	0.001	2.226	0.050
TOT							0.70			184888.55	113988.01				
AVG					0.0449		1.62	42.06						68.22	
CUM							8.94								

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAT 1/da	BOD#1 SETT 1/da	ABOD#1 DECAT 1/da	BOD#2 DECAT 1/da	BOD#2 SETT 1/da	ABOD#2 DECAT 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAT 1/da	ORGN SETT 1/da	NH3 DECAT 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAT 1/da	NCM DECAT 1/da	NCM SETT 1/da
80	11.295	7.88	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.23	3.23	3.23	0.17	0.06	0.00	0.00	0.00	0.00	1.64	0.00	0.00	0.00	0.00
81	11.159	7.88	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.23	3.23	3.23	0.17	0.06	0.00	0.00	0.00	0.00	1.63	0.00	0.00	0.00	0.00
82	11.024	7.87	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.24	3.24	3.24	0.17	0.06	0.00	0.00	0.00	0.00	1.62	0.00	0.00	0.00	0.00
83	10.888	7.87	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.24	3.24	3.24	0.17	0.06	0.00	0.00	0.00	0.00	1.61	0.00	0.00	0.00	0.00
84	10.753	7.87	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.24	3.24	3.24	0.18	0.06	0.00	0.00	0.00	0.00	1.59	0.00	0.00	0.00	0.00
85	10.617	7.87	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.25	3.25	3.25	0.18	0.06	0.00	0.00	0.00	0.00	1.58	0.00	0.00	0.00	0.00
86	10.482	7.86	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.25	3.25	3.25	0.18	0.06	0.00	0.00	0.00	0.00	1.57	0.00	0.00	0.00	0.00
87	10.346	7.86	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.25	3.25	3.25	0.18	0.06	0.00	0.00	0.00	0.00	1.56	0.00	0.00	0.00	0.00
88	10.211	7.86	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.26	3.26	3.26	0.18	0.06	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00
89	10.075	7.86	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.26	3.26	3.26	0.18	0.06	0.00	0.00	0.00	0.00	1.54	0.00	0.00	0.00	0.00
90	9.940	7.85	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.26	3.26	3.26	0.18	0.06	0.00	0.00	0.00	0.00	1.52	0.00	0.00	0.00	0.00
91	9.804	7.85	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.27	3.27	3.27	0.19	0.06	0.00	0.00	0.00	0.00	1.51	0.00	0.00	0.00	0.00
92	9.669	7.85	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.27	3.27	3.27	0.19	0.06	0.00	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00
93	9.533	7.85	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.28	3.28	3.28	0.19	0.06	0.00	0.00	0.00	0.00	1.49	0.00	0.00	0.00	0.00
94	9.398	7.84	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.28	3.28	3.28	0.19	0.06	0.00	0.00	0.00	0.00	1.48	0.00	0.00	0.00	0.00
95	9.262	7.84	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.28	3.28	3.28	0.19	0.06	0.00	0.00	0.00	0.00	1.47	0.00	0.00	0.00	0.00
96	9.127	7.84	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.29	3.29	3.29	0.19	0.06	0.00	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
97	8.991	7.84	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.29	3.29	3.29	0.19	0.06	0.00	0.00	0.00	0.00	1.44	0.00	0.00	0.00	0.00

98	8.856	7.83	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.29	3.29	3.29	0.19	0.06	0.00	0.00	0.00	0.00	1.43	0.00	0.00	0.00	0.00
99	8.720	7.83	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.19	0.06	0.00	0.00	0.00	0.00	1.42	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.43	0.05	0.05	0.00	0.00	0.05	0.00	2.00			0.14	0.05	0.00	0.00	0.00	0.00		0.00	0.00	0.00	
* g/m ² /d			** mg/L/day																				

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
80	11.295	27.61	0.08	11.83	172.62	2.39	3.00	0.00	5.32	0.00	0.89	0.00	0.00	0.00	0.00	23.12	0.00	0.	0.00
81	11.159	27.62	0.08	11.82	172.47	2.46	3.09	0.00	5.39	0.00	0.92	0.00	0.00	0.00	0.00	22.94	0.00	0.	0.00
82	11.024	27.64	0.08	11.82	172.32	2.54	3.18	0.00	5.45	0.00	0.95	0.00	0.00	0.00	0.00	22.76	0.00	0.	0.00
83	10.888	27.66	0.08	11.81	172.17	2.61	3.26	0.00	5.52	0.00	0.98	0.00	0.00	0.00	0.00	22.58	0.00	0.	0.00
84	10.753	27.68	0.08	11.80	172.02	2.67	3.34	0.00	5.58	0.00	1.01	0.00	0.00	0.00	0.00	22.40	0.00	0.	0.00
85	10.617	27.69	0.08	11.80	171.88	2.74	3.42	0.00	5.64	0.00	1.04	0.00	0.00	0.00	0.00	22.22	0.00	0.	0.00
86	10.482	27.71	0.08	11.79	171.74	2.80	3.50	0.00	5.70	0.00	1.06	0.00	0.00	0.00	0.00	22.04	0.00	0.	0.00
87	10.346	27.73	0.08	11.79	171.61	2.85	3.57	0.00	5.76	0.00	1.09	0.00	0.00	0.00	0.00	21.86	0.00	0.	0.00
88	10.211	27.75	0.08	11.78	171.47	2.91	3.65	0.00	5.81	0.00	1.12	0.00	0.00	0.00	0.00	21.68	0.00	0.	0.00
89	10.075	27.76	0.08	11.77	171.34	2.96	3.72	0.00	5.87	0.00	1.14	0.00	0.00	0.00	0.00	21.50	0.00	0.	0.00
90	9.940	27.78	0.08	11.77	171.22	3.00	3.79	0.00	5.92	0.00	1.16	0.00	0.00	0.00	0.00	21.32	0.00	0.	0.00
91	9.804	27.80	0.08	11.76	171.09	3.05	3.85	0.00	5.97	0.00	1.19	0.00	0.00	0.00	0.00	21.14	0.00	0.	0.00
92	9.669	27.82	0.08	11.76	170.97	3.09	3.92	0.00	6.01	0.00	1.21	0.00	0.00	0.00	0.00	20.96	0.00	0.	0.00
93	9.533	27.84	0.08	11.75	170.85	3.13	3.98	0.00	6.06	0.00	1.23	0.00	0.00	0.00	0.00	20.78	0.00	0.	0.00
94	9.398	27.85	0.08	11.75	170.73	3.17	4.04	0.00	6.10	0.00	1.25	0.00	0.00	0.00	0.00	20.60	0.00	0.	0.00
95	9.262	27.87	0.08	11.74	170.62	3.21	4.10	0.00	6.15	0.00	1.27	0.00	0.00	0.00	0.00	20.42	0.00	0.	0.00
96	9.127	27.89	0.08	11.74	170.51	3.24	4.16	0.00	6.19	0.00	1.29	0.00	0.00	0.00	0.00	20.24	0.00	0.	0.00
97	8.991	27.91	0.08	11.73	170.40	3.27	4.22	0.00	6.23	0.00	1.31	0.00	0.00	0.00	0.00	20.06	0.00	0.	0.00
98	8.856	27.92	0.08	11.73	170.29	3.30	4.28	0.00	6.26	0.00	1.33	0.00	0.00	0.00	0.00	19.88	0.00	0.	0.00
99	8.720	27.94	0.08	11.73	170.19	3.33	4.32	0.00	6.29	0.00	1.34	0.00	0.00	0.00	0.00	19.70	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU
 REACH NO. 9 LITTLE GRAND-UNNAMED CANAL 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
100	UPR RCH	3.38334	27.94	0.08	11.73	170.19	3.33	4.32	0.00	6.29	0.00	1.34	0.00	0.00	0.00	19.70	0.00	0.00

EACH	INCR	0.06250	0.00	0.07	11.80	166.50	3.33	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00		
100	WSTLD	-0.14000	27.98	0.08	11.72	170.13	3.36	4.35	0.00	6.29	0.00	1.32	0.00	0.00	0.00	19.41	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
100	8.72	8.57	3.30584	57.5	0.04586	0.04	1.48	48.77	10811.87	7315.20	72.08	2613.81	0.001	1.905	0.046
101	8.57	8.42	3.36834	56.5	0.04673	0.04	1.48	48.77	10811.87	7315.20	72.08	2760.26	0.001	1.941	0.047
102	8.42	8.27	3.43084	55.4	0.04760	0.04	1.48	48.77	10811.87	7315.20	72.08	2906.71	0.001	1.977	0.048
103	8.27	8.12	3.49334	54.5	0.04847	0.04	1.48	48.77	10811.87	7315.20	72.08	3053.16	0.001	2.013	0.048
TOT						0.15			43247.46	29260.80					
AVG					0.0471		1.48	48.77			72.08				
CUM						9.09									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD#1 DECAY	BOD#1 SETT	ABOD#1 DECAY	BOD#2 DECAY	BOD#2 SETT	ABOD#2 DECAY	BKGD SOD	FULL SOD	CORR SOD	ORGN DECAY	ORGN SETT	NH3 DECAY	NH3 SRCE	DENIT RATE	PO4 SRCE	ALG PROD	MAC PROD	COLI DECAY	NCM DECAY	NCM SETT
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	*	**	**	1/da	1/da	1/da
100	8.570	7.83	0.55	0.08	0.06	0.00	0.00	0.00	0.00	3.55	3.55	3.55	0.13	0.06	0.00	0.00	0.00	0.00	1.40	0.00	0.00	0.00	0.00
101	8.420	7.82	0.55	0.08	0.06	0.00	0.00	0.00	0.00	3.56	3.56	3.56	0.13	0.06	0.00	0.00	0.00	0.00	1.38	0.00	0.00	0.00	0.00
102	8.270	7.82	0.55	0.08	0.06	0.00	0.00	0.00	0.00	3.57	3.57	3.57	0.13	0.06	0.00	0.00	0.00	0.00	1.36	0.00	0.00	0.00	0.00
103	8.120	7.81	0.55	0.08	0.06	0.00	0.00	0.00	0.00	3.58	3.58	3.58	0.13	0.06	0.00	0.00	0.00	0.00	1.34	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.47	0.05	0.05	0.00	0.00	0.05	0.00	2.15			0.09	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00
*	g/m ² /d		** mg/L/day																				

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
100	8.570	27.98	0.08	11.72	170.13	3.36	4.35	0.00	6.29	0.00	1.32	0.00	0.00	0.00	0.00	19.41	0.00	0.	0.00
101	8.420	28.01	0.08	11.72	170.04	3.40	4.38	0.00	6.29	0.00	1.30	0.00	0.00	0.00	0.00	19.12	0.00	0.	0.00
102	8.270	28.05	0.08	11.67	169.89	3.43	4.43	0.00	6.32	0.00	1.28	0.00	0.00	0.00	0.00	18.82	0.00	0.	0.00
103	8.120	28.08	0.08	11.46	169.43	3.45	4.58	0.00	6.43	0.00	1.28	0.00	0.00	0.00	0.00	18.53	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream
 REACH NO. 10 UNNAMED CANAL-E GRAND BAYOU

GRAND BAYOU
 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
104	UPR RCH	3.49334	28.08	0.08	11.46	169.43	3.45	4.58	0.00	6.43	0.00	1.28	0.00	0.00	0.00	18.53	0.00	0.00
EACH	INCR	0.03250	0.00	0.07	11.34	168.72	3.44	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	
104	WSTLD	4.02800	27.93	0.07	10.10	166.80	3.47	5.47	0.00	5.47	0.00	1.38	0.00	0.00	0.00	23.80	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
104	8.12	7.97	7.55384	78.5	0.10830	0.02	1.55	45.00	10183.50	6570.00	69.75	3283.11	0.001	4.680	0.108
105	7.97	7.83	7.58634	78.2	0.10876	0.02	1.55	45.00	10183.50	6570.00	69.75	3513.06	0.001	4.701	0.109
106	7.83	7.68	7.61884	77.8	0.10923	0.02	1.55	45.00	10183.50	6570.00	69.75	3743.01	0.001	4.721	0.109
107	7.68	7.54	7.65134	77.5	0.10970	0.02	1.55	45.00	10183.50	6570.00	69.75	3972.96	0.001	4.741	0.110
108	7.54	7.39	7.68384	77.2	0.11016	0.02	1.55	45.00	10183.50	6570.00	69.75	4202.91	0.001	4.761	0.110
109	7.39	7.24	7.71634	76.9	0.11063	0.02	1.55	45.00	10183.50	6570.00	69.75	4432.86	0.001	4.781	0.111
110	7.24	7.10	7.74884	76.5	0.11109	0.02	1.55	45.00	10183.50	6570.00	69.75	4662.81	0.001	4.801	0.111
111	7.10	6.95	7.78134	76.2	0.11156	0.02	1.55	45.00	10183.50	6570.00	69.75	4892.76	0.002	4.821	0.112
112	6.95	6.81	7.81384	75.9	0.11203	0.02	1.55	45.00	10183.50	6570.00	69.75	5122.71	0.002	4.842	0.112
113	6.81	6.66	7.84634	75.6	0.11249	0.02	1.55	45.00	10183.50	6570.00	69.75	5352.66	0.002	4.862	0.112
114	6.66	6.51	7.87884	75.3	0.11296	0.01	1.55	45.00	10183.50	6570.00	69.75	5582.61	0.002	4.882	0.113
115	6.51	6.37	7.91134	75.0	0.11342	0.01	1.55	45.00	10183.50	6570.00	69.75	5812.56	0.002	4.902	0.113
116	6.37	6.22	7.94384	74.7	0.11389	0.01	1.55	45.00	10183.50	6570.00	69.75	6042.51	0.002	4.922	0.114
117	6.22	6.08	7.97634	74.3	0.11436	0.01	1.55	45.00	10183.50	6570.00	69.75	6272.46	0.002	4.942	0.114
118	6.08	5.93	8.00884	74.0	0.11482	0.01	1.55	45.00	10183.50	6570.00	69.75	6502.41	0.002	4.962	0.115
119	5.93	5.78	8.04134	73.7	0.11529	0.01	1.55	45.00	10183.50	6570.00	69.75	6732.36	0.002	4.983	0.115
120	5.78	5.64	8.07384	73.5	0.11575	0.01	1.55	45.00	10183.50	6570.00	69.75	6962.31	0.002	5.003	0.116
121	5.64	5.49	8.10634	73.2	0.11622	0.01	1.55	45.00	10183.50	6570.00	69.75	7192.26	0.002	5.023	0.116
122	5.49	5.35	8.13884	72.9	0.11669	0.01	1.55	45.00	10183.50	6570.00	69.75	7422.21	0.002	5.043	0.117
123	5.35	5.20	8.17134	72.6	0.11715	0.01	1.55	45.00	10183.50	6570.00	69.75	7652.16	0.002	5.063	0.117
TOT						0.30			203670.00	131400.00					
AVG					0.1127		1.55	45.00			69.75				

CUM

9.39

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
104	7.974	7.81	0.62	0.08	0.06	0.00	0.00	0.00	0.00	4.58	4.58	4.58	0.13	0.06	0.00	0.00	0.00	0.00	1.34	0.00	0.00	0.00	0.00
105	7.828	7.81	0.62	0.08	0.06	0.00	0.00	0.00	0.00	4.58	4.58	4.58	0.13	0.06	0.00	0.00	0.00	0.00	1.33	0.00	0.00	0.00	0.00
106	7.682	7.81	0.63	0.08	0.06	0.00	0.00	0.00	0.00	4.58	4.58	4.58	0.13	0.06	0.00	0.00	0.00	0.00	1.33	0.00	0.00	0.00	0.00
107	7.536	7.81	0.63	0.08	0.06	0.00	0.00	0.00	0.00	4.59	4.59	4.59	0.14	0.06	0.00	0.00	0.00	0.00	1.32	0.00	0.00	0.00	0.00
108	7.390	7.81	0.63	0.08	0.06	0.00	0.00	0.00	0.00	4.59	4.59	4.59	0.14	0.06	0.00	0.00	0.00	0.00	1.32	0.00	0.00	0.00	0.00
109	7.244	7.80	0.63	0.08	0.06	0.00	0.00	0.00	0.00	4.59	4.59	4.59	0.14	0.06	0.00	0.00	0.00	0.00	1.31	0.00	0.00	0.00	0.00
110	7.098	7.80	0.63	0.08	0.06	0.00	0.00	0.00	0.00	4.60	4.60	4.60	0.14	0.06	0.00	0.00	0.00	0.00	1.31	0.00	0.00	0.00	0.00
111	6.952	7.80	0.64	0.08	0.06	0.00	0.00	0.00	0.00	4.60	4.60	4.60	0.14	0.06	0.00	0.00	0.00	0.00	1.30	0.00	0.00	0.00	0.00
112	6.806	7.80	0.64	0.08	0.06	0.00	0.00	0.00	0.00	4.60	4.60	4.60	0.14	0.06	0.00	0.00	0.00	0.00	1.30	0.00	0.00	0.00	0.00
113	6.660	7.80	0.64	0.08	0.06	0.00	0.00	0.00	0.00	4.60	4.60	4.60	0.14	0.06	0.00	0.00	0.00	0.00	1.29	0.00	0.00	0.00	0.00
114	6.514	7.80	0.64	0.08	0.06	0.00	0.00	0.00	0.00	4.61	4.61	4.61	0.14	0.06	0.00	0.00	0.00	0.00	1.29	0.00	0.00	0.00	0.00
115	6.368	7.80	0.64	0.08	0.06	0.00	0.00	0.00	0.00	4.61	4.61	4.61	0.14	0.06	0.00	0.00	0.00	0.00	1.28	0.00	0.00	0.00	0.00
116	6.222	7.79	0.65	0.08	0.06	0.00	0.00	0.00	0.00	4.61	4.61	4.61	0.14	0.06	0.00	0.00	0.00	0.00	1.28	0.00	0.00	0.00	0.00
117	6.076	7.79	0.65	0.08	0.06	0.00	0.00	0.00	0.00	4.62	4.62	4.62	0.14	0.06	0.00	0.00	0.00	0.00	1.27	0.00	0.00	0.00	0.00
118	5.930	7.79	0.65	0.08	0.06	0.00	0.00	0.00	0.00	4.62	4.62	4.62	0.14	0.06	0.00	0.00	0.00	0.00	1.27	0.00	0.00	0.00	0.00
119	5.784	7.79	0.65	0.08	0.06	0.00	0.00	0.00	0.00	4.62	4.62	4.62	0.14	0.06	0.00	0.00	0.00	0.00	1.26	0.00	0.00	0.00	0.00
120	5.638	7.79	0.65	0.08	0.06	0.00	0.00	0.00	0.00	4.63	4.63	4.63	0.14	0.06	0.00	0.00	0.00	0.00	1.26	0.00	0.00	0.00	0.00
121	5.492	7.79	0.66	0.08	0.06	0.00	0.00	0.00	0.00	4.63	4.63	4.63	0.14	0.06	0.00	0.00	0.00	0.00	1.26	0.00	0.00	0.00	0.00
122	5.346	7.79	0.66	0.08	0.06	0.00	0.00	0.00	0.00	4.63	4.63	4.63	0.14	0.06	0.00	0.00	0.00	0.00	1.25	0.00	0.00	0.00	0.00
123	5.200	7.78	0.66	0.08	0.06	0.00	0.00	0.00	0.00	4.64	4.64	4.64	0.14	0.06	0.00	0.00	0.00	0.00	1.25	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 0.55 0.05 0.05 0.00 0.00 0.05 0.00 2.75 0.09 0.05 0.00 0.00 0.00 0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
104	7.974	28.09	0.07	10.86	168.27	3.47	4.94	0.00	6.79	0.00	1.31	0.00	0.00	0.00	0.00	18.45	0.00	0.	0.00
105	7.828	28.10	0.07	10.86	168.27	3.48	4.91	0.00	6.75	0.00	1.30	0.00	0.00	0.00	0.00	18.38	0.00	0.	0.00
106	7.682	28.11	0.07	10.86	168.27	3.49	4.88	0.00	6.71	0.00	1.29	0.00	0.00	0.00	0.00	18.30	0.00	0.	0.00
107	7.536	28.12	0.07	10.87	168.27	3.49	4.85	0.00	6.67	0.00	1.28	0.00	0.00	0.00	0.00	18.23	0.00	0.	0.00
108	7.390	28.13	0.07	10.87	168.27	3.50	4.82	0.00	6.63	0.00	1.28	0.00	0.00	0.00	0.00	18.15	0.00	0.	0.00

109	7.244	28.14	0.07	10.87	168.28	3.51	4.79	0.00	6.59	0.00	1.27	0.00	0.00	0.00	0.00	18.08	0.00	0.	0.00
110	7.098	28.15	0.07	10.87	168.28	3.52	4.76	0.00	6.56	0.00	1.26	0.00	0.00	0.00	0.00	18.00	0.00	0.	0.00
111	6.952	28.16	0.07	10.87	168.28	3.52	4.73	0.00	6.52	0.00	1.25	0.00	0.00	0.00	0.00	17.93	0.00	0.	0.00
112	6.806	28.17	0.07	10.88	168.28	3.53	4.70	0.00	6.48	0.00	1.24	0.00	0.00	0.00	0.00	17.85	0.00	0.	0.00
113	6.660	28.18	0.07	10.88	168.28	3.54	4.67	0.00	6.45	0.00	1.23	0.00	0.00	0.00	0.00	17.78	0.00	0.	0.00
114	6.514	28.20	0.07	10.88	168.29	3.55	4.64	0.00	6.41	0.00	1.22	0.00	0.00	0.00	0.00	17.70	0.00	0.	0.00
115	6.368	28.21	0.07	10.88	168.29	3.55	4.61	0.00	6.37	0.00	1.21	0.00	0.00	0.00	0.00	17.62	0.00	0.	0.00
116	6.222	28.22	0.07	10.88	168.29	3.56	4.58	0.00	6.34	0.00	1.20	0.00	0.00	0.00	0.00	17.55	0.00	0.	0.00
117	6.076	28.23	0.07	10.89	168.29	3.57	4.55	0.00	6.30	0.00	1.20	0.00	0.00	0.00	0.00	17.47	0.00	0.	0.00
118	5.930	28.24	0.07	10.89	168.29	3.57	4.53	0.00	6.27	0.00	1.19	0.00	0.00	0.00	0.00	17.40	0.00	0.	0.00
119	5.784	28.25	0.07	10.89	168.29	3.58	4.50	0.00	6.23	0.00	1.18	0.00	0.00	0.00	0.00	17.32	0.00	0.	0.00
120	5.638	28.26	0.07	10.89	168.30	3.59	4.47	0.00	6.20	0.00	1.17	0.00	0.00	0.00	0.00	17.25	0.00	0.	0.00
121	5.492	28.27	0.07	10.89	168.30	3.59	4.44	0.00	6.16	0.00	1.16	0.00	0.00	0.00	0.00	17.17	0.00	0.	0.00
122	5.346	28.28	0.07	10.89	168.30	3.60	4.42	0.00	6.13	0.00	1.16	0.00	0.00	0.00	0.00	17.10	0.00	0.	0.00
123	5.200	28.29	0.07	10.90	168.31	3.61	4.39	0.00	6.09	0.00	1.15	0.00	0.00	0.00	0.00	17.02	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream
 REACH NO. 11 E GRAND BAYOU-BAYOU ALCIDE

GRAND BAYOU
 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
124	UPR RCH	8.17134	28.29	0.07	10.90	168.31	3.61	4.39	0.00	6.09	0.00	1.15	0.00	0.00	0.00	17.02	0.00	0.00
EACH	INCR	0.05909	0.00	0.08	10.68	171.75	3.60	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	
124	WSTLD	-3.80600	28.32	0.07	10.89	168.33	3.61	4.35	0.00	6.08	0.00	1.13	0.00	0.00	0.00	17.31	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
124	5.20	5.01	4.42443	72.1	0.06379	0.03	1.62	42.95	13177.98	8159.74	69.36	8080.55	0.003	2.853	0.064
125	5.01	4.82	4.48352	71.1	0.06464	0.03	1.62	42.95	13177.98	8159.74	69.36	8508.94	0.003	2.891	0.065
126	4.82	4.63	4.54261	70.2	0.06550	0.03	1.62	42.95	13177.98	8159.74	69.36	8937.32	0.003	2.929	0.065
127	4.63	4.44	4.60170	69.3	0.06635	0.03	1.62	42.95	13177.98	8159.74	69.36	9365.71	0.003	2.967	0.066
128	4.44	4.25	4.66080	68.4	0.06720	0.03	1.62	42.95	13177.98	8159.74	69.36	9794.10	0.003	3.005	0.067
129	4.25	4.06	4.71989	67.5	0.06805	0.03	1.62	42.95	13177.98	8159.74	69.36	10222.48	0.003	3.043	0.068
130	4.06	3.87	4.77898	66.7	0.06890	0.03	1.62	42.95	13177.98	8159.74	69.36	10650.87	0.003	3.082	0.069
131	3.87	3.68	4.83807	65.9	0.06976	0.03	1.62	42.95	13177.98	8159.74	69.36	11079.26	0.004	3.120	0.070

132	3.68	3.49	4.89716	65.1	0.07061	0.03	1.62	42.95	13177.98	8159.74	69.36	11507.64	0.004	3.158	0.071
133	3.49	3.30	4.95625	64.3	0.07146	0.03	1.62	42.95	13177.98	8159.74	69.36	11936.03	0.004	3.196	0.071
134	3.30	3.11	5.01534	63.6	0.07231	0.03	1.62	42.95	13177.98	8159.74	69.36	12364.42	0.004	3.234	0.072
TOT						0.36			144957.77	89757.14					
AVG					0.0679		1.61	42.95			69.36				
CUM						9.75									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
124	5.010	7.78	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.22	4.22	4.22	0.14	0.06	0.00	0.00	0.00	0.00	1.27	0.00	0.00	0.00	0.00
125	4.820	7.78	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.23	4.23	4.23	0.14	0.06	0.00	0.00	0.00	0.00	1.29	0.00	0.00	0.00	0.00
126	4.630	7.77	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.14	0.06	0.00	0.00	0.00	0.00	1.31	0.00	0.00	0.00	0.00
127	4.440	7.77	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.15	0.06	0.00	0.00	0.00	0.00	1.34	0.00	0.00	0.00	0.00
128	4.250	7.76	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.25	4.25	4.25	0.15	0.06	0.00	0.00	0.00	0.00	1.36	0.00	0.00	0.00	0.00
129	4.060	7.76	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.26	4.26	4.26	0.15	0.06	0.00	0.00	0.00	0.00	1.38	0.00	0.00	0.00	0.00
130	3.870	7.76	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.27	4.27	4.27	0.15	0.06	0.00	0.00	0.00	0.00	1.41	0.00	0.00	0.00	0.00
131	3.680	7.75	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.28	4.28	4.28	0.15	0.06	0.00	0.00	0.00	0.00	1.43	0.00	0.00	0.00	0.00
132	3.490	7.75	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.28	4.28	4.28	0.15	0.06	0.00	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
133	3.300	7.74	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.29	4.29	4.29	0.15	0.06	0.00	0.00	0.00	0.00	1.48	0.00	0.00	0.00	0.00
134	3.110	7.74	0.51	0.08	0.06	0.00	0.00	0.00	0.00	4.30	4.30	4.30	0.15	0.06	0.00	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.43	0.06	0.05	0.00	0.00	0.05	0.00	2.50			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
124	5.010	28.32	0.07	10.89	168.33	3.61	4.35	0.00	6.08	0.00	1.13	0.00	0.00	0.00	0.00	17.31	0.00	0.	0.00
125	4.820	28.35	0.07	10.89	168.38	3.62	4.27	0.00	6.03	0.00	1.11	0.00	0.00	0.00	0.00	17.60	0.00	0.	0.00
126	4.630	28.38	0.07	10.89	168.42	3.63	4.19	0.00	5.98	0.00	1.09	0.00	0.00	0.00	0.00	17.89	0.00	0.	0.00
127	4.440	28.41	0.07	10.89	168.46	3.64	4.12	0.00	5.94	0.00	1.07	0.00	0.00	0.00	0.00	18.18	0.00	0.	0.00
128	4.250	28.44	0.07	10.88	168.50	3.65	4.05	0.00	5.89	0.00	1.05	0.00	0.00	0.00	0.00	18.47	0.00	0.	0.00
129	4.060	28.46	0.07	10.88	168.54	3.66	3.98	0.00	5.85	0.00	1.03	0.00	0.00	0.00	0.00	18.75	0.00	0.	0.00
130	3.870	28.49	0.07	10.88	168.58	3.67	3.91	0.00	5.82	0.00	1.01	0.00	0.00	0.00	0.00	19.04	0.00	0.	0.00
131	3.680	28.52	0.07	10.87	168.62	3.68	3.85	0.00	5.78	0.00	0.99	0.00	0.00	0.00	0.00	19.33	0.00	0.	0.00

132	3.490	28.55	0.07	10.87	168.63	3.69	3.79	0.00	5.75	0.00	0.97	0.00	0.00	0.00	0.00	19.62	0.00	0.	0.00
133	3.300	28.58	0.07	10.83	168.54	3.69	3.76	0.00	5.75	0.00	0.96	0.00	0.00	0.00	0.00	19.91	0.00	0.	0.00
134	3.110	28.61	0.07	10.67	167.90	3.65	3.85	0.00	5.87	0.00	0.97	0.00	0.00	0.00	0.00	20.20	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU
 REACH NO. 12 BAYOU ALCIDE-SITE GRB8 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
135	UPR RCH	5.01534	28.61	0.07	10.67	167.90	3.65	3.85	0.00	5.87	0.00	0.97	0.00	0.00	0.00	20.20	0.00	0.00
EACH	INCR	0.02500	0.00	0.08	10.20	170.29	3.48	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	
135	WSTLD	2.98400	27.96	0.07	8.80	160.11	2.99	5.54	0.00	5.54	0.00	1.23	0.00	0.00	0.00	23.80	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
135	3.11	2.96	8.02434	76.9	0.08414	0.02	1.73	55.00	13828.65	7975.00	95.37	12811.02	0.003	3.993	0.084
136	2.96	2.82	8.04934	76.7	0.08440	0.02	1.73	55.00	13828.65	7975.00	95.37	13257.62	0.003	4.005	0.084
137	2.82	2.67	8.07434	76.4	0.08466	0.02	1.73	55.00	13828.65	7975.00	95.37	13704.22	0.003	4.017	0.085
138	2.67	2.53	8.09934	76.2	0.08493	0.02	1.73	55.00	13828.65	7975.00	95.37	14150.82	0.003	4.030	0.085
139	2.53	2.38	8.12434	76.0	0.08519	0.02	1.73	55.00	13828.65	7975.00	95.37	14597.42	0.003	4.042	0.085
140	2.38	2.24	8.14934	75.7	0.08545	0.02	1.73	55.00	13828.65	7975.00	95.37	15044.01	0.004	4.055	0.085
141	2.24	2.10	8.17434	75.5	0.08571	0.02	1.73	55.00	13828.65	7975.00	95.37	15490.61	0.004	4.067	0.086
142	2.10	1.95	8.19934	75.3	0.08597	0.02	1.73	55.00	13828.65	7975.00	95.37	15937.21	0.004	4.080	0.086
143	1.95	1.81	8.22434	75.0	0.08624	0.02	1.73	55.00	13828.65	7975.00	95.37	16383.81	0.004	4.092	0.086
144	1.81	1.66	8.24934	74.8	0.08650	0.02	1.73	55.00	13828.65	7975.00	95.37	16830.41	0.004	4.104	0.086
TOT						0.20			138286.50	79750.00					
AVG					0.0853		1.73	55.00			95.37				
CUM						9.94									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD#1 DECAY	BOD#1 SETT	ABOD#1 DECAY	BOD#2 DECAY	BOD#2 SETT	ABOD#2 DECAY	BKGD SOD	FULL SOD	CORR SOD	ORGN DECAY	ORGN SETT	NH3 DECAY	NH3 SRCE	DENIT RATE	PO4 SRCE	ALG PROD	MAC PROD	COLI DECAY	NCM DECAY	NCM SETT
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	mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	*	**	**	1/da	1/da	1/da
135	2.965	7.74	0.47	0.08	0.06	0.00	0.00	0.00	0.00	5.16	5.16	5.16	0.14	0.06	0.00	0.00	0.00	0.00	1.51	0.00	0.00	0.00	0.00
136	2.820	7.74	0.47	0.08	0.06	0.00	0.00	0.00	0.00	5.17	5.17	5.17	0.14	0.06	0.00	0.00	0.00	0.00	1.53	0.00	0.00	0.00	0.00
137	2.675	7.74	0.47	0.08	0.06	0.00	0.00	0.00	0.00	5.17	5.17	5.17	0.14	0.06	0.00	0.00	0.00	0.00	1.54	0.00	0.00	0.00	0.00
138	2.530	7.73	0.47	0.08	0.06	0.00	0.00	0.00	0.00	5.18	5.18	5.18	0.14	0.06	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00
139	2.385	7.73	0.47	0.08	0.06	0.00	0.00	0.00	0.00	5.18	5.18	5.18	0.14	0.06	0.00	0.00	0.00	0.00	1.57	0.00	0.00	0.00	0.00
140	2.240	7.73	0.47	0.08	0.06	0.00	0.00	0.00	0.00	5.18	5.18	5.18	0.14	0.06	0.00	0.00	0.00	0.00	1.58	0.00	0.00	0.00	0.00
141	2.095	7.73	0.47	0.08	0.06	0.00	0.00	0.00	0.00	5.19	5.19	5.19	0.14	0.06	0.00	0.00	0.00	0.00	1.60	0.00	0.00	0.00	0.00
142	1.950	7.73	0.47	0.08	0.06	0.00	0.00	0.00	0.00	5.19	5.19	5.19	0.14	0.06	0.00	0.00	0.00	0.00	1.61	0.00	0.00	0.00	0.00
143	1.805	7.73	0.47	0.08	0.06	0.00	0.00	0.00	0.00	5.19	5.19	5.19	0.14	0.06	0.00	0.00	0.00	0.00	1.62	0.00	0.00	0.00	0.00
144	1.660	7.72	0.47	0.08	0.06	0.00	0.00	0.00	0.00	5.20	5.20	5.20	0.14	0.06	0.00	0.00	0.00	0.00	1.64	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.40	0.05	0.05	0.00	0.00	0.05	0.00	3.00			0.09	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
135	2.965	28.62	0.07	10.10	165.53	3.45	4.34	0.00	6.37	0.00	1.04	0.00	0.00	0.00	0.00	20.37	0.00	0.	0.00
136	2.820	28.63	0.07	10.10	165.55	3.45	4.31	0.00	6.36	0.00	1.03	0.00	0.00	0.00	0.00	20.54	0.00	0.	0.00
137	2.675	28.65	0.07	10.10	165.56	3.45	4.28	0.00	6.36	0.00	1.02	0.00	0.00	0.00	0.00	20.72	0.00	0.	0.00
138	2.530	28.66	0.07	10.10	165.57	3.45	4.26	0.00	6.35	0.00	1.02	0.00	0.00	0.00	0.00	20.89	0.00	0.	0.00
139	2.385	28.67	0.07	10.10	165.59	3.46	4.23	0.00	6.34	0.00	1.01	0.00	0.00	0.00	0.00	21.06	0.00	0.	0.00
140	2.240	28.68	0.07	10.10	165.60	3.46	4.21	0.00	6.33	0.00	1.00	0.00	0.00	0.00	0.00	21.23	0.00	0.	0.00
141	2.095	28.69	0.07	10.10	165.62	3.46	4.18	0.00	6.32	0.00	1.00	0.00	0.00	0.00	0.00	21.40	0.00	0.	0.00
142	1.950	28.71	0.07	10.10	165.63	3.47	4.16	0.00	6.32	0.00	0.99	0.00	0.00	0.00	0.00	21.58	0.00	0.	0.00
143	1.805	28.72	0.07	10.10	165.65	3.47	4.14	0.00	6.31	0.00	0.98	0.00	0.00	0.00	0.00	21.75	0.00	0.	0.00
144	1.660	28.73	0.07	10.10	165.65	3.47	4.12	0.00	6.31	0.00	0.98	0.00	0.00	0.00	0.00	21.92	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU
 REACH NO. 13 SITE GRB8-LITTLE BAYOU LONG 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
145	UPR RCH	8.24934	28.73	0.07	10.10	165.65	3.47	4.12	0.00	6.31	0.00	0.98	0.00	0.00	0.00	21.92	0.00	0.00

EACH INCR -0.16250

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
145	1.66	1.54	8.08684	74.8	0.06343	0.02	1.50	85.00	14662.50	9775.00	127.50	17514.66	0.003	2.667	0.063
146	1.54	1.43	7.92434	74.8	0.06215	0.02	1.50	85.00	14662.50	9775.00	127.50	18198.91	0.003	2.614	0.062
147	1.43	1.31	7.76184	74.8	0.06088	0.02	1.50	85.00	14662.50	9775.00	127.50	18883.16	0.003	2.560	0.061
148	1.31	1.20	7.59934	74.8	0.05960	0.02	1.50	85.00	14662.50	9775.00	127.50	19567.41	0.003	2.507	0.060
TOT						0.09			58650.00	39100.00					
AVG					0.0615		1.50	85.00			127.50				
CUM						10.03									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD#1 DECAY	BOD#1 SETT	ABOD#1 DECAY	BOD#2 DECAY	BOD#2 SETT	ABOD#2 DECAY	BKGD SOD	FULL SOD	CORR SOD	ORGN DECAY	ORGN SETT	NH3 DECAY	NH3 SRCE	DENIT RATE	PO4 SRCE	ALG PROD	MAC PROD	COLI DECAY	NCM DECAY	NCM SETT	
145	1.545	7.73	0.55	0.08	0.06	0.00	0.00	0.00	0.00	5.19	5.19	5.19	0.14	0.06	0.00	0.00	0.00	0.00	1.66	0.00	0.00	0.00	0.00	0.00
146	1.430	7.73	0.55	0.08	0.06	0.00	0.00	0.00	0.00	5.19	5.19	5.19	0.14	0.06	0.00	0.00	0.00	0.00	1.69	0.00	0.00	0.00	0.00	0.00
147	1.315	7.73	0.55	0.08	0.06	0.00	0.00	0.00	0.00	5.19	5.19	5.19	0.14	0.06	0.00	0.00	0.00	0.00	1.72	0.00	0.00	0.00	0.00	0.00
148	1.200	7.73	0.55	0.08	0.06	0.00	0.00	0.00	0.00	5.18	5.18	5.18	0.14	0.06	0.00	0.00	0.00	0.00	1.74	0.00	0.00	0.00	0.00	0.00
AVG	20 DEG C RATE		0.47	0.05	0.05	0.00	0.00	0.05	0.00	3.00			0.09	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
*	g/m ² /d		**	mg/L/day																				

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
145	1.545	28.72	0.07	10.10	165.65	3.47	4.12	0.00	6.35	0.00	1.00	0.00	0.00	0.00	0.00	22.30	0.00	0.	0.00
146	1.430	28.70	0.07	10.10	165.64	3.47	4.11	0.00	6.38	0.00	1.01	0.00	0.00	0.00	0.00	22.67	0.00	0.	0.00
147	1.315	28.69	0.07	10.09	165.59	3.47	4.12	0.00	6.42	0.00	1.02	0.00	0.00	0.00	0.00	23.05	0.00	0.	0.00
148	1.200	28.68	0.07	10.08	165.40	3.45	4.14	0.00	6.48	0.00	1.04	0.00	0.00	0.00	0.00	23.42	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream
 REACH NO. 14 L BAYOU LONG-LAKE VERRET

GRAND BAYOU
 11/09/06

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
149	UPR RCH	7.59934	28.68	0.07	10.08	165.40	3.45	4.14	0.00	6.48	0.00	1.04	0.00	0.00	0.00	23.42	0.00	0.00
EACH	INCR	-0.06500																
149	WSTLD	0.70700	28.27	0.07	9.00	153.60	1.86	5.77	0.00	5.77	0.00	0.96	0.00	0.00	0.00	23.80	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
149	1.20	1.08	8.24134	77.0	0.04414	0.03	1.23	152.40	22402.80	18288.00	186.69	20847.57	0.002	1.568	0.044
150	1.08	0.96	8.17634	77.0	0.04380	0.03	1.23	152.40	22402.80	18288.00	186.69	22127.73	0.003	1.556	0.044
151	0.96	0.84	8.11134	77.0	0.04345	0.03	1.23	152.40	22402.80	18288.00	186.69	23407.89	0.003	1.544	0.043
152	0.84	0.72	8.04634	77.0	0.04310	0.03	1.23	152.40	22402.80	18288.00	186.69	24688.05	0.003	1.531	0.043
153	0.72	0.60	7.98134	77.0	0.04275	0.03	1.23	152.40	22402.80	18288.00	186.69	25968.21	0.003	1.519	0.043
154	0.60	0.48	7.91634	77.0	0.04240	0.03	1.23	152.40	22402.80	18288.00	186.69	27248.38	0.003	1.506	0.042
155	0.48	0.36	7.85134	77.0	0.04206	0.03	1.23	152.40	22402.80	18288.00	186.69	28528.54	0.003	1.494	0.042
156	0.36	0.24	7.78634	77.0	0.04171	0.03	1.23	152.40	22402.80	18288.00	186.69	29808.70	0.004	1.482	0.042
157	0.24	0.12	7.72134	77.0	0.04136	0.03	1.23	152.40	22402.80	18288.00	186.69	31088.86	0.004	1.469	0.041
158	0.12	0.00	7.65634	77.0	0.04101	0.03	1.23	152.40	22402.80	18288.00	186.69	32369.02	0.004	1.457	0.041
TOT						0.33			224027.98	182880.00					
AVG					0.0426		1.23	152.40			186.69				
CUM						10.36									

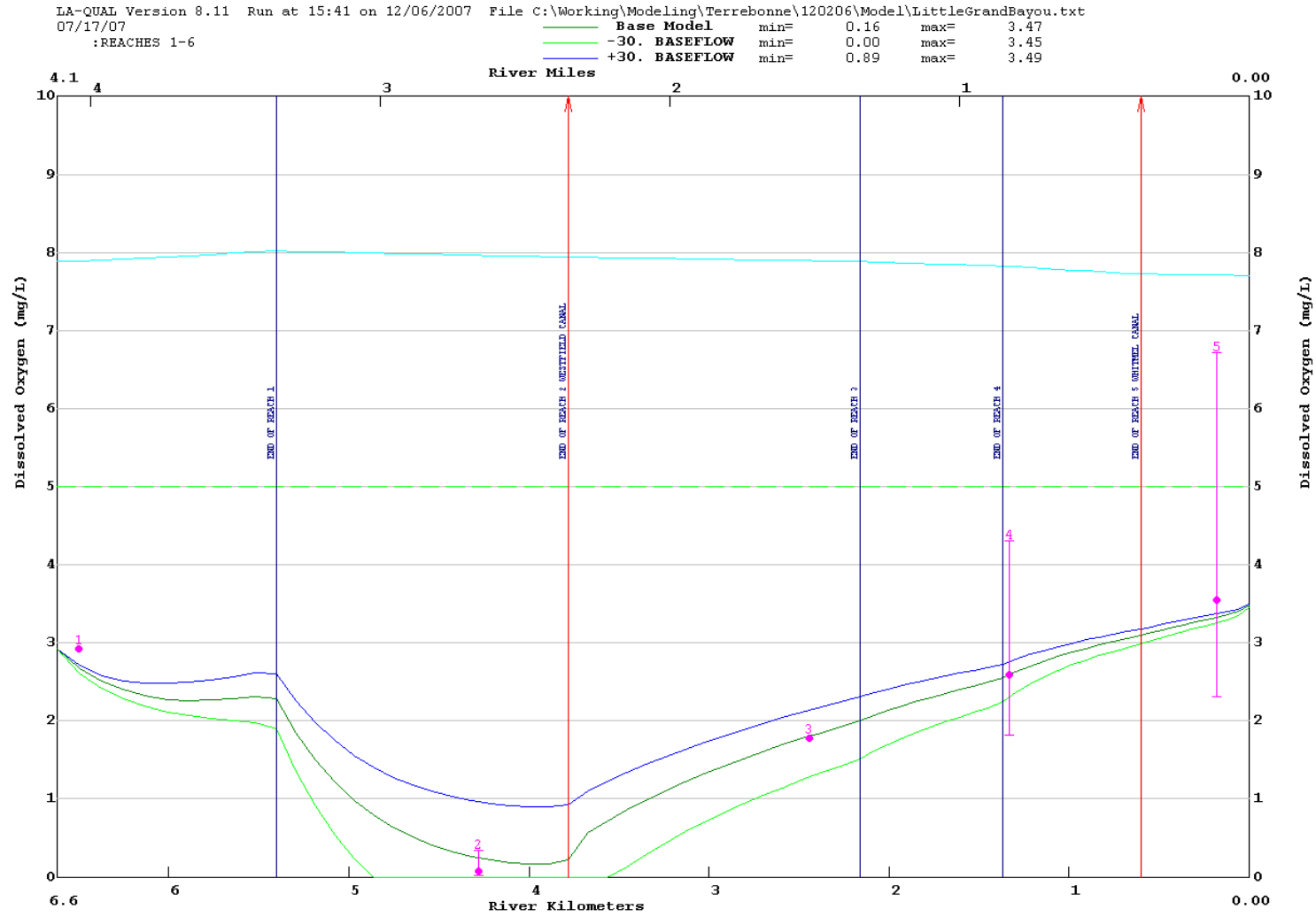
***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

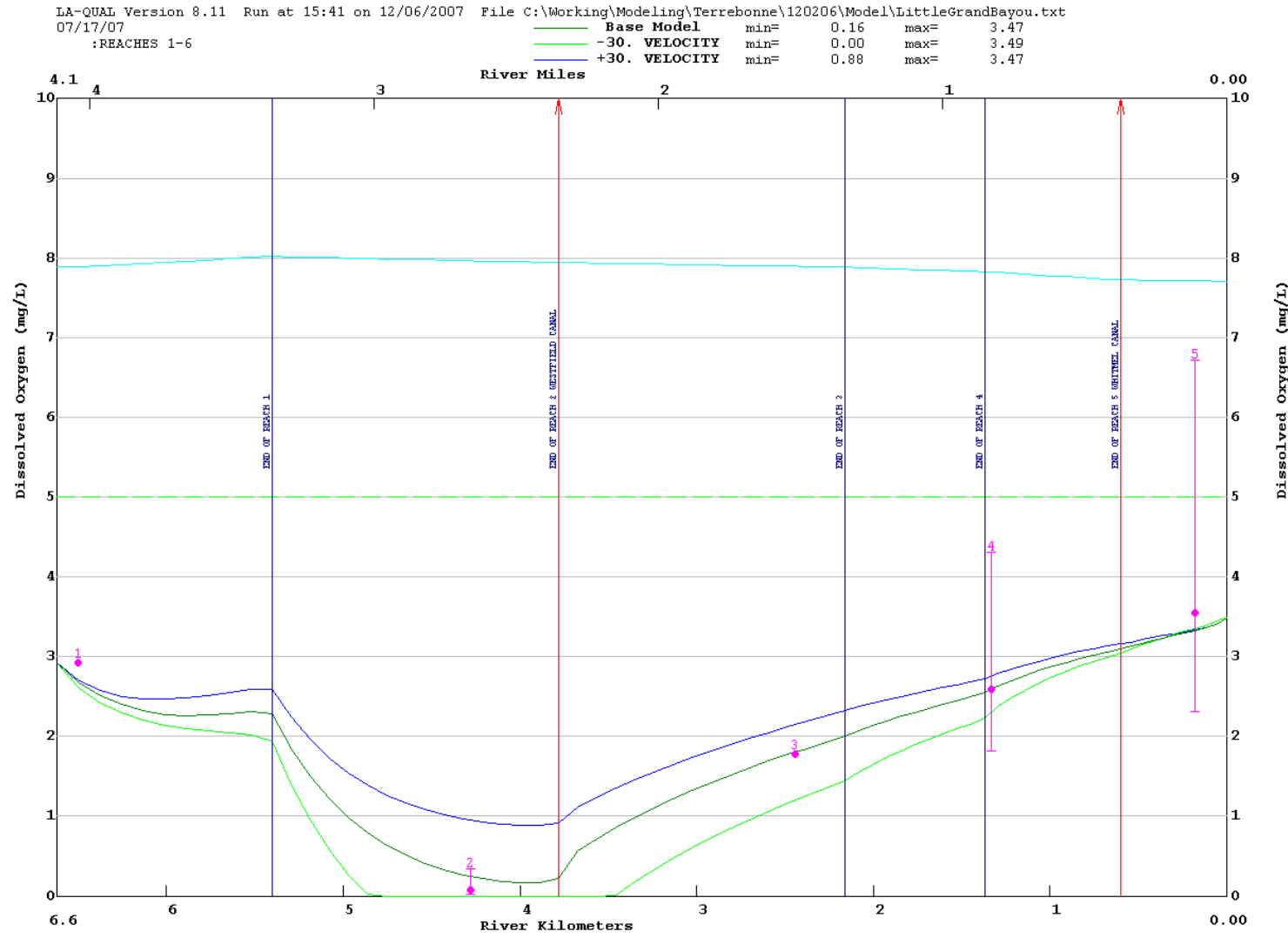
ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
149	1.080	7.76	0.67	0.09	0.06	0.00	0.00	0.00	0.00	5.12	5.12	5.12	0.14	0.06	0.00	0.00	0.00	0.00	1.74	0.00	0.00	0.00	0.00
150	0.960	7.78	0.67	0.09	0.06	0.00	0.00	0.00	0.00	5.06	5.06	5.06	0.14	0.06	0.00	0.00	0.00	0.00	1.74	0.00	0.00	0.00	0.00

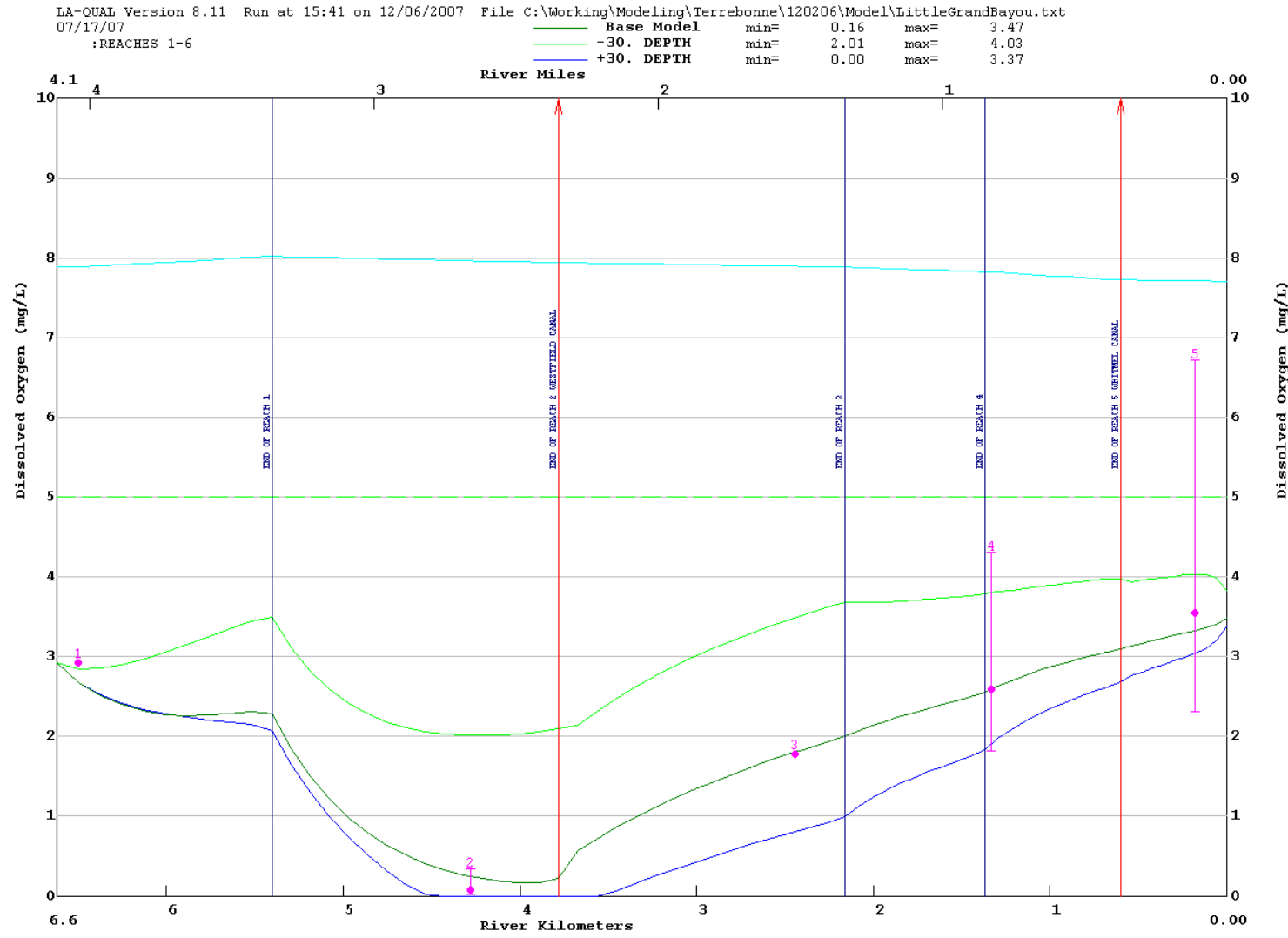
NH3 DECAy	=	0.00	TO	0.00	per day
SOD	=	3.23	TO	8.46	g/m ² /d
NH3 SOURCE	=	0.00	TO	0.00	g/m ² /d
REAERATION	=	0.47	TO	0.94	per day
BOD SETTLLING	=	0.06	TO	0.06	per day
NBOD DECAy	=	0.12	TO	0.19	per day
NBOD SETTLLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	26.84	TO	28.73	deg C
DISSOLVED OXYGEN	=	2.23	TO	3.69	mg/L

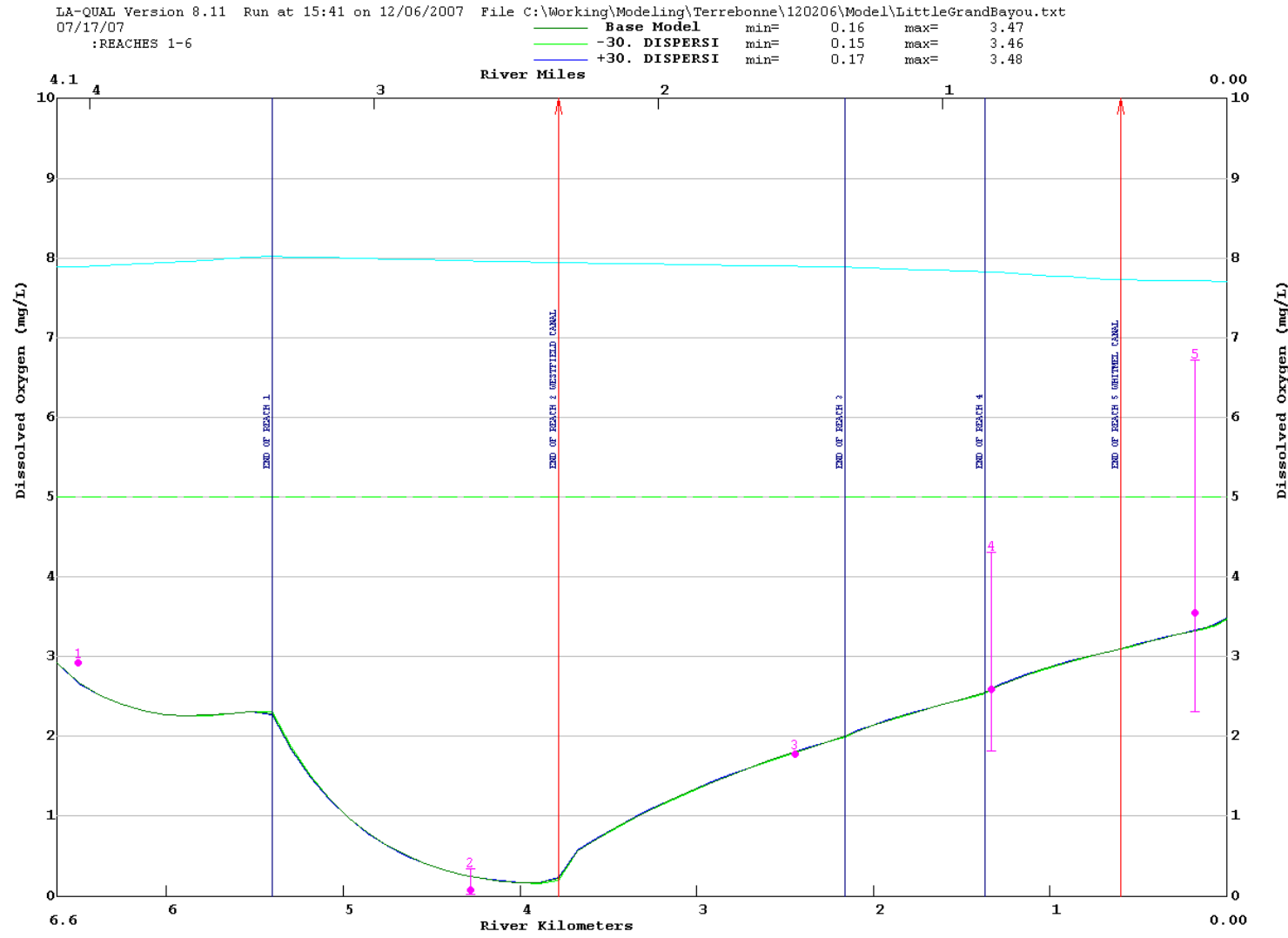
Appendix I2 – Little Grand Bayou

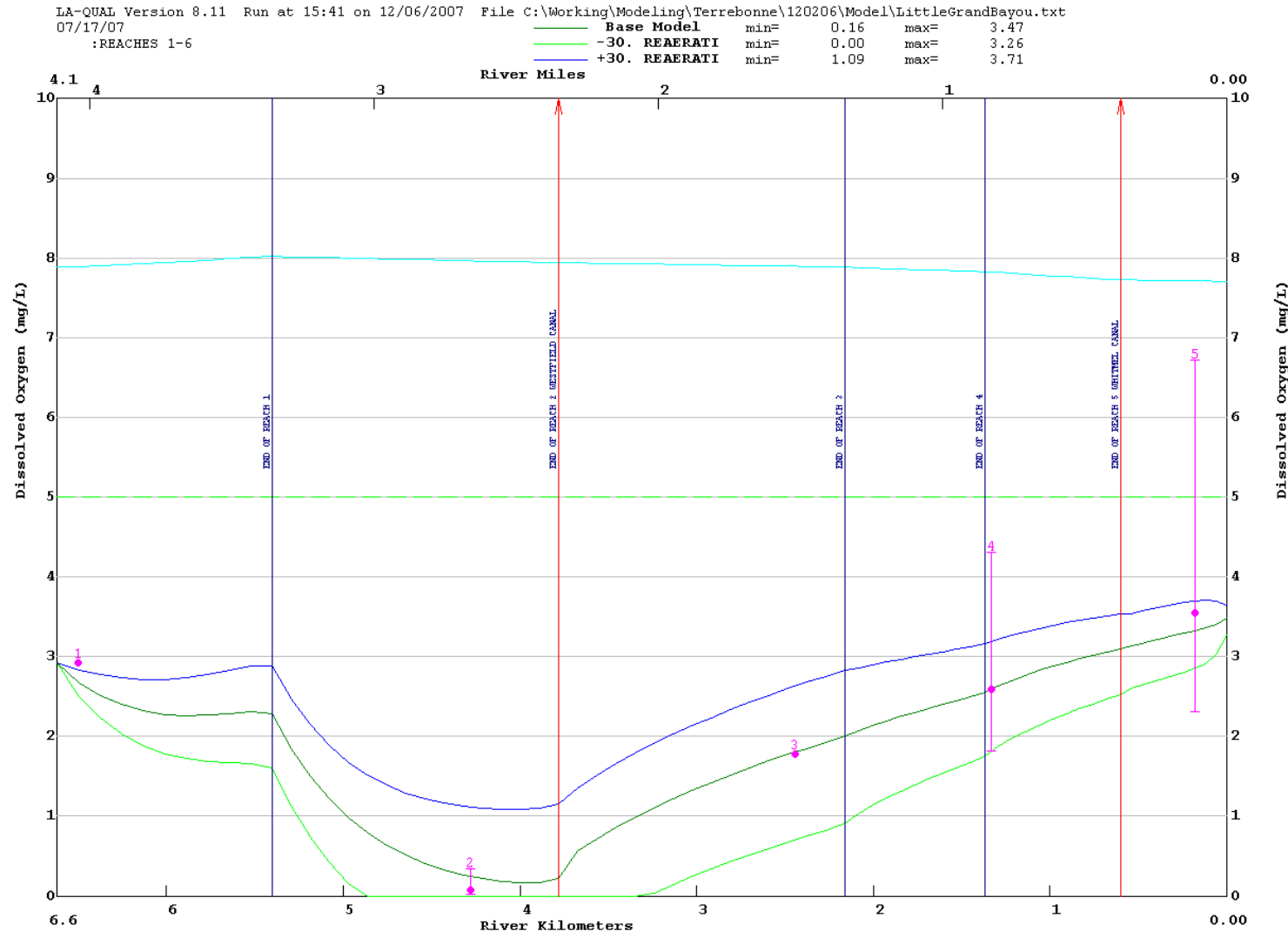
Sensitivity Output Graphs

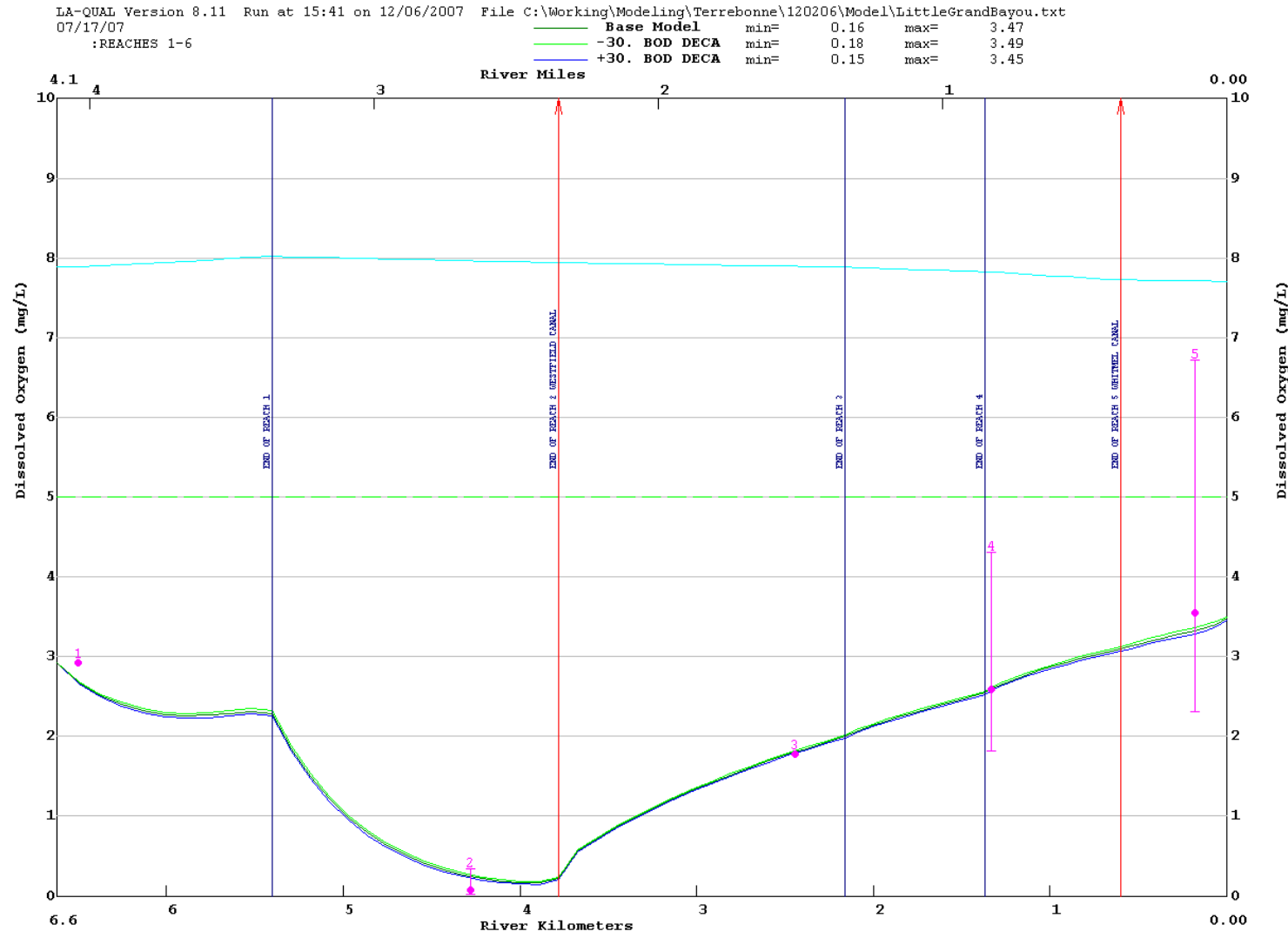


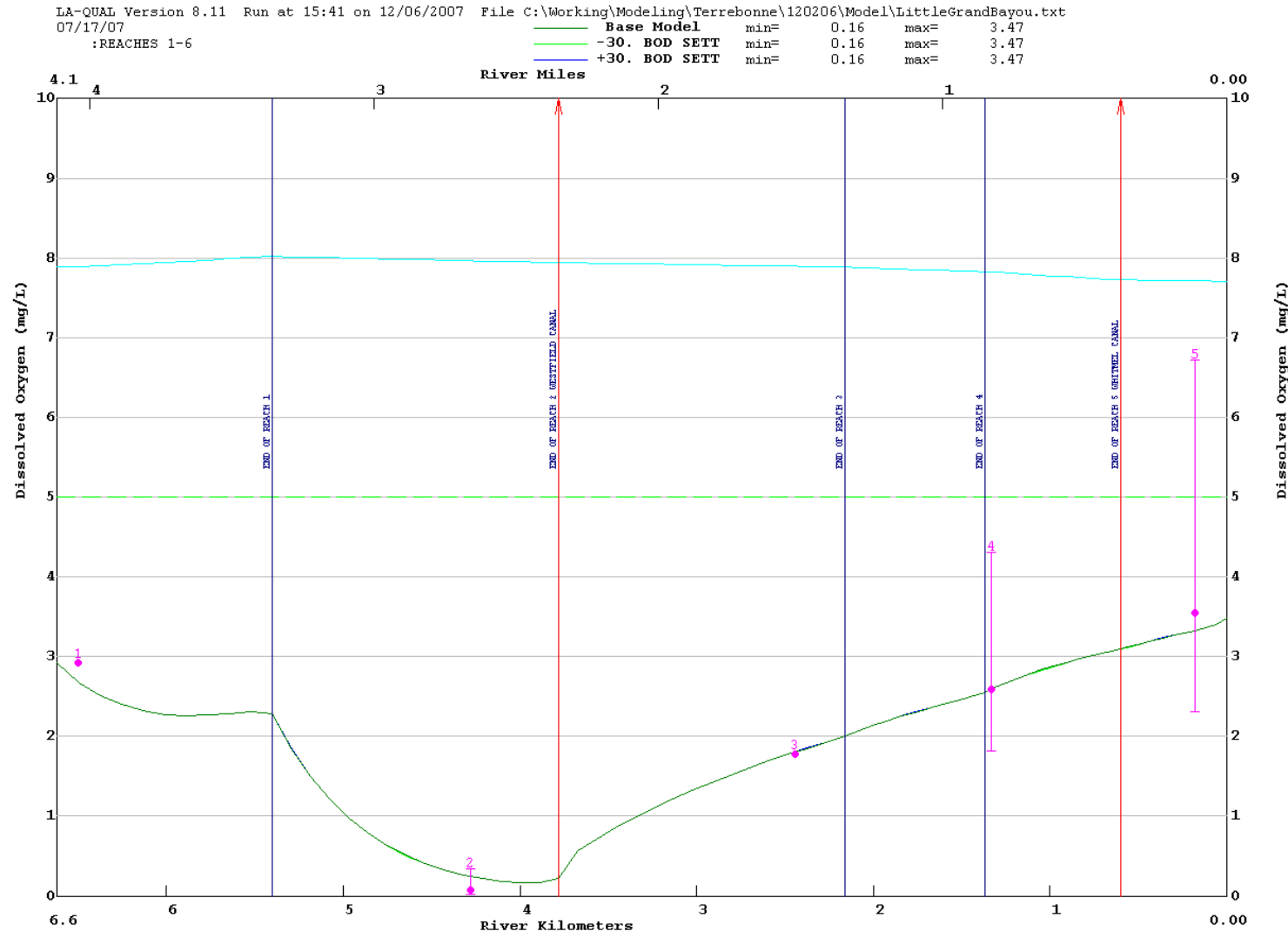


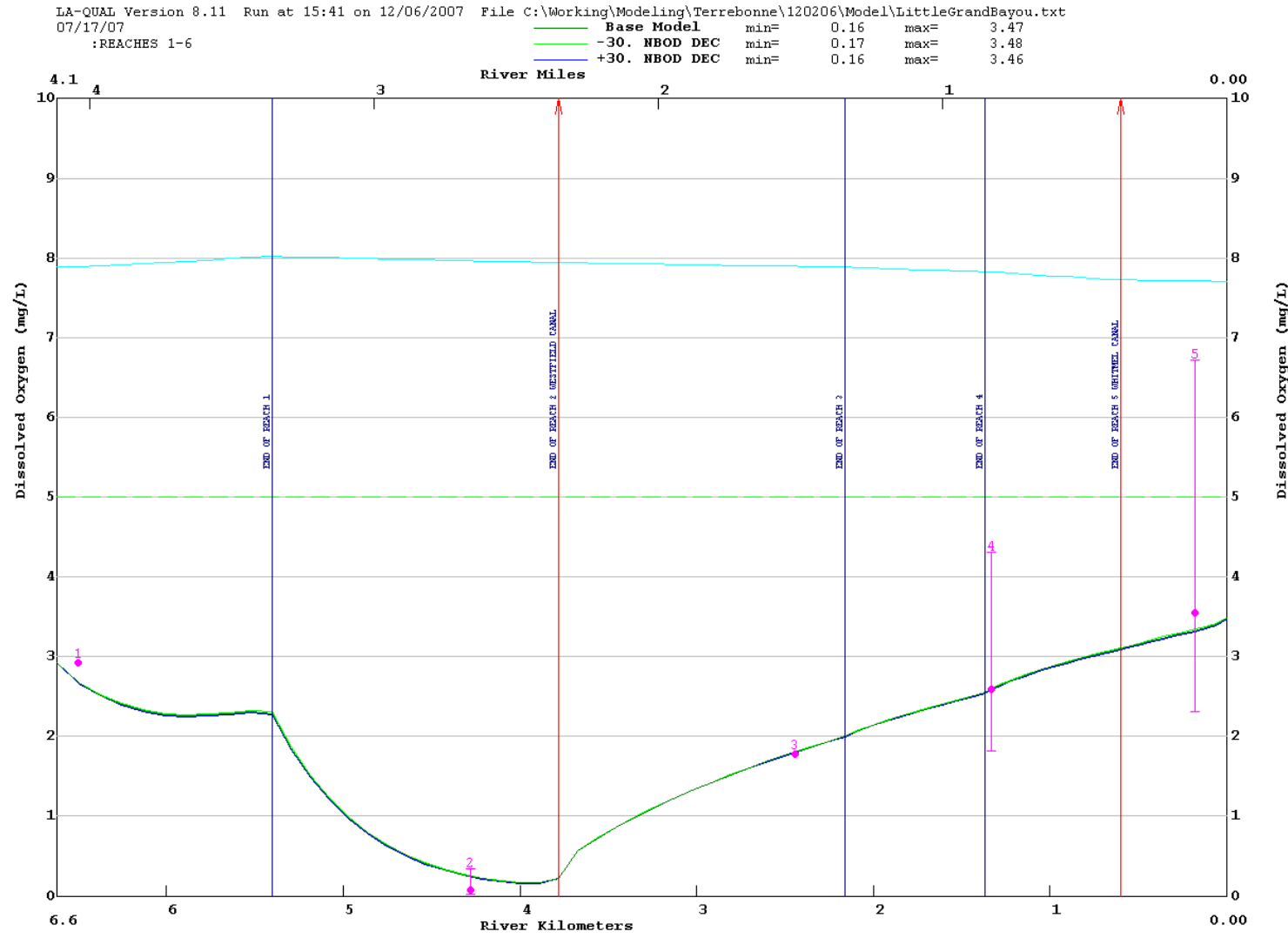


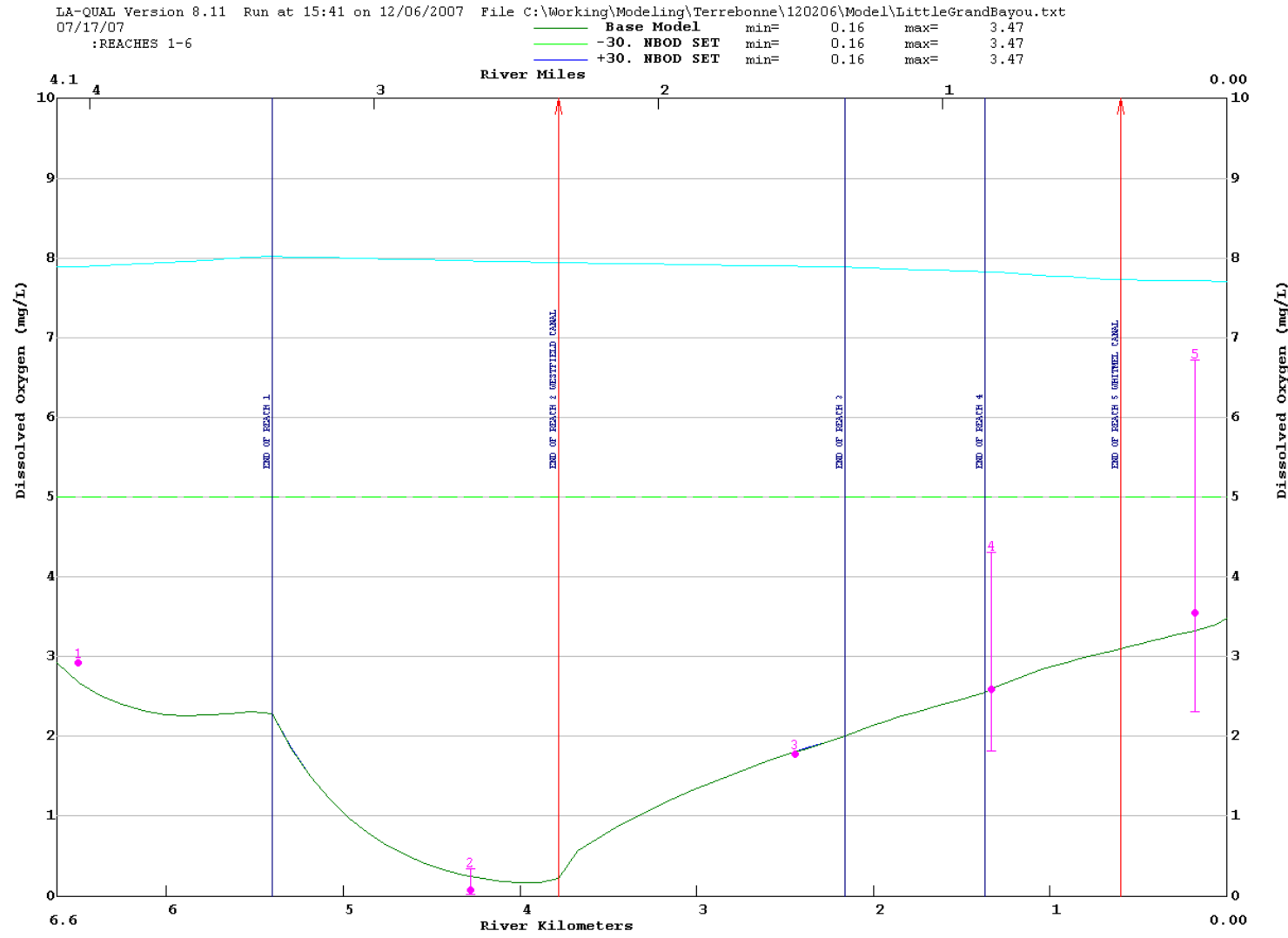


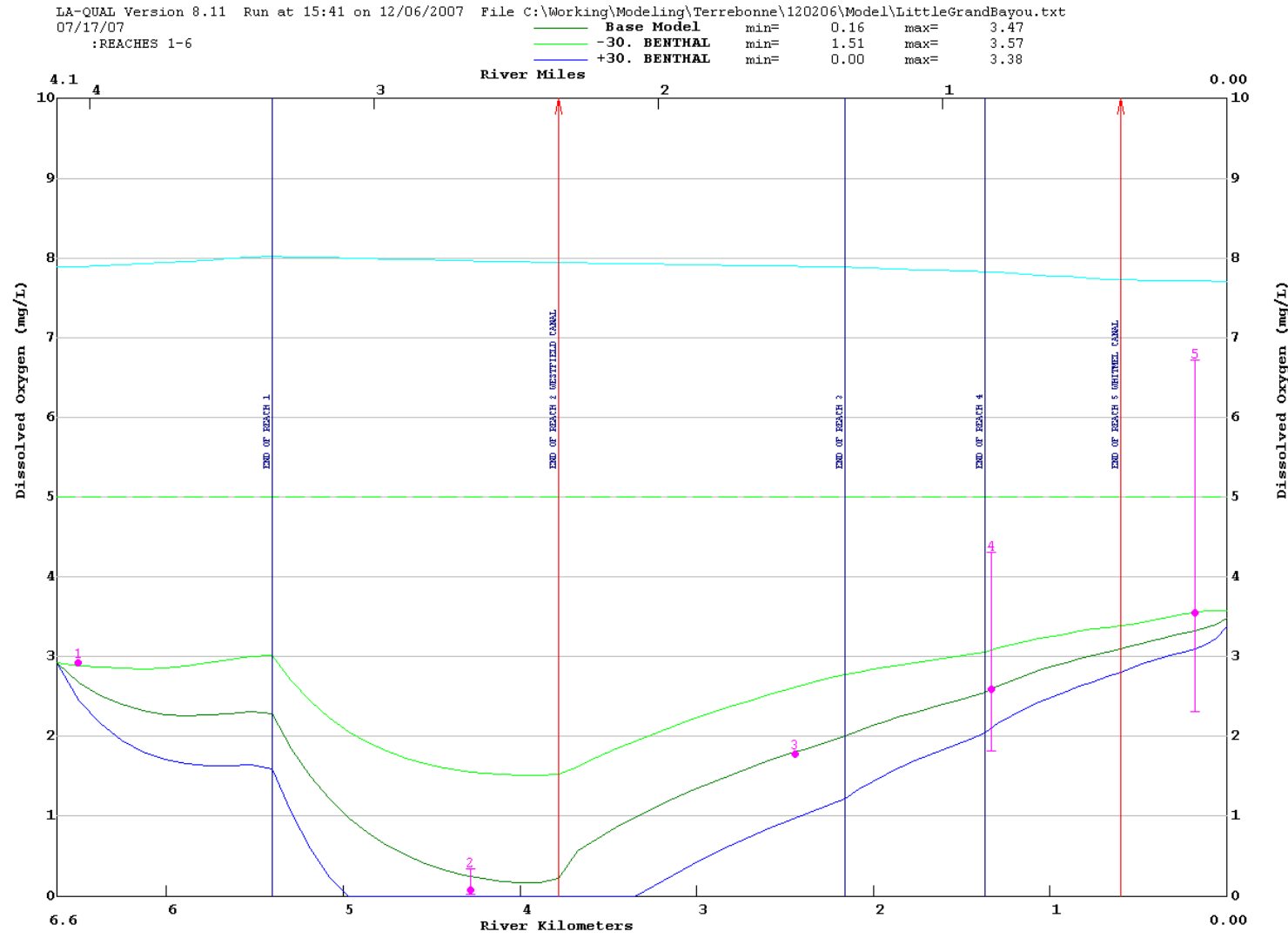


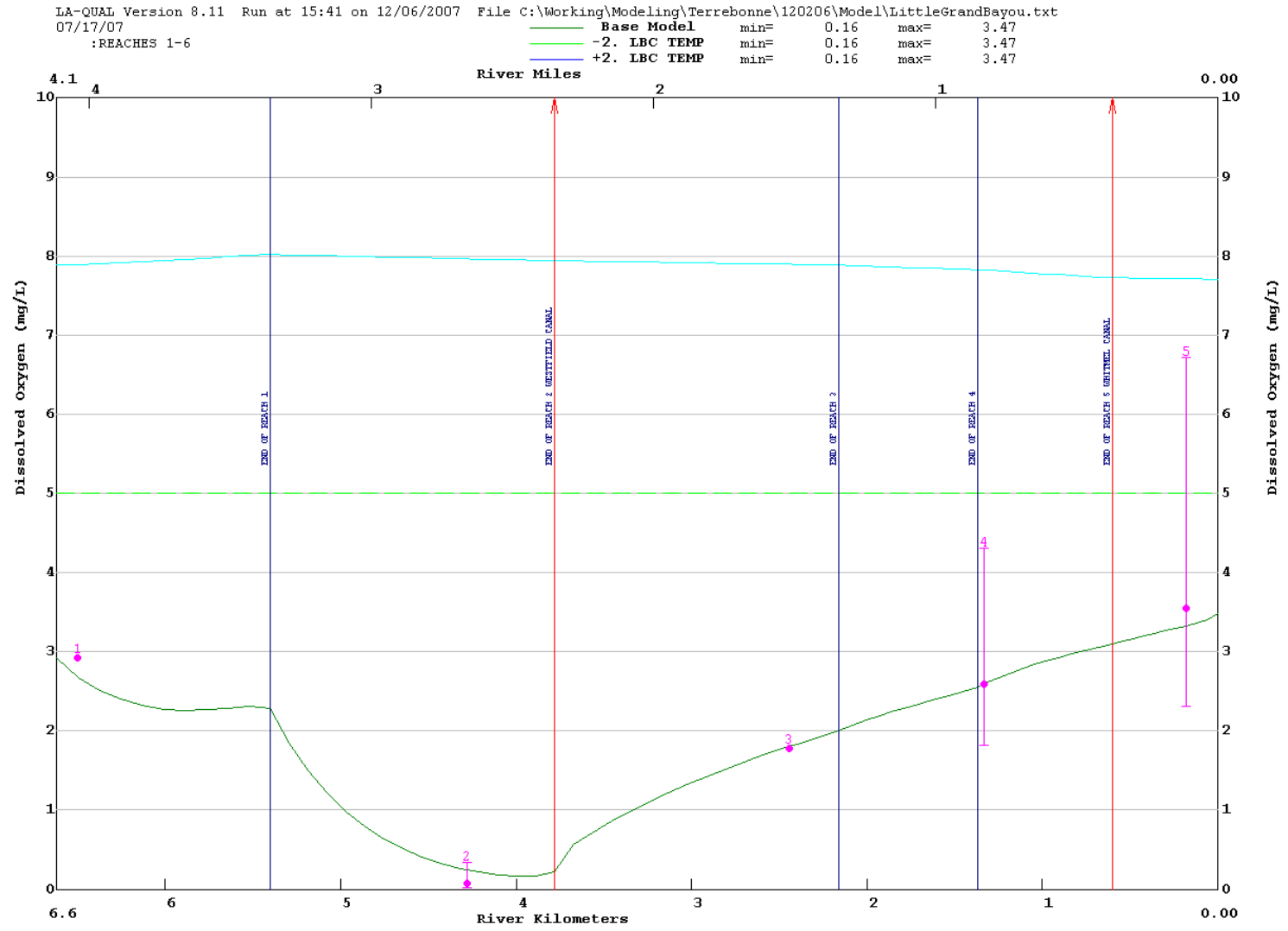


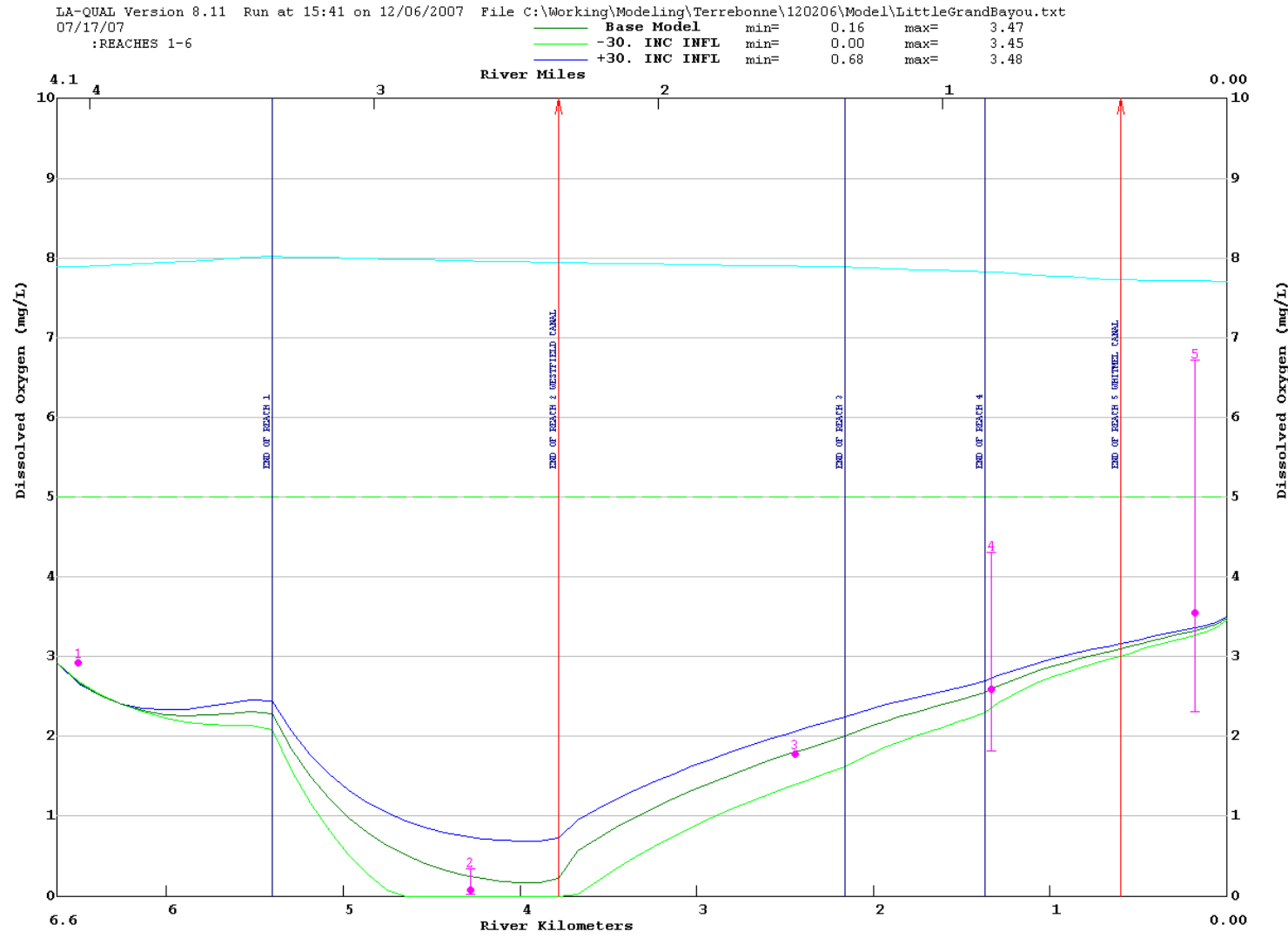


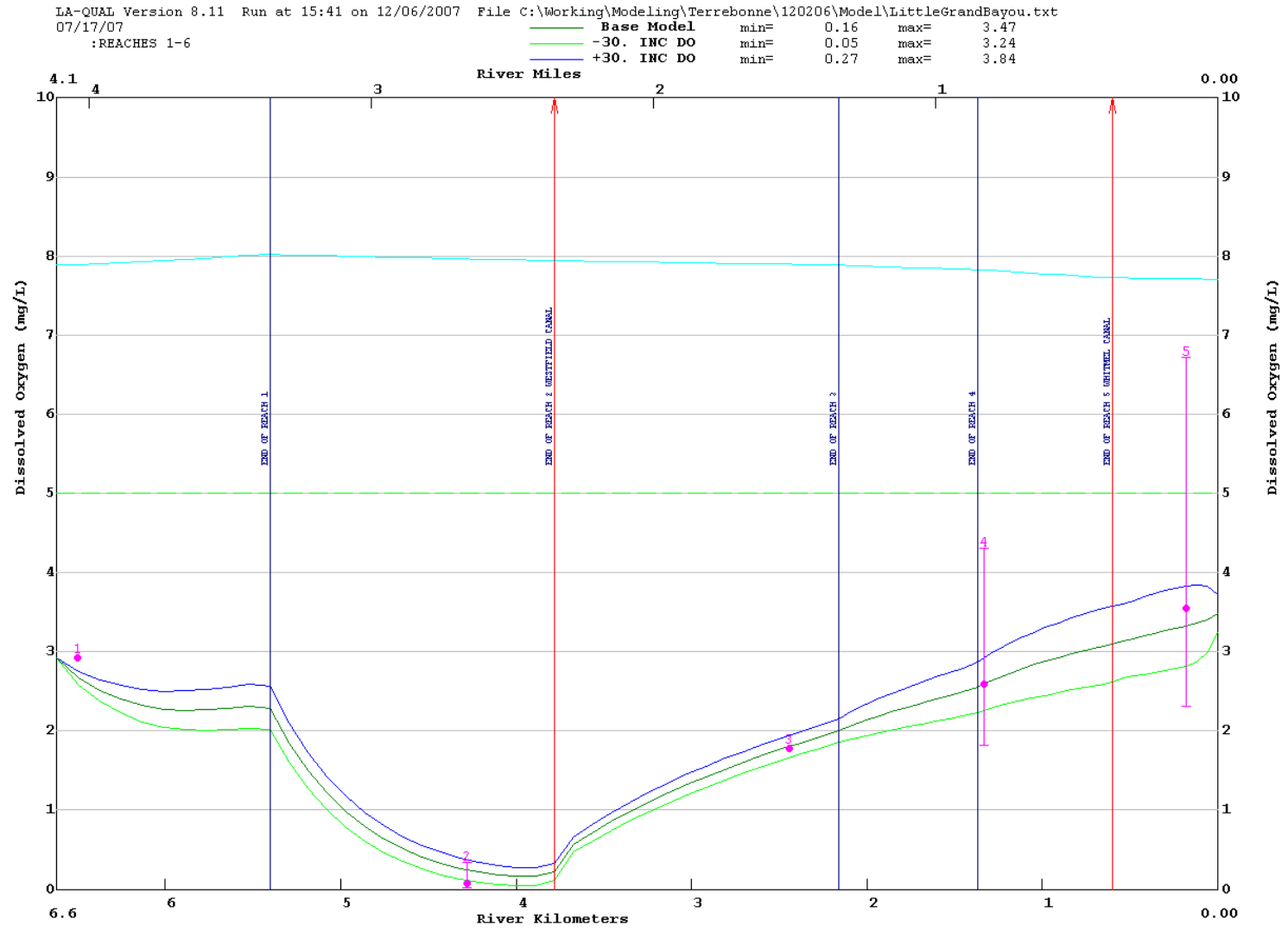


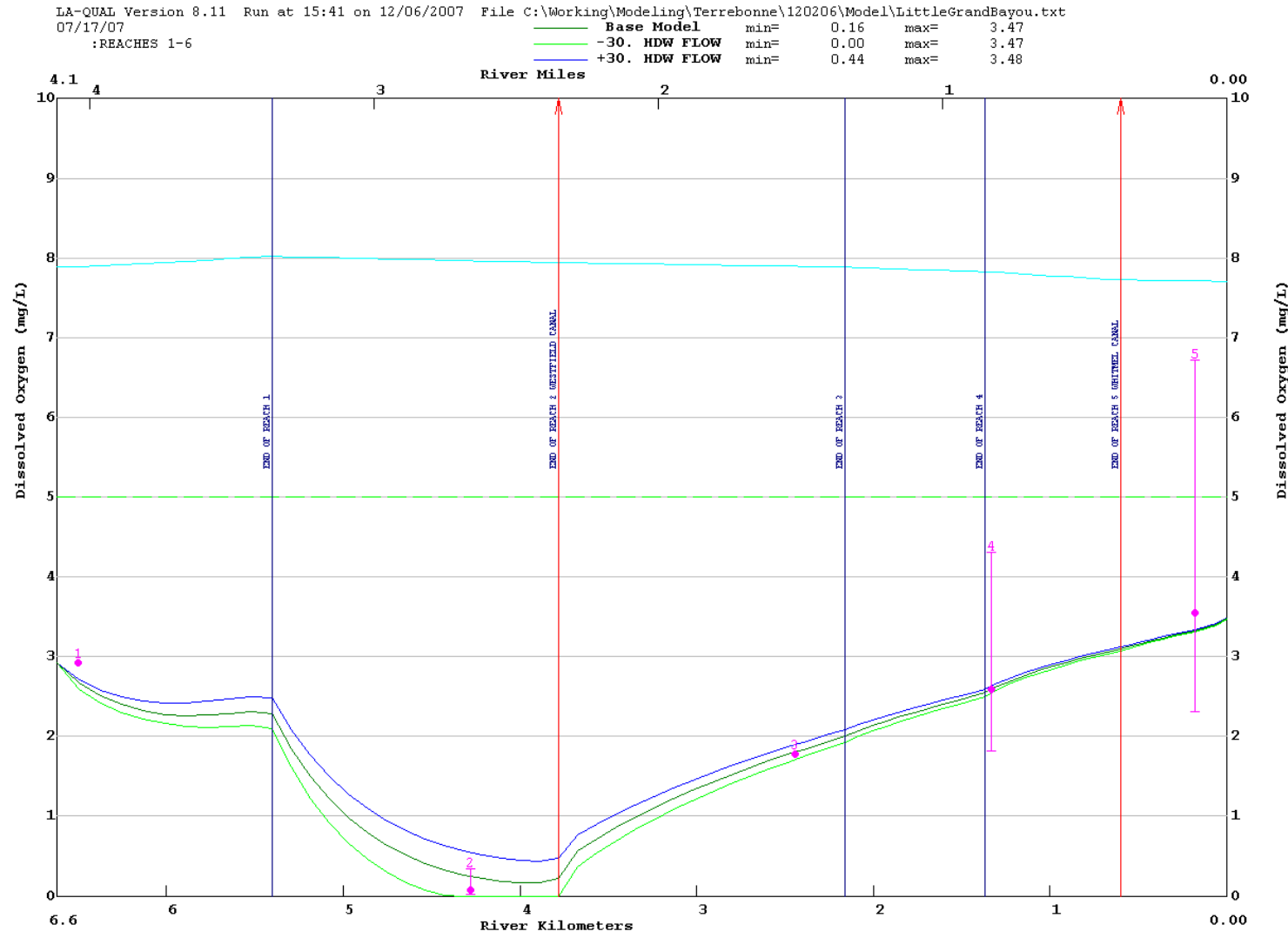


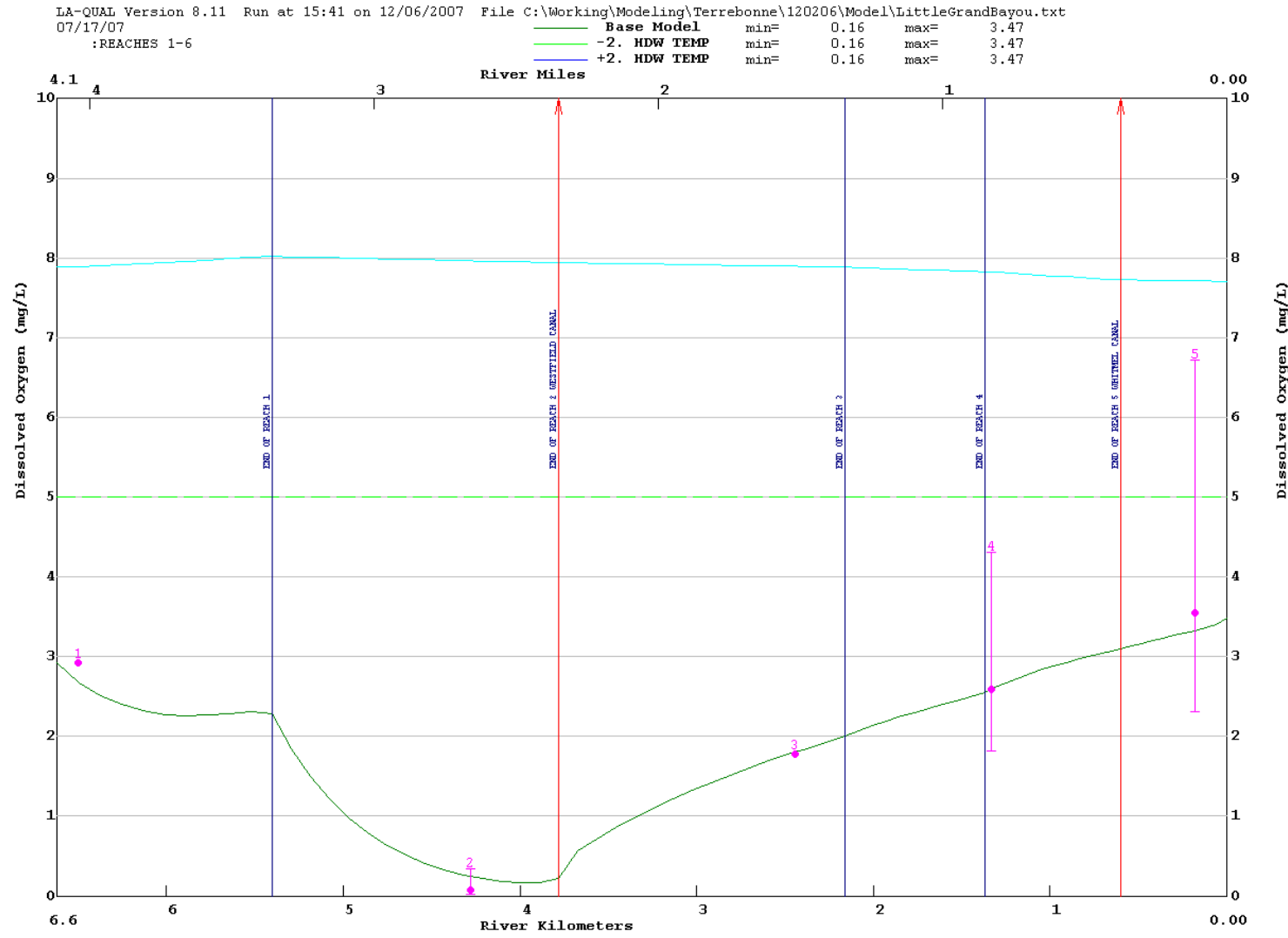


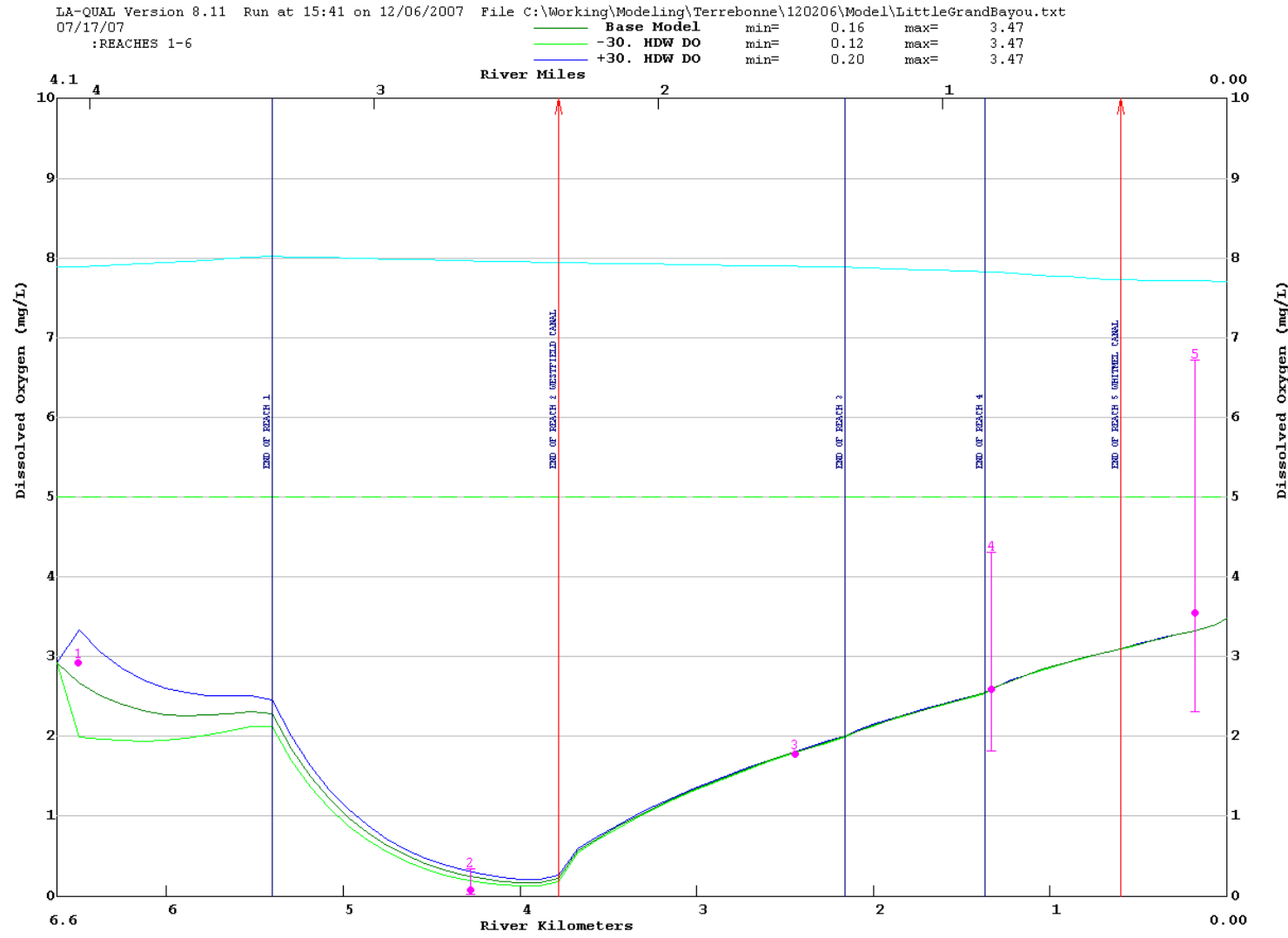


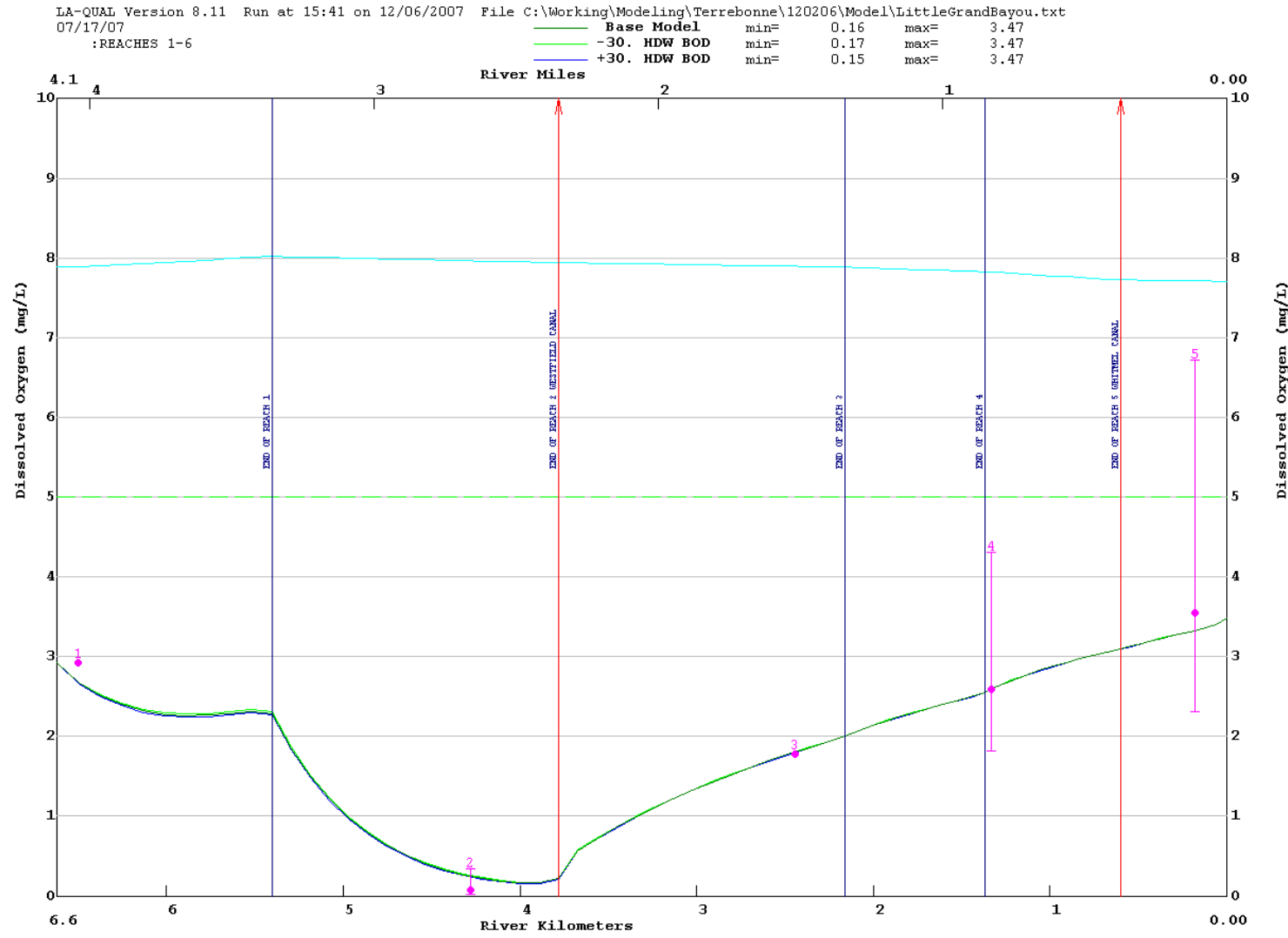


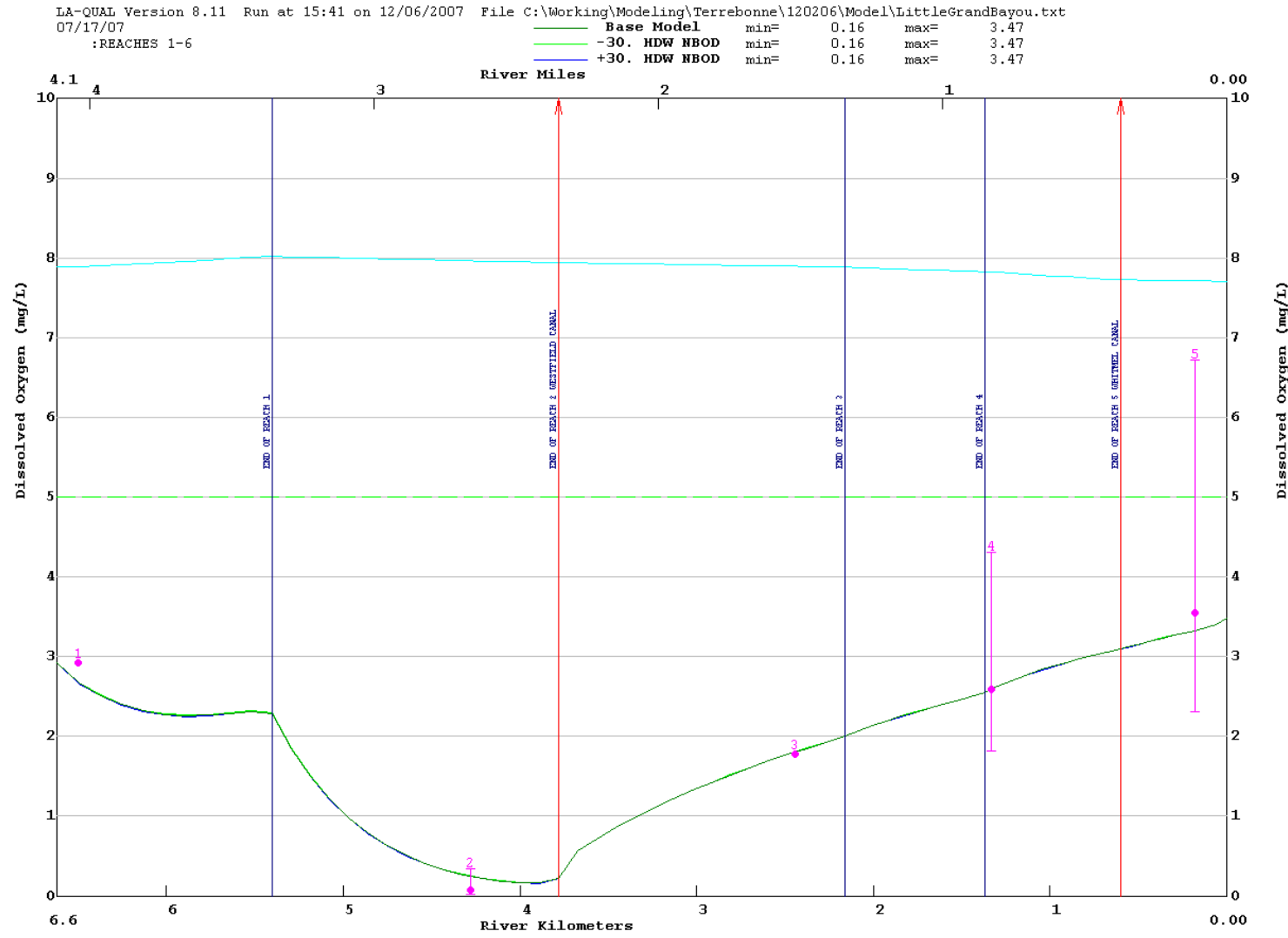


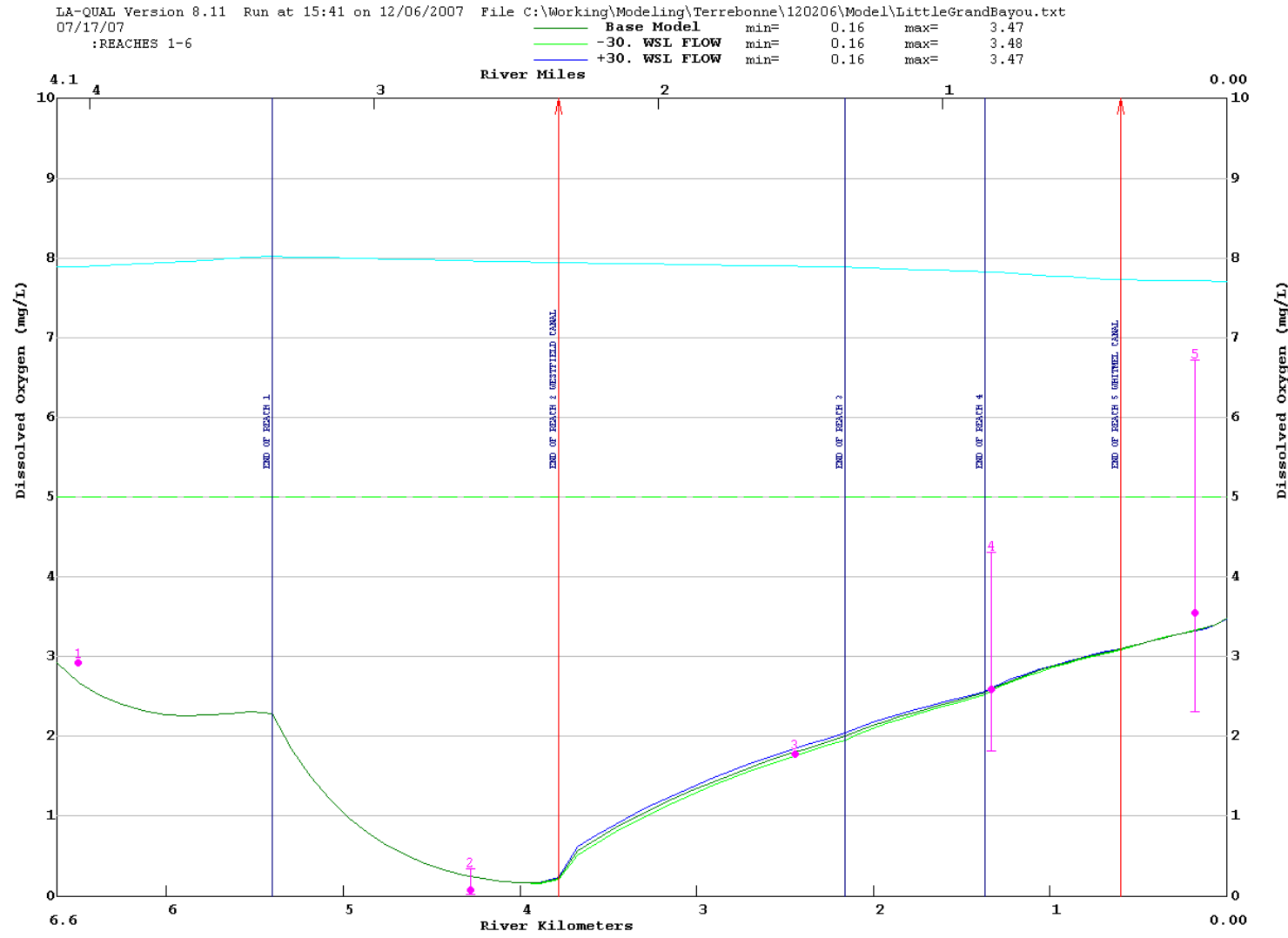


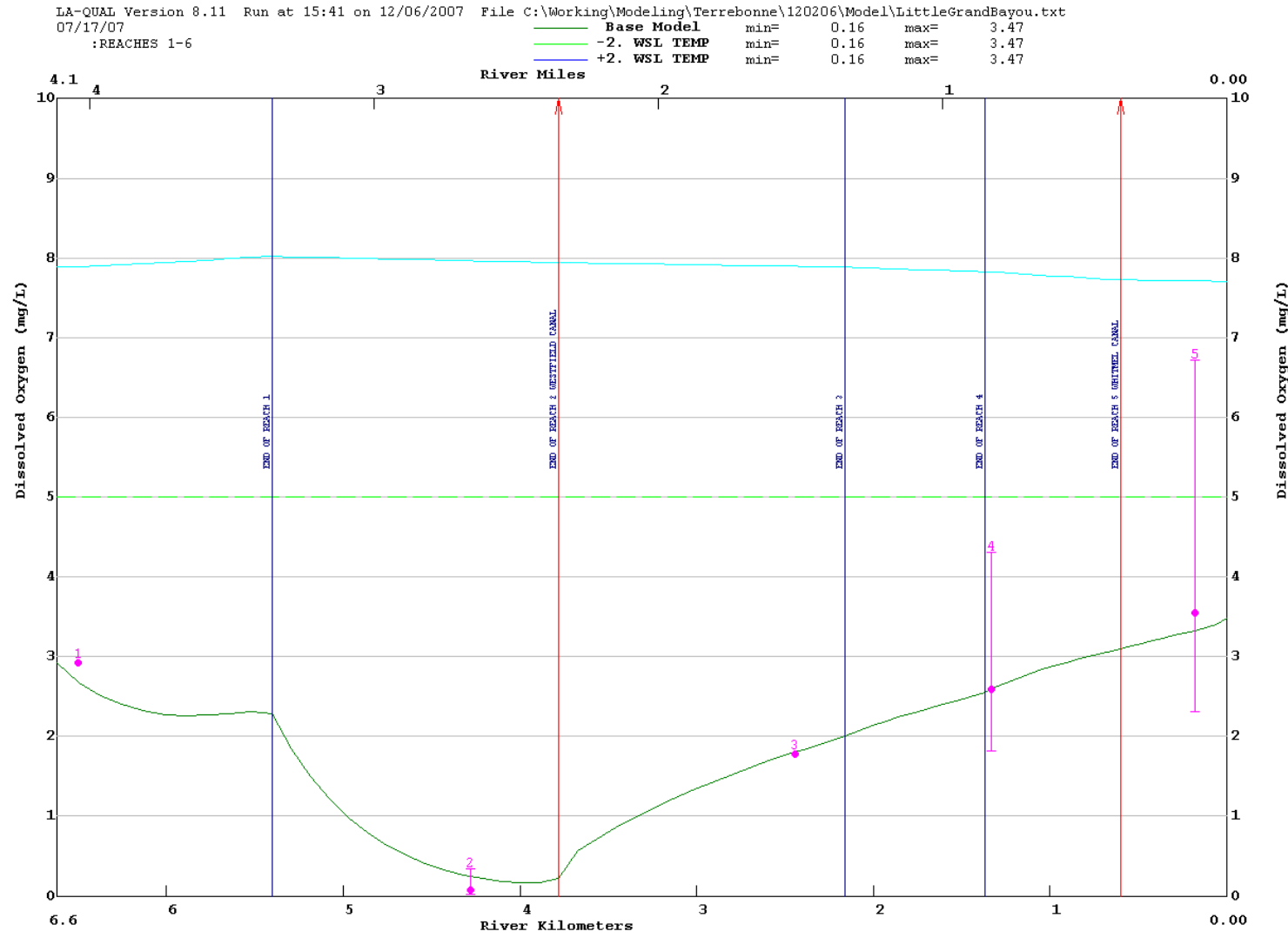


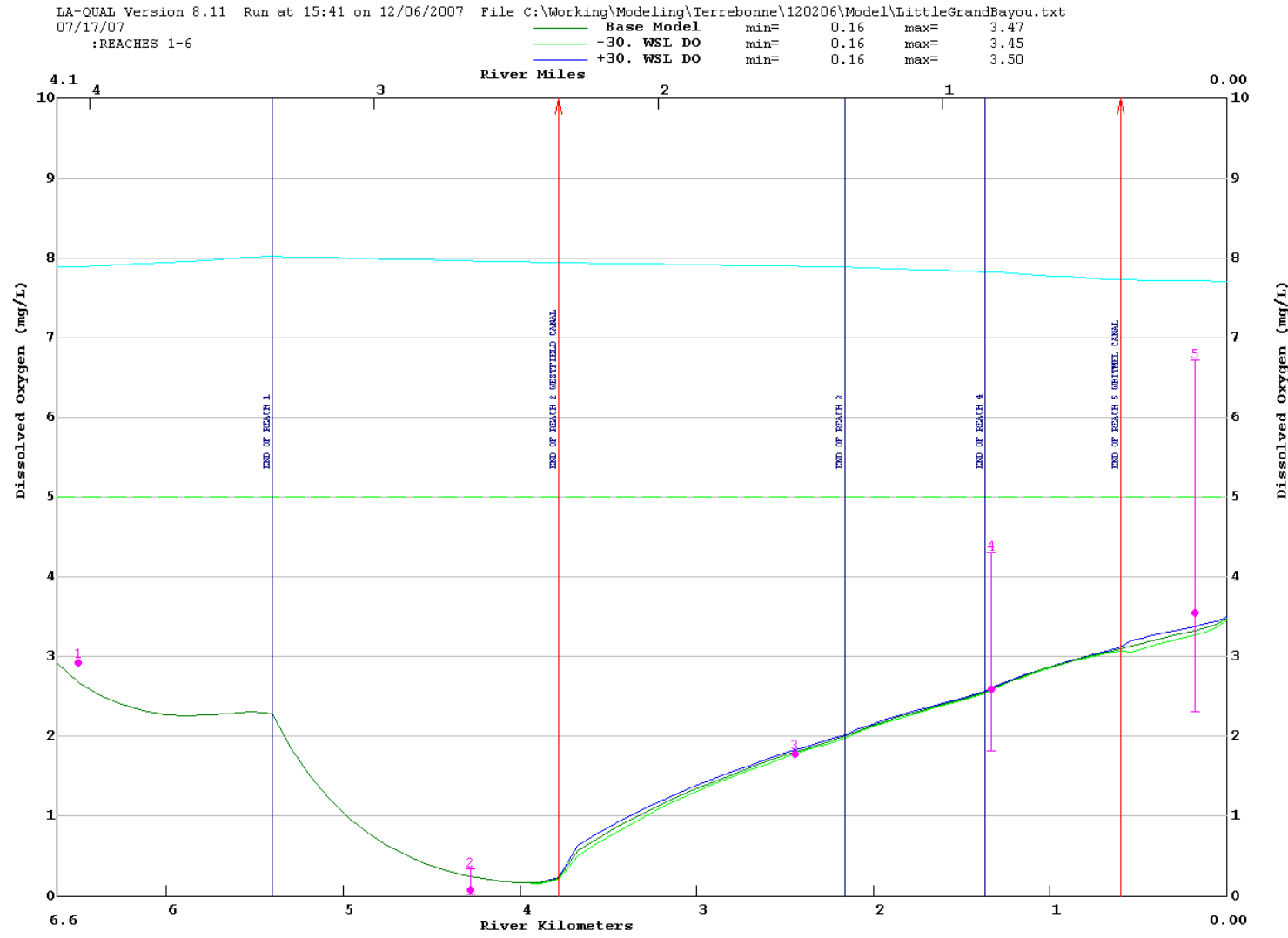


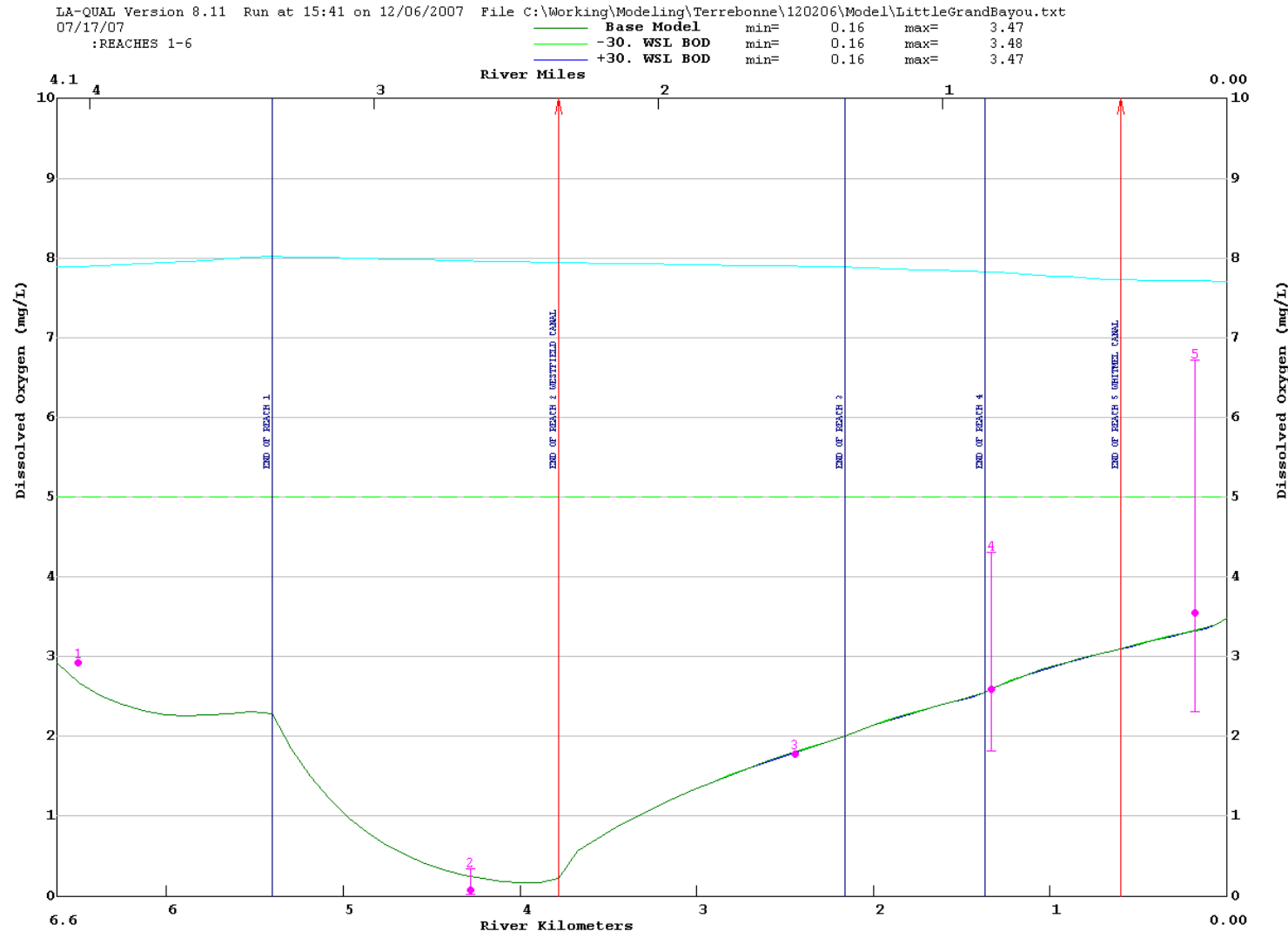


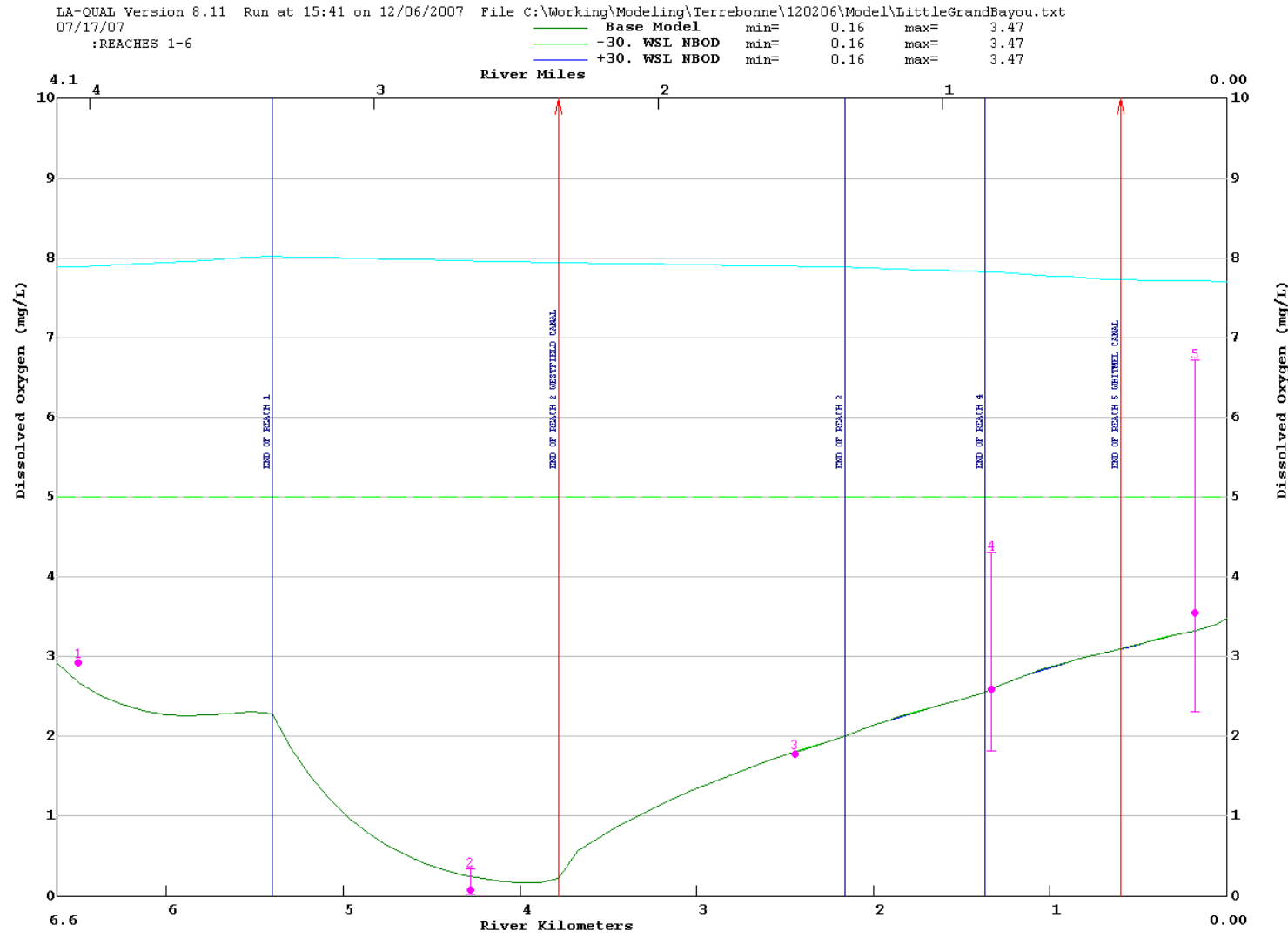


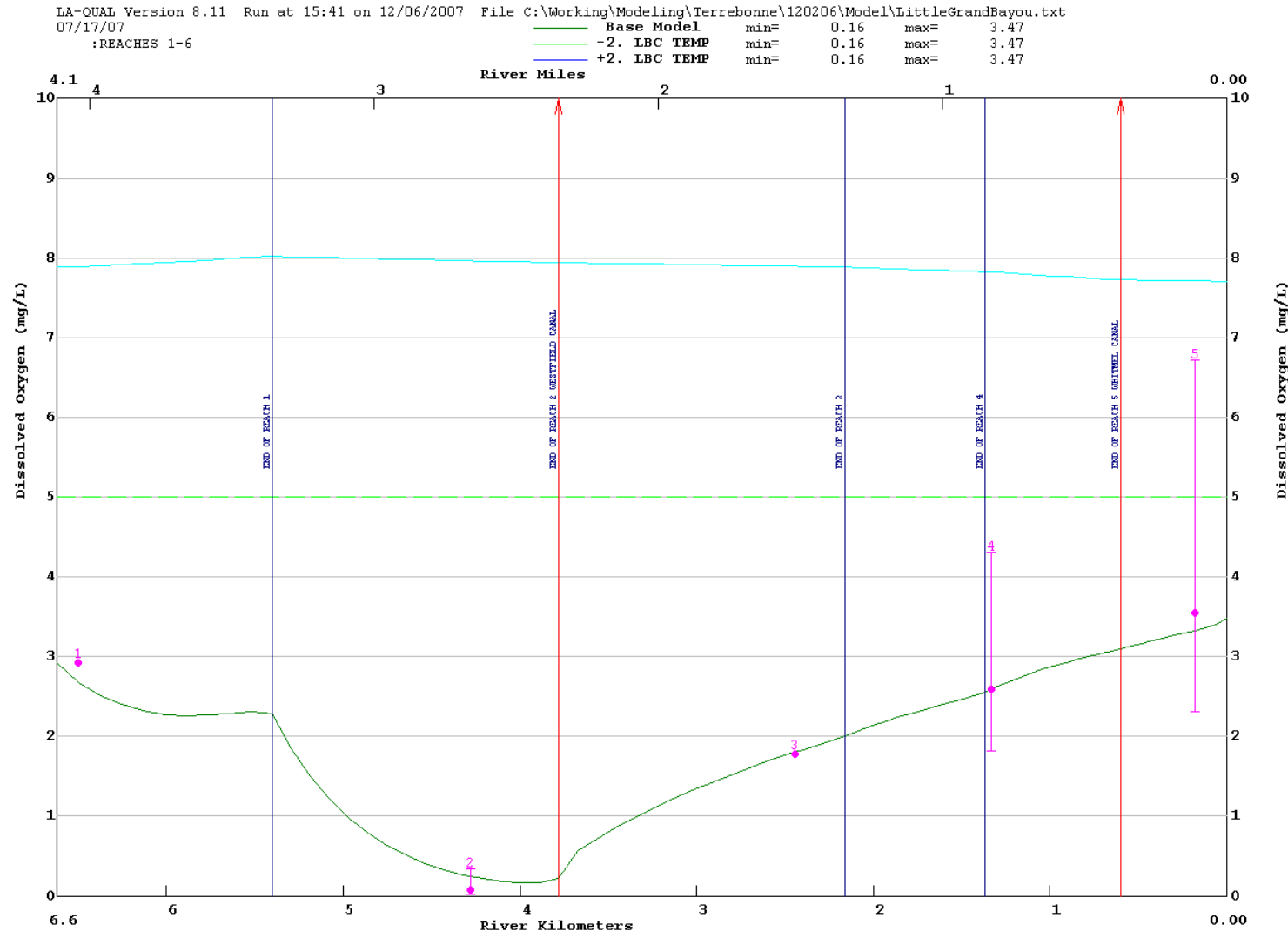


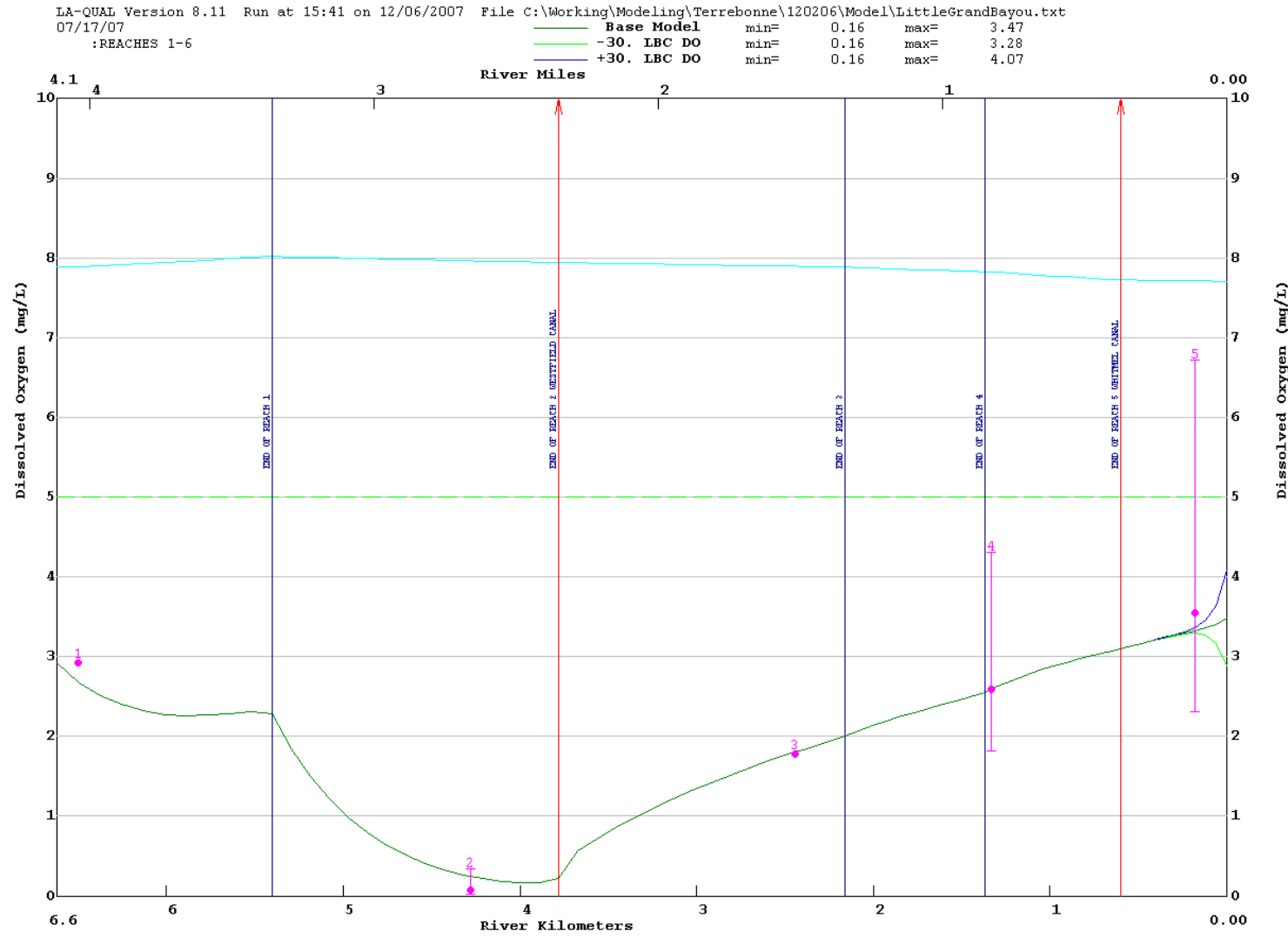


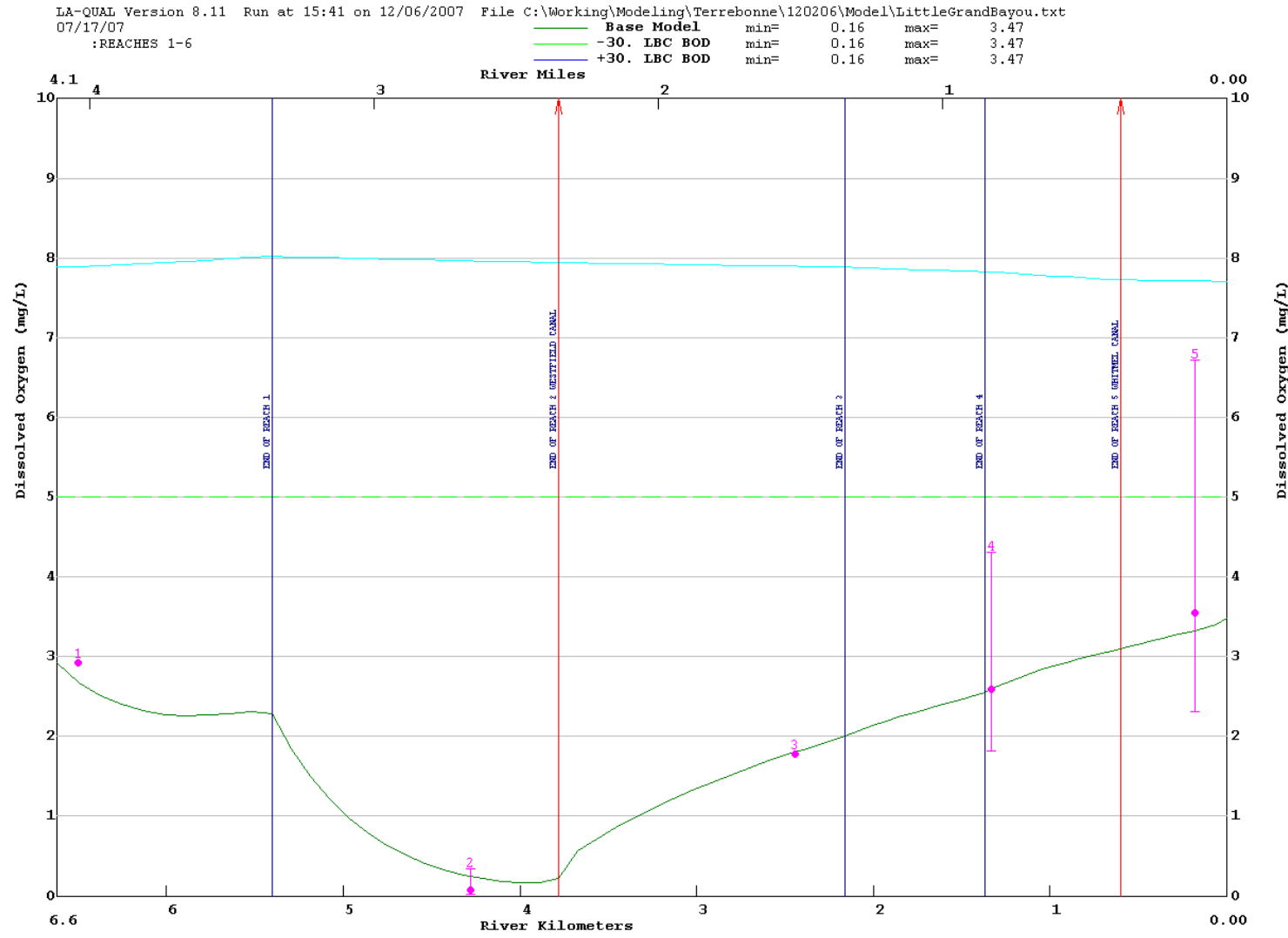


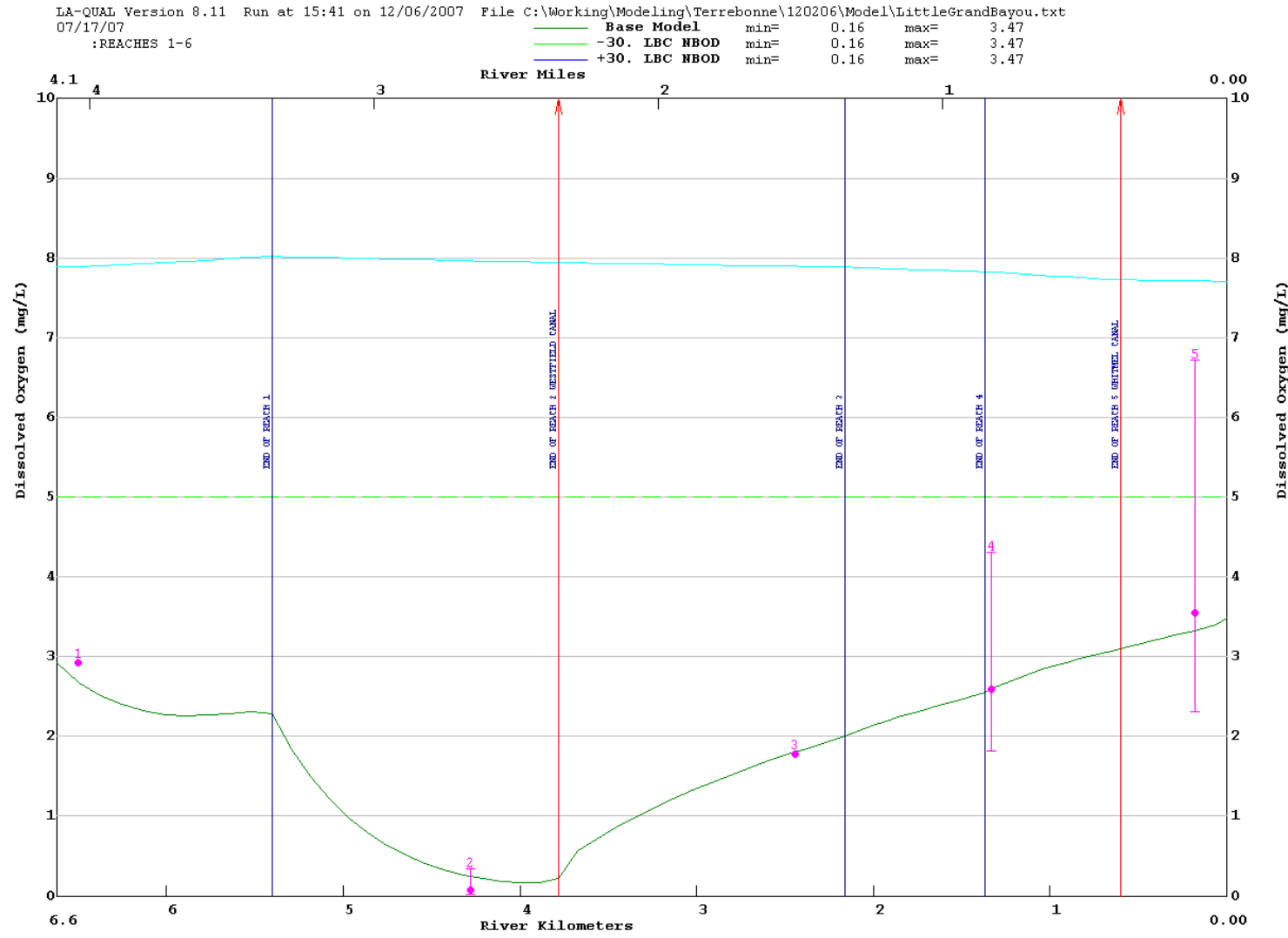


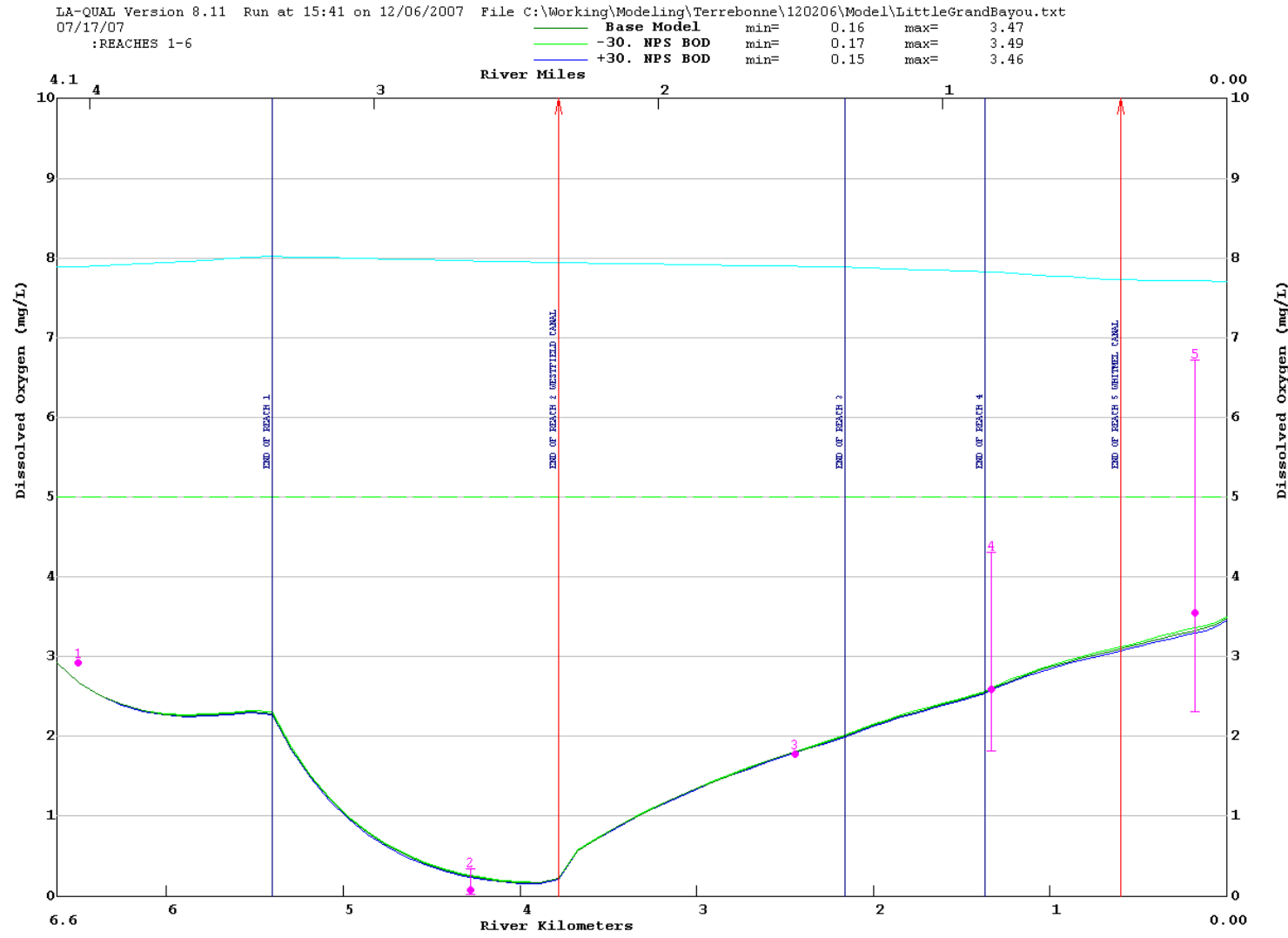


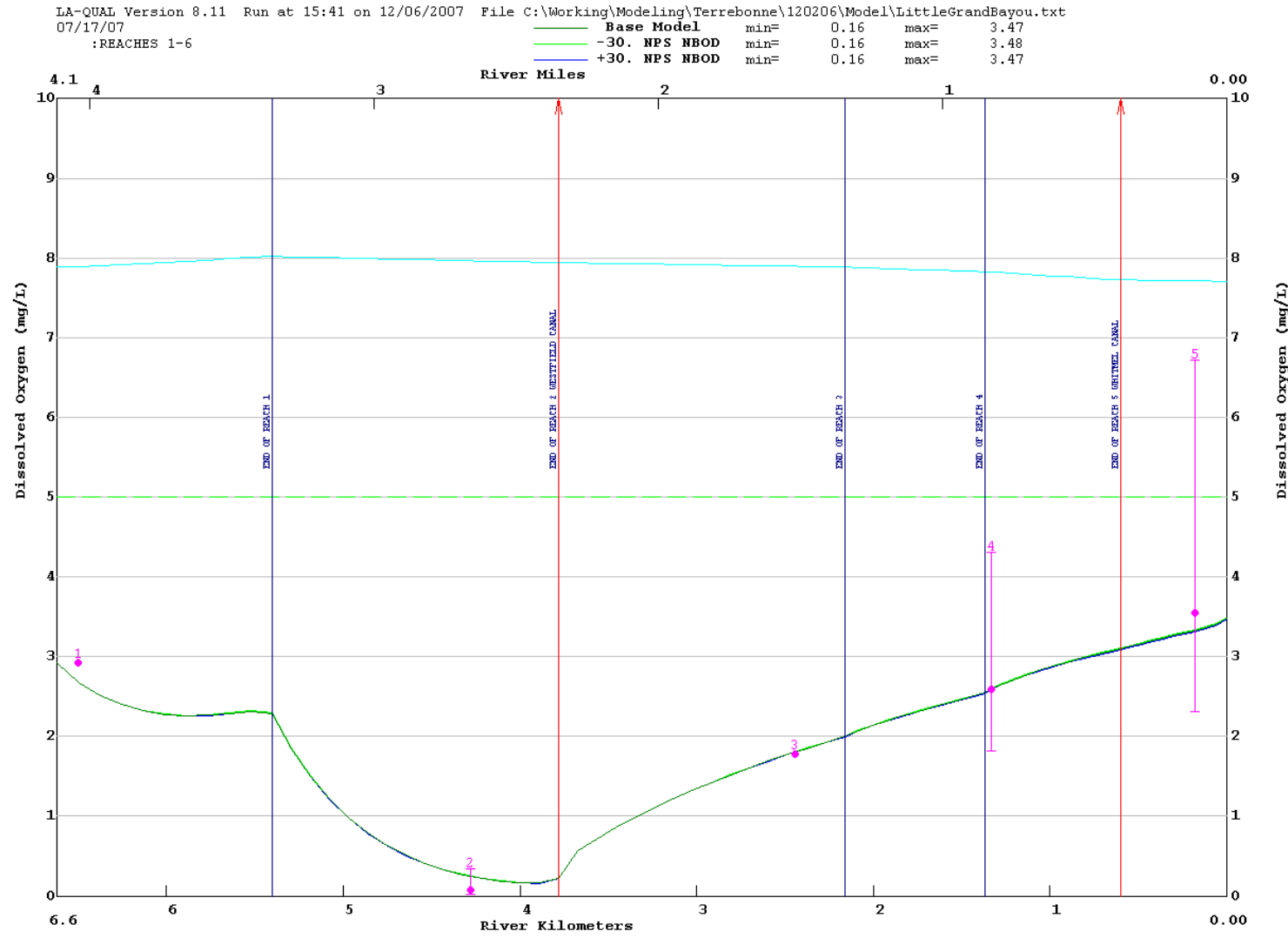












Sensitivity Output Data Set

LA-QUAL Version 8.11
 Louisiana Department of Environmental Quality

Input file is C:\Documents and Settings\shane\My Documents\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
 Output produced at 09:55 on 02/08/2008

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE	CONTROL TITLES
TITLE01	LITTLE GRAND BAYOU
TITLE02	07/17/07
CNTROL12 YES	METRIC UNITS
ENDATA01	

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE	MODEL OPTION	
MODOPT01 NO	TEMPERATURE	
MODOPT02 YES	SALINITY	
MODOPT03 YES	CONSERVATIVE MATERIAL I = CHLORIDES	IN MG/L
MODOPT04 YES	CONSERVATIVE MATERIAL II = CONDUCTIVITY	IN MG/L
MODOPT05 YES	DISSOLVED OXYGEN	
MODOPT06 YES	BOD1 BIOCHEMICAL OXYGEN DEMAND	
MODOPT07 NO	BOD2 BIOCHEMICAL OXYGEN DEMAND	
MODOPT08 YES	NBOD OXYGEN DEMAND	
MODOPT09 NO	PHOSPHORUS	
MODOPT10 NO	CHLOROPHYLL A	
MODOPT11 NO	MACROPHYTES	
MODOPT12 NO	COLIFORM	
MODOPT13 NO	NONCONSERVATIVE MATERIAL	
ENDATA02		

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
PROGRAM	DISPERSION EQUATION	= 3.00000 (values entered as a function of D,Q,Vmean)
PROGRAM	TIDE HEIGHT	= 0.07000 meters
PROGRAM	KL MINIMUM	= 0.70000 meters/day
PROGRAM	INHIBITION CONTROL VALUE	= 3.00000 (inhibit all rates but SOD)

```

PROGRAM      EFFECTIVE BOD DUE TO ALGAE      =      0.10000 mg/L BOD per ug/L chl a
PROGRAM      ALGAE OXYGEN PRODUCTION          =      0.05000 mg O/ug chl a/day
PROGRAM      K2 MAXIMUM                       =      25.00000 per day
PROGRAM      HYDRAULIC CALCULATION METHOD      =      2.00000 (widths and depths)
PROGRAM      SETTLED RATE UNITS                =      2.00000 (values entered as per day)
ENDATA03
  
```

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

```

CARD TYPE    RATE CODE    THETA VALUE

ENDATA04
  
```

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

```

CARD TYPE    DESCRIPTION OF CONSTANT          VALUE

ENDATA05
  
```

\$\$\$ DATA TYPE 6 (ALGAE CONSTANTS) \$\$\$

```

CARD TYPE    DESCRIPTION OF CONSTANT          VALUE

ENDATA06
  
```

\$\$\$ DATA TYPE 7 (MACROPHYTE CONSTANTS) \$\$\$

```

CARD TYPE    DESCRIPTION OF CONSTANT          VALUE

ENDATA07
  
```

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN REACH km	END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM
REACH ID	1	LG	GRAND BAYOU-RKM 5.40	6.62	TO 5.40	0.1220	1.22	10	1	10
REACH ID	2	LG	RKM 5.40-WESTFIELD CANAL	5.40	TO 3.78	0.1080	1.62	15	11	25
REACH ID	3	LG	WESTFIELD CANAL-RKM 2.16	3.78	TO 2.16	0.1080	1.62	15	26	40
REACH ID	4	LG	RKM 2.16-RKM 1.37	2.16	TO 1.37	0.0790	0.79	10	41	50
REACH ID	5	LG	RKM 1.37-WHITMEL CANAL	1.37	TO 0.60	0.0770	0.77	10	51	60
REACH ID	6	LG	WHITMEL CANAL-LAKE VERRET	0.60	TO 0.00	0.0600	0.60	10	61	70

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1		1	LG	0.000	0.000	14.844	0.000	0.000	0.607	0.00010	0.035
HYDR-1		2	LG	0.000	0.000	20.000	0.000	0.000	0.625	0.00010	0.035
HYDR-1		3	LG	0.000	0.000	27.737	0.000	0.000	0.640	0.00010	0.035
HYDR-1		4	LG	0.000	0.000	29.000	0.000	0.000	0.900	0.00010	0.035
HYDR-1		5	LG	0.000	0.000	45.000	0.000	0.000	1.100	0.00010	0.035
HYDR-1		6	LG	0.000	0.000	66.142	0.000	0.000	1.375	0.00010	0.035

ENDATA09

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"
HYDR		1	LG	0.00	30.000	0.833	0.000	1.000
HYDR		2	LG	0.00	30.000	0.833	0.000	1.000
HYDR		3	LG	0.25	30.000	0.833	0.000	1.000
HYDR		4	LG	0.50	30.000	0.833	0.000	1.000
HYDR		5	LG	0.75	30.000	0.833	0.000	1.000
HYDR		6	LG	1.00	30.000	0.833	0.000	1.000

ENDATA10

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD	TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL		1	LG	27.61	0.07	2.29	0.00	0.00	0.00	15.12	0.00
INITIAL		2	LG	26.62	0.07	0.47	0.00	0.00	0.00	15.02	0.00
INITIAL		3	LG	27.15	0.08	1.28	0.00	0.00	0.00	14.91	0.00
INITIAL		4	LG	27.55	0.07	2.27	0.00	0.00	0.00	14.83	0.00
INITIAL		5	LG	27.97	0.07	2.88	0.00	0.00	0.00	14.78	0.00
INITIAL		6	LG	28.71	0.07	3.45	0.00	0.00	0.00	14.73	0.00

ENDATA11

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD	RCH	RCH	K2	K2	K2	K2	BKGRND	BOD	BOD	BOD	ANAER	BOD2	BOD2	ANAER		
TYPE	NUM	ID	OPT	"A"	"B"	"C"	SOD g/m ² /d	DECAY per day	SETT m/d	TO SOD	BOD2 DECAY per day	BOD2 DECAY per day	SETT m/d	BOD2 CONV TO SOD	ANAER BOD2 DECAY per day	
COEF-1	1	LG	4 OWENS	<5 FPS	0.000	0.000	0.000	3.500	0.064	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	2	LG	4 OWENS	<5 FPS	0.000	0.000	0.000	6.850	0.056	0.050	0.000	0.000	0.000	0.050	0.000	0.000

COEF-1	3	LG	4	OWENS <5 FPS	0.000	0.000	0.000	4.000	0.058	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	4	LG	4	OWENS <5 FPS	0.000	0.000	0.000	2.000	0.057	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	5	LG	4	OWENS <5 FPS	0.000	0.000	0.000	0.500	0.064	0.050	0.000	0.000	0.000	0.050	0.000	0.000
COEF-1	6	LG	4	OWENS <5 FPS	0.000	0.000	0.000	0.500	0.082	0.050	0.000	0.000	0.000	0.050	0.000	0.000

ENDATA12

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	NBOD DECA	NBOD SETT	ORGN CONV TO NH3 SRCE	NH3 DECA	NH3 SRCE	PHOS SRCE	DENIT RATE
COEF-2	1	LG	0.111	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	2	LG	0.132	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	3	LG	0.121	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	4	LG	0.102	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	5	LG	0.099	0.050	1.000	0.000	0.000	0.000	0.000
COEF-2	6	LG	0.107	0.050	1.000	0.000	0.000	0.000	0.000

ENDATA13

\$\$\$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP	SHADING
ENDATA14											

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM CONV TO SOD
ENDATA15						

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST	OUT/DIST
INCR-1	1	LG	0.00000	0.20000	0.00	0.07	11.44	183.13	0.16393	0.00000
INCR-1	2	LG	0.00000	0.30000	0.00	0.07	10.67	174.82	0.18519	0.00000
INCR-1	3	LG	0.00000	0.65000	0.00	0.08	10.86	178.70	0.40123	0.00000
INCR-1	4	LG	0.00000	0.85000	0.00	0.07	10.57	177.35	1.07595	0.00000
INCR-1	5	LG	0.00000	1.50000	0.00	0.07	9.97	173.80	1.94805	0.00000
INCR-1	6	LG	0.00000	1.25000	0.00	0.07	9.31	171.42	2.08333	0.00000

ENDATA16

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	REACH	ID	DO	BOD	NBOD			BOD#2
INCR-2	1	LG	2.29	0.00	0.00	0.00	0.00	0.00
INCR-2	2	LG	0.47	0.00	0.00	0.00	0.00	0.00
INCR-2	3	LG	1.28	0.00	0.00	0.00	0.00	0.00
INCR-2	4	LG	2.27	0.00	0.00	0.00	0.00	0.00
INCR-2	5	LG	2.88	0.00	0.00	0.00	0.00	0.00
INCR-2	6	LG	3.45	0.00	0.00	0.00	0.00	0.00
ENDATA17								

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	PHOS	CHL A	COLI	NCM		
INCR-3	1	LG	0.00	0.00	0.00	0.00		
INCR-3	2	LG	0.00	0.00	0.00	0.00		
INCR-3	3	LG	0.00	0.00	0.00	0.00		
INCR-3	4	LG	0.00	0.00	0.00	0.00		
INCR-3	5	LG	0.00	0.00	0.00	0.00		
INCR-3	6	LG	0.00	0.00	0.00	0.00		
ENDATA18								

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH	ID	BOD#1	NBOD	COLI	NCM	DO	BOD#2
NONPOINT	1	LG	100.00	30.00	0.00	0.00	0.00	0.00
NONPOINT	2	LG	150.00	30.00	0.00	0.00	0.00	0.00
NONPOINT	3	LG	200.00	85.00	0.00	0.00	0.00	0.00
NONPOINT	4	LG	300.00	100.00	0.00	0.00	0.00	0.00
NONPOINT	5	LG	1150.00	375.00	0.00	0.00	0.00	0.00
NONPOINT	6	LG	1250.00	475.00	0.00	0.00	0.00	0.00
ENDATA19								

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m ³ /s	FLOW cfs	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L	
HDWTR-1	1	Grand Bayou	0	0.14000	4.944	27.98	0.07	11.700	186.000	0.00
ENDATA20										

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L	mg/L	mg/L	BOD#2 mg/L
HDWTR-2 ENDATA21	1	Grand Bayou	2.92	6.82	1.46	0.00	0.00	0.00

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
HDWTR-3 ENDATA22	1	Grand Bayou	0.00	19.41	0.00	0.00

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	RIVER KILOM	NAME
ENDATA23				

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	RKILO	NAME	FLOW m³/s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L
WSTLD-1	26	3.78	WESTFIELD CANAL	0.16158	5.70551	3.688	26.85	0.07	10.500	174.000
WSTLD-1	61	0.60	WHITMEL CANAL	0.33300	11.75848	7.601	28.73	0.07	8.800	172.000
ENDATA24										

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD RMVL	NBOD mg/L	mg/L	% NITRIF	mg/L	BOD#2 mg/L
WSTLD-2	26	WESTFIELD CANAL	1.31	7.94	0.00	2.77	0.00	0.00	0.00	0.00
WSTLD-2	61	WHITMEL CANAL	2.90	9.37	0.00	2.47	0.00	0.00	0.00	0.00
ENDATA25										

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L

SENSIT	HDW TEMP	2.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	HDW DO	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	HDW BOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	HDW NBOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	WSL FLOW	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	WSL TEMP	2.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	WSL DO	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	WSL BOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	WSL NBOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	LBC TEMP	2.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	LBC DO	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	LBC BOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	LBC NBOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	NPS BOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSIT	NPS NBOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0

ENDATA29

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 6
PLOT RCH 1 2 3 4 5 6
ENDATA30

\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

OVERLAY 1 OVERLAY LGrandBayou3.TXT :REACHES 1-6
ENDATA31

.....NO ERRORS DETECTED IN INPUT DATA
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
.....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 21

FINAL REPORT Grand Bayou
REACH NO. 1 GRAND BAYOU-RKM 5.40

LITTLE GRAND BAYOU
07/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
1	HDWTR	0.14000	27.98	0.07	11.70	186.00	2.92	5.30	0.00	6.82	0.00	1.46	0.00	0.00	0.00	15.12	0.00	0.00
EACH	INCR	0.02000	0.00	0.07	11.44	183.13	2.29	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
1	6.62	6.50	0.16000	0.0	0.01776	0.08	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.351	0.018
2	6.50	6.38	0.18000	0.0	0.01998	0.07	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.395	0.020
3	6.38	6.25	0.20000	0.0	0.02220	0.06	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.439	0.022
4	6.25	6.13	0.22000	0.0	0.02442	0.06	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.483	0.024
5	6.13	6.01	0.24000	0.0	0.02664	0.05	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.527	0.027
6	6.01	5.89	0.26000	0.0	0.02886	0.05	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.571	0.029
7	5.89	5.77	0.28000	0.0	0.03108	0.05	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.615	0.031
8	5.77	5.64	0.30000	0.0	0.03330	0.04	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.659	0.033
9	5.64	5.52	0.32000	0.0	0.03551	0.04	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.703	0.036
10	5.52	5.40	0.34000	0.0	0.03773	0.04	0.61	14.84	1099.26	1810.97	9.01	0.00	0.000	0.747	0.038
TOT						0.54			10992.58	18109.68					
AVG					0.0262		0.61	14.84			9.01				
CUM						0.54									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
1	6.498	7.89	1.33	0.09	0.06	0.00	0.00	0.00	0.00	5.62	5.62	5.62	0.14	0.06	0.00	0.00	0.00	0.00	1.07	0.00	0.00	0.00	0.00
2	6.376	7.91	1.33	0.09	0.06	0.00	0.00	0.00	0.00	5.58	5.58	5.58	0.14	0.06	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00
3	6.254	7.92	1.32	0.09	0.06	0.00	0.00	0.00	0.00	5.55	5.55	5.55	0.13	0.06	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00
4	6.132	7.93	1.32	0.09	0.06	0.00	0.00	0.00	0.00	5.51	5.51	5.51	0.13	0.06	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00
5	6.010	7.95	1.36	0.09	0.06	0.00	0.00	0.00	0.00	5.48	5.48	5.48	0.13	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
6	5.888	7.96	1.43	0.09	0.06	0.00	0.00	0.00	0.00	5.44	5.44	5.44	0.12	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
7	5.766	7.98	1.50	0.09	0.06	0.00	0.00	0.00	0.00	5.41	5.41	5.41	0.12	0.06	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00
8	5.644	7.99	1.57	0.09	0.06	0.00	0.00	0.00	0.00	5.38	5.38	5.38	0.12	0.06	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00

9	5.522	8.01	1.63	0.09	0.06	0.00	0.00	0.00	0.00	5.34	5.34	5.34	0.12	0.06	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00	
10	5.400	8.02	1.70	0.09	0.06	0.00	0.00	0.00	0.00	5.31	5.31	5.31	0.12	0.06	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00	
AVG 20 DEG C RATE			1.27	0.06	0.05	0.00	0.00	0.05	0.00	3.50			0.11	0.05	0.00	0.00	0.00	0.00				0.00	0.00	0.00
* g/m ² /d						** mg/L/day																		

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
1	6.498	27.51	0.07	11.66	185.59	2.66	5.30	0.00	6.81	0.00	1.47	0.00	0.00	0.00	0.00	15.11	0.00	0.	0.00
2	6.376	27.41	0.07	11.64	185.33	2.51	5.30	0.00	6.81	0.00	1.48	0.00	0.00	0.00	0.00	15.10	0.00	0.	0.00
3	6.254	27.31	0.07	11.62	185.11	2.40	5.30	0.00	6.81	0.00	1.49	0.00	0.00	0.00	0.00	15.09	0.00	0.	0.00
4	6.132	27.21	0.07	11.60	184.93	2.32	5.30	0.00	6.80	0.00	1.49	0.00	0.00	0.00	0.00	15.08	0.00	0.	0.00
5	6.010	27.12	0.07	11.59	184.78	2.27	5.30	0.00	6.80	0.00	1.50	0.00	0.00	0.00	0.00	15.07	0.00	0.	0.00
6	5.888	27.02	0.07	11.58	184.66	2.25	5.30	0.00	6.80	0.00	1.50	0.00	0.00	0.00	0.00	15.06	0.00	0.	0.00
7	5.766	26.92	0.07	11.57	184.55	2.26	5.30	0.00	6.80	0.00	1.51	0.00	0.00	0.00	0.00	15.05	0.00	0.	0.00
8	5.644	26.82	0.07	11.56	184.45	2.28	5.30	0.00	6.80	0.00	1.51	0.00	0.00	0.00	0.00	15.04	0.00	0.	0.00
9	5.522	26.72	0.07	11.55	184.36	2.31	5.30	0.00	6.80	0.00	1.51	0.00	0.00	0.00	0.00	15.03	0.00	0.	0.00
10	5.400	26.62	0.07	11.54	184.22	2.29	5.30	0.00	6.80	0.00	1.51	0.00	0.00	0.00	0.00	15.02	0.00	0.	0.00

FINAL REPORT Grand Bayou LITTLE GRAND BAYOU
 REACH NO. 2 RKM 5.40-WESTFIELD CANAL 07/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
11	UPR RCH	0.34000	26.62	0.07	11.54	184.22	2.29	5.30	0.00	6.80	0.00	1.51	0.00	0.00	0.00	15.02	0.00	0.00
EACH	INCR	0.02000	0.00	0.07	10.67	174.82	0.47	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
11	5.40	5.29	0.36000	0.0	0.02880	0.04	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.584	0.029

12	5.29	5.18	0.38000	0.0	0.03040	0.04	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.617	0.030
13	5.18	5.08	0.40000	0.0	0.03200	0.04	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.649	0.032
14	5.08	4.97	0.42000	0.0	0.03360	0.04	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.681	0.034
15	4.97	4.86	0.44000	0.0	0.03520	0.04	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.714	0.035
16	4.86	4.75	0.46000	0.0	0.03680	0.03	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.746	0.037
17	4.75	4.64	0.48000	0.0	0.03840	0.03	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.779	0.038
18	4.64	4.54	0.50000	0.0	0.04000	0.03	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.811	0.040
19	4.54	4.43	0.52000	0.0	0.04160	0.03	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.844	0.042
20	4.43	4.32	0.54000	0.0	0.04320	0.03	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.876	0.043
21	4.32	4.21	0.56000	0.0	0.04480	0.03	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.909	0.045
22	4.21	4.10	0.58000	0.0	0.04640	0.03	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.941	0.046
23	4.10	4.00	0.60000	0.0	0.04800	0.03	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.973	0.048
24	4.00	3.89	0.62000	0.0	0.04960	0.03	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	1.006	0.050
25	3.89	3.78	0.64000	0.0	0.05120	0.02	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	1.038	0.051
TOT							0.48		20250.00	32400.00					
AVG					0.0388		0.62	20.00						12.50	
CUM							1.02								

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
11	5.292	8.01	1.34	0.07	0.06	0.00	0.00	0.00	0.00	10.42	10.42	10.42	0.11	0.06	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00
12	5.184	8.01	1.39	0.06	0.06	0.00	0.00	0.00	0.00	10.44	10.44	10.44	0.05	0.06	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00
13	5.076	8.00	1.44	0.05	0.06	0.00	0.00	0.00	0.00	10.46	10.46	10.46	0.02	0.06	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00
14	4.968	8.00	1.49	0.04	0.06	0.00	0.00	0.00	0.00	10.49	10.49	10.49	0.01	0.06	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00
15	4.860	7.99	1.54	0.03	0.06	0.00	0.00	0.00	0.00	10.51	10.51	10.51	0.00	0.06	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00
16	4.752	7.99	1.59	0.02	0.06	0.00	0.00	0.00	0.00	10.53	10.53	10.53	0.00	0.06	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00
17	4.644	7.98	1.63	0.02	0.06	0.00	0.00	0.00	0.00	10.56	10.56	10.56	0.00	0.06	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00
18	4.536	7.98	1.68	0.02	0.06	0.00	0.00	0.00	0.00	10.58	10.58	10.58	0.00	0.06	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00
19	4.428	7.97	1.73	0.01	0.06	0.00	0.00	0.00	0.00	10.60	10.60	10.60	0.00	0.06	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00
20	4.320	7.97	1.77	0.01	0.06	0.00	0.00	0.00	0.00	10.63	10.63	10.63	0.00	0.06	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00
21	4.212	7.96	1.82	0.01	0.06	0.00	0.00	0.00	0.00	10.65	10.65	10.65	0.00	0.06	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00
22	4.104	7.96	1.86	0.01	0.06	0.00	0.00	0.00	0.00	10.67	10.67	10.67	0.00	0.06	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00
23	3.996	7.95	1.90	0.01	0.06	0.00	0.00	0.00	0.00	10.70	10.70	10.70	0.00	0.06	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00
24	3.888	7.95	1.95	0.01	0.06	0.00	0.00	0.00	0.00	10.72	10.72	10.72	0.00	0.06	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00
25	3.780	7.94	1.99	0.01	0.06	0.00	0.00	0.00	0.00	10.75	10.75	10.75	0.00	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 1.47 0.06 0.05 0.00 0.00 0.05 0.00 6.85 0.13 0.05 0.00 0.00 0.00 0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
11	5.292	26.66	0.07	11.49	183.70	1.85	5.29	0.00	6.80	0.00	1.48	0.00	0.00	0.00	0.00	15.01	0.00	0.	0.00
12	5.184	26.69	0.07	11.45	183.23	1.50	5.30	0.00	6.80	0.00	1.46	0.00	0.00	0.00	0.00	15.01	0.00	0.	0.00
13	5.076	26.73	0.07	11.41	182.82	1.21	5.30	0.00	6.80	0.00	1.44	0.00	0.00	0.00	0.00	15.00	0.00	0.	0.00
14	4.968	26.76	0.07	11.37	182.44	0.98	5.30	0.00	6.80	0.00	1.42	0.00	0.00	0.00	0.00	14.99	0.00	0.	0.00
15	4.860	26.80	0.07	11.34	182.09	0.79	5.31	0.00	6.81	0.00	1.41	0.00	0.00	0.00	0.00	14.98	0.00	0.	0.00
16	4.752	26.83	0.07	11.31	181.78	0.63	5.31	0.00	6.81	0.00	1.39	0.00	0.00	0.00	0.00	14.98	0.00	0.	0.00
17	4.644	26.87	0.07	11.29	181.49	0.51	5.32	0.00	6.82	0.00	1.38	0.00	0.00	0.00	0.00	14.97	0.00	0.	0.00
18	4.536	26.90	0.07	11.26	181.23	0.41	5.33	0.00	6.82	0.00	1.37	0.00	0.00	0.00	0.00	14.96	0.00	0.	0.00
19	4.428	26.94	0.07	11.24	180.98	0.33	5.33	0.00	6.83	0.00	1.36	0.00	0.00	0.00	0.00	14.95	0.00	0.	0.00
20	4.320	26.97	0.07	11.22	180.76	0.27	5.34	0.00	6.83	0.00	1.35	0.00	0.00	0.00	0.00	14.95	0.00	0.	0.00
21	4.212	27.01	0.07	11.20	180.55	0.22	5.34	0.00	6.84	0.00	1.34	0.00	0.00	0.00	0.00	14.94	0.00	0.	0.00
22	4.104	27.04	0.07	11.18	180.35	0.19	5.35	0.00	6.84	0.00	1.33	0.00	0.00	0.00	0.00	14.93	0.00	0.	0.00
23	3.996	27.08	0.07	11.16	180.16	0.16	5.36	0.00	6.85	0.00	1.33	0.00	0.00	0.00	0.00	14.92	0.00	0.	0.00
24	3.888	27.11	0.07	11.14	179.96	0.16	5.37	0.00	6.86	0.00	1.33	0.00	0.00	0.00	0.00	14.92	0.00	0.	0.00
25	3.780	27.15	0.07	11.11	179.65	0.22	5.43	0.00	6.92	0.00	1.36	0.00	0.00	0.00	0.00	14.91	0.00	0.	0.00

FINAL REPORT Grand Bayou
 REACH NO. 3 WESTFIELD CANAL-RKM 2.16

LITTLE GRAND BAYOU
 07/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
26	UPR RCH	0.64000	27.15	0.07	11.11	179.65	0.22	5.43	0.00	6.92	0.00	1.36	0.00	0.00	0.00	14.91	0.00	0.00
EACH	INCR	0.04333	0.00	0.08	10.86	178.70	1.28	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	
26	WSTLD	0.16158	26.85	0.07	10.50	174.00	1.31	7.94	0.00	7.94	0.00	2.77	0.00	0.00	0.00	23.80	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
26	3.78	3.67	0.84491	19.1	0.04760	0.03	0.64	27.74	1917.18	2995.60	17.75	52.42	0.000	0.985	0.048

27	3.67	3.56	0.88825	18.2	0.05004	0.02	0.64	27.74	1917.18	2995.60	17.75	104.85	0.000	1.035	0.050
28	3.56	3.46	0.93158	17.3	0.05248	0.02	0.64	27.74	1917.18	2995.60	17.75	157.27	0.000	1.086	0.052
29	3.46	3.35	0.97491	16.6	0.05492	0.02	0.64	27.74	1917.18	2995.60	17.75	209.69	0.000	1.136	0.055
30	3.35	3.24	1.01825	15.9	0.05736	0.02	0.64	27.74	1917.18	2995.60	17.75	262.11	0.000	1.187	0.057
31	3.24	3.13	1.06158	15.2	0.05980	0.02	0.64	27.74	1917.18	2995.60	17.75	314.54	0.000	1.237	0.060
32	3.13	3.02	1.10491	14.6	0.06224	0.02	0.64	27.74	1917.18	2995.60	17.75	366.96	0.000	1.288	0.062
33	3.02	2.92	1.14825	14.1	0.06468	0.02	0.64	27.74	1917.18	2995.60	17.75	419.38	0.001	1.338	0.065
34	2.92	2.81	1.19158	13.6	0.06712	0.02	0.64	27.74	1917.18	2995.60	17.75	471.81	0.001	1.389	0.067
35	2.81	2.70	1.23491	13.1	0.06957	0.02	0.64	27.74	1917.18	2995.60	17.75	524.23	0.001	1.439	0.070
36	2.70	2.59	1.27825	12.6	0.07201	0.02	0.64	27.74	1917.18	2995.60	17.75	576.65	0.001	1.490	0.072
37	2.59	2.48	1.32158	12.2	0.07445	0.02	0.64	27.74	1917.18	2995.60	17.75	629.08	0.001	1.540	0.074
38	2.48	2.38	1.36491	11.8	0.07689	0.02	0.64	27.74	1917.18	2995.60	17.75	681.50	0.001	1.591	0.077
39	2.38	2.27	1.40825	11.5	0.07933	0.02	0.64	27.74	1917.18	2995.60	17.75	733.92	0.001	1.641	0.079
40	2.27	2.16	1.45158	11.1	0.08177	0.02	0.64	27.74	1917.18	2995.60	17.75	786.34	0.001	1.691	0.082
TOT															
AVG					0.0629		0.64	27.74		28757.72				44933.95	
CUM						1.32									17.75

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
26	3.672	7.94	1.81	0.02	0.06	0.00	0.00	0.00	0.00	6.29	6.29	6.29	0.00	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
27	3.564	7.94	1.88	0.03	0.06	0.00	0.00	0.00	0.00	6.30	6.30	6.30	0.00	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
28	3.456	7.93	1.94	0.03	0.06	0.00	0.00	0.00	0.00	6.31	6.31	6.31	0.01	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
29	3.348	7.93	2.00	0.04	0.06	0.00	0.00	0.00	0.00	6.32	6.32	6.32	0.01	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
30	3.240	7.92	2.06	0.04	0.06	0.00	0.00	0.00	0.00	6.33	6.33	6.33	0.01	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
31	3.132	7.92	2.12	0.05	0.06	0.00	0.00	0.00	0.00	6.34	6.34	6.34	0.02	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
32	3.024	7.92	2.18	0.05	0.06	0.00	0.00	0.00	0.00	6.35	6.35	6.35	0.03	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
33	2.916	7.91	2.24	0.06	0.06	0.00	0.00	0.00	0.00	6.36	6.36	6.36	0.04	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
34	2.808	7.91	2.29	0.06	0.06	0.00	0.00	0.00	0.00	6.37	6.37	6.37	0.05	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
35	2.700	7.91	2.35	0.07	0.06	0.00	0.00	0.00	0.00	6.38	6.38	6.38	0.06	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
36	2.592	7.90	2.41	0.07	0.06	0.00	0.00	0.00	0.00	6.39	6.39	6.39	0.07	0.06	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00
37	2.484	7.90	2.46	0.07	0.06	0.00	0.00	0.00	0.00	6.40	6.40	6.40	0.09	0.06	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00
38	2.376	7.89	2.52	0.08	0.06	0.00	0.00	0.00	0.00	6.41	6.41	6.41	0.10	0.06	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00
39	2.268	7.89	2.57	0.08	0.06	0.00	0.00	0.00	0.00	6.42	6.42	6.42	0.12	0.06	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00
40	2.160	7.89	2.63	0.08	0.06	0.00	0.00	0.00	0.00	6.44	6.44	6.44	0.14	0.06	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE			1.94	0.06	0.05	0.00	0.00	0.05	0.00	4.00			0.12	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00
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* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
26	3.672	27.18	0.07	11.00	178.68	0.57	5.73	0.00	7.22	0.00	1.60	0.00	0.00	0.00	0.00	14.90	0.00	0.	0.00
27	3.564	27.20	0.07	10.99	178.68	0.72	5.61	0.00	7.10	0.00	1.59	0.00	0.00	0.00	0.00	14.90	0.00	0.	0.00
28	3.456	27.23	0.07	10.99	178.68	0.85	5.50	0.00	6.99	0.00	1.58	0.00	0.00	0.00	0.00	14.89	0.00	0.	0.00
29	3.348	27.26	0.07	10.98	178.68	0.98	5.41	0.00	6.90	0.00	1.58	0.00	0.00	0.00	0.00	14.89	0.00	0.	0.00
30	3.240	27.28	0.07	10.98	178.68	1.10	5.32	0.00	6.80	0.00	1.57	0.00	0.00	0.00	0.00	14.88	0.00	0.	0.00
31	3.132	27.31	0.07	10.97	178.69	1.22	5.23	0.00	6.72	0.00	1.57	0.00	0.00	0.00	0.00	14.88	0.00	0.	0.00
32	3.024	27.34	0.07	10.97	178.69	1.32	5.16	0.00	6.64	0.00	1.56	0.00	0.00	0.00	0.00	14.87	0.00	0.	0.00
33	2.916	27.36	0.07	10.96	178.69	1.42	5.09	0.00	6.57	0.00	1.56	0.00	0.00	0.00	0.00	14.87	0.00	0.	0.00
34	2.808	27.39	0.07	10.96	178.69	1.52	5.02	0.00	6.51	0.00	1.55	0.00	0.00	0.00	0.00	14.86	0.00	0.	0.00
35	2.700	27.42	0.07	10.96	178.69	1.61	4.96	0.00	6.44	0.00	1.55	0.00	0.00	0.00	0.00	14.86	0.00	0.	0.00
36	2.592	27.44	0.07	10.95	178.69	1.69	4.90	0.00	6.38	0.00	1.54	0.00	0.00	0.00	0.00	14.85	0.00	0.	0.00
37	2.484	27.47	0.07	10.95	178.69	1.77	4.84	0.00	6.33	0.00	1.54	0.00	0.00	0.00	0.00	14.85	0.00	0.	0.00
38	2.376	27.50	0.07	10.95	178.69	1.85	4.79	0.00	6.28	0.00	1.53	0.00	0.00	0.00	0.00	14.84	0.00	0.	0.00
39	2.268	27.52	0.07	10.94	178.69	1.92	4.75	0.00	6.23	0.00	1.53	0.00	0.00	0.00	0.00	14.84	0.00	0.	0.00
40	2.160	27.55	0.07	10.94	178.67	2.00	4.70	0.00	6.18	0.00	1.52	0.00	0.00	0.00	0.00	14.83	0.00	0.	0.00

FINAL REPORT Grand Bayou
 REACH NO. 4 RKM 2.16-RKM 1.37

LITTLE GRAND BAYOU
 07/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
41	UPR RCH	1.45158	27.55	0.07	10.94	178.67	2.00	4.70	0.00	6.18	0.00	1.52	0.00	0.00	0.00	14.83	0.00	0.00
EACH	INCR	0.08500	0.00	0.07	10.57	177.35	2.27	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
41	2.16	2.08	1.53658	10.5	0.05887	0.02	0.90	29.00	2061.90	2291.00	26.10	866.53	0.001	1.618	0.059
42	2.08	2.00	1.62158	10.0	0.06213	0.01	0.90	29.00	2061.90	2291.00	26.10	946.71	0.001	1.707	0.062

43	2.00	1.92	1.70658	9.5	0.06539	0.01	0.90	29.00	2061.90	2291.00	26.10	1026.90	0.001	1.797	0.065
44	1.92	1.84	1.79158	9.0	0.06864	0.01	0.90	29.00	2061.90	2291.00	26.10	1107.08	0.001	1.886	0.069
45	1.84	1.77	1.87658	8.6	0.07190	0.01	0.90	29.00	2061.90	2291.00	26.10	1187.27	0.001	1.976	0.072
46	1.77	1.69	1.96158	8.2	0.07516	0.01	0.90	29.00	2061.90	2291.00	26.10	1267.45	0.001	2.065	0.075
47	1.69	1.61	2.04658	7.9	0.07841	0.01	0.90	29.00	2061.90	2291.00	26.10	1347.64	0.001	2.155	0.078
48	1.61	1.53	2.13158	7.6	0.08167	0.01	0.90	29.00	2061.90	2291.00	26.10	1427.82	0.001	2.244	0.082
49	1.53	1.45	2.21658	7.3	0.08493	0.01	0.90	29.00	2061.90	2291.00	26.10	1508.01	0.001	2.334	0.085
50	1.45	1.37	2.30158	7.0	0.08818	0.01	0.90	29.00	2061.90	2291.00	26.10	1588.19	0.001	2.423	0.088
TOT										0.13		20619.00		22910.00	
AVG					0.0723		0.90	29.00						26.10	
CUM						1.45									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAT 1/da	BOD#1 SETT 1/da	ABOD#1 DECAT 1/da	BOD#2 DECAT 1/da	BOD#2 SETT 1/da	ABOD#2 DECAT 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAT 1/da	ORGN SETT 1/da	NH3 DECAT 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAT 1/da	NCM DECAT 1/da	NCM SETT 1/da	
41	2.081	7.88	1.12	0.08	0.06	0.00	0.00	0.00	0.00	3.23	3.23	3.23	0.12	0.06	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00	
42	2.002	7.88	1.16	0.08	0.06	0.00	0.00	0.00	0.00	3.23	3.23	3.23	0.12	0.06	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00	
43	1.923	7.87	1.21	0.08	0.06	0.00	0.00	0.00	0.00	3.24	3.24	3.24	0.12	0.06	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00	
44	1.844	7.86	1.25	0.08	0.06	0.00	0.00	0.00	0.00	3.25	3.25	3.25	0.12	0.06	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	
45	1.765	7.86	1.29	0.08	0.06	0.00	0.00	0.00	0.00	3.26	3.26	3.26	0.12	0.06	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	
46	1.686	7.85	1.33	0.08	0.06	0.00	0.00	0.00	0.00	3.27	3.27	3.27	0.12	0.06	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	
47	1.607	7.85	1.37	0.08	0.06	0.00	0.00	0.00	0.00	3.28	3.28	3.28	0.13	0.06	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	
48	1.528	7.84	1.40	0.08	0.06	0.00	0.00	0.00	0.00	3.29	3.29	3.29	0.13	0.06	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	
49	1.449	7.83	1.44	0.08	0.06	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.13	0.06	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	
50	1.370	7.83	1.48	0.08	0.06	0.00	0.00	0.00	0.00	3.30	3.30	3.30	0.13	0.06	0.00	0.00	0.00	0.00	1.07	0.00	0.00	0.00	0.00	
AVG 20 DEG C RATE			1.13	0.06	0.05	0.00	0.00	0.05	0.00	2.00			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
* g/m ² /d																								
** mg/L/day																								

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
41	2.081	27.59	0.07	10.91	178.59	2.07	4.65	0.00	6.13	0.00	1.51	0.00	0.00	0.00	0.00	14.82	0.00	0.	0.00
42	2.002	27.63	0.07	10.90	178.53	2.13	4.61	0.00	6.09	0.00	1.50	0.00	0.00	0.00	0.00	14.82	0.00	0.	0.00
43	1.923	27.68	0.07	10.88	178.47	2.19	4.58	0.00	6.06	0.00	1.49	0.00	0.00	0.00	0.00	14.81	0.00	0.	0.00
44	1.844	27.72	0.07	10.87	178.42	2.25	4.55	0.00	6.03	0.00	1.48	0.00	0.00	0.00	0.00	14.81	0.00	0.	0.00

45	1.765	27.76	0.07	10.85	178.37	2.30	4.52	0.00	6.00	0.00	1.47	0.00	0.00	0.00	0.00	14.81	0.00	0.	0.00
46	1.686	27.80	0.07	10.84	178.33	2.35	4.49	0.00	5.97	0.00	1.46	0.00	0.00	0.00	0.00	14.80	0.00	0.	0.00
47	1.607	27.84	0.07	10.83	178.29	2.40	4.47	0.00	5.95	0.00	1.45	0.00	0.00	0.00	0.00	14.80	0.00	0.	0.00
48	1.528	27.89	0.07	10.82	178.24	2.44	4.45	0.00	5.93	0.00	1.45	0.00	0.00	0.00	0.00	14.79	0.00	0.	0.00
49	1.449	27.93	0.07	10.81	178.19	2.49	4.45	0.00	5.93	0.00	1.45	0.00	0.00	0.00	0.00	14.78	0.00	0.	0.00
50	1.370	27.97	0.07	10.78	178.09	2.54	4.51	0.00	5.99	0.00	1.47	0.00	0.00	0.00	0.00	14.78	0.00	0.	0.00

FINAL REPORT Grand Bayou LITTLE GRAND BAYOU
 REACH NO. 5 RKM 1.37-WHITMEL CANAL 07/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
51	UPR RCH	2.30158	27.97	0.07	10.78	178.09	2.54	4.51	0.00	5.99	0.00	1.47	0.00	0.00	0.00	14.78	0.00	0.00
EACH	INCR	0.15000	0.00	0.07	9.97	173.80	2.88	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
51	1.37	1.29	2.45158	6.6	0.04953	0.02	1.10	45.00	3811.50	3465.00	49.50	1770.11	0.001	1.609	0.050
52	1.29	1.22	2.60158	6.2	0.05256	0.02	1.10	45.00	3811.50	3465.00	49.50	1952.02	0.001	1.707	0.053
53	1.22	1.14	2.75158	5.9	0.05559	0.02	1.10	45.00	3811.50	3465.00	49.50	2133.93	0.001	1.805	0.056
54	1.14	1.06	2.90158	5.6	0.05862	0.02	1.10	45.00	3811.50	3465.00	49.50	2315.84	0.001	1.904	0.059
55	1.06	0.98	3.05158	5.3	0.06165	0.01	1.10	45.00	3811.50	3465.00	49.50	2497.76	0.001	2.002	0.062
56	0.98	0.91	3.20158	5.0	0.06468	0.01	1.10	45.00	3811.50	3465.00	49.50	2679.67	0.001	2.101	0.065
57	0.91	0.83	3.35158	4.8	0.06771	0.01	1.10	45.00	3811.50	3465.00	49.50	2861.58	0.001	2.199	0.068
58	0.83	0.75	3.50158	4.6	0.07074	0.01	1.10	45.00	3811.50	3465.00	49.50	3043.49	0.001	2.298	0.071
59	0.75	0.68	3.65158	4.4	0.07377	0.01	1.10	45.00	3811.50	3465.00	49.50	3225.41	0.001	2.396	0.074
60	0.68	0.60	3.80158	4.3	0.07680	0.01	1.10	45.00	3811.50	3465.00	49.50	3407.32	0.002	2.494	0.077
TOT						0.14			38115.00	34650.00					
AVG					0.0619		1.10	45.00			49.50				
CUM						1.59									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
51	1.293	7.82	0.74	0.09	0.06	0.00	0.00	0.00	0.00	0.83	0.83	0.83	0.13	0.06	0.00	0.00	0.00	0.00	1.07	0.00	0.00	0.00	0.00
52	1.216	7.81	0.74	0.09	0.06	0.00	0.00	0.00	0.00	0.83	0.83	0.83	0.13	0.06	0.00	0.00	0.00	0.00	1.07	0.00	0.00	0.00	0.00
53	1.139	7.80	0.75	0.09	0.06	0.00	0.00	0.00	0.00	0.84	0.84	0.84	0.13	0.06	0.00	0.00	0.00	0.00	1.08	0.00	0.00	0.00	0.00
54	1.062	7.79	0.78	0.09	0.06	0.00	0.00	0.00	0.00	0.84	0.84	0.84	0.13	0.06	0.00	0.00	0.00	0.00	1.08	0.00	0.00	0.00	0.00
55	0.985	7.78	0.81	0.09	0.06	0.00	0.00	0.00	0.00	0.85	0.85	0.85	0.14	0.06	0.00	0.00	0.00	0.00	1.08	0.00	0.00	0.00	0.00
56	0.908	7.77	0.84	0.09	0.06	0.00	0.00	0.00	0.00	0.85	0.85	0.85	0.14	0.06	0.00	0.00	0.00	0.00	1.09	0.00	0.00	0.00	0.00
57	0.831	7.76	0.86	0.09	0.06	0.00	0.00	0.00	0.00	0.85	0.85	0.85	0.14	0.06	0.00	0.00	0.00	0.00	1.09	0.00	0.00	0.00	0.00
58	0.754	7.75	0.89	0.09	0.06	0.00	0.00	0.00	0.00	0.86	0.86	0.86	0.14	0.06	0.00	0.00	0.00	0.00	1.09	0.00	0.00	0.00	0.00
59	0.677	7.74	0.92	0.10	0.06	0.00	0.00	0.00	0.00	0.86	0.86	0.86	0.14	0.06	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00
60	0.600	7.73	0.94	0.10	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.14	0.06	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 0.71 0.06 0.05 0.00 0.00 0.05 0.00 0.50 0.10 0.05 0.00 0.00 0.00 0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
51	1.293	28.04	0.07	10.73	177.83	2.63	4.77	0.00	6.24	0.00	1.55	0.00	0.00	0.00	0.00	14.77	0.00	0.	0.00
52	1.216	28.12	0.07	10.69	177.60	2.70	4.99	0.00	6.46	0.00	1.62	0.00	0.00	0.00	0.00	14.77	0.00	0.	0.00
53	1.139	28.19	0.07	10.65	177.40	2.76	5.18	0.00	6.66	0.00	1.68	0.00	0.00	0.00	0.00	14.76	0.00	0.	0.00
54	1.062	28.27	0.07	10.62	177.21	2.82	5.36	0.00	6.83	0.00	1.74	0.00	0.00	0.00	0.00	14.76	0.00	0.	0.00
55	0.985	28.34	0.07	10.59	177.05	2.87	5.51	0.00	6.99	0.00	1.79	0.00	0.00	0.00	0.00	14.76	0.00	0.	0.00
56	0.908	28.41	0.07	10.56	176.90	2.92	5.66	0.00	7.13	0.00	1.84	0.00	0.00	0.00	0.00	14.75	0.00	0.	0.00
57	0.831	28.49	0.07	10.53	176.76	2.97	5.79	0.00	7.26	0.00	1.88	0.00	0.00	0.00	0.00	14.74	0.00	0.	0.00
58	0.754	28.56	0.07	10.50	176.62	3.01	5.92	0.00	7.39	0.00	1.92	0.00	0.00	0.00	0.00	14.74	0.00	0.	0.00
59	0.677	28.64	0.07	10.47	176.48	3.05	6.05	0.00	7.53	0.00	1.96	0.00	0.00	0.00	0.00	14.73	0.00	0.	0.00
60	0.600	28.71	0.07	10.41	176.26	3.09	6.24	0.00	7.72	0.00	2.02	0.00	0.00	0.00	0.00	14.73	0.00	0.	0.00

FINAL REPORT Grand Bayou
 REACH NO. 6 WHITMEL CANAL-LAKE VERRET

LITTLE GRAND BAYOU
 07/17/07

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
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61	UPR RCH	3.80158	28.71	0.07	10.41	176.26	3.09	6.24	0.00	7.72	0.00	2.02	0.00	0.00	0.00	14.73	0.00	0.00
EACH	INCR	0.12500	0.00	0.07	9.31	171.42	3.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
61	WSTLD	0.33300	28.73	0.07	8.80	172.00	2.90	9.37	0.00	9.37	0.00	2.47	0.00	0.00	0.00	23.80	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
61	0.60	0.54	4.25958	11.6	0.04684	0.01	1.38	66.14	5456.71	3968.52	90.95	3685.12	0.001	1.832	0.047
62	0.54	0.48	4.38458	11.3	0.04821	0.01	1.38	66.14	5456.71	3968.52	90.95	3962.91	0.001	1.886	0.048
63	0.48	0.42	4.50958	11.0	0.04959	0.01	1.38	66.14	5456.71	3968.52	90.95	4240.71	0.001	1.939	0.050
64	0.42	0.36	4.63458	10.7	0.05096	0.01	1.38	66.14	5456.71	3968.52	90.95	4518.51	0.001	1.993	0.051
65	0.36	0.30	4.75958	10.4	0.05233	0.01	1.38	66.14	5456.71	3968.52	90.95	4796.30	0.001	2.047	0.052
66	0.30	0.24	4.88458	10.1	0.05371	0.01	1.38	66.14	5456.71	3968.52	90.95	5074.10	0.001	2.101	0.054
67	0.24	0.18	5.00958	9.9	0.05508	0.01	1.38	66.14	5456.71	3968.52	90.95	5351.89	0.001	2.155	0.055
68	0.18	0.12	5.13458	9.6	0.05646	0.01	1.38	66.14	5456.71	3968.52	90.95	5629.69	0.001	2.208	0.056
69	0.12	0.06	5.25958	9.4	0.05783	0.01	1.38	66.14	5456.71	3968.52	90.95	5907.49	0.001	2.262	0.058
70	0.06	0.00	5.38458	9.2	0.05921	0.01	1.38	66.14	5456.71	3968.52	90.95	6185.28	0.002	2.316	0.059
TOT						0.13			54567.15	39685.20					
AVG					0.0527		1.38	66.14			90.95				
CUM						1.72									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD#1 DECA	BOD#1 SETT	ABOD#1 DECA	BOD#2 DECA	BOD#2 SETT	ABOD#2 DECA	BKGD SOD	FULL SOD	CORR SOD	ORGN DECA	ORGN SETT	NH3 DECA	NH3 SRCE	DENIT RATE	PO4 SRCE	ALG PROD	MAC PROD	COLI DECA	NCM DECA	NCM SETT
		mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	*	**	**	1/da	1/da	1/da
61	0.540	7.73	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.15	0.06	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00
62	0.480	7.72	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.16	0.06	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00
63	0.420	7.72	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.16	0.06	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00
64	0.360	7.72	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.16	0.06	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00
65	0.300	7.72	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.16	0.06	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00
66	0.240	7.72	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.16	0.06	0.00	0.00	0.00	0.00	1.11	0.00	0.00	0.00	0.00
67	0.180	7.71	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.16	0.06	0.00	0.00	0.00	0.00	1.11	0.00	0.00	0.00	0.00
68	0.120	7.71	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.16	0.06	0.00	0.00	0.00	0.00	1.11	0.00	0.00	0.00	0.00
69	0.060	7.71	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.16	0.06	0.00	0.00	0.00	0.00	1.11	0.00	0.00	0.00	0.00
70	0.000	7.71	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.16	0.06	0.00	0.00	0.00	0.00	1.11	0.00	0.00	0.00	0.00

