GRAND BAYOU WATERSHED TMDL FOR BIOCHEMICAL OXYGEN-DEMANDING SUBSTANCES

Subsegment 120206

SURVEYED June 22-28, 2004

TMDL REPORT

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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 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.

Ten permitted facilities were addressed in the TMDL effort. Eight of these discharge into the Grand Bayou system and two discharge into the Little Grand Bayou system. Only one, Gator Super Stop, 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 seven 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 Total Maximum Daily Load Technical Procedures, 08/10/2006, have 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. Grand Bayou and Little Grand Bayou both require a 100% reduction of man-made loading to meet a 5.0 mg/L standard. Alternative projections are also presented to meet 3.0 mg/L and 2.0 mg/L standards.

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.

The results of projection modeling for Grand Bayou show that the water quality standard for dissolved oxygen of 5.0 mg/L can be maintained during the summer critical season with a 100% reduction in man-made pollution. This results in a minimum DO of 4.94 mg/L at RK 7.536 to RK 7.682. The winter projection model with a 100% reduction of man-made pollution shows a minimum DO of 6.53 mg/L at RK 0.000 to RK 0.120. The No Load Scenario for summer without reduction in natural background pollution yields a minimum DO of 4.94 mg/L. Allocations for alternative projections with a DO criteria of 3.0 mg/L and 2.0 mg/L are presented in Tables 2 and 3.

Table 1. Total Maximum Daily Load (Sum of UBOD and SOD) for Grand Bayou at a 5.0 mg/L standard

ALLOCATION	SUMMER		WINTER	
	% Reduction Required	(MAY-OCT) (lbs/day)	% Reduction Required	(NOV-APR) (lbs/day)
Point Source WLA	0	9	0	9
Point Source Reserve MOS = 20%		2		2
Natural Nonpoint Source LA	0	6,370	0	4,450
Manmade Nonpoint Source LA	100	0	100	0
Manmade Nonpoint Source Reserve MOS Summer = 20% Winter = 20%		0		0
TMDL		6,381		4,461

***Note 1: UBOD as stated in this allocation is Ultimate BOD.
UBOD to BOD_5 ratio = 2.3 for all treatment levels
Permit allocations are generally based on BOD_5***

Table 2. Total Maximum Daily Load (Sum of UBOD and SOD) for Grand Bayou at a 3.0 mg/L standard

ALLOCATION	SUMMER		WINTER	
	% Reduction Required	(MAY-OCT) (lbs/day)	% Reduction Required	(NOV-APR) (lbs/day)
Point Source WLA	0	9	0	9
Point Source Reserve MOS = 20%		2		2
Natural Nonpoint Source LA	0	6,370	0	4,450
Manmade Nonpoint Source LA	90	1,314	90	1,014
Manmade Nonpoint Source Reserve MOS Summer = 20% Winter = 20%		329		254
TMDL		8,024		5,729

***Note 1: UBOD as stated in this allocation is Ultimate BOD.
UBOD to BOD_5 ratio = 2.3 for all treatment levels
Permit allocations are generally based on BOD_5***

Table 3. Total Maximum Daily Load (Sum of UBOD and SOD) for Grand Bayou at a 2.0 mg/L standard

ALLOCATION	SUMMER		WINTER	
	% Reduction Required	(MAY-OCT) (lbs/day)	% Reduction Required	(NOV-APR) (lbs/day)
Point Source WLA	0	9	0	9
Point Source Reserve MOS = 20%		2		2
Natural Nonpoint Source LA	0	6,370	0	4,450
Manmade Nonpoint Source LA	85	1,973	85	1,521
Manmade Nonpoint Source Reserve MOS Summer = 20% Winter = 20%		492		381
TMDL		8,846		6,363

***Note 1: UBOD as stated in this allocation is Ultimate BOD.
UBOD to BOD_5 ratio = 2.3 for all treatment levels
Permit allocations are generally based on BOD_5***

Summertime projection modeling for Little Grand Bayou also shows that a 100% reduction in man-made loading is necessary to maintain a dissolved oxygen standard of 5.0 mg/L. The minimum DO of 5.23 mg/L occurs between RK 5.184 and RK 5.292. A 100% reduction of man-made loading in the winter projection yields a minimum DO of 6.87 mg/L at RK 0.000 to RK 0.060. There are no direct input point sources for Little Grand Bayou, so a No Load Scenario would be exactly the same input as the 100% reduction runs. Allocations for alternative projections with a DO criteria of 3.0 mg/L and 2.0 mg/L are presented in Tables 5 and 6.

Table 4. Total Maximum Daily Load (Sum of UBOD and SOD) for Little Grand Bayou at a 5.0 mg/L standard

ALLOCATION	SUMMER		WINTER	
	% Reduction Required	(MAY-OCT) (lbs/day)	% Reduction Required	(NOV-APR) (lbs/day)
Point Source WLA	0	0	0	0
Point Source Reserve MOS = 20%		0		0
Natural Nonpoint Source LA	0	1,001	0	904
Manmade Nonpoint Source LA	100	0	100	0
Manmade Nonpoint Source Reserve MOS Summer = 20% Winter = 20%		0		0
TMDL		1,001		904

***Note 1: UBOD as stated in this allocation is Ultimate BOD.
UBOD to BOD_5 ratio = 2.3 for all treatment levels
Permit allocations are generally based on BOD_5***

Table 5. Total Maximum Daily Load (Sum of UBOD and SOD) for Little Grand Bayou at a 3.0 mg/L standard

ALLOCATION	SUMMER		WINTER	
	% Reduction Required	(MAY-OCT) (lbs/day)	% Reduction Required	(NOV-APR) (lbs/day)
Point Source WLA	0	0	0	0
Point Source Reserve MOS = 20%		0		0
Natural Nonpoint Source LA	0	1,001	0	904
Manmade Nonpoint Source LA	90	1,047	90	981
Manmade Nonpoint Source Reserve MOS Summer = 20% Winter = 20%		262		247
TMDL		2,310		2,132

***Note 1: UBOD as stated in this allocation is Ultimate BOD.
UBOD to BOD_5 ratio = 2.3 for all treatment levels
Permit allocations are generally based on BOD_5***

Table 6. Total Maximum Daily Load (Sum of UBOD and SOD) for Little Grand Bayou at a 2.0 mg/L standard

ALLOCATION	SUMMER		WINTER	
	% Reduction Required	(MAY-OCT) (lbs/day)	% Reduction Required	(NOV-APR) (lbs/day)
Point Source WLA	0	0	0	0
Point Source Reserve MOS = 20%		0		0
Natural Nonpoint Source LA	0	1,001	0	904
Manmade Nonpoint Source LA	85	1,572	85	1,473
Manmade Nonpoint Source Reserve MOS Summer = 20% Winter = 20%		392		368
TMDL		2,965		2,745

***Note 1: UBOD as stated in this allocation is Ultimate BOD.
UBOD to BOD_5 ratio = 2.3 for all treatment levels
Permit allocations are generally based on BOD_5***

Achieving a 100% reduction of all man-made loading within a watershed is not a feasible goal. A reassessment of the dissolved oxygen criteria for this subsegment is recommended.

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 7. Point Source TMDL Summary for Subsegment 120206, Grand Bayou

			CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS		TMDL MONTHLY AVERAGE MASS LIMITS		
FACILITY	**AI/LPDES No.**	**Out-fall No.**	**GPD**	**BOD5/ CBOD5, mg/L**	**NH_3-N, mg/L**	**GPD**	**GPD**	**BOD5/ CBOD5, mg/L**	**NH_3-N, mg/L**	**CBOD5, lbs./day**	**NH_3-N, lbs./day**	**MODELING COMMENTS**
Texas Eastern Transmission Corp – White Castle Compressor Station	**7359/ LA0107212**	**002**	**150**	**45**								**No impact – Not modeled**
Southern Natural Gas Co. – White Castle Compressor Station	**4197/ LA0108642**	**002**	**140**	**45**								**No impact – Not modeled**
Gulf South Pipeline Co. – Rodrigue Compressor Station	**98149/ LAG531262**	**001**	**5,000**	**45**								**No impact – Not modeled**
Assumption Parish Police Jury – Belle Rose Lane Sewerage District	**98165/ LAG540954**	**001**	**14,300**	**30**								**No impact – Not modeled**
Bayou Corne Sewer Co. Inc. – Sportsman's Paradise Subdivision	**41241/ LAG540036**	**001**	**15,200**	**30**								**No impact – Not modeled**
No Problem Raceway Park	**86479/ LAG541191**	**001**	**23,860**	**30**								**No impact – Not modeled**
Super Stop Enterprises – Gator Super Stop Truck Stop	**93668/ LAG541081**	**001**	**7,760**	**30**		**9,815**	**2,055**	**30**				**Included in Grand Bayou model**
St. Elizabeth School	**87130/ LAG531143**	**001**	**4,050**	**45**								**No impact – Not modeled**
K/D/S Promix LLC, Fractionation Plant	**42929/ LA0119491**	**001**	**150,789**									**No impact, only BOD component comes from internal outfalls 101, 201, 301 and 401 with combined flow of only 700 gpd – Not modeled**
Leblanc Brothers Redi-Mix – Paincourtville Facility	**6734/ LAG110053**	**003**	**144**									**No BOD component – Not modeled**

Lula Westfield LLC – Westfield Raw Sugar Factory	**42344/ LA0000485**	**001**	**10,000,000**	**10**								**Not discharging at time of survey or during critical conditions – Not modeled**
Lula Westfield LLC – Lula Raw Sugar Factory	**4182/ LA0007382**	**001/002**	**9,837,845 (combined)**	**10**								**Discharges into a tributary that had no measureable flow during survey – Not modeled**
Cora-Texas Manufacturing Co.	**1306/ LA0001295**	**002**	**7,900,000**	**10**								**Not discharging at time of survey or during critical conditions – Not modeled**
Dow Chemical Co. – Grand Bayou Operations	**1007/ LA0049310**	**001**	**1,300,000**									**No impact, only BOD component comes from internal outfall 101 with a flow of only 100 gpd – Not modeled**
		002	**1,700,00**									**No BOD component – Not modeled**
		003	**130,000**									**No BOD component – Not modeled**
		004	**270,000**									**No impact, only BOD component comes from internal outfalls 104 and 204 with combined flow of only 320 gpd – Not modeled**
Acadian Gas Storage Facility	**25004/ LAG531692**	**001**	**60**	**45**								**No impact –Not modeled**
Grant Loop Community Sewer System	**116873/ LAG541277**	**001**	**17,200**	**30**								**No impact – Not modeled**
Triad Nitrogen LLC	**122533/ LAG670075**	**001**	**Variable**									**No BOD component – Not modeled**
Assumption Community Hospital	**37590/ LAG540548**	**001**	**7,600**	**30**								**Discharge never enters the Grand Bayou system, travels via local drainage into subsegment 120204 and thence into Lake Verret – Not modeled**

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1. Introduction

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.

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 agridulture/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 8. 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

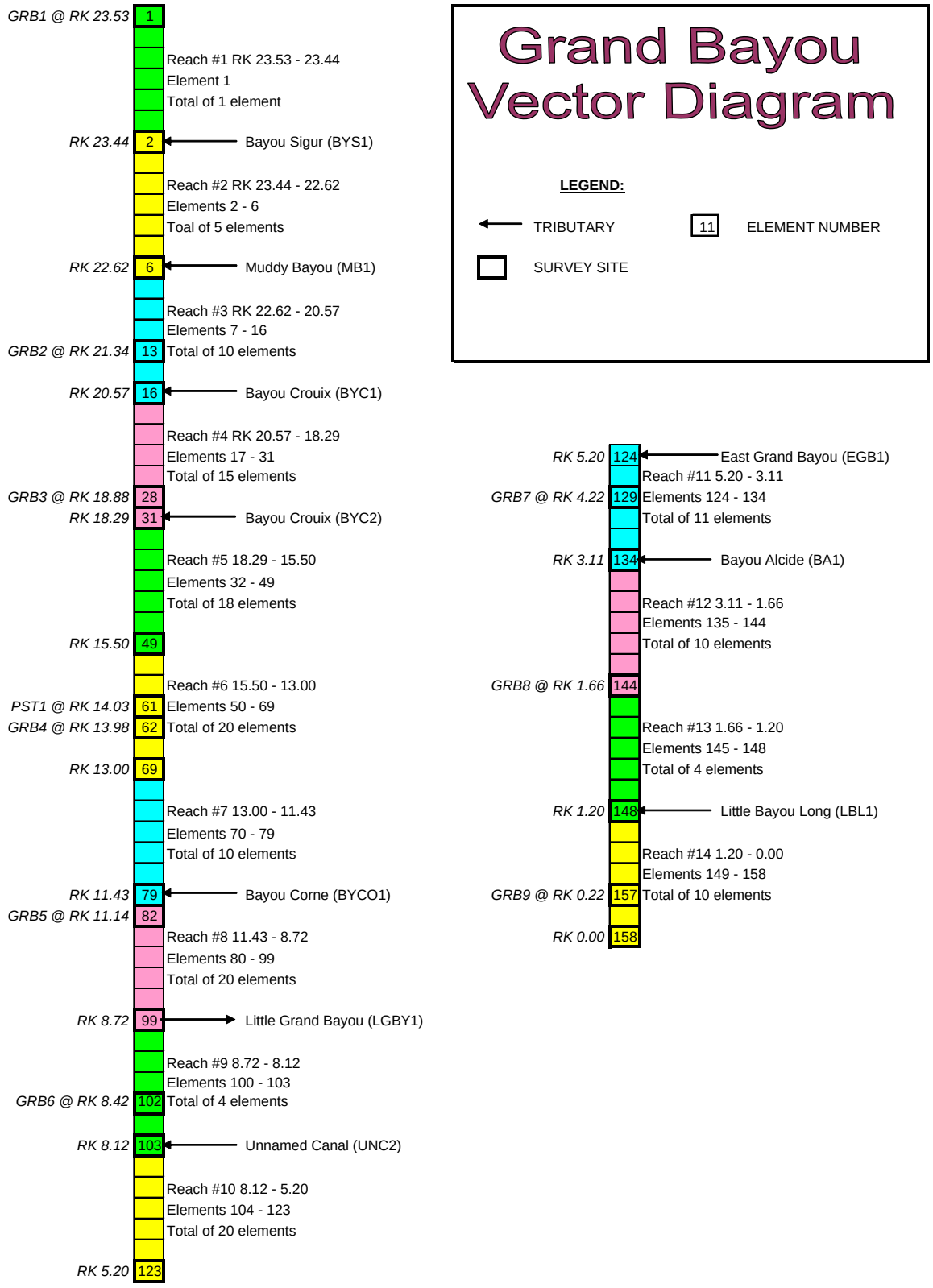


Figure 2. Vector Diagram for Little Grand Bayou

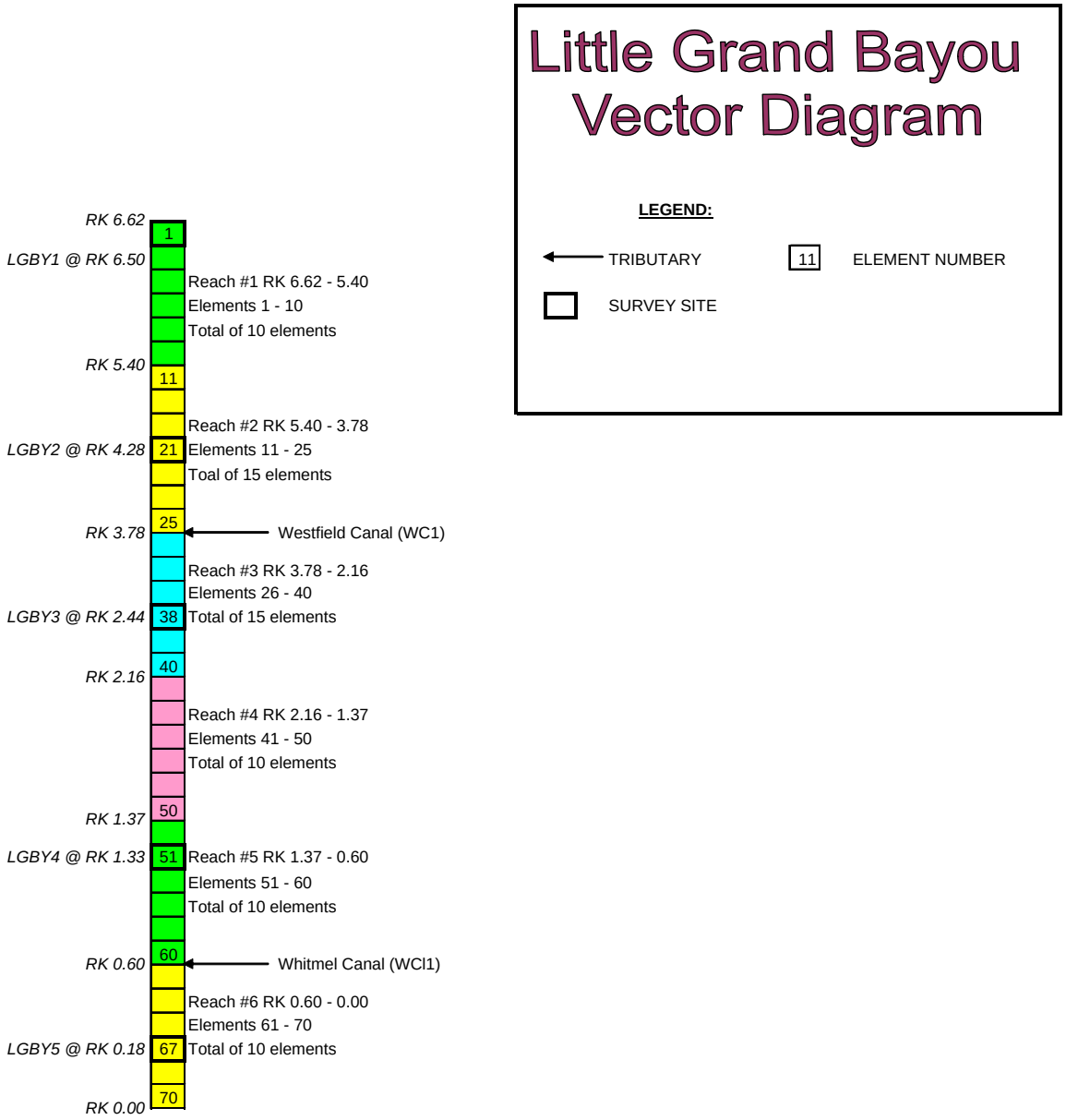


Figure 3. Map of Upper Grand Bayou Study Area

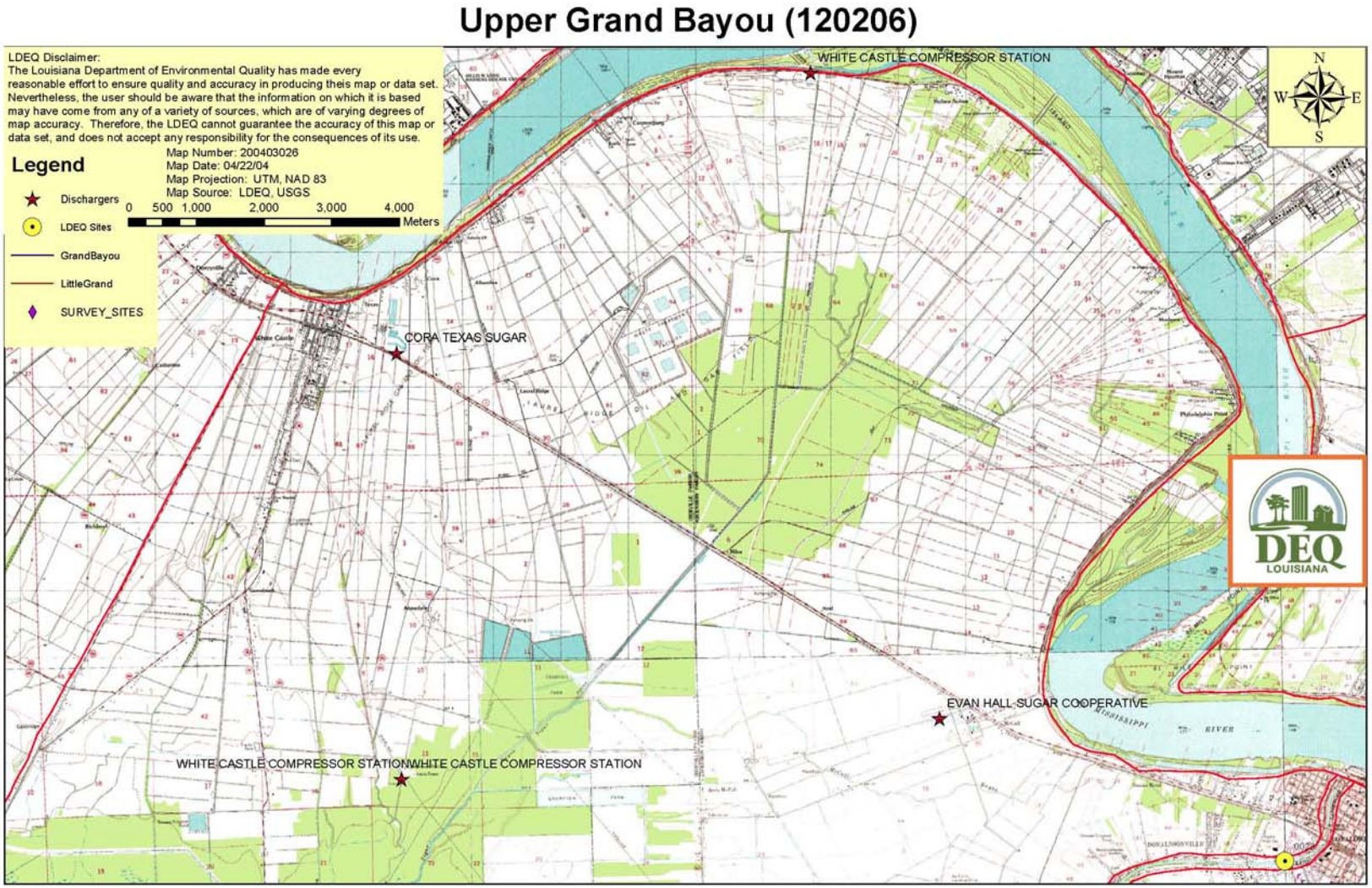


Figure 4. Map of Middle Grand Bayou Study Area

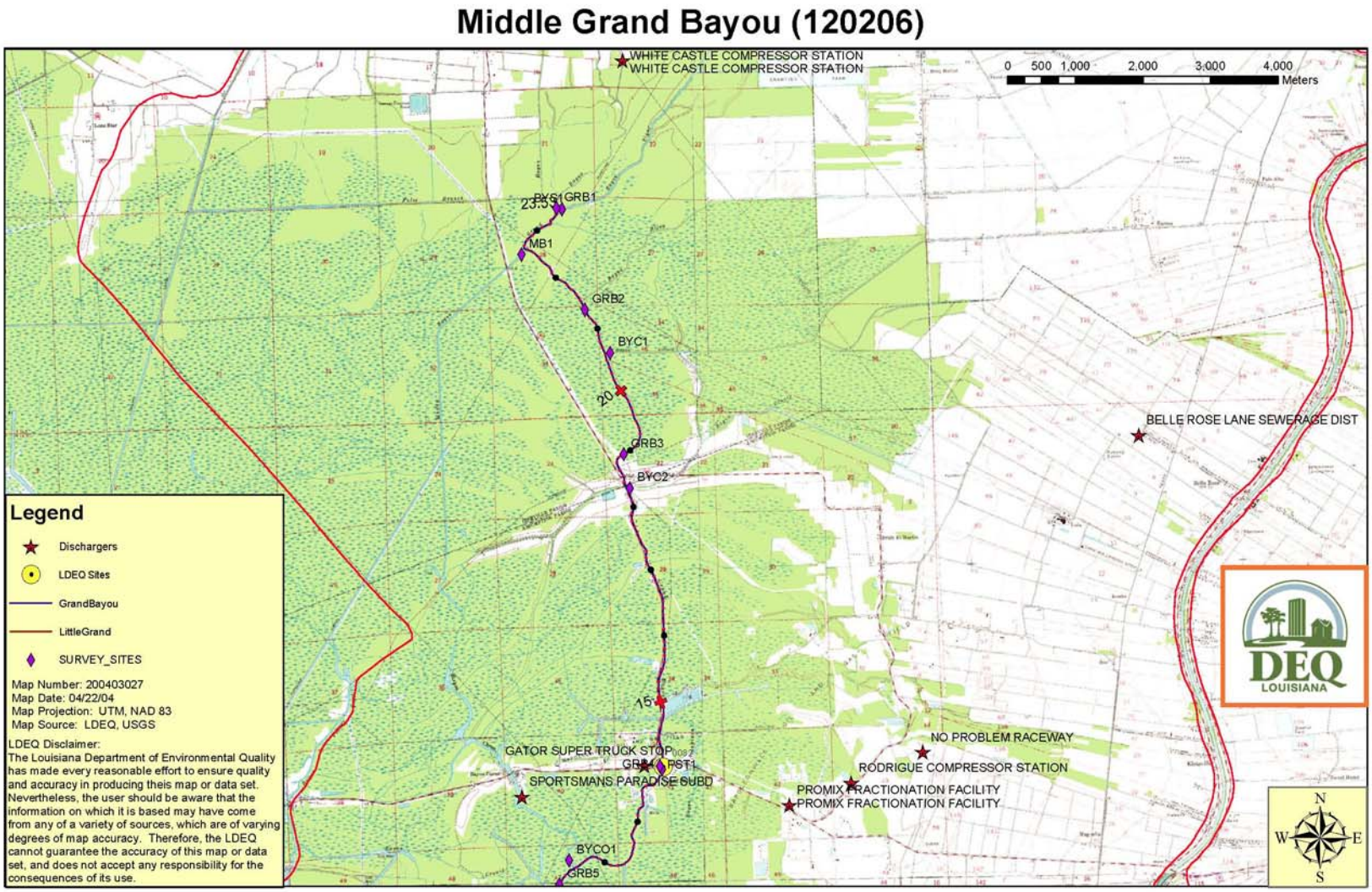
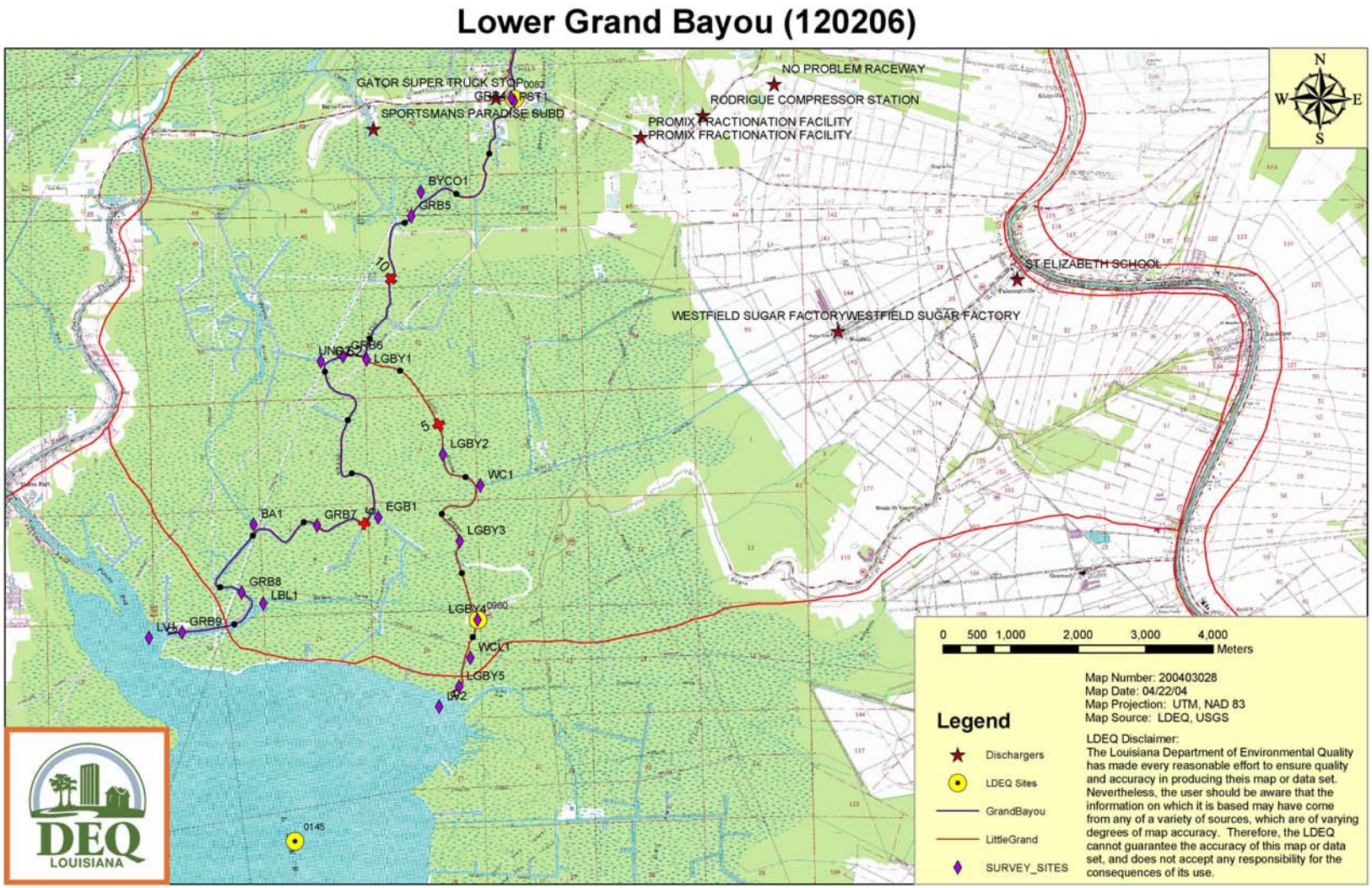


Figure 5. Map of Lower Grand Bayou Study Area



2.2 Water Quality Standards

The Water Quality criteria and designated uses for the Grand Bayou watershed are shown in Table 9.

Table 9. Water Quality Numerical Criteria and Designated Uses for Grand Bayou

Subsegment	120206
Stream Description	Grand Bayou and Little Grand Bayou—Headwaters to Lake Verret
Designated Uses	A, B, C
Criteria:	
C1	60
SO_4	40
DO	5.0
pH	6.0-8.5
BAC	1—Note 1
°C	32
TDS	300

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 10 permitted facilities. The facilities were evaluated based on the volume and type of discharge, location relative to the listed waterbody, and best professional judgement. White Castle Compressor Stations, Rodrigue Compressor Station, Belle Rose Lane STP, Sportsmans Paradise Subdivision STP, 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 is the only facility to discharge directly into Grand Bayou and was included in the model. Current permit information was reviewed for all dischargers. A list of facilities is shown below in Table 10.

Table 10. Discharger Inventory for Subsegment 120206, Grand Bayou

							MONTHLY AVERAGE CONCENTRATION LIMITS		MONTHLY AVERAGE MASS LIMITS		
FACILITY	**AI/LPDES No.**	**Out-fall No.**	**OUTFALL DESCRIPTION**	**FACILITY TYPE**	**RECEIVING WATER**	**EXPECTED FLOW GPD**	**BOD5/ CBOD5, mg/L**	**NH_3-N, mg/L**	**BOD, lbs./day**	**NH_3-N, lbs./day**	**MODELING COMMENTS**
Texas Eastern Transmissioin Corp – White Castle Compressor Station	7359/ LA0107212	002	Sanitary sewage	Natural gas compressor station	Grand Bayou	150	45				No impact – Not modeled
Southern Natural Gas Co. – White Castle Compressor Station	4197/ LA0108642	002	Sanitary sewage	Natural gas compressor station	Rocky Canal – Bayou Sigur – Grand Bayou	140	45				No impact – Not modeled
Gulf South Pipeline Co. – Rodrigue Compressor Station	98149/ LAG531262	001	Sanitary sewage	Natural gas compressor station	Bayou Des Olivier – Grand Bayou	5,000	45				No impact – Not modeled
Assumption Parish Police Jury – Belle Rose Lane Sewerage District	98165/ LAG540954	001	Sanitary sewage	Residential STP	Grand Bayou	14,300	30				No impact – Not modeled
Bayou Corne Sewer Co. Inc. – Sportsman's Paradise Subdivision	41241/ LAG540036	001	Sanitary sewage	Residential STP	Bayou Corne – Grand Bayou	15,200	30				No impact – Not modeled
No Problem Raceway Park	86479/ LAG541191	001	Sanitary sewage	Racetrack	Grand Bayou	23,860	30				No impact – Not modeled
Super Stop Enterprises – Gator Super Stop Truck Stop	93668/ LAG541081	001	Sanitary sewage	Truck stop	Grand Bayou	7,760	30				Included in Grand Bayou model
St. Elizabeth School	87130/ LAG531143	001	Sanitary sewage	School	Whitmel Canal – Little Grand Bayou	4,050	45				No impact – Not modeled

K/D/S Promix LLC, Fractionation Plant	42929/ LA0119491	001	Storm water, wash water, cooling tower blowdown and previously monitored sanitary sewage	Natural gas processing	Swamp – Bayou Oliver – Grand Bayou	150,789					No impact, only BOD component comes from internal outfalls 101, 201, 301 and 401 with combined flow of only 700 gpd – Not modeled
Leblanc Brothers Redi-Mix – Paincourtville Facility	6734/ LAG110053	003	Process wastewater and process area stormwater	Concrete plant	Magnolia Canal – St. Louis Canal – Westfield Canal – Grand Bayou	144					No BOD component – Not modeled
Lula Westfield LLC – Westfield Raw Sugar Factory	42344/ LA0000485	001	Process wastewater	Sugar mill	Westfield Canal – Little Grand Bayou	10,000,000	10				Not discharging during survey. Does not discharge during critical months.
Lula Westfield LLC – Lula Raw Sugar Factory	4182/ LA0007382	001/002	Process Wastewater	Sugar mill	Lula Canal – Bayou Crouix – Grand Bayou	9,837,845	10				Discharges into a tributary that had no measureable flow during survey – Not modeled
Cora-Texas Manufacturing	1306/ LA0001295	002	Process wastewater	Sugar mill	Bayou Sigur – Grand Bayou	7,900,000	10				Not discharging during survey. Does not discharge during critical months.
Dow Chemical Co. – Grand Bayou Operations	1007/ LA0049310	001	Stormwater, washdown water and previously monitored sanitary sewage	Brine production and hydrocarbon storage plant and underground storage terminal	Bayou Oliver – Grand Bayou	1,300,000					No impact, only BOD component comes from internal outfall 101 with a flow of only 100 gpd – Not modeled
		002	Stormwater and washdown water			1,700,000					No BOD component – Not modeled
		003	Stormwater and washdown water			130,000					No BOD component – Not modeled
		004	Stormwater, washdown water and previously monitored sanitary sewage			270,000					No impact, only BOD component comes from internal outfalls 104 and 204 with combined flow of only 320 gpd – Not modeled
Acadian Gas Storage Facility	25004/ LAG531692	001	Sanitary sewage	Natural gas storage	Bayou Oliver – Grand Bayou	60	45				No impact – Not modeled
Grant Loop Community Sewer System	116873/ LAG541277	001	Sanitary sewage	Residential STP	Whitmel Canal – Little Grand Bayou	17,200	30				No impact – Not modeled

Triad Nitrogen LLC	122533/ LAG670075	001	Hydrostatic test wastewater	Pipeline	Rocky Canal – Bayou Sigur – Grand Bayou	Variable					No BOD component – Not modeled
Assumption Community Hospital	37590/ LAG540548	001	Sanitary sewage	Hospital	Local drainage – Glenwood Canal – Godchaux Canal – Lake Verret	7,600	30				Discharge never enters the Grand Bayou system, travels via local drainage into subsegment 120204 and thence into Lake Verret – Not modeled

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 of 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 6, the DO during the time of the survey was not meeting standards 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, and 5.

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 ten permitted facilities flowing into the Grand Bayou system. Gator Super Stop is the only one 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 recoverd 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 6 and 7.

Grand Bayou and Little Grand Bayou had good calibrations to DO, effective BOD, and NBOD. Output from the calibration models show that Grand Bayou and Little Grand Bayou were not meeting the DO standard of 5.0 mg/L at any point in the modeled reaches.

Figure 6. Calibration Model Dissolved Oxygen versus River Kilometer, Grand Bayou

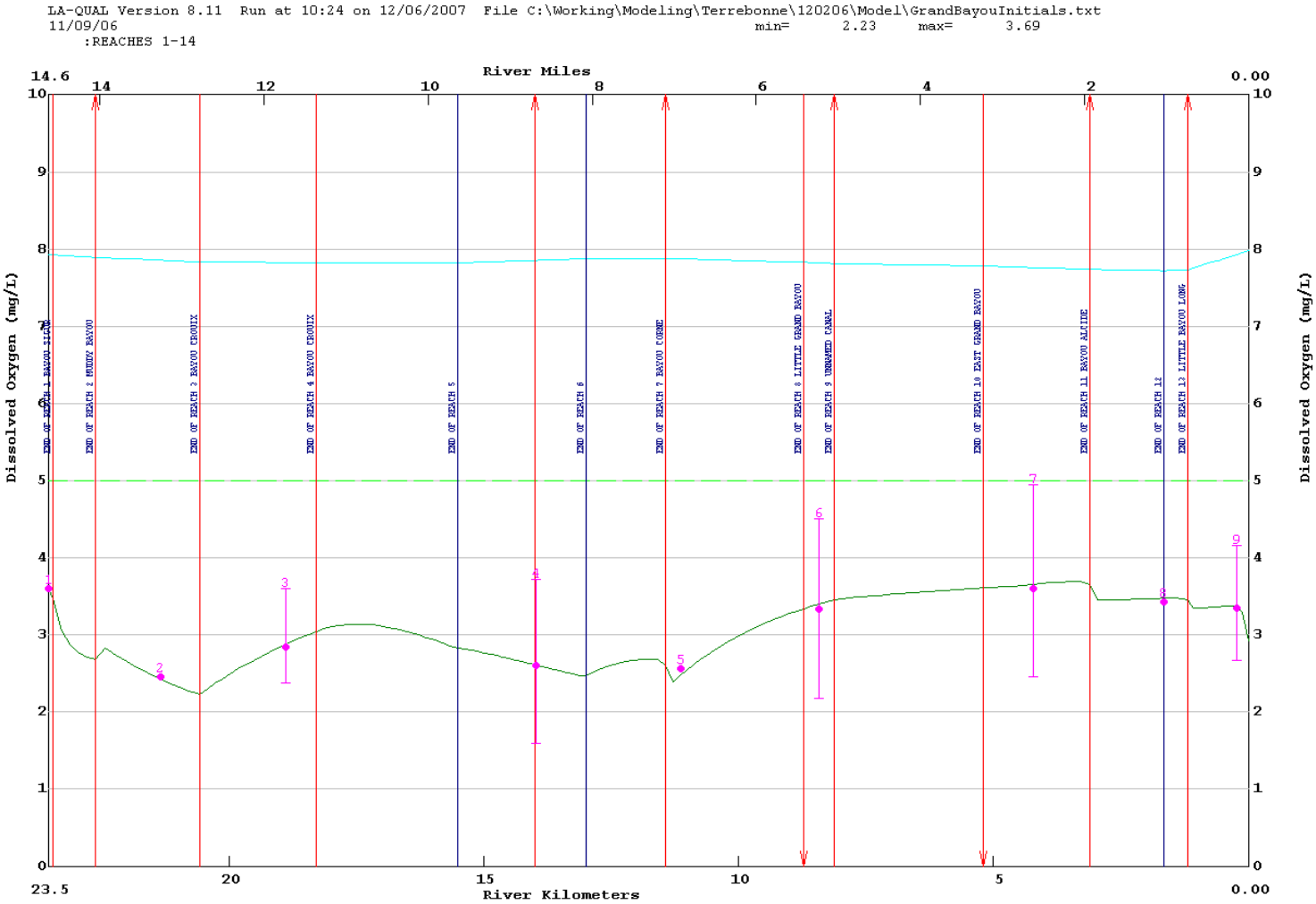
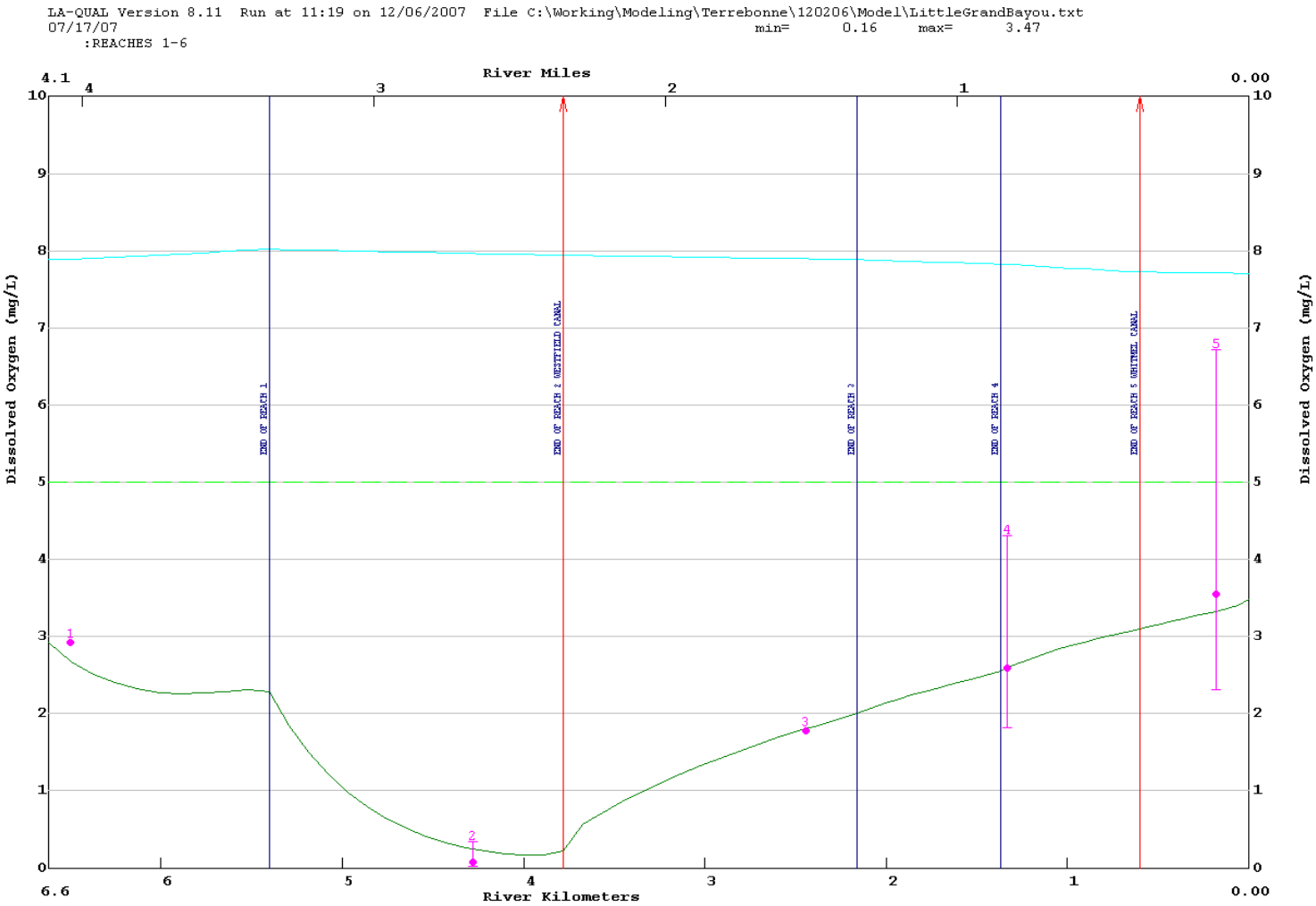


Figure 7. Calibration Model Dissolved Oxygen versus River Kilometer, Little Grand Bayou



4. Water Quality Projections

Since the calibrated models indicated that the DO criterion was not being met through the entirety of the waterbody, "No Load" summer scenarios were performed in addition to the traditional summer and winter 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-O_2/m^2/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, UCBOD, 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 it's 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, the dissolved oxygen criteria, and the measured stream UBOD loads for all projections and scenarios. 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 No Load Scenario

Under this scenario, the SOD, NPS, headwater and wasteload values were reduced to reference stream values except where the calibration value was less than the reference stream value. The No Load run revealed that 100% removal of man-made sources would result in a minimum DO of 4.94 mg/L in Grand Bayou. There were no direct Point Source dischargers in Little Grand Bayou, so the No Load scenario was the same as the 100% reduction run and yielded a DO of 5.23 mg/L. A graph of DO concentration versus river kilometer for the No Load summertime projection is shown in Figure 8.

4.3.2 Summer Projection

A summer critical season projection was run against the current DO standard of 5.0 mg/L for Grand Bayou. To meet standards in Grand Bayou required a 100% reduction to man-made loading. This yields a model output minimum DO of 4.94 mg/L. Applying the same 100% reduction to Little Grand Bayou yields an output minimum DO of 5.23 mg/L. Graphs of the dissolved oxygen concentration versus river kilometer for the summer projections are presented in Figures 9 and 10.

4.3.3 Winter Projection

A projection for the winter critical season was also run against the DO standard of 5.0 mg/L for Grand Bayou. Applying a 100% reduction to man-made loading in the winter season results in a minimum DO of 6.53 mg/L. A 100% reduction to man-made loading in Little Grand Bayou predicted a minimum DO of 6.87 mg/L. Graphs of the dissolved oxygen concentration versus river kilometer for the winter projections are presented in Figures 11 and 12.

Figure 8. Grand Bayou No Load scenario with 100% Removal of Man-Made Loads

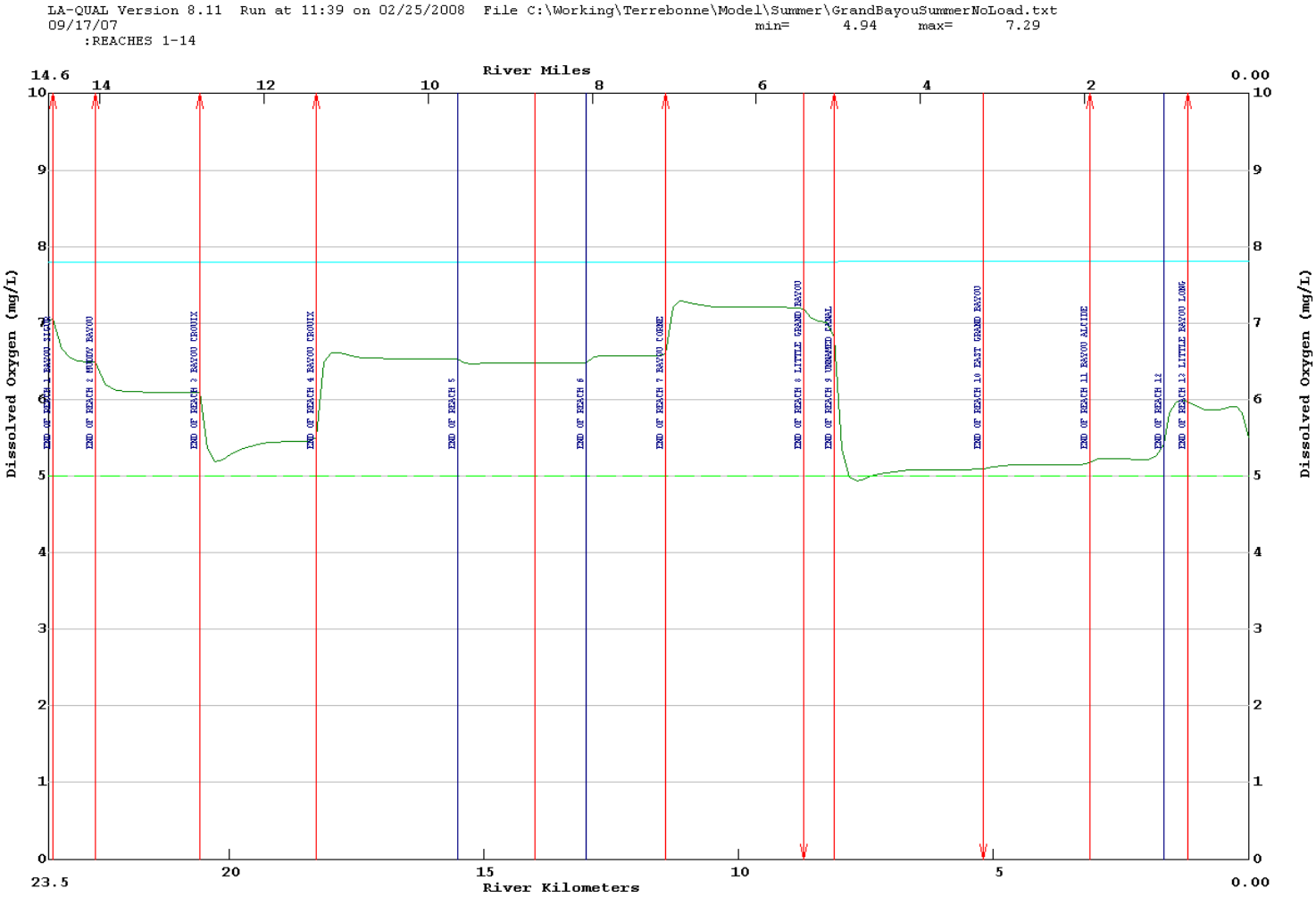


Figure 9. Grand Bayou Summer Projection at 100% Removal of Man-Made NPS Loads

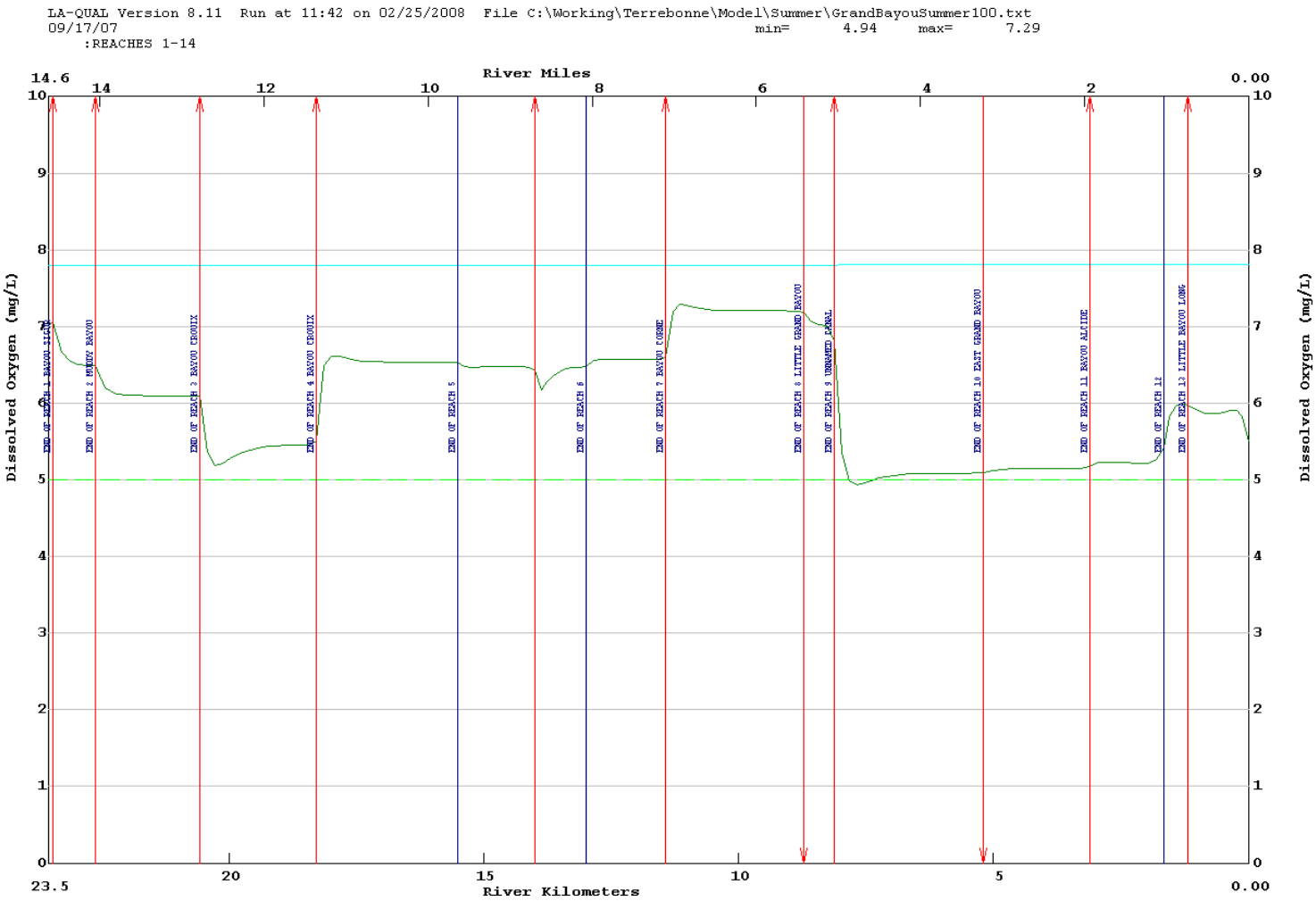


Figure 10. Little Grand Bayou Summer Projection at 100% Removal of Man-Made NPS Loads

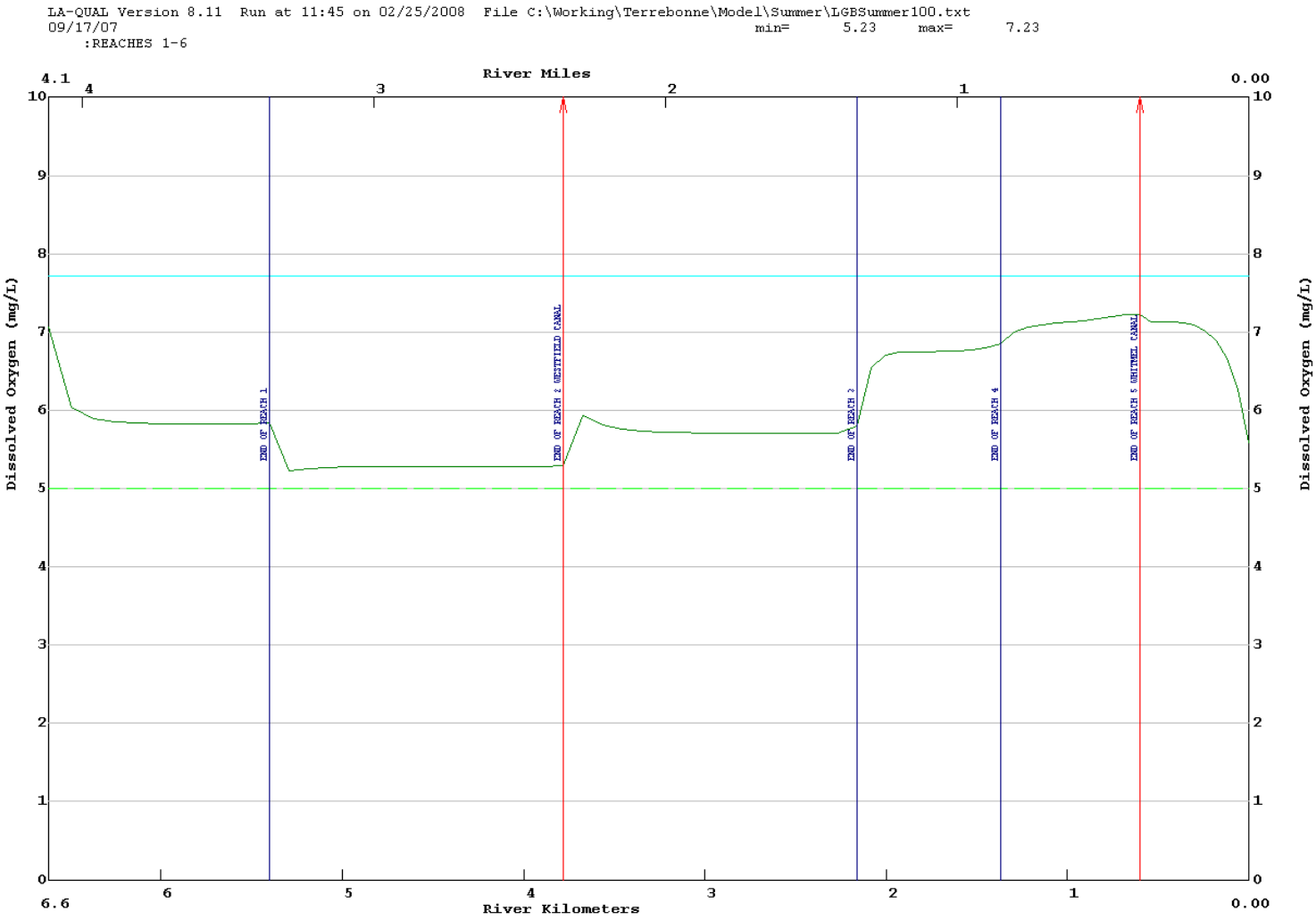


Figure 11. Grand Bayou Winter Projection at 100% Removal of Man-Made NPS Loads

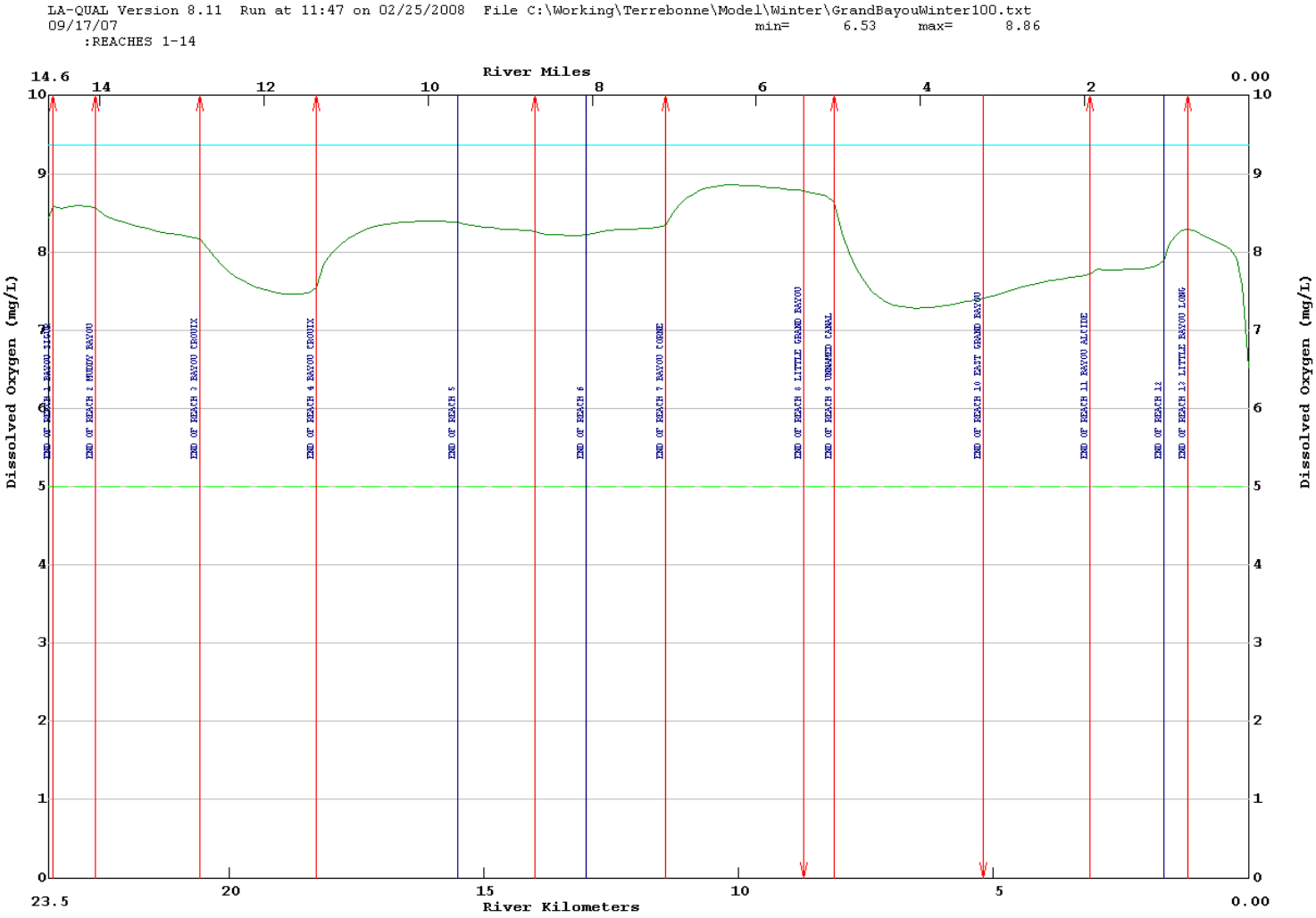
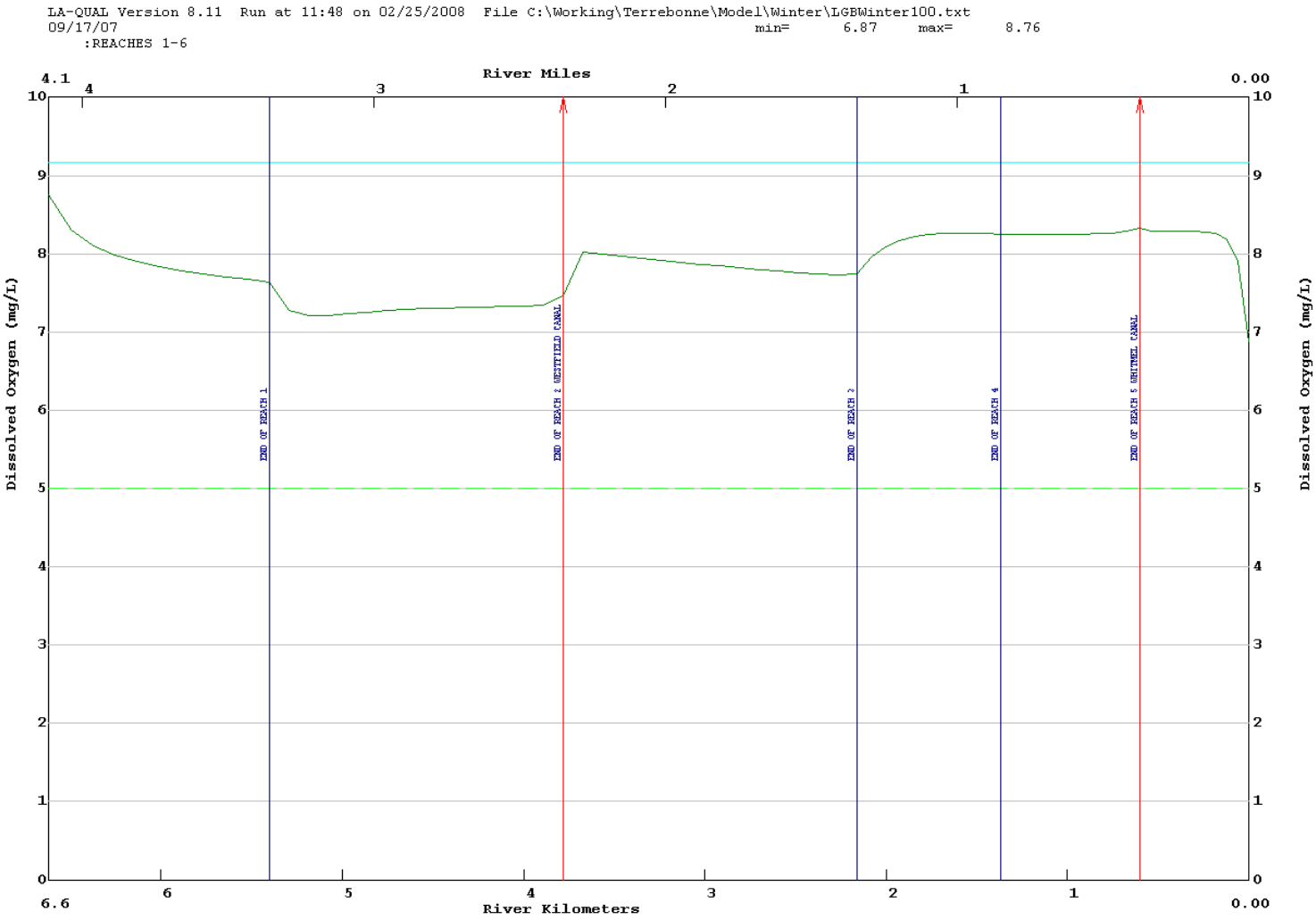


Figure 12. Little Grand Bayou Winter Projection at 100% Removal of Man-Made NPS Loads



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 gm O_2/m^2-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 gm O_2/m^2-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 11 to 16.

Table 11. Total Maximum Daily Load (Sum of UBOD and SOD) for Grand Bayou at a 5.0 mg/L standard

ALLOCATION	SUMMER		WINTER	
	% Reduction Required	(MAY-OCT) (lbs/day)	% Reduction Required	(NOV-APR) (lbs/day)
Point Source WLA	0	9	0	9
Point Source Reserve MOS = 20%		2		2
Natural Nonpoint Source LA	0	6,370	0	4,450
Manmade Nonpoint Source LA	100	0	100	0
Manmade Nonpoint Source Reserve MOS Summer = 20% Winter = 20%		0		0
TMDL		6,381		4,461

***Note 1: UBOD as stated in this allocation is Ultimate BOD.
UBOD to BOD_5 ratio = 2.3 for all treatment levels
Permit allocations are generally based on BOD_5***

Table 12. Total Maximum Daily Load (Sum of UBOD and SOD) for Grand Bayou at a 3.0 mg/L standard

ALLOCATION	SUMMER		WINTER	
	% Reduction Required	(MAY-OCT) (lbs/day)	% Reduction Required	(NOV-APR) (lbs/day)
Point Source WLA	0	9	0	9
Point Source Reserve MOS = 20%		2		2
Natural Nonpoint Source LA	0	6,370	0	4,450
Manmade Nonpoint Source LA	90	1,314	90	1,014
Manmade Nonpoint Source Reserve MOS Summer = 20% Winter = 20%		329		254
TMDL		8,024		5,729

***Note 1: UBOD as stated in this allocation is Ultimate BOD.
UBOD to BOD_5 ratio = 2.3 for all treatment levels
Permit allocations are generally based on BOD_5***

Table 13. Total Maximum Daily Load (Sum of UBOD and SOD) for Grand Bayou at a 2.0 mg/L standard

ALLOCATION	SUMMER		WINTER	
	% Reduction Required	(MAY-OCT) (lbs/day)	% Reduction Required	(NOV-APR) (lbs/day)
Point Source WLA	0	9	0	9
Point Source Reserve MOS = 20%		2		2
Natural Nonpoint Source LA	0	6,370	0	4,450
Manmade Nonpoint Source LA	85	1,973	85	1,521
Manmade Nonpoint Source Reserve MOS Summer = 20% Winter = 20%		492		381
TMDL		8,846		6,363

***Note 1: UBOD as stated in this allocation is Ultimate BOD.
UBOD to BOD_5 ratio = 2.3 for all treatment levels
Permit allocations are generally based on BOD_5***

Table 14. Total Maximum Daily Load (Sum of UBOD and SOD) for Little Grand Bayou at a 5.0 mg/L standard

ALLOCATION	SUMMER		WINTER	
	% Reduction Required	(MAY-OCT) (lbs/day)	% Reduction Required	(NOV-APR) (lbs/day)
Point Source WLA	0	0	0	0
Point Source Reserve MOS = 20%		0		0
Natural Nonpoint Source LA	0	1,001	0	904
Manmade Nonpoint Source LA	100	0	100	0
Manmade Nonpoint Source Reserve MOS Summer = 20% Winter = 20%		0		0
TMDL		1,001		904

***Note 1: UBOD as stated in this allocation is Ultimate BOD.
UBOD to BOD_5 ratio = 2.3 for all treatment levels
Permit allocations are generally based on BOD_5***

Table 15. Total Maximum Daily Load (Sum of UBOD and SOD) for Little Grand Bayou at a 3.0 mg/L standard

ALLOCATION	SUMMER		WINTER	
	% Reduction Required	(MAY-OCT) (lbs/day)	% Reduction Required	(NOV-APR) (lbs/day)
Point Source WLA	0	0	0	0
Point Source Reserve MOS = 20%		0		0
Natural Nonpoint Source LA	0	1,001	0	904
Manmade Nonpoint Source LA	90	1,047	90	981
Manmade Nonpoint Source Reserve MOS Summer = 20% Winter = 20%		262		247
TMDL		2,310		2,132

***Note 1: UBOD as stated in this allocation is Ultimate BOD.
UBOD to BOD_5 ratio = 2.3 for all treatment levels
Permit allocations are generally based on BOD_5***

Table 16. Total Maximum Daily Load (Sum of UBOD and SOD) for Little Grand Bayou at a 2.0 mg/L standard

ALLOCATION	SUMMER		WINTER	
	% Reduction Required	(MAY-OCT) (lbs/day)	% Reduction Required	(NOV-APR) (lbs/day)
Point Source WLA	0	0	0	0
Point Source Reserve MOS = 20%		0		0
Natural Nonpoint Source LA	0	1,001	0	904
Manmade Nonpoint Source LA	85	1,572	85	1,473
Manmade Nonpoint Source Reserve MOS Summer = 20% Winter = 20%		392		368
TMDL		2,965		2,745

***Note 1: UBOD as stated in this allocation is Ultimate BOD.
UBOD to BOD_5 ratio = 2.3 for all treatment levels
Permit allocations are generally based on BOD_5***

Table 17. Point Source TMDL Summary for Grand Bayou, Subsegment 120206

			CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS		TMDL MONTHLY AVERAGE MASS LIMITS		
FACILITY	**FILE No.**	**Out-fall No.**	**GPD**	**BOD5/ CBOD5, mg/L**	**NH_3-N, mg/L**	**GPD**	**GPD**	**BOD5/ CBOD5, mg/L**	**NH_3-N, mg/L**	**CBOD5, lbs./day**	**NH_3-N, lbs./day**	**MODELING COMMENTS**
Texas Eastern Transmission Corp – White Castle Compressor Station	**7359/ LA0107212**	**002**	**150**	**45**								**No impact – Not modeled**
Southern Natural Gas Co. – White Castle Compressor Station	**4197/ LA0108642**	**002**	**140**	**45**								**No impact – Not modeled**
Gulf South Pipeline Co. – Rodrigue Compressor Station	**98149/ LAG531262**	**001**	**5,000**	**45**								**No impact – Not modeled**
Assumption Parish Police Jury – Belle Rose Lane Sewerage District	**98165/ LAG540954**	**001**	**14,300**	**30**								**No impact – Not modeled**
Bayou Corne Sewer Co. Inc. – Sportsman's Paradise Subdivision	**41241/ LAG540036**	**001**	**15,200**	**30**								**No impact – Not modeled**
No Problem Raceway Park	**86479/ LAG541191**	**001**	**23,860**	**30**								**No impact – Not modeled**
Super Stop Enterprises – Gator Super Stop Truck Stop	**93668/ LAG541081**	**001**	**7,760**	**30**		**9,815**	**2,055**	**30**				**Included in Grand Bayou model**
St. Elizabeth School	**87130/ LAG531143**	**001**	**4,050**	**45**								**No impact – Not modeled**
K/D/S Promix LLC, Fractionation Plant	**42929/ LA0119491**	**001**	**150,789**									**No impact, only BOD component comes from internal outfalls 101, 201, 301 and 401 with combined flow of only 700 gpd – Not modeled**

Leblanc Brothers Redi-Mix – Paincourtville Facility	**6734/ LAG110053**	**003**	**144**									**No BOD component – Not modeled**
Lula Westfield LLC – Westfield Raw Sugar Factory	**42344/ LA0000485**	**001**	**10,000,000**	**10**								**Not discharging at time of survey or during critical conditions – Not modeled**
Lula Westfield LLC – Lula Raw Sugar Factory	**4182/ LA0007382**	**001/002**	**9,837,845**	**10**								**Discharges into a tributary that had no measureable flow during survey – Not modeled**
Cora-Texas Manufacturing Co.	**1306/ LA0001295**	**002**	**7,900,000**	**10**								**Not discharging at time of survey or during critical conditions – Not modeled**
Dow Chemical Co. – Grand Bayou Operations	**1007/ LA0049310**	**001**	**1,300,000**									**No impact, only BOD component comes from internal outfall 101 with a flow of only 100 gpd – Not modeled**
		002	**1,700,000**									**No BOD component – Not modeled**
		003	**130,000**									**No BOD component – Not modeled**
		004	**270,000**									**No impact, only BOD component comes from internal outfalls 104 and 204 with combined flow of only 320 gpd – Not modeled**
Acadian Gas Storage Facility	**25004/ LAG531692**	**001**	**60**	**45**								**No impact – Not modeled**
Grant Loop Community Sewer System	**116873/ LAG541277**	**001**	**17,200**	**30**								**No impact – Not modeled**
Triad Nitrogen LLC	**122533/ LAG670075**	**001**	**Variable**									**No BOD component – Not modeled**
Assumption Community Hospital	**37590/ LAG540548**	**001**	**7,600**	**30**								**Discharge never enters the Grand Bayou system, travels via local drainage into subsegment 120204and thence into Lake Verret – Not modeled**

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 18 shows that Grand Bayou is most sensitive to benthal 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 18. Summary of Calibration Model Sensitivity Analysis for Grand Bayou

	Positive Changes in Parameter			**Negative Changes in parameter**		
Parameter	% change	Minimum DO (mg/L)	Percentage Difference	% change	Minimum DO (mg/L)	Percentage Difference
Benthal 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 19 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 19. Summary of Calibration Model Sensitivity Analysis for Little Grand Bayou

	Positive Changes in Parameter			**Negative Changes in parameter**		
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 for Grand Bayou requires a watershed wide 100% decrease in manmade nonpoint source loads in order to meet the DO criteria in the summer. The existing point sources have no impact on the main stem of Grand Bayou and require no changes to their permitted discharges.

It is not feasible that a 100% reduction of all man-made loading can be achieved. LDEQ suggests that criteria be modified to suit these changes to the watershed. Alternative model runs were performed showing that a DO of 3.0 mg/L can be achieved with a 90% reduction and a DO of 2.0 mg/L can be maintained with an 85% reduction.

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.

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.

7. References

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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	4					1
Headwater / Tributatary loads		4	4		8	0
Benthic loads		522	281	2,078	2,881	0
Incremental Loads		0	0		0	0
SUB-TOTAL	**4**	**526**	**285**	**2,078**	**2,889**	**1**
TMDL = WLA + LA + MOS					*2,894*	*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	9					2
Headwater / Tributatary loads		9	9		18	0
Benthic loads		1,151	620	4,582	6,353	0
Incremental Loads		0	0		0	0
SUB-TOTAL	**9**	**1,160**	**628**	**4,582**	**6,370**	**2**
TMDL = WLA + LA + MOS					*6,381*	*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	4					1
Natural Nonpoint Loads		526	285	2,078	2,889	
Manmade Nonpoint Loads		0	0	0	0	0
SUB-TOTAL	**4**	**526**	**285**	**2,078**	**2,889**	**1**
TMDL = WLA + LA + MOS					*2,894*	*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	9					2
Natural Nonpoint Loads		1,160	628	4,582	6,370	
Manmade Nonpoint Loads		0	0	0	0	0
SUB-TOTAL	**9**	**1,160**	**628**	**4,582**	**6,370**	**2**
TMDL = WLA + LA + MOS					*6,381*	*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	4					1
Headwater / Tributatary loads		46	37		83	0
Benthic loads		521	281	1,133	1,935	0
Incremental Loads		0	0		0	0
SUB-TOTAL	**4**	**567**	**318**	**1,133**	**2,018**	**1**
TMDL = WLA + LA + MOS					*2,023*	*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	9					2
Headwater / Tributatary loads		101	82		183	0
Benthic loads		1,149	620	2,498	4,267	0
Incremental Loads		0	0		0	0
SUB-TOTAL	**9**	**1,250**	**702**	**2,498**	**4,450**	**2**
TMDL = WLA + LA + MOS					*4,461*	*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	4					1
Natural Nonpoint Loads		567	318	1,133	2,018	
Manmade Nonpoint Loads		0	0	0	0	0
SUB-TOTAL	**4**	**567**	**318**	**1,133**	**2,018**	**1**
TMDL = WLA + LA + MOS					*2,023*	*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	9					2
Natural Nonpoint Loads		1,250	701	2,498	4,450	
Manmade Nonpoint Loads		0	0	0	0	0
SUB-TOTAL	**9**	**1,250**	**701**	**2,498**	**4,450**	**2**
TMDL = WLA + LA + MOS					*4,461*	*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	0					0
Headwater / Tributatary loads		1	1		2	0
Benthic loads		221	76	155	452	0
Incremental Loads		0	0		0	0
SUB-TOTAL	**0**	**222**	**77**	**155**	**454**	**0**
TMDL = WLA + LA + MOS					*454*	*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	0					0
Headwater / Tributatary loads		2	2		4	0
Benthic loads		487	168	342	997	0
Incremental Loads		0	0		0	0
SUB-TOTAL	**0**	**489**	**170**	**342**	**1,001**	**0**
TMDL = WLA + LA + MOS					*1,001*	*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	0					0
Natural Nonpoint Loads		222	77	155	454	
Manmade Nonpoint Loads		0	0	0	0	0
SUB-TOTAL	**0**	**222**	**77**	**155**	**454**	**0**
TMDL = WLA + LA + MOS					*454*	*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	0					0
Natural Nonpoint Loads		490	170	342	1,001	
Manmade Nonpoint Loads		0	0	0	0	0
SUB-TOTAL	**0**	**490**	**170**	**342**	**1,001**	**0**
TMDL = WLA + LA + MOS					*1,001*	*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	0					0
Headwater / Tributatary loads		13	13		26	0
Benthic loads		221	75	88	384	0
Incremental Loads		0	0		0	0
SUB-TOTAL	**0**	**234**	**88**	**88**	**410**	**0**
TMDL = WLA + LA + MOS					*410*	*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	0					0
Headwater / Tributatary loads		29	29		57	0
Benthic loads		487	165	194	847	0
Incremental Loads		0	0		0	0
SUB-TOTAL	**0**	**516**	**194**	**194**	**904**	**0**
TMDL = WLA + LA + MOS					*904*	*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	0					0
Natural Nonpoint Loads		234	88	88	410	
Manmade Nonpoint Loads		0	0	0	0	0
SUB-TOTAL	**0**	**234**	**88**	**88**	**410**	**0**
TMDL = WLA + LA + MOS					*410*	*kg/day*

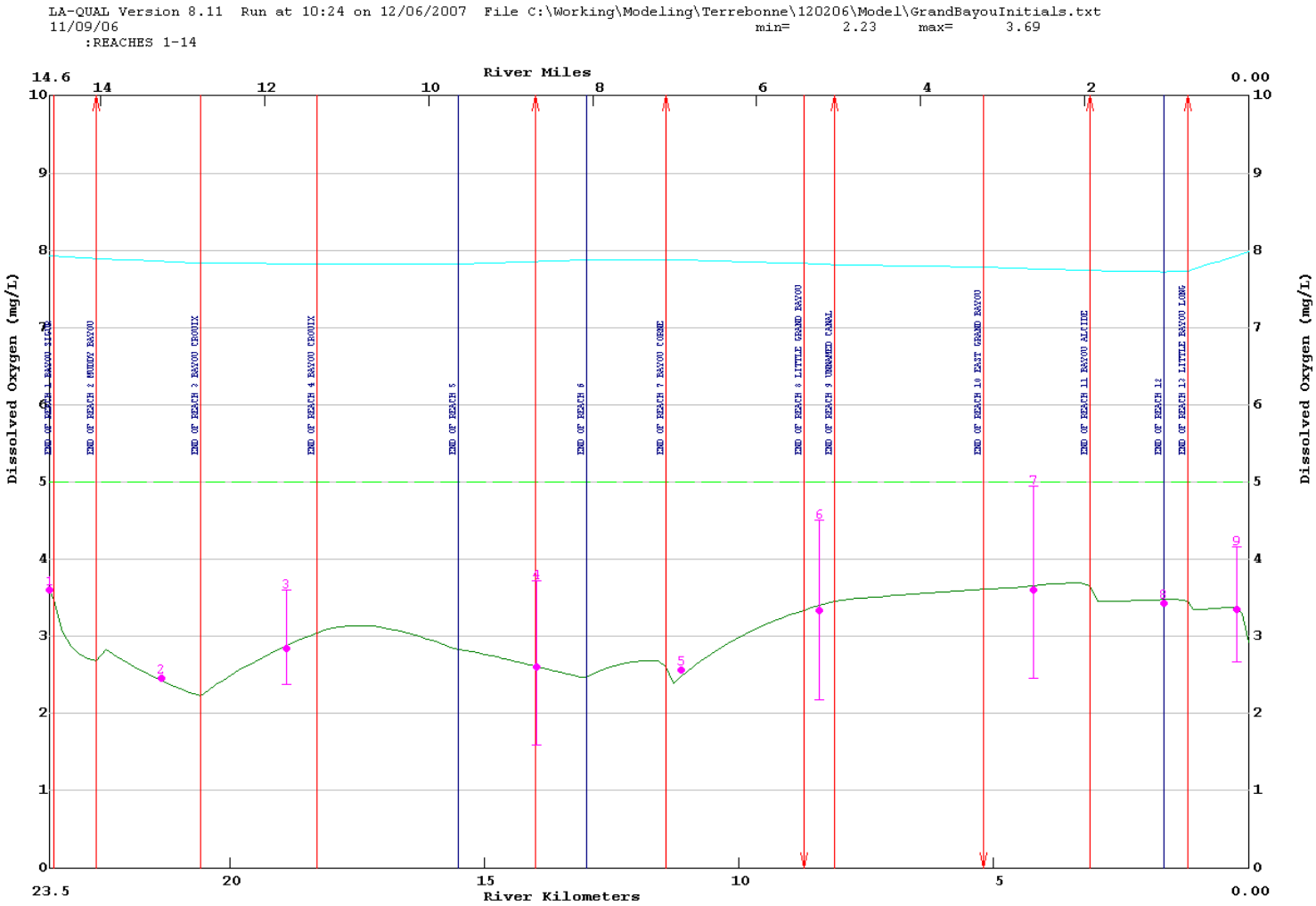
Calculation of the TMDL - Pounds per day

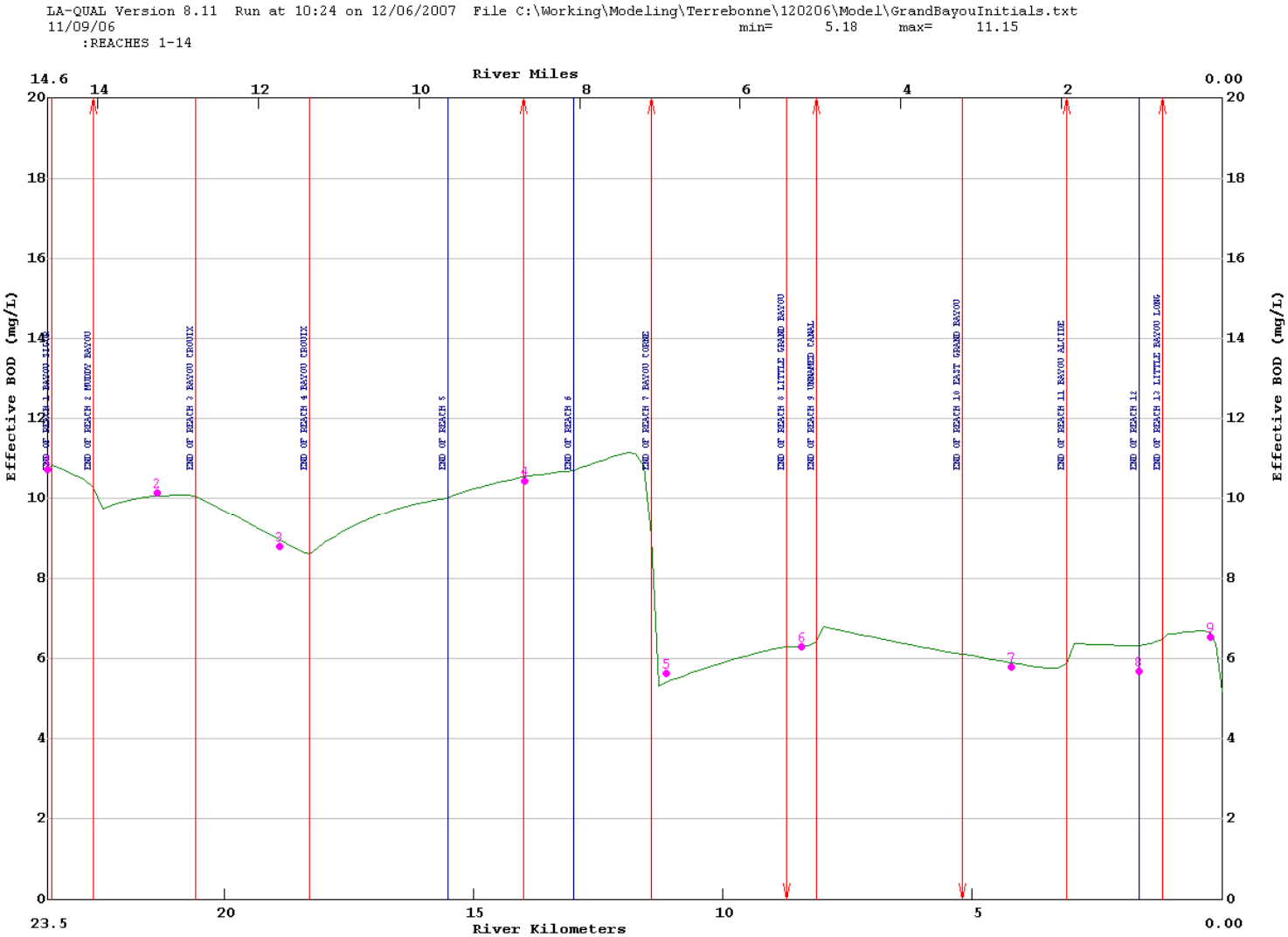
Load description	WLA (lbs O_2/day)	CBOD1 LA (lbs O_2/day)	NBOD LA (lbs O_2/day)	SOD LA (lbs O_2/day)	LA (lbs O_2/day)	MOS Load (lbs O_2/day)
Point Source loads	0					0
Natural Nonpoint Loads		516	194	194	904	
Manmade Nonpoint Loads		0	0	0	0	0
SUB-TOTAL	**0**	**516**	**194**	**194**	**904**	**0**
TMDL = WLA + LA + MOS					*904*	*lbs/day*

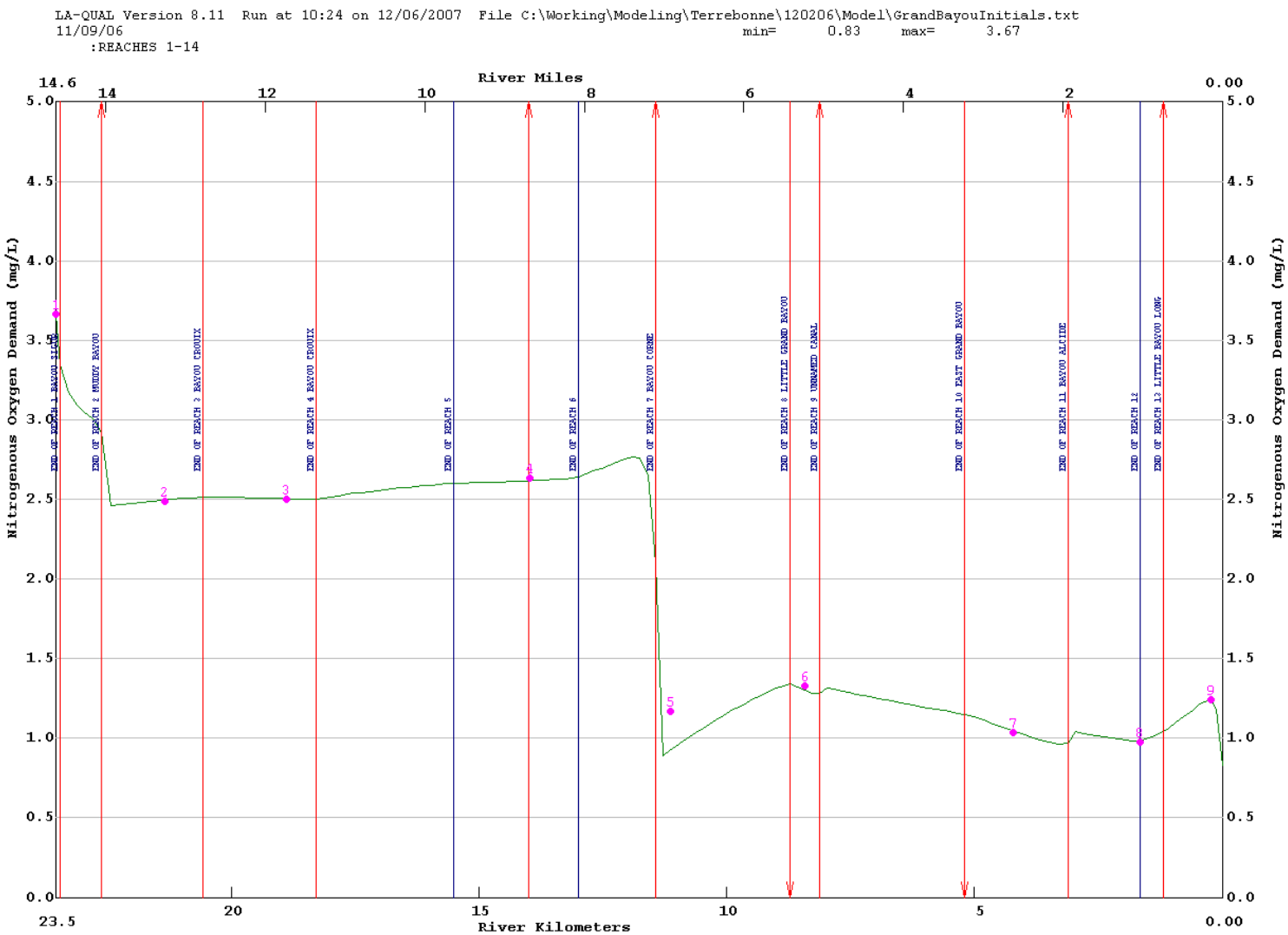
Appendix B – Calibration Model Input and Output Data Sets

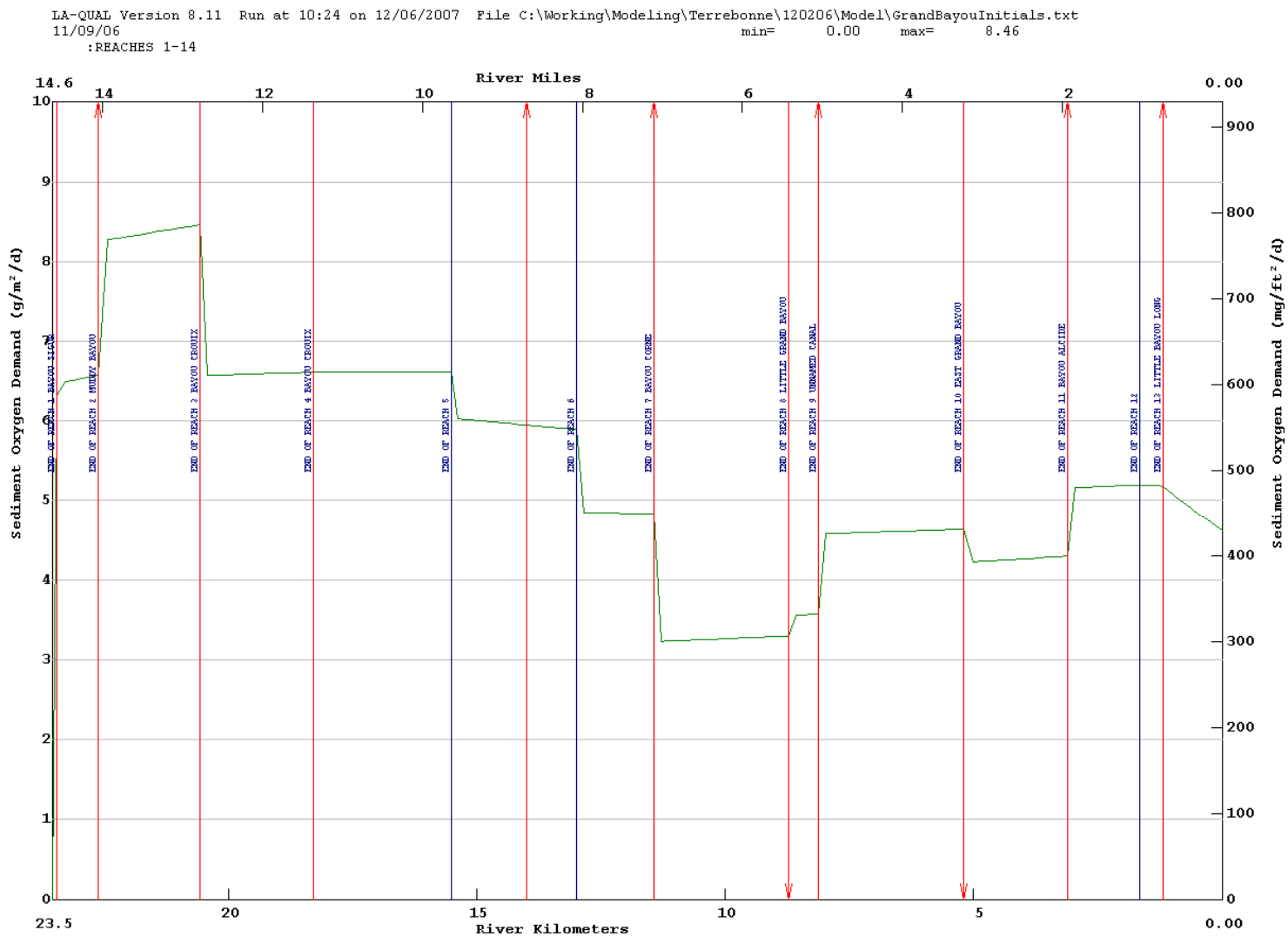
Appendix B1 – Grand Bayou Calibration Model

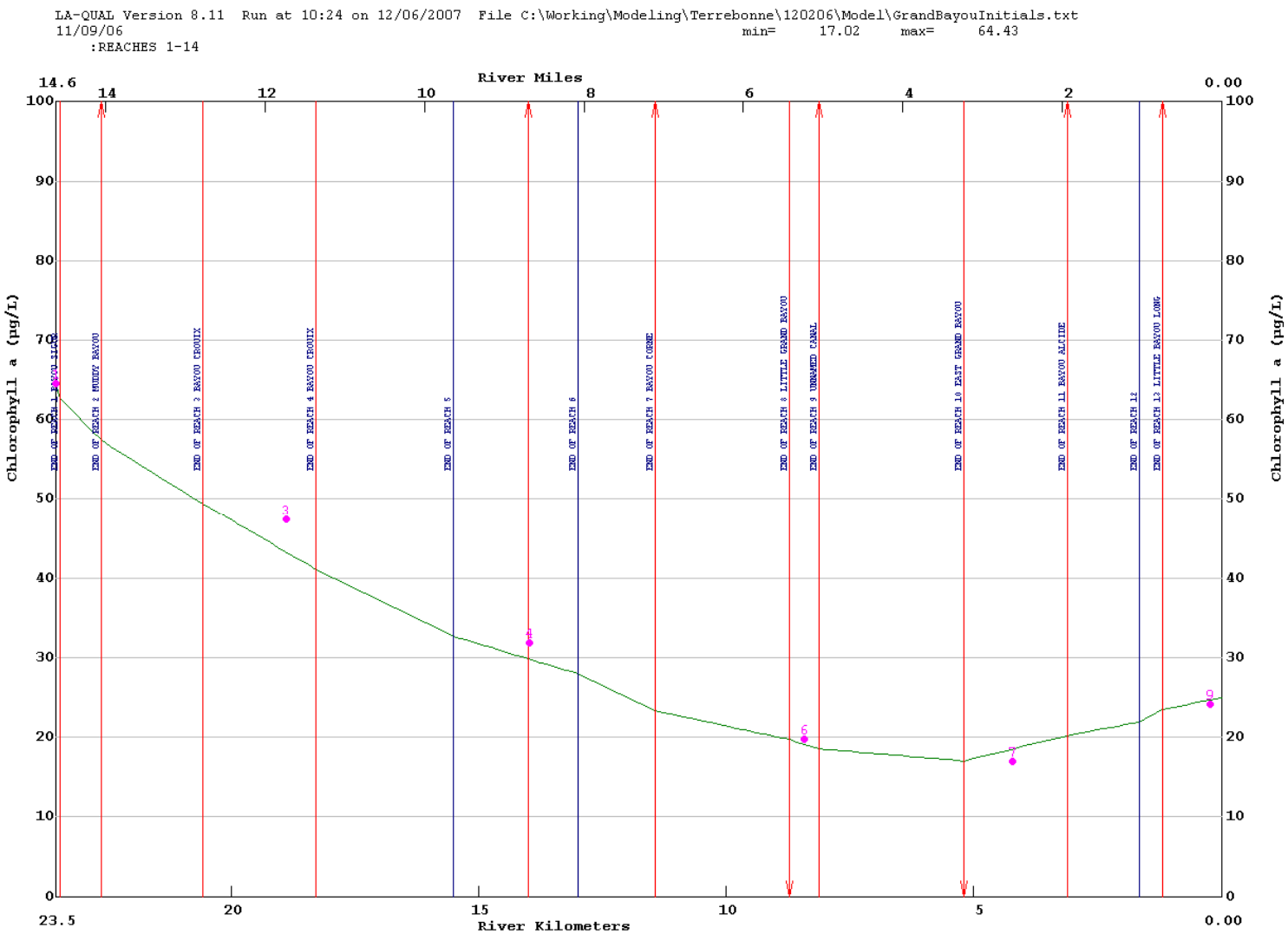
Graphs

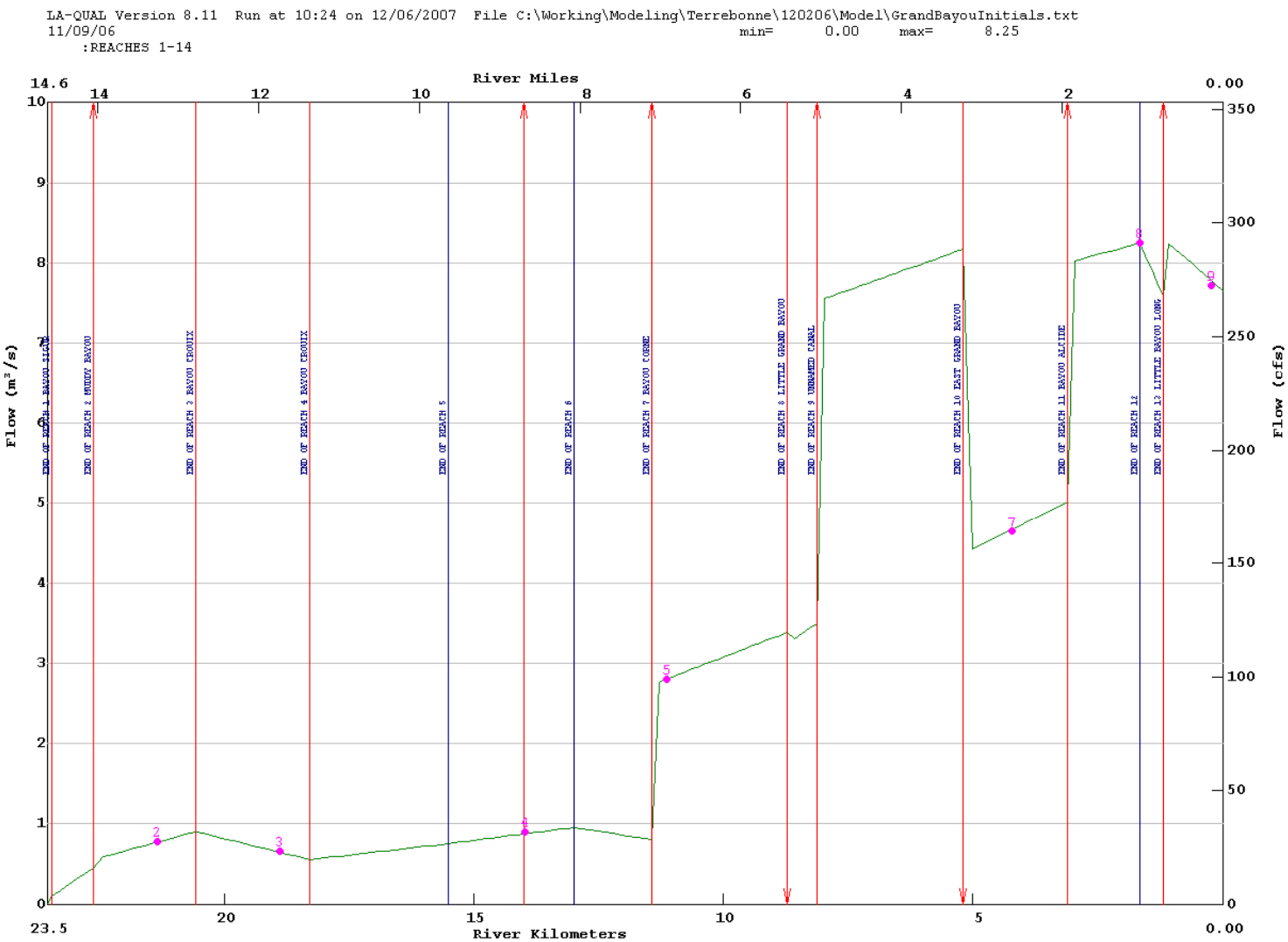

LA-QUAL Version 8.11 Run at 10:24 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
:REACHES 1-14
min= 2.23 max= 3.69
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU SIAM
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCITRE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

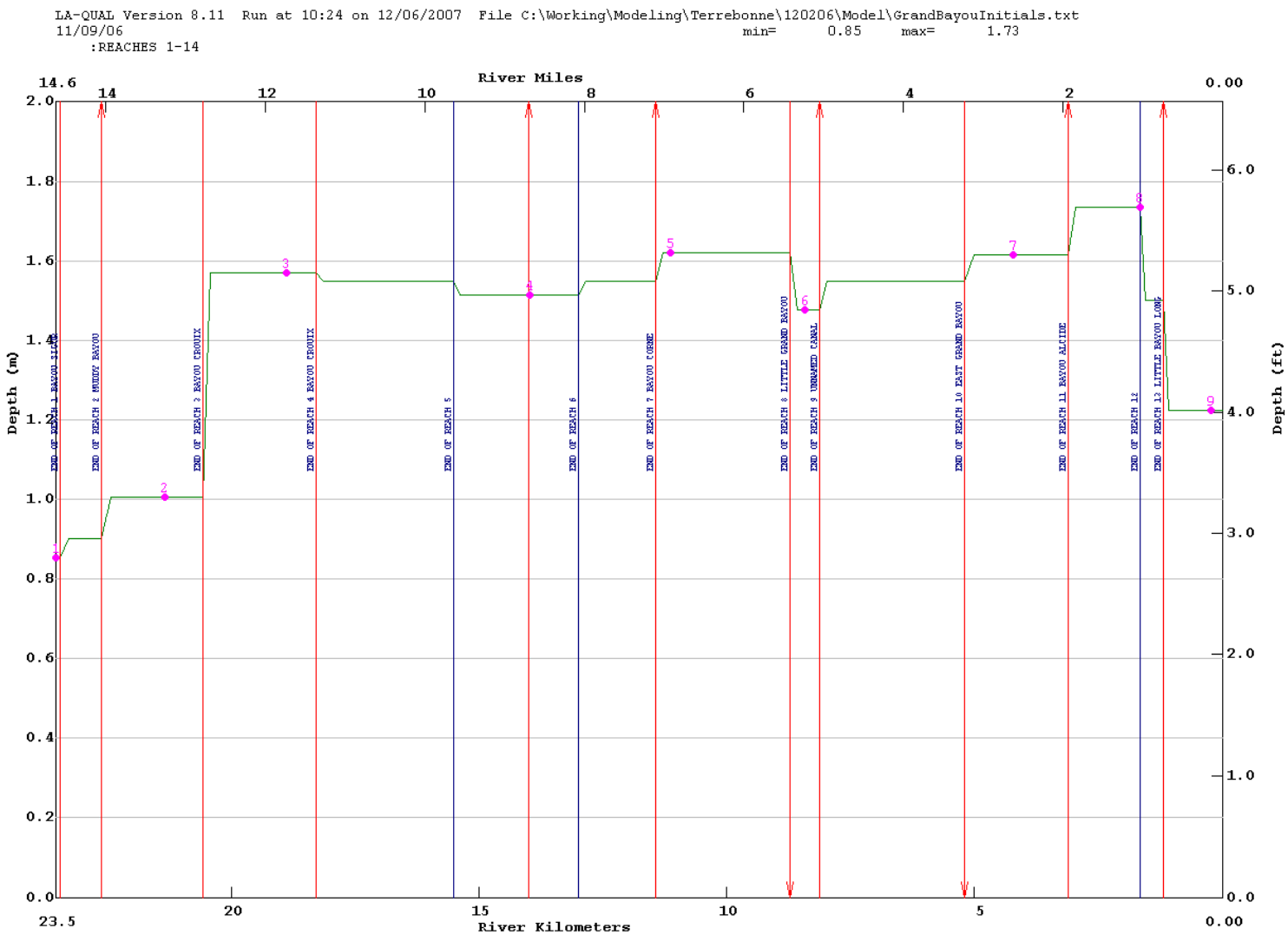

LA-QUAL Version 8.11 Run at 10:24 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06 min= 5.18 max= 11.15
:REACHES 1-14
River Miles
14.6
14
12
10
8
6
4
2
0.00
Effective BOD (mg/L)
20
18
16
14
12
10
8
6
4
2
0
23.5
20
15
10
5
0.00
River Kilometers
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCITHE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG

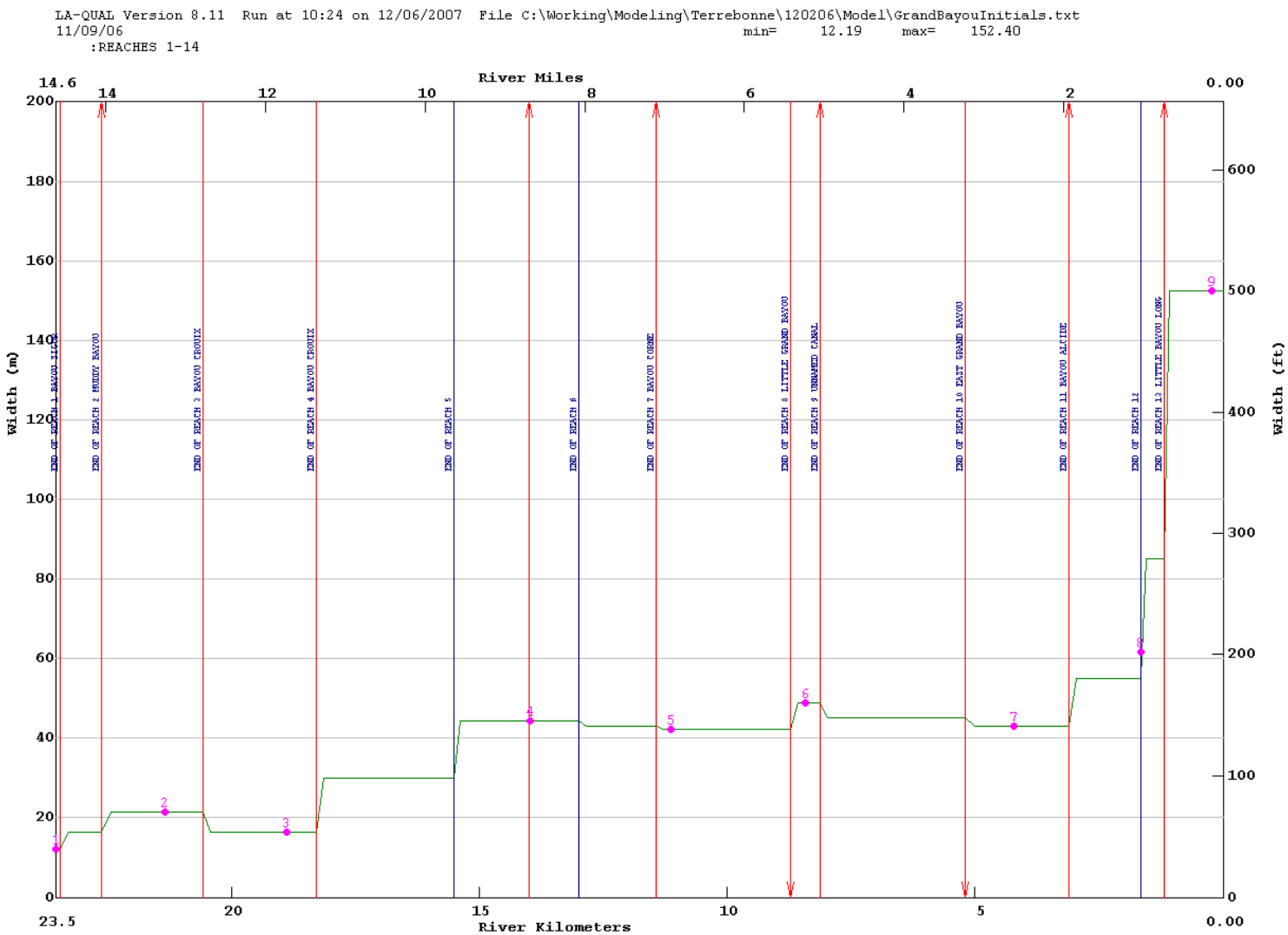

LA-QUAL Version 8.11 Run at 10:24 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
min= 0.83 max= 3.67
:REACHES 1-14
River Miles
14.6
14
12
10
8
6
4
2
0.00
Nitrogenous Oxygen Demand (mg/L)
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

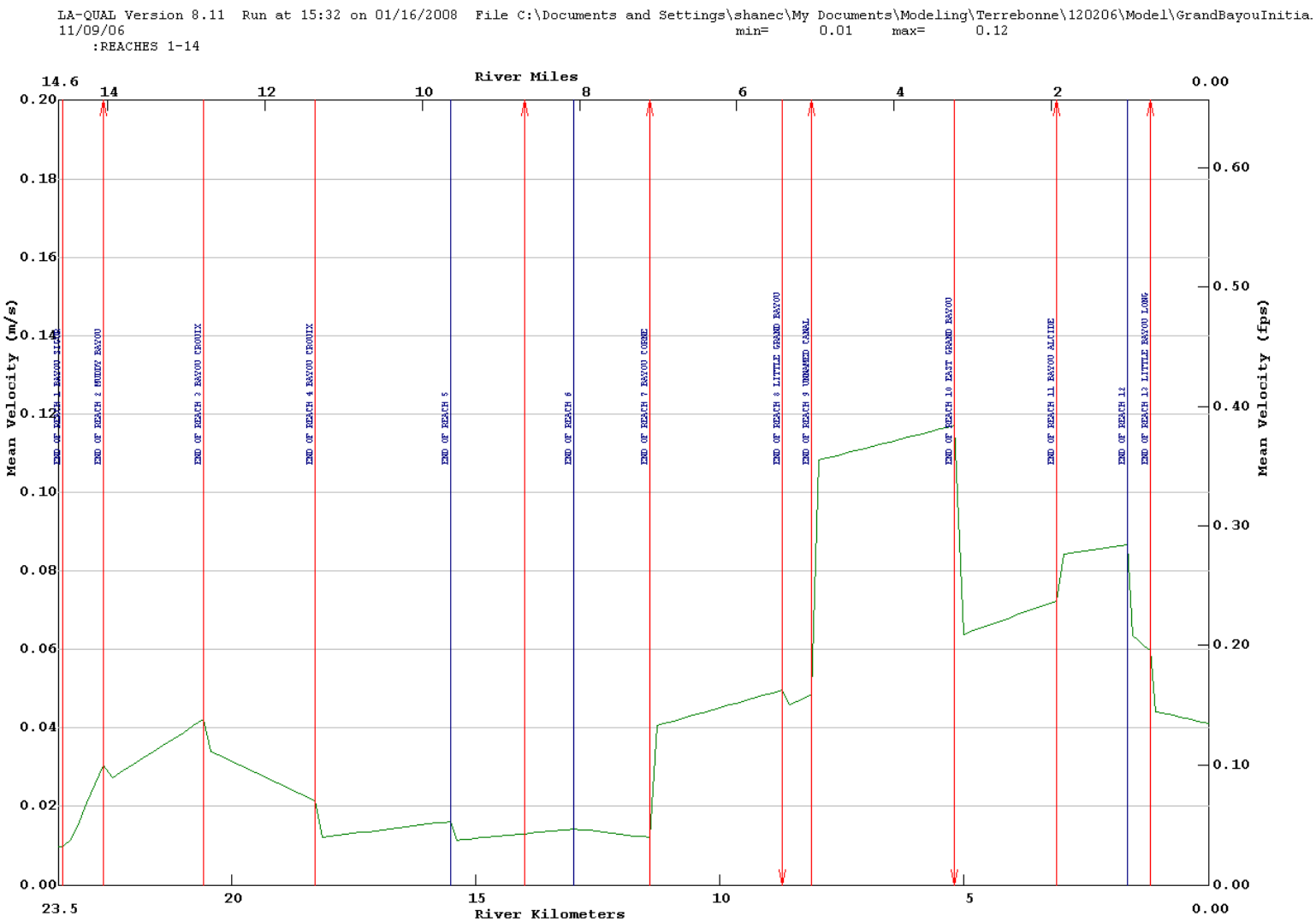

LA-QUAL Version 8.11 Run at 10:24 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
min= 0.00 max= 8.46
:REACHES 1-14
River Miles
14.6
14
12
10
8
6
4
2
0.00
Sediment Oxygen Demand (g/m²/d)
Sediment Oxygen Demand (mg/ft²/d)
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

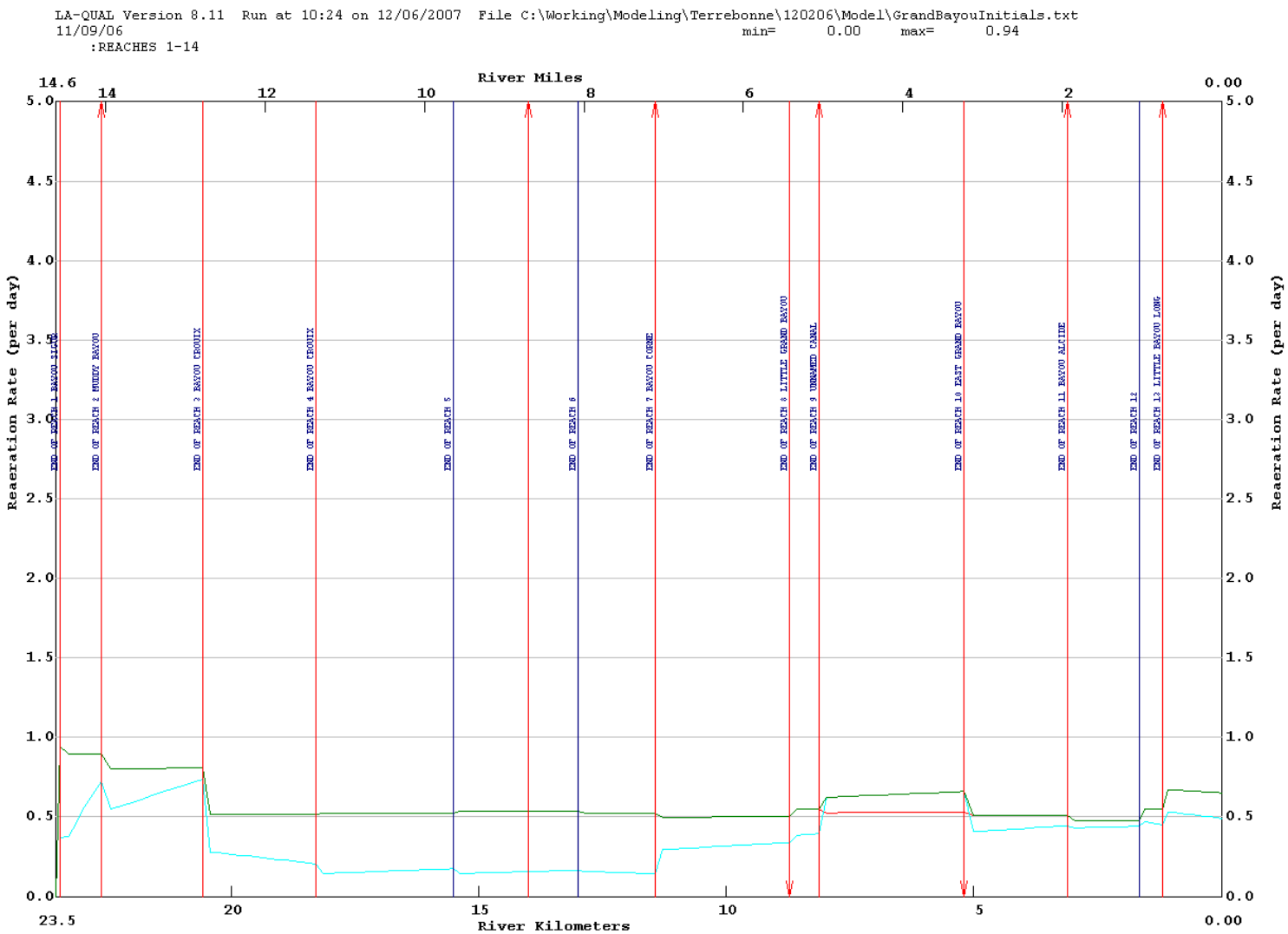

LA-QUAL Version 8.11 Run at 10:24 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
min= 17.02 max= 64.43
:REACHES 1-14
River Miles
14.6
14
12
10
8
6
4
2
0.00
Chlorophyll a (µg/L)
100
90
80
70
60
50
40
30
20
10
0
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU COBRE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

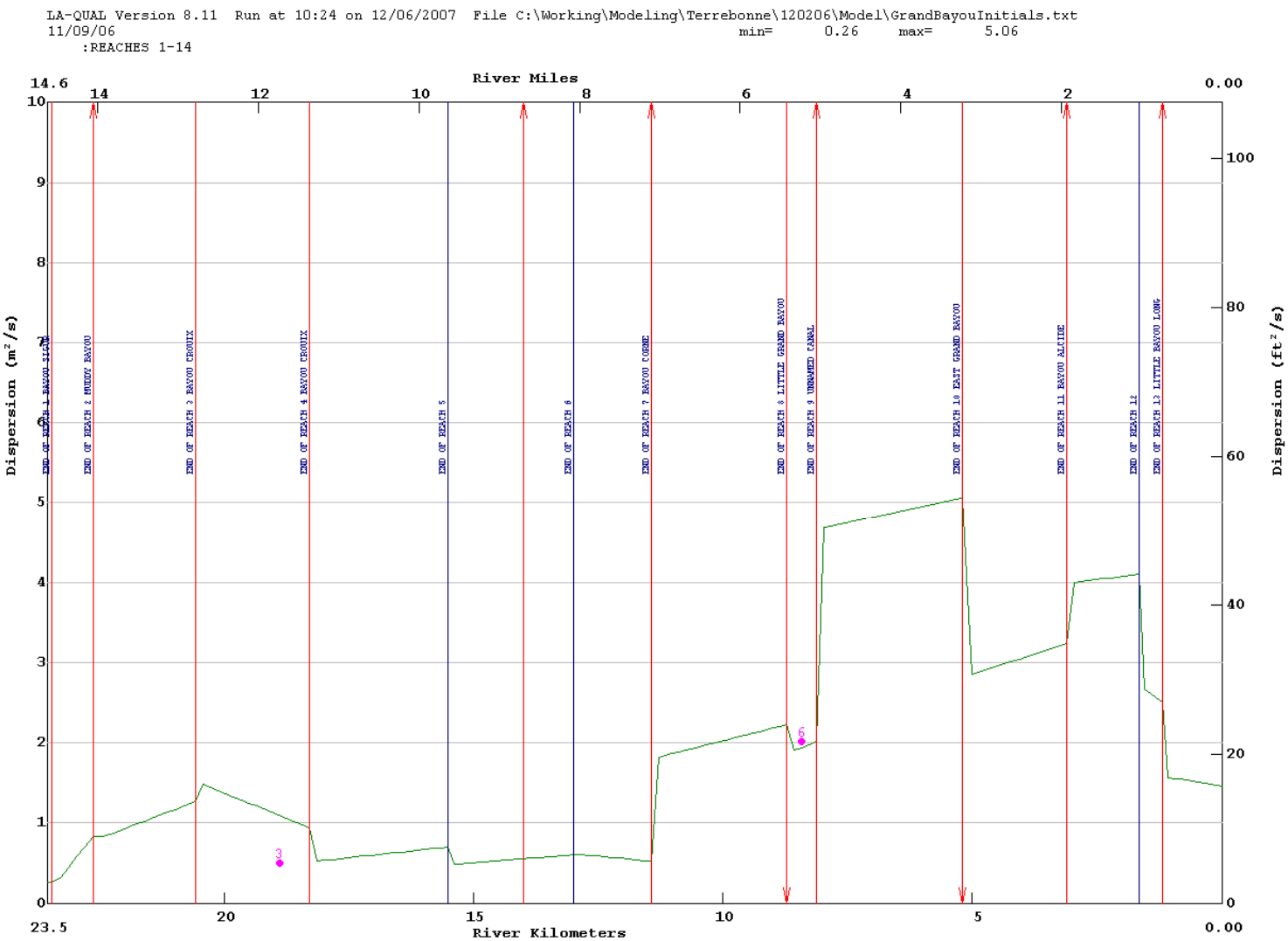

LA-QUAL Version 8.11 Run at 10:24 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
min= 0.00 max= 8.25
:REACHES 1-14
River Miles
14.6
14
12
10
8
6
4
2
0.00
Flow (m³/s)
Flow (cfs)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

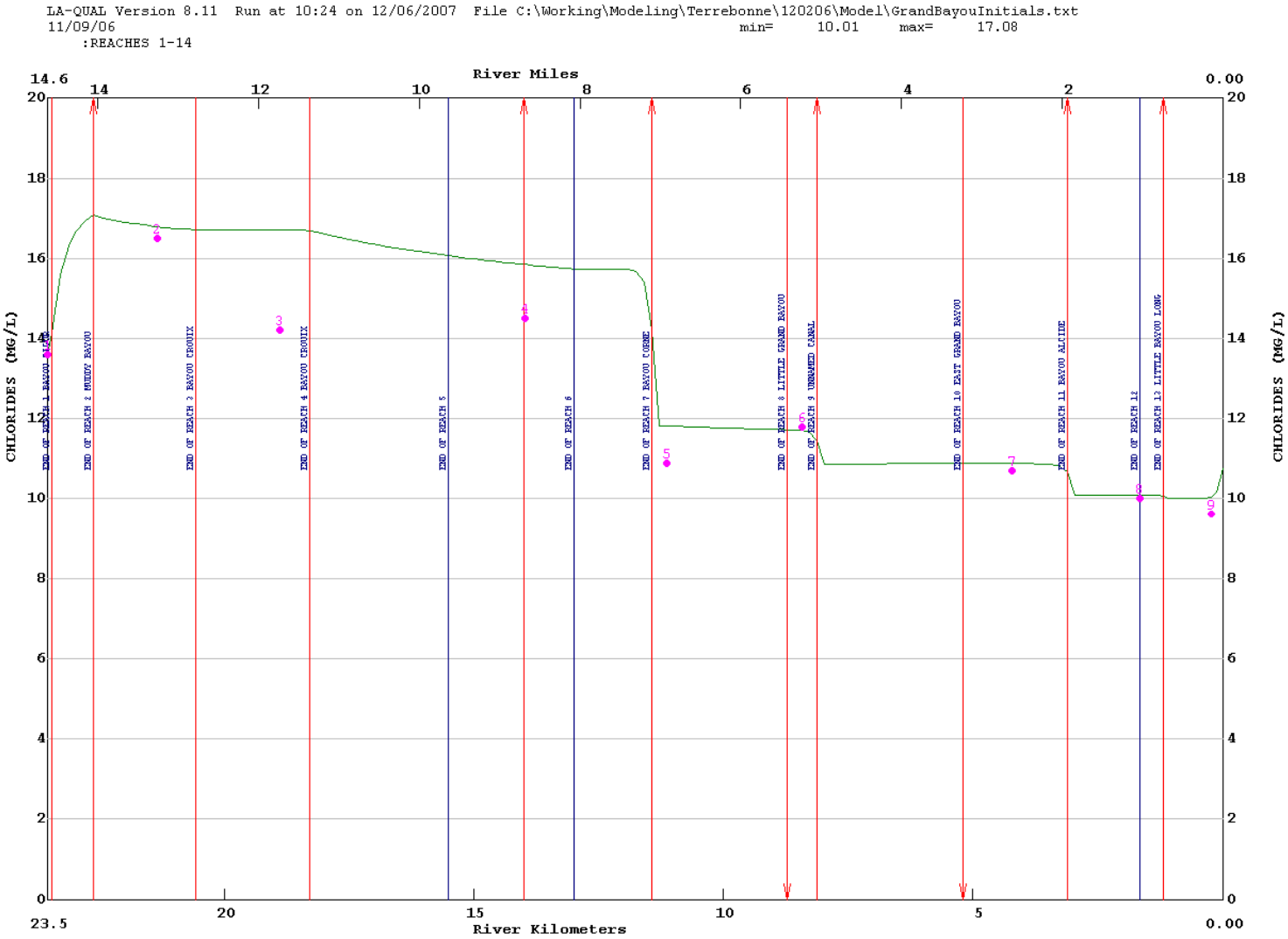

LA-QUAL Version 8.11 Run at 10:24 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
min= 0.85 max= 1.73
:REACHES 1-14
River Miles
14.6
14
12
10
8
6
4
2
0.00
Depth (m)
Depth (ft)
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
23.5
20
15
10
5
0.00
River Kilometers
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG

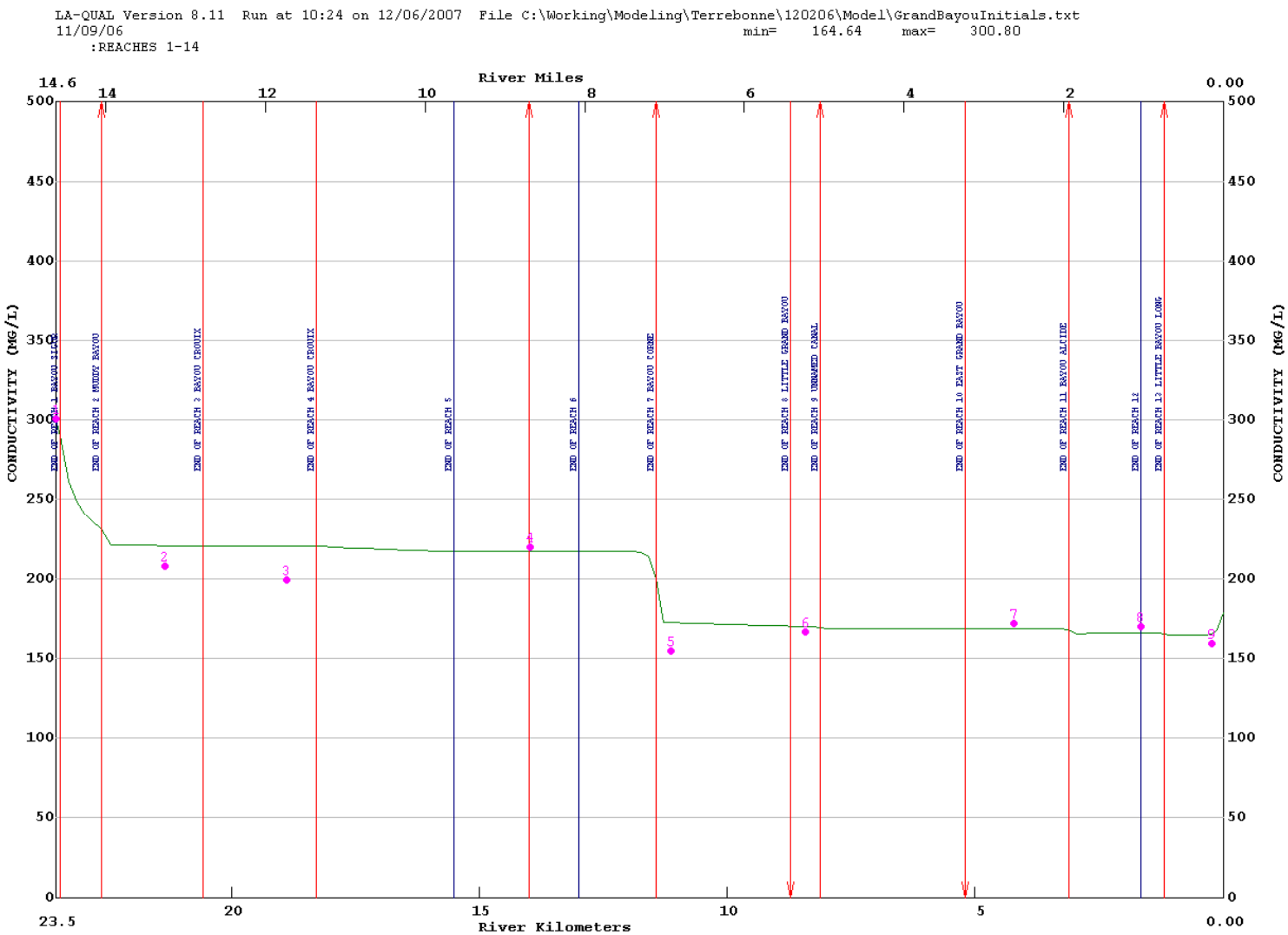

LA-QUAL Version 8.11 Run at 10:24 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
min= 12.19 max= 152.40
:REACHES 1-14
River Miles
14.6
14
12
10
8
6
4
2
0.00
Width (m)
Width (ft)
River Kilometers
23.5
20
15
10
5
0.00

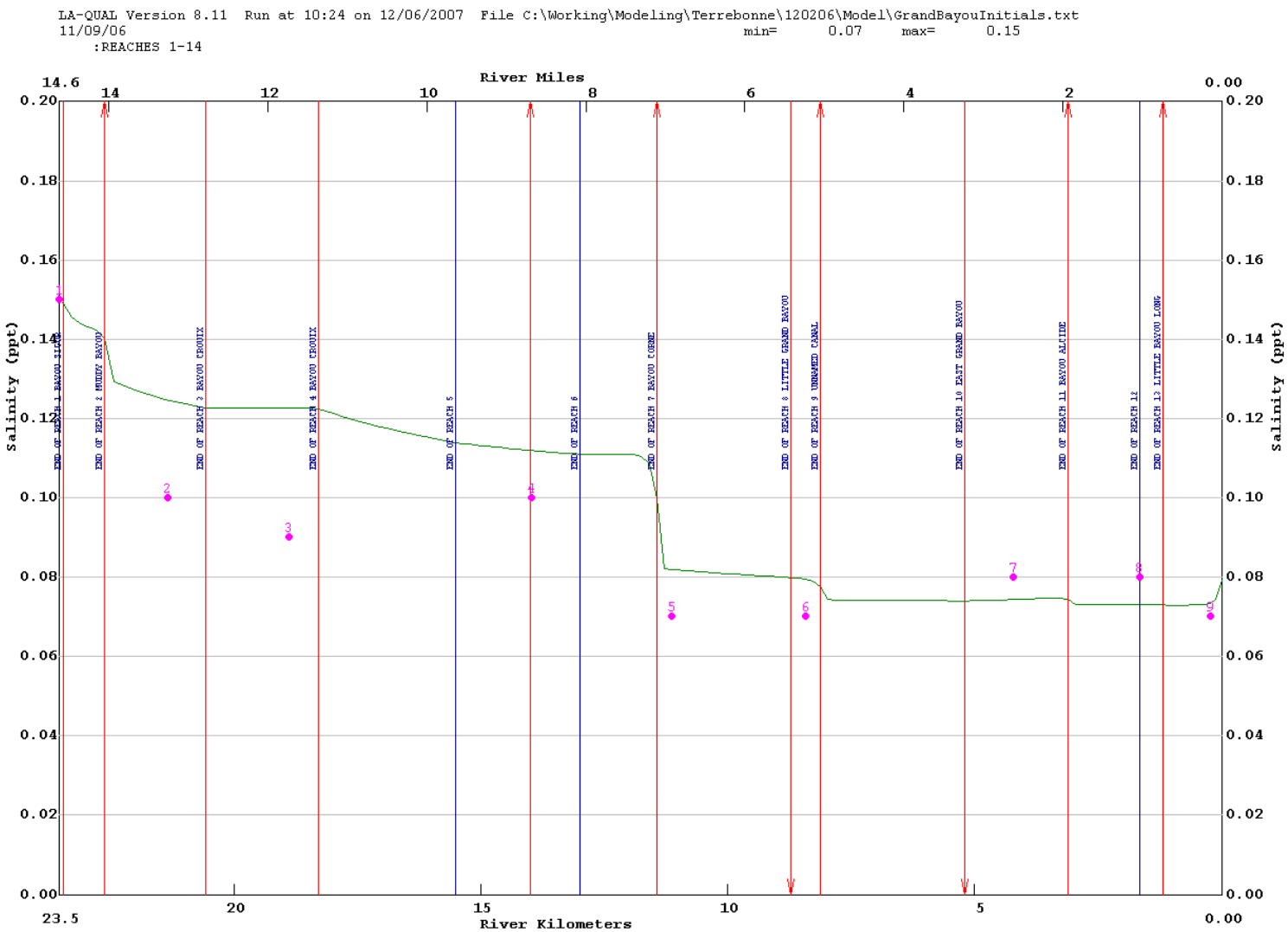

LA-QUAL Version 8.11 Run at 15:32 on 01/16/2008 File C:\Documents and Settings\shanec\My Documents\Modeling\Terrebonne\120206\Model\GrandBayouInitia.
11/09/06
:REACHES 1-14
min= 0.01 max= 0.12
River Miles
14.6
14
12
10
8
6
4
2
0.00
Mean Velocity (m/s)
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
Mean Velocity (fps)
0.60
0.50
0.40
0.30
0.20
0.10
0.00
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCITHE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers


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
River Miles
14.6
14
12
10
8
6
4
2
0.00
Reaeration Rate (per day)
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers


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
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dispersion (m²/s)
Dispersion (ft²/s)
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU COBRE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
River Kilometers
23.5
20
15
10
5
0.00


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
River Miles
14.6
0.00
CHLORIDES (MG/L)
END OF REACH 1 BAYOU
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU COEME
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
River Kilometers
23.5
0.00


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
River Miles
14.6
14
12
10
8
6
4
2
0.00
CONDUCTIVITY (MG/L)
500
450
400
350
300
250
200
150
100
50
0
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU COBRE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers


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
River Miles
14.6
14
12
10
8
6
4
2
0.00
Salinity (ppt)
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
1
2
3
4
5
6
7
8
9
23.5
20
15
10
5
0.00
River Kilometers

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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
ENDATA04
ENDATA05
ENDATA06
ENDATA07
!Reach Identification Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  -- ******************************----------**********----------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  -------*******-------*******-------*******--------*******
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
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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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  -----**********----------**********----------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  --------********--------********--------********--------********
INITIAL     1     27.01   0.15    3.58    0.000   0.000   0.00   64.43   00.00
INITIAL     2     27.26   0.14    2.18    0.000   0.000   0.00   62.75   00.00
INITIAL     3     27.49   0.11    2.58    0.000   0.000   0.00   57.44   00.00
INITIAL     4     27.88   0.09    2.75    0.000   0.000   0.00   49.43   00.00
INITIAL     5     27.98   0.09    2.74    0.000   0.000   0.00   41.08   00.00
INITIAL     6     27.99   0.10    2.61    0.000   0.000   0.00   32.66   00.00
INITIAL     7     27.60   0.08    2.58    0.000   0.000   0.00   27.96   00.00
INITIAL     8     27.59   0.07    2.86    0.000   0.000   0.00   23.30   00.00
INITIAL     9     27.94   0.07    3.33    0.000   0.000   0.00   19.70   00.00
INITIAL    10     28.08   0.07    3.44    0.000   0.000   0.00   18.53   00.00
INITIAL    11     28.29   0.08    3.60    0.000   0.000   0.00   17.02   00.00
INITIAL    12     28.61   0.08    3.48    0.000   0.000   0.00   20.20   00.00
INITIAL    13     28.73   0.08    3.42    0.000   0.000   0.00   21.92   00.00
INITIAL    14     28.68   0.07    3.37    0.000   0.000   0.00   23.42   00.00
ENDATA11
!--------1---------2---------3---------4---------5---------6---------7---------8---------9---------0-
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890 1
!         ***  -----******----- ******-------*******-------*******-------*******-------*******-------
COEF-1      1    4.0  0.00 0.0   0.0     4.00  0.084 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     4.10  0.081 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     5.15  0.074 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     4.00  0.067 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     4.00  0.071 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     3.65  0.078 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1      7    4.0  0.00 0.0   0.0     3.00  0.068 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1      8    4.0  0.00 0.0   0.0     2.00  0.054 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1      9    4.0  0.00 0.0   0.0     2.15  0.052 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1     10    4.0  0.00 0.0   0.0     2.75  0.054 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1     11    4.0  0.00 0.0   0.0     2.50  0.057 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1     12    4.0  0.00 0.0   0.0     3.00  0.055 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1     13    4.0  0.00 0.0   0.0     3.00  0.055 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1     14    4.0  0.00 0.0   0.0     3.00  0.061 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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  -------*******-------*******-------*******-------
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
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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
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ***  -------*******-------*******-------*******       -------*******
ENDATA14
!Coliform and Nonconservative Cofficients
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ***  -------*******-------*******
ENDATA15
!Incremental Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ***  ---------*********---------*********---------*********
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ***  ---------*********---------*********---------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ***  ---------*********---------*********
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
INCR-3      8      0.000    0.000    0.000   0.0000
INCR-3      9      0.000    0.000    0.000   0.0000
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INCR-3     10      0.000    0.000    0.000   0.0000
INCR-3     11      0.000    0.000    0.000   0.0000
INCR-3     12      0.000    0.000    0.000   0.0000
INCR-3     13      0.000    0.000    0.000   0.0000
INCR-3     14      0.000    0.000    0.000   0.0000
ENDATA18
!Nonpoint Source Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ***  ---------*********---------*********---------*********
NONPOINT    1     40.00    30.00    0.0      0.00     0.0       0.00
NONPOINT    2    150.00    95.00    0.0      0.00     0.0       0.00
NONPOINT    3    250.00   100.00    0.0      0.00     0.0       0.00
NONPOINT    4      0.00    27.00    0.0      0.00     0.0       0.00
NONPOINT    5    350.00   115.00    0.0      0.00     0.0       0.00
NONPOINT    6    425.00   132.00    0.0      0.00     0.0       0.00
NONPOINT    7    225.00    75.00    0.0      0.00     0.0       0.00
NONPOINT    8    675.00   245.00    0.0      0.00     0.0       0.00
NONPOINT    9    150.00    15.00    0.0      0.00     0.0       0.00
NONPOINT   10      0.00     0.00    0.0      0.00     0.0       0.00
NONPOINT   11      0.00     0.00    0.0      0.00     0.0       0.00
NONPOINT   12      0.00     0.00    0.0      0.00     0.0       0.00
NONPOINT   13     25.00    50.00    0.0      0.00     0.0       0.00
NONPOINT   14    140.00   250.00    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
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!        ****  -------------------- *** --------********--------********--------
HDWTR-1     1  Grand Bayou Upstream  0.  0.001    27.00  0.15     13.60  300.80
ENDATA20
!Headwater Data for DO, BOD, and Nitrogen
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!        ****  ---------*********---------*********---------*********
HDWTR-2     1      3.60   10.722    3.666   0.000    0.00      0.000
ENDATA21
!Headwater Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!        ****  ---------*********---------*********
HDWTR-3     1      0.00    64.60   0.00    0.00
ENDATA22
!Junction Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!        **** ----  ************************************************************
ENDATA23
!Wasteload Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!        ****  --------------------*********---------*********---------*********
WSTLD-1     2  BAYOU SIGUR           0.00       28.64     0.17    15.00   345.0
WSTLD-1     7  MUDDY BAYOU           0.102      27.74     0.08    16.90   169.2
WSTLD-1    17  BAYOU CROUIX (BYC1)   0.00       28.18     0.12     8.40   250.2
WSTLD-1    32  BAYOU CROUIX (BYC2)   0.00       28.60     0.14    17.40   296.8
WSTLD-1    62  GATOR SUPER STOP      0.00034    27.17     0.11    13.80   234.1
WSTLD-1    80  BAYOU CORNE           1.930      26.95     0.07    10.20   154.13
WSTLD-1   100  LITTLE GRAND BAYOU   -0.140      27.95     0.07    11.70   167.2
WSTLD-1   104  UNNAMED CANAL         4.028      27.93     0.07    10.10   166.8
WSTLD-1   124  EAST GRAND BAYOU     -3.806      28.29     0.08    10.90   170.7
WSTLD-1   135  BAYOU ALCIDE          2.984      27.96     0.07     8.80   160.11
WSTLD-1   149  LITTLE BAYOU LONG     0.707      28.27     0.07     9.00   153.6
ENDATA24
!Wasteload Data for DO, BOD, and Nitrogen
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!        ****  ---------*********-----*********---------*****---------*********
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
```

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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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!        ****  ---------*********---------*********
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!        ****  -------------------- ** --------********--------
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 CROUIX
MRK      18.29 END OF REACH 4 BAYOU CROUIX
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

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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
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)
```

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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

$$$ DATA TYPE 8 (REACH IDENTIFICATION DATA) $$$
                                                      BEGIN         END     ELEM    REACH     ELEMS   BEGIN    END
CARD TYPE  REACH  ID  NAME                            REACH        REACH   LENGTH   LENGTH    PER RCH   ELEM   ELEM
                                                         km           km       km       km               NUM    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
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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       WIDTH       WIDTH       DEPTH       DEPTH       DEPTH      SLOPE    MANNINGS
                            "A"         "B"         "C"         "D"         "E"         "F"                   "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     DISPERSION     DISPERSION     DISPERSION     DISPERSION
                        RANGE        "A"            "B"            "C"            "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
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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

$$$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) $$$
                                                                                                  BOD     ANAER                          BOD2     ANAER
CARD     RCH  RCH  K2                    K2        K2        K2    BKGRND       BOD       BOD     CONV      BOD2      BOD2      BOD2     CONV      BOD2
TYPE     NUM   ID  OPT                   "A"       "B"       "C"      SOD     DECAY      SETT   TO SOD     DECAY     DECAY      SETT   TO SOD     DECAY
                                                                   g/m²/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      NBOD   ORGN CONV       NH3       NH3      PHOS     DENIT
                                DECA      SETT  TO NH3 SRCE     DECA      SRCE      SRCE      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    ALGAE:     ALGAE    ALG CONV     ALGAE     ALGAE     MACRO     MACRO
                                DEPTH     CHL A      SETT     TO SOD       GROW      RESP      GROW      RESP   SHADING

ENDATA14

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

CARD TYPE      REACH  ID    COLIFORM       NCM       NCM    NCM CONV
                             DIE-OFF     DECAY      SETT     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
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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
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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     FLOW    TEMP    SALIN      CM-I     CM-II
                                                      m³/s      cfs   deg C      ppt      MG/L      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     BOD#1     NBOD                          BOD#2
                                                   mg/L      mg/L      mg/L      mg/L      mg/L      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   UPSTRM     RIVER     NAME
             ELEMENT  ELEMENT     KILOM

ENDATA23

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

CARD TYPE  ELEMENT    RKILO  NAME                    FLOW       FLOW     FLOW    TEMP    SALIN      CM-I     CM-II
                                                     m³/s        cfs      MGD   deg C      ppt      MG/L      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

$$$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) $$$
                                                                  % BOD                          %
CARD TYPE     ELEMENT   NAME                          DO       BOD      RMVL     NBOD                NITRIF                BOD#2
                                                    mg/L      mg/L                mg/L      mg/L                mg/L      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
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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     CHL A      COLI       NCM
                                                    mg/L      mg/L      mg/L      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 CROUIX (BYC1)         0.00     78.10      0.00      0.00
WSTLD-3          32     BAYOU CROUIX (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

$$$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) $$$
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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  TYPE        FLOW     TEMP     SALN     CM-I    CM-II     DO  BOD#1  BOD#2 EBOD#1 EBOD#2   ORGN    NH3  NO3+2   PHOS  CHL A     COLI     NCM
 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

    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   BEGIN  ENDING       FLOW   PCT   ADVCTV    TRAVEL   DEPTH   WIDTH    VOLUME    SURFACE  X-SECT     TIDAL   TIDAL   DISPRSN    MEAN
  NO.    DIST    DIST               EFF     VELO      TIME                                 AREA    AREA     PRISM    VELO              VELO
          km      km        m³/s            m/s      days       m       m        m³         m²      m²        m³     m/s      m²/s     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  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
 NO.     DIST  D.O.    RATE  DECAY  SETT  DECAY  DECAY  SETT  DECAY   SOD   SOD   SOD  DECAY  SETT  DECAY  SRCE   RATE  SRCE  PROD  PROD  DECAY  DECAY  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
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1	23.440	7.92	0.94	0.12	0.06	0.00	0.00	0.00	0.00	6.32	6.32	6.32	0.15	0.06	0.00	0.00	0.00	0.00	4.38	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.82	0.08	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/m³	COLI #/100mL	NCM
1	23.440	27.26	0.15	14.12	290.07	3.47	4.55	0.00	10.83	0.00	3.34	0.00	0.00	0.00	0.00	62.75	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU
REACH NO. 2 BAYOU SIGUR-MUDDY 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
2	UPR RCH	0.10100	27.26	0.15	14.12	290.07	3.47	4.55	0.00	10.83	0.00	3.34	0.00	0.00	0.00	62.75	0.00	0.00
EACH	INCR	0.07000	0.00	0.14	18.08	214.22	2.18	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
2	23.44	23.28	0.17100	0.0	0.01152	0.16	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.316	0.012
3	23.28	23.11	0.24100	0.0	0.01623	0.12	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.446	0.016
4	23.11	22.95	0.31100	0.0	0.02094	0.09	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.575	0.021
5	22.95	22.78	0.38100	0.0	0.02566	0.07	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.705	0.026
6	22.78	22.62	0.45100	0.0	0.03037	0.06	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.835	0.030
TOT						0.51			12177.00	13530.00					
AVG					0.0186		0.90	16.50			14.85				
CUM						0.62									

********** 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/m³	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 CROUIX(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 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
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. 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
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	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

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	
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 CROUIX(BYC1)-B CROUIX(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

* $g/m^2/d$ ** 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 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 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
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 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

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 GRAND BAYOU
REACH NO. 6 km 15.5-km 13.0 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	
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 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
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 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
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/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
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

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 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
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 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
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/m³	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 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
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/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
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

********** 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
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. 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
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/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
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 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
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			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 GRAND BAYOU
REACH NO. 11 E GRAND BAYOU-BAYOU ALCIDE 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/m³	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 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
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

		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
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/m³	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 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
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. 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
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
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
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
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
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

* 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
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 GRAND BAYOU
REACH NO. 14 L BAYOU LONG-LAKE VERRET 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 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
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

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/m³	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
Grand Bayou Upstream 11/09/06

TRAVEL TIME = 10.36 DAYS

MAXIMUM EFFLUENT = 78.51 PERCENT

FLOW	=	0.10100	TO	8.24934	m³/s
DISPERSION	=	0.2552	TO	5.0631	m²/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

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NH3 DECAY         =    0.00   TO    0.00      per day
SOD               =    3.23   TO    8.46      g/m²/d
NH3 SOURCE        =    0.00   TO    0.00      g/m²/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
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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

			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 CROUIX (BYC1)	22.62	20.57	0.2050	
4	GB	B CROUIX (BYC1)-B CROUIX (BYC2)	20.57	18.29	0.1520	
5	GB	B CROUIX (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

		DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS			
Reach	**Name**	**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 CROUIX (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 CROUIX (BYC1)-B CROUIX (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 CROUIX (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

		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS				
Reach	**Name**	**Tidal Range**	**Data Source**	**Dispersion Coeff. "a"**	**Dispersion Coeff. "b"**	**Dispersion Coeff. "c"**	**Dispersion Coeff. "d"**	**Data Source**
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 CROUIX (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 CROUIX (BYC1)-B CROUIX (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 CROUIX (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

		DATA TYPE 11 - INITIAL CONDITIONS				DATA TYPE 11 - INITIAL CONDITIONS		
Reach	**Name**	**Temp, deg C**	**Sal, ppt**	**DO, mg/l**	**Data Source**	**Chlorophyll a**	**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 CROUIX (BYC1)	27.49	0.11	2.58		57.44	0	
4	B CROUIX (BYC1)-B CROUIX (BYC2)	27.88	0.09	2.75		49.43	0	
5	B CROUIX (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

		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	
REACH	NAME	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 CROUIX (BYC1)	4	Owens-Edwards-Gibbs	5.15	Calibration	0.074		0.05	LTP, BPJ and calibration
4	B CROUIX (BYC1)-B CROUIX (BYC2)	4	Owens-Edwards-Gibbs	4.00	Calibration	0.067		0.05	LTP, BPJ and calibration
5	B CROUIX (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 CROUIX (BYC1)	0.105	0.05		1.00	
4	B CROUIX (BYC1)-B CROUIX (BYC2)	0.099	0.05		1.00	
5	B CROUIX (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. Ouflow, 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 CROUIX (BYC1)		0.350			0.11	16.16	218.81	
4	B CROUIX (BYC1)-B CROUIX (BYC2)	-0.350							
5	B CROUIX (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 CROUIX (BYC1)	2.58							
4	B CROUIX (BYC1)-B CROUIX (BYC2)								
5	B CROUIX (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

		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	40	30	Calibration
2	BAYOU SIGUR-MUDDY BAYOU	0.82	150	95	Calibration
3	MUDDY BAYOU-BAYOU CROUIX (BYC1)	2.05	250	100	Calibration
4	B CROUIX (BYC1)-B CROUIX (BYC2)	2.28	0	27	Calibration
5	B CROUIX (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

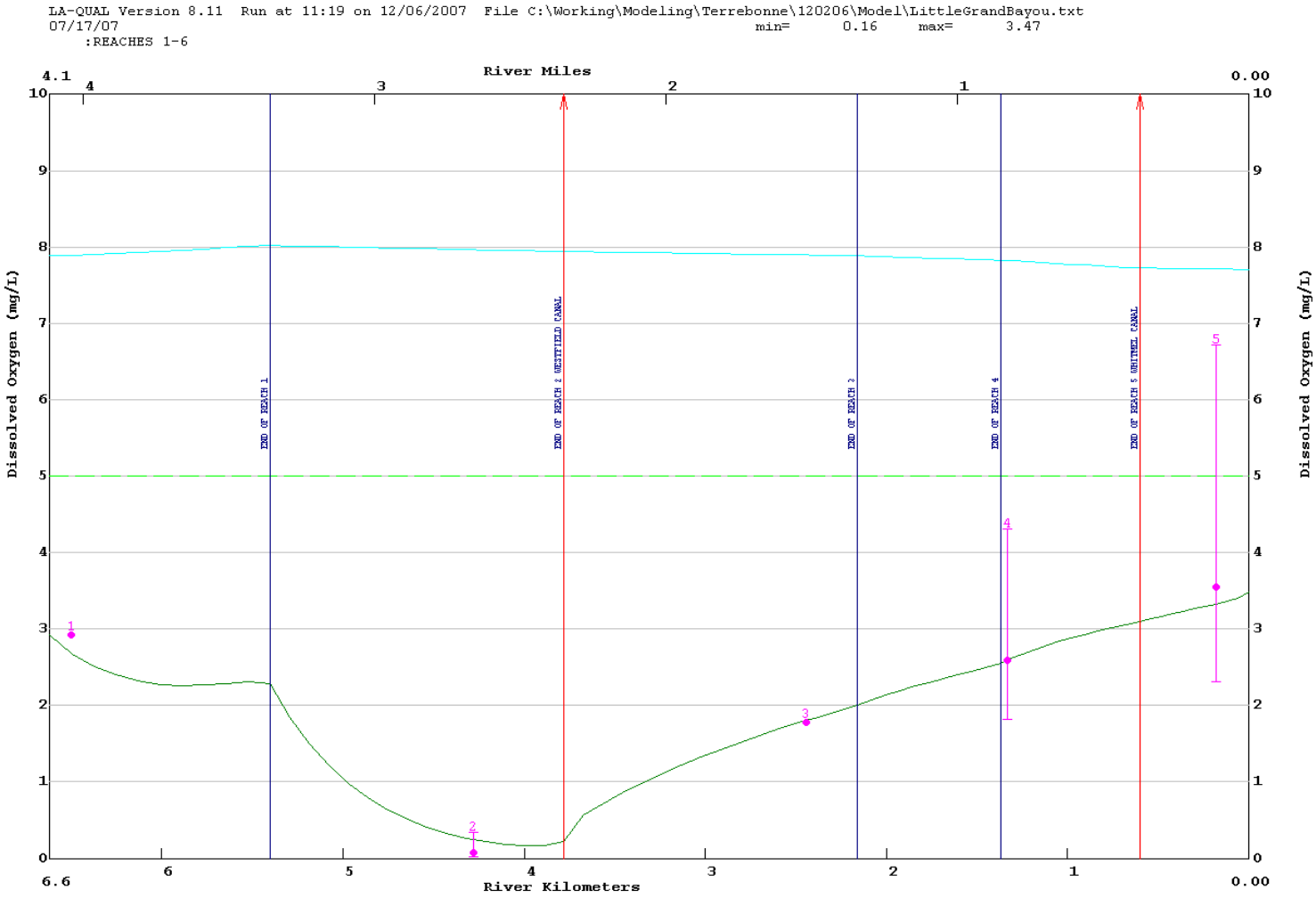
Grand Bayou Calibration

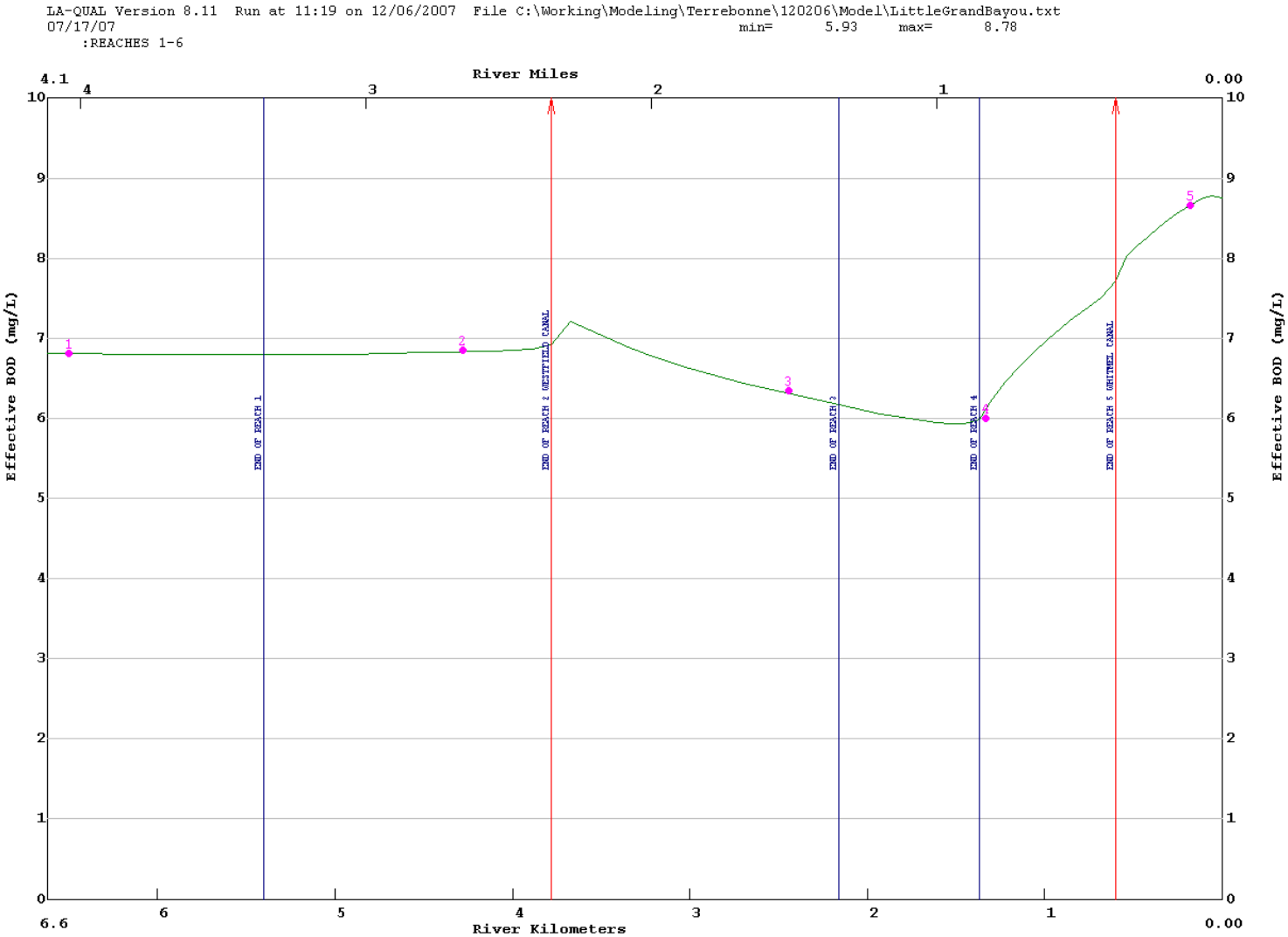
	DATA TYPE 26 - WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES					
Wasteload / Withdrawal Name	**EL #**	**Phosphorus, mg/L**	**Chlorophyll-A, ug/L**	**Coliform, #/100 mL**	**Nonconservative Material**	**Data Source**
Bayou Sigur	2		78.1			Lab reading for Site BYS1
Muddy Bayou	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			

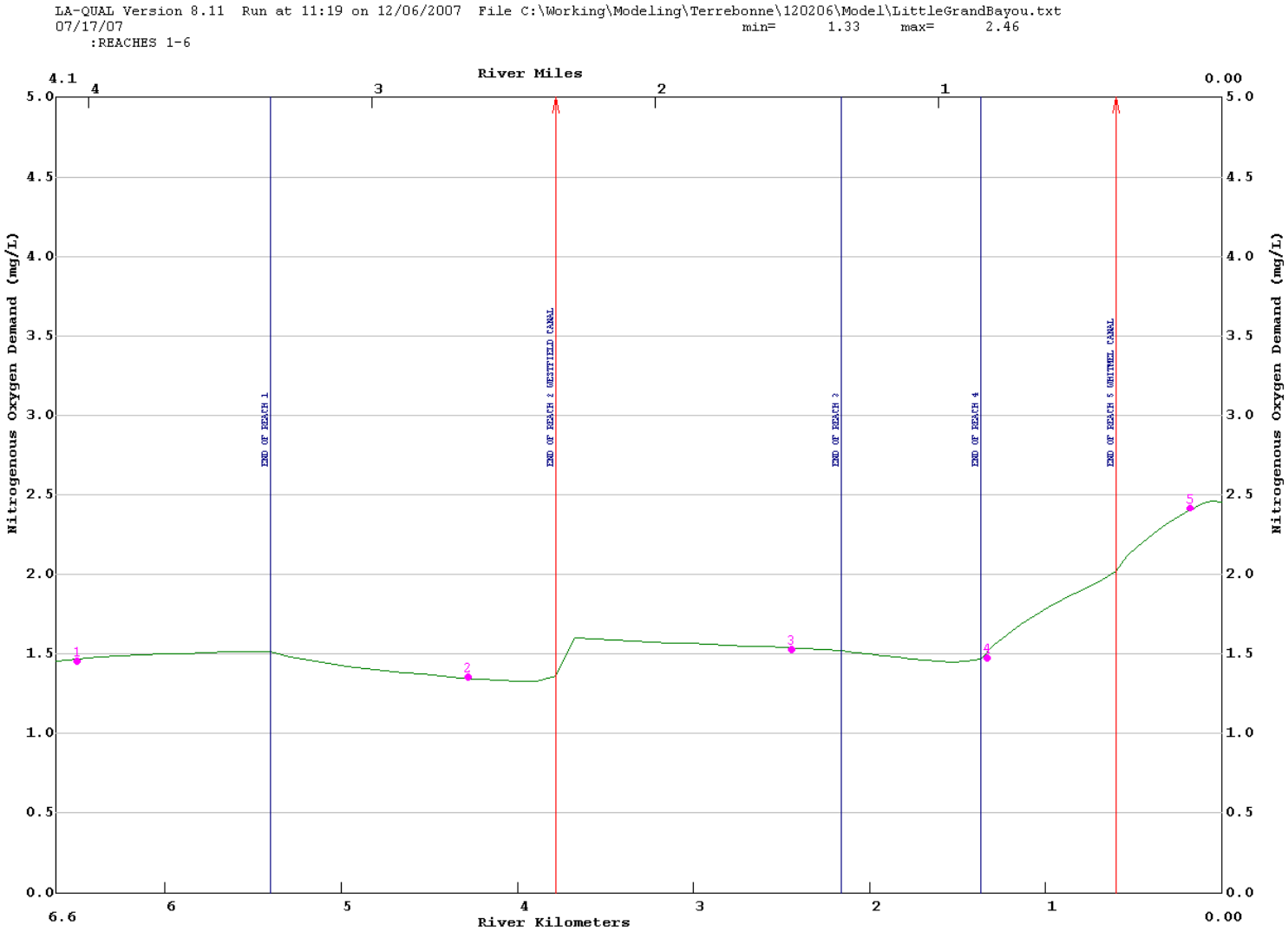
	DATA TYPE 27 - LOWER BOUNDARY CONDITIONS		
Parameter	**Value**	**Units**	**Data Source**
TEMPERATURE	26.84	oCelcius	Field and Lab data, Site LV1
SALINITY	0.09	ppt	
CONSERVATIVE MATERIAL I CHLORIDES	12	mg/L	
CONSERVATIVE MATERIAL II CONDUCTIVITY	202.14	mg/L	
DISSOLVED OXYGEN	2.04	mg/L	
BIOCHEMICAL OXYGEN 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	

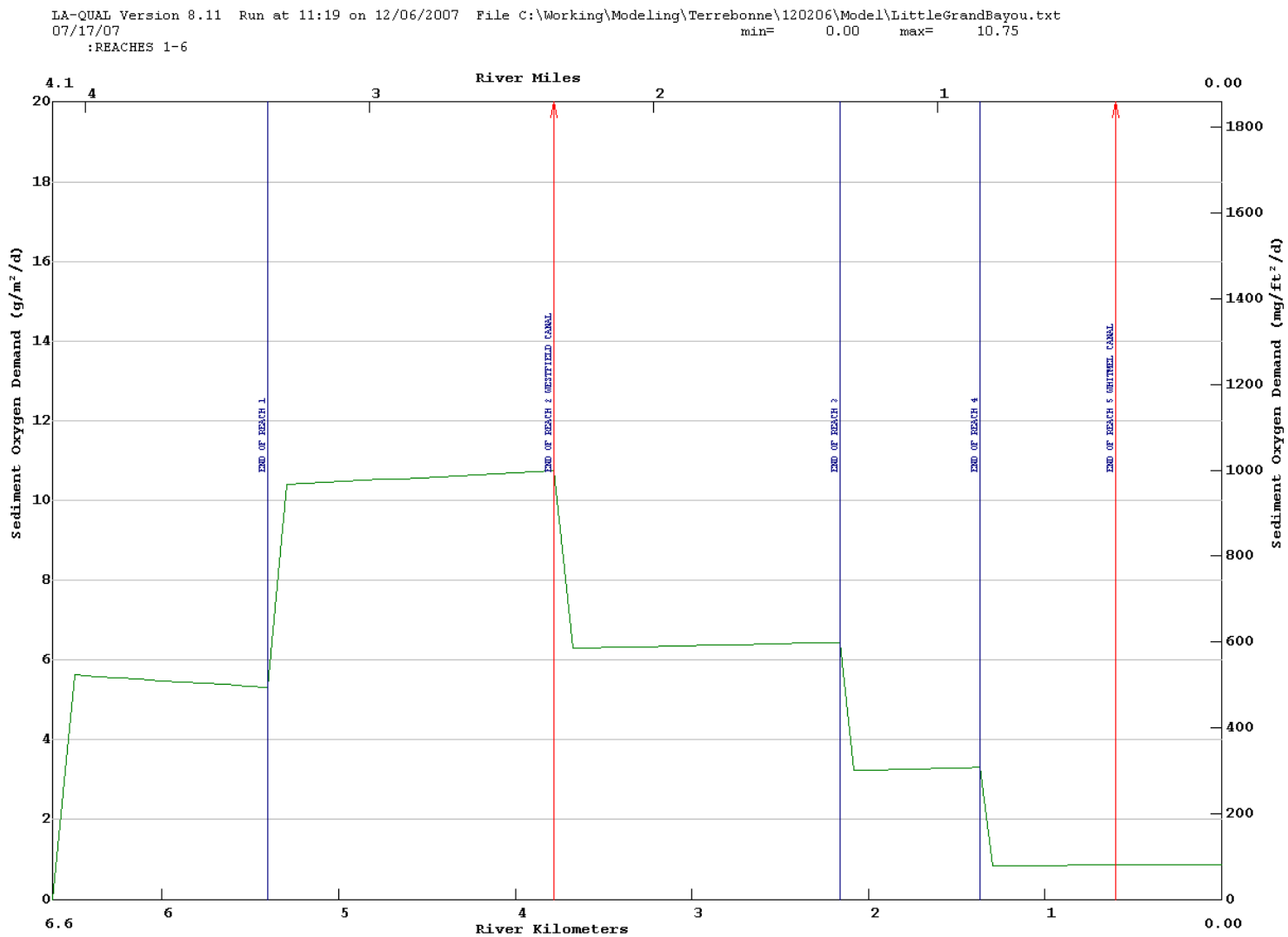
Appendix B2 – Little Grand Bayou Calibration Model

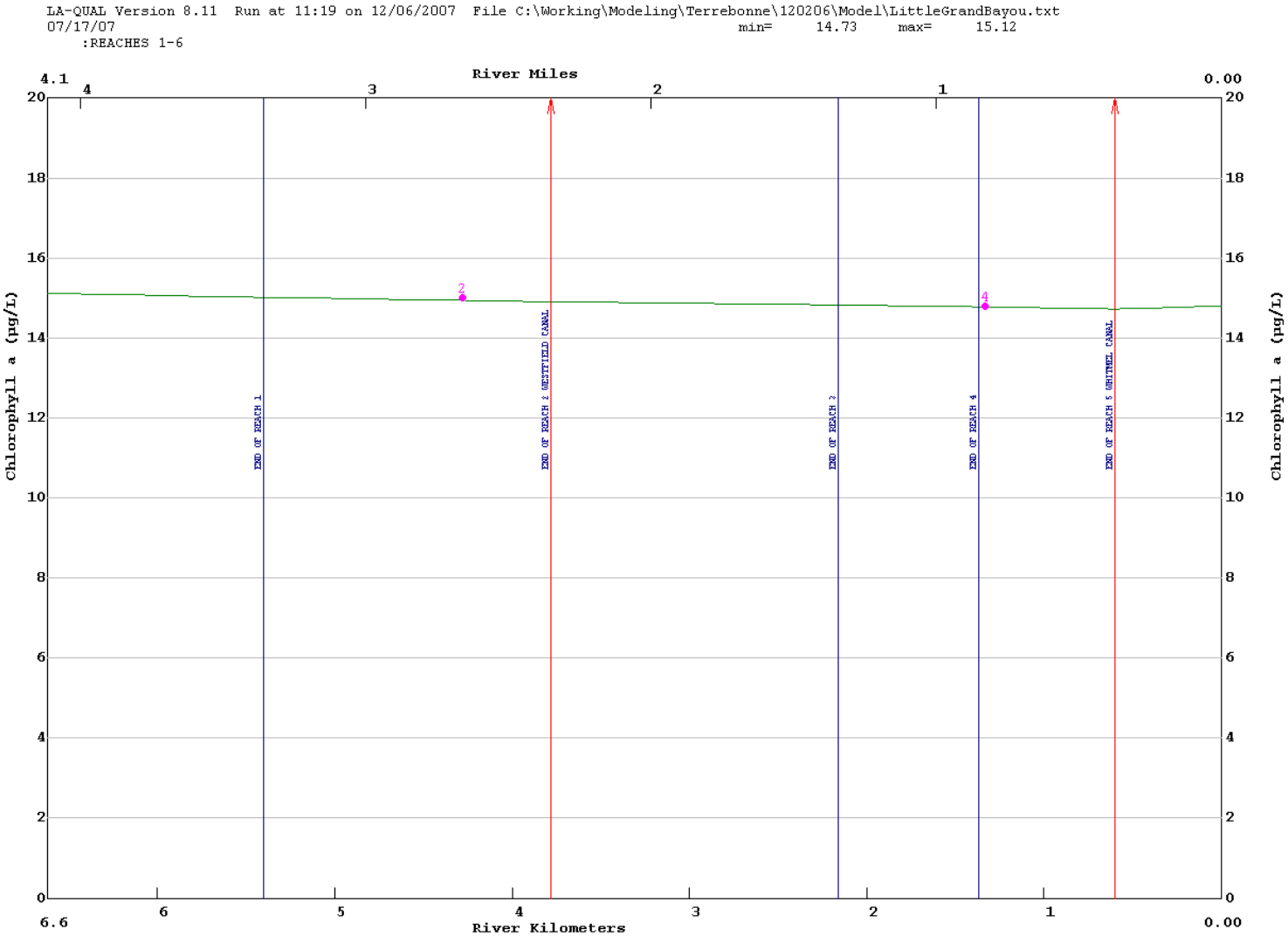
Graphs

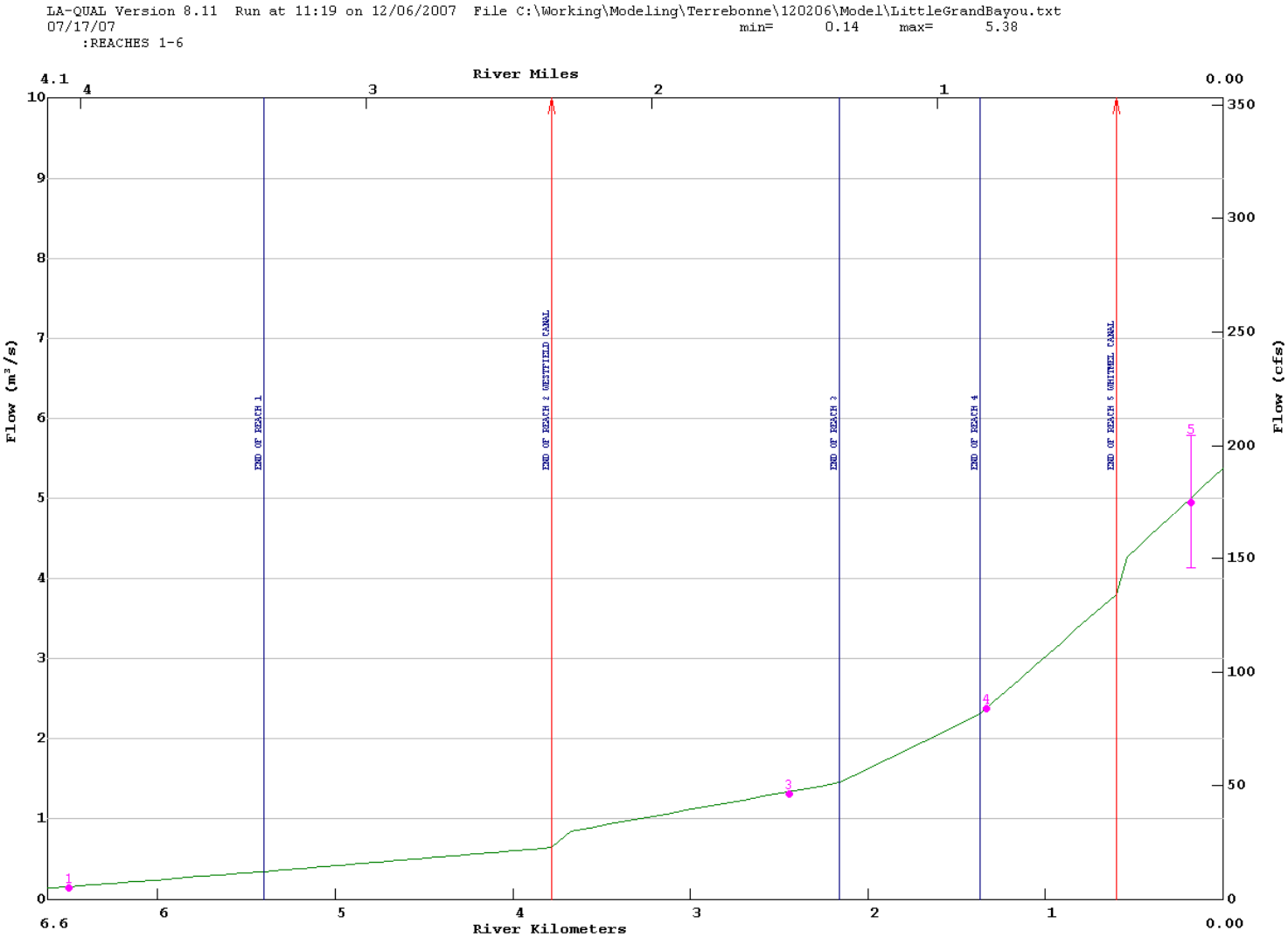

LA-QUAL Version 8.11 Run at 11:19 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07 min= 0.16 max= 3.47
:REACHES 1-6
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 WESTFIELD CANAL
END OF REACH 3
END OF REACH 4
END OF REACH 5 WHITNEL CANAL
River Kilometers
6.6
0.00

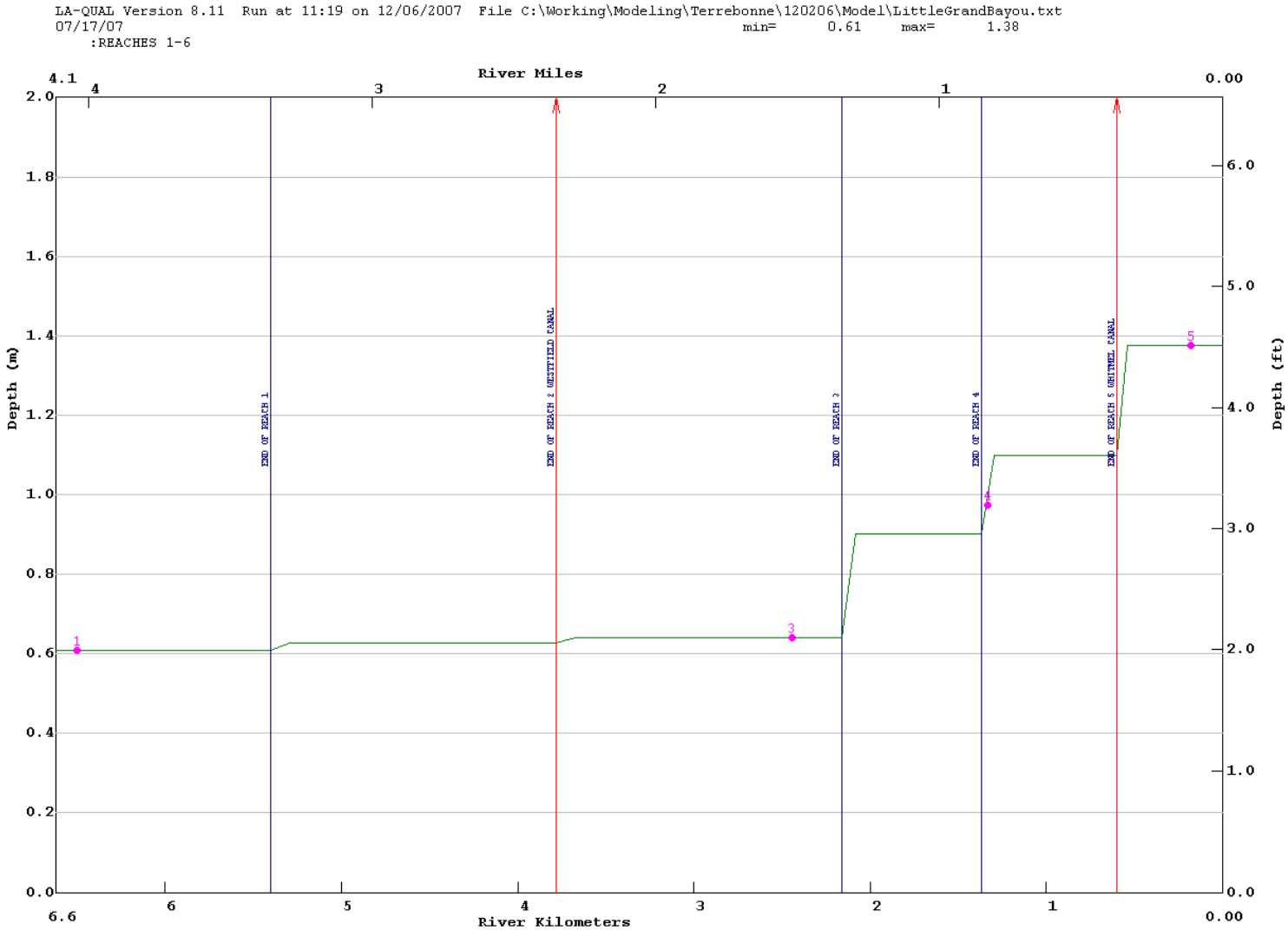

LA-QUAL Version 8.11 Run at 11:19 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
min= 5.93 max= 8.78
:REACHES 1-6
River Miles
4.1
0.00
Effective BOD (mg/L)
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
River Kilometers

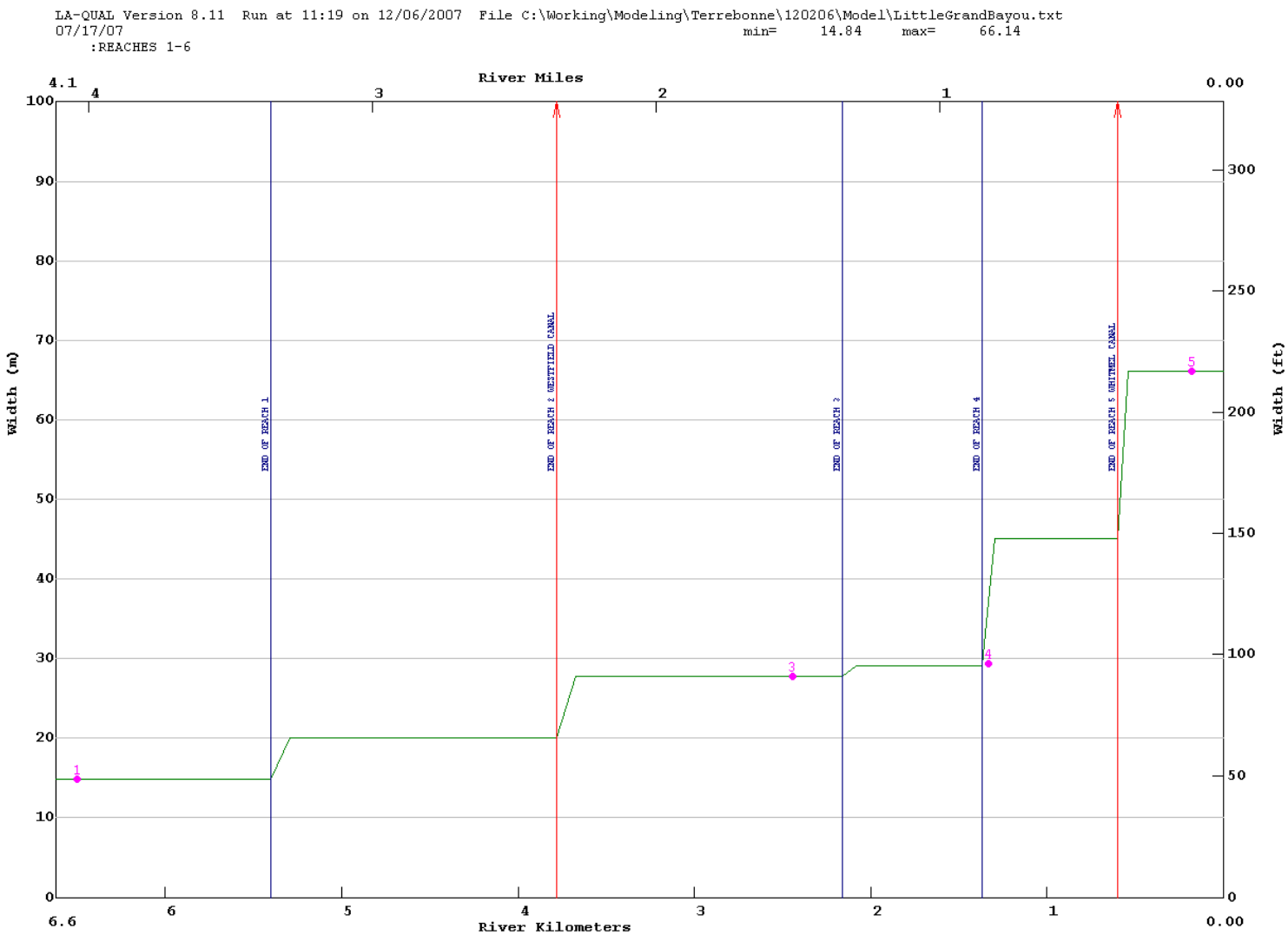

LA-QUAL Version 8.11 Run at 11:19 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07 min= 1.33 max= 2.46
:REACHES 1-6
River Miles
4.1
4
3
2
1
0.00
Nitrogenous Oxygen Demand (mg/L)
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
1
2
3
4
5
6.6
6
5
4
3
2
1
0.00
River Kilometers

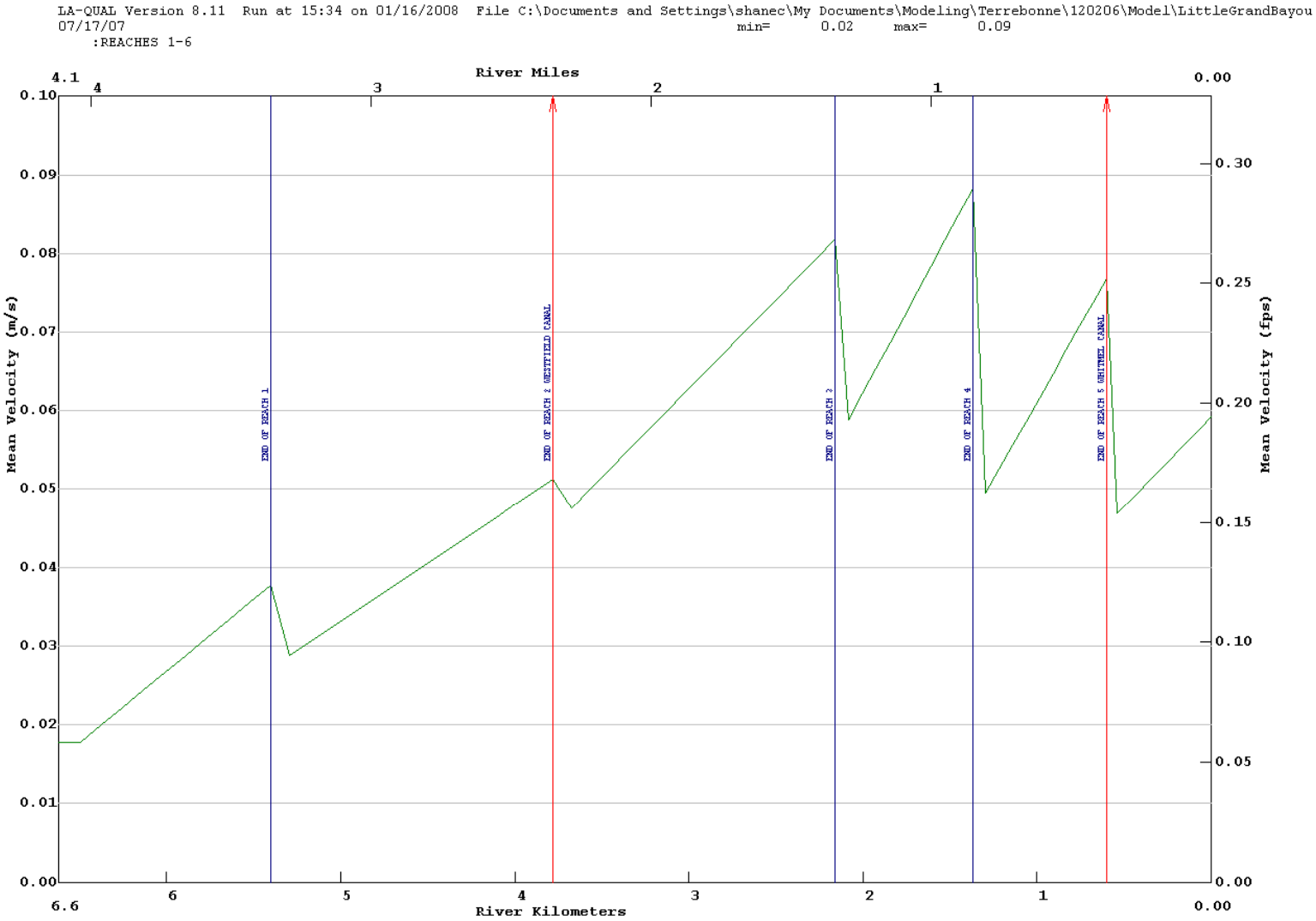

LA-QUAL Version 8.11 Run at 11:19 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
min= 0.00 max= 10.75
:REACHES 1-6
River Miles
4.1
4
3
2
1
0.00
Sediment Oxygen Demand (g/m²/d)
Sediment Oxygen Demand (mg/ft²/d)
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
6
5
4
3
2
1
0.00
River Kilometers

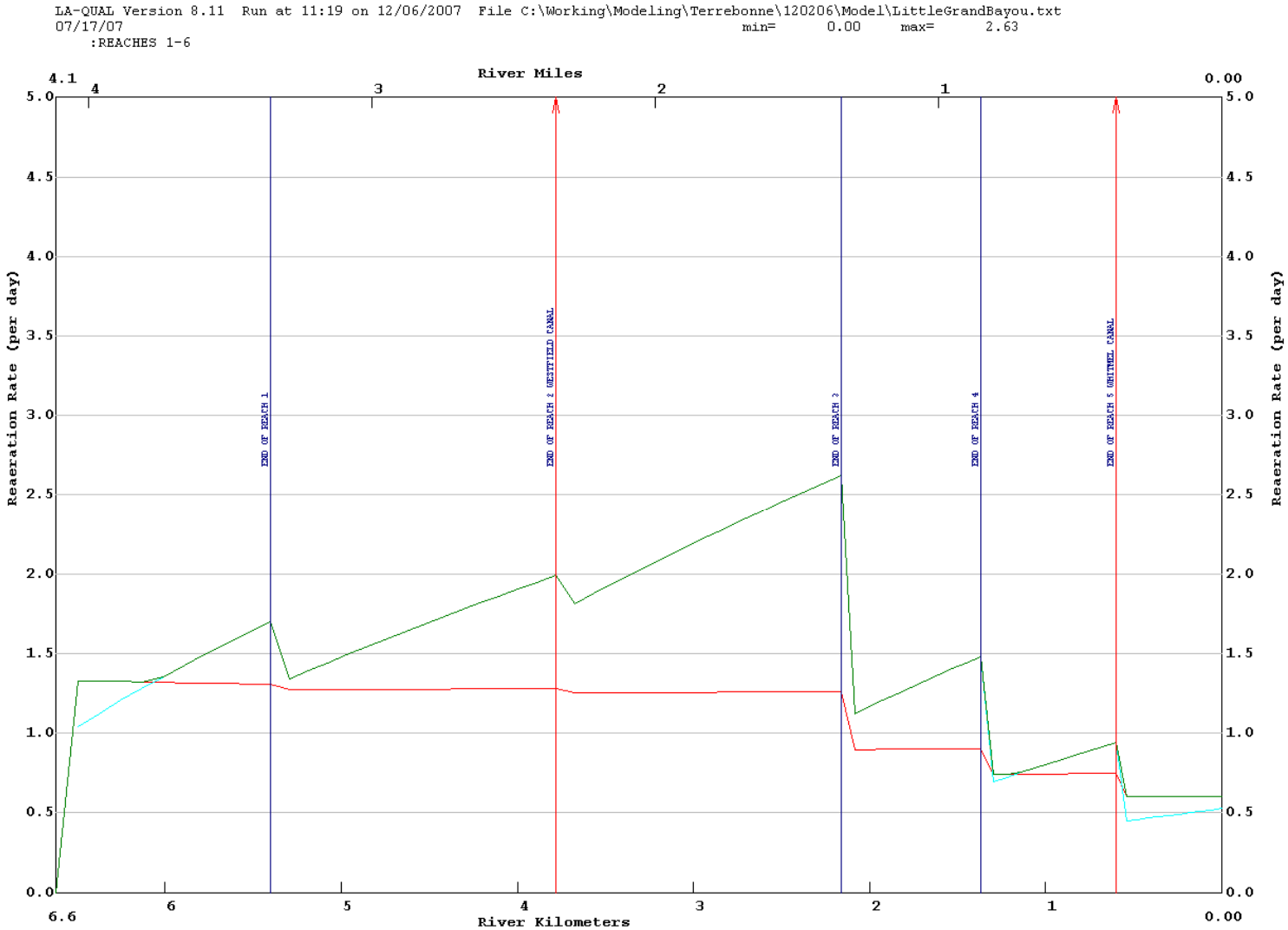

LA-QUAL Version 8.11 Run at 11:19 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07 min= 14.73 max= 15.12
:REACHES 1-6
River Miles
4.1
4
3
2
1
0.00
Chlorophyll a (µg/L)
20
18
16
14
12
10
8
6
4
2
0
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
6
5
4
3
2
1
0.00
River Kilometers

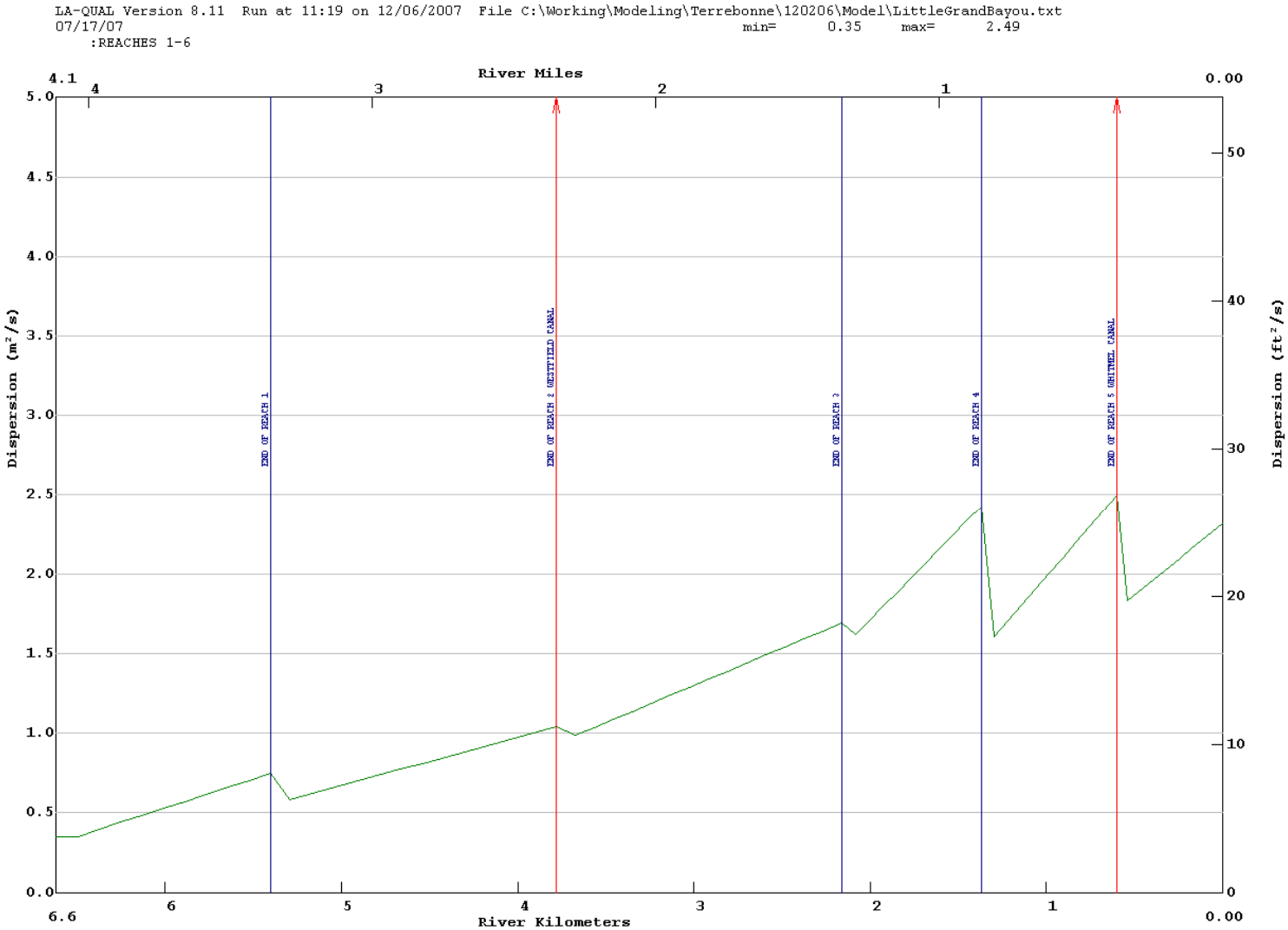

LA-QUAL Version 8.11 Run at 11:19 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
min= 0.14 max= 5.38
:REACHES 1-6
River Miles
4.1
4
3
2
1
0.00
Flow (m³/s)
Flow (cfs)
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
6
5
4
3
2
1
0.00
River Kilometers

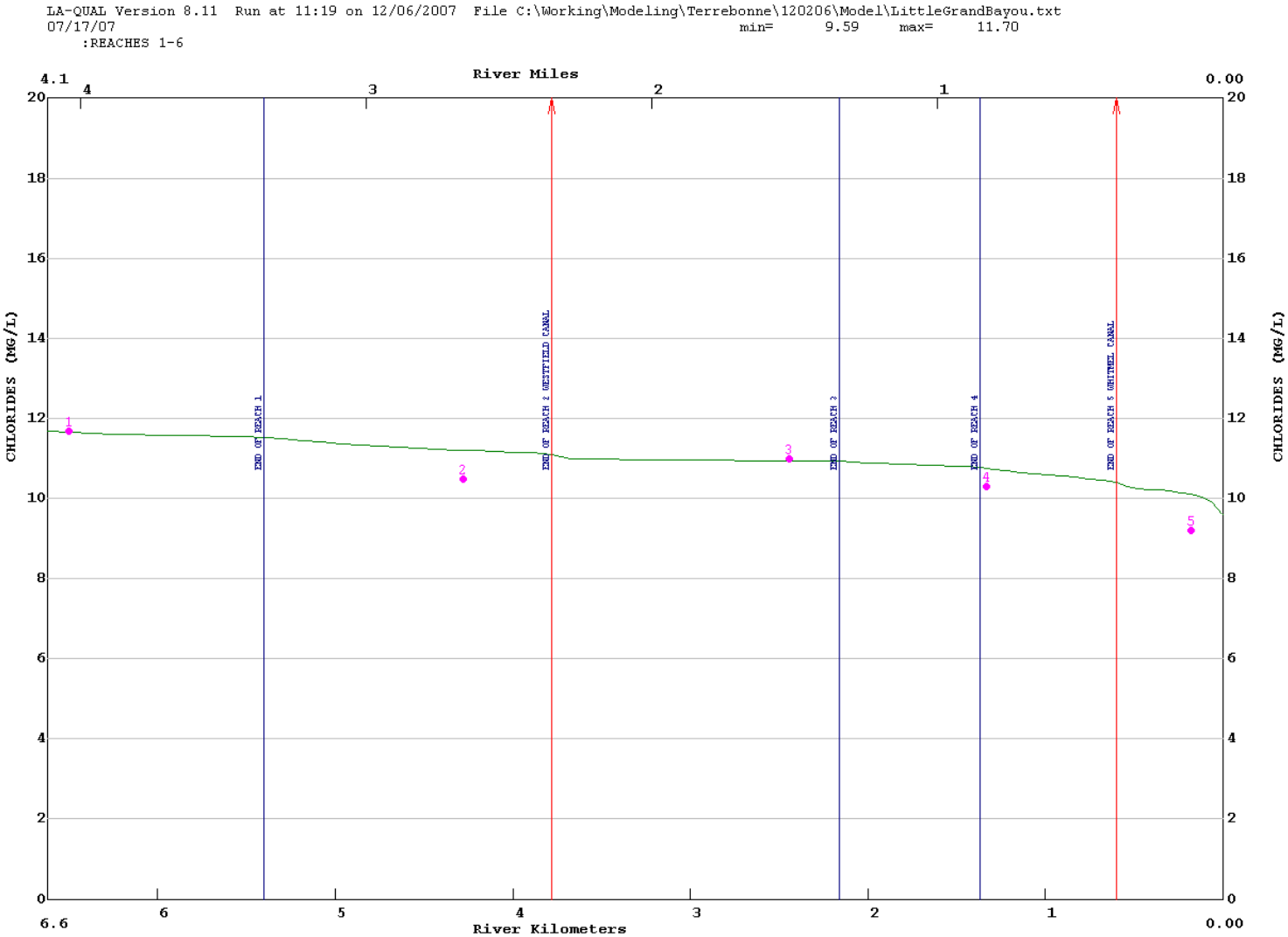

LA-QUAL Version 8.11 Run at 11:19 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
min= 0.61 max= 1.38
:REACHES 1-6
River Miles
4.1
4
3
2
1
0.00
Depth (m)
Depth (ft)
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
1
2
3
4
5
6.6
6
5
4
3
2
1
0.00
River Kilometers

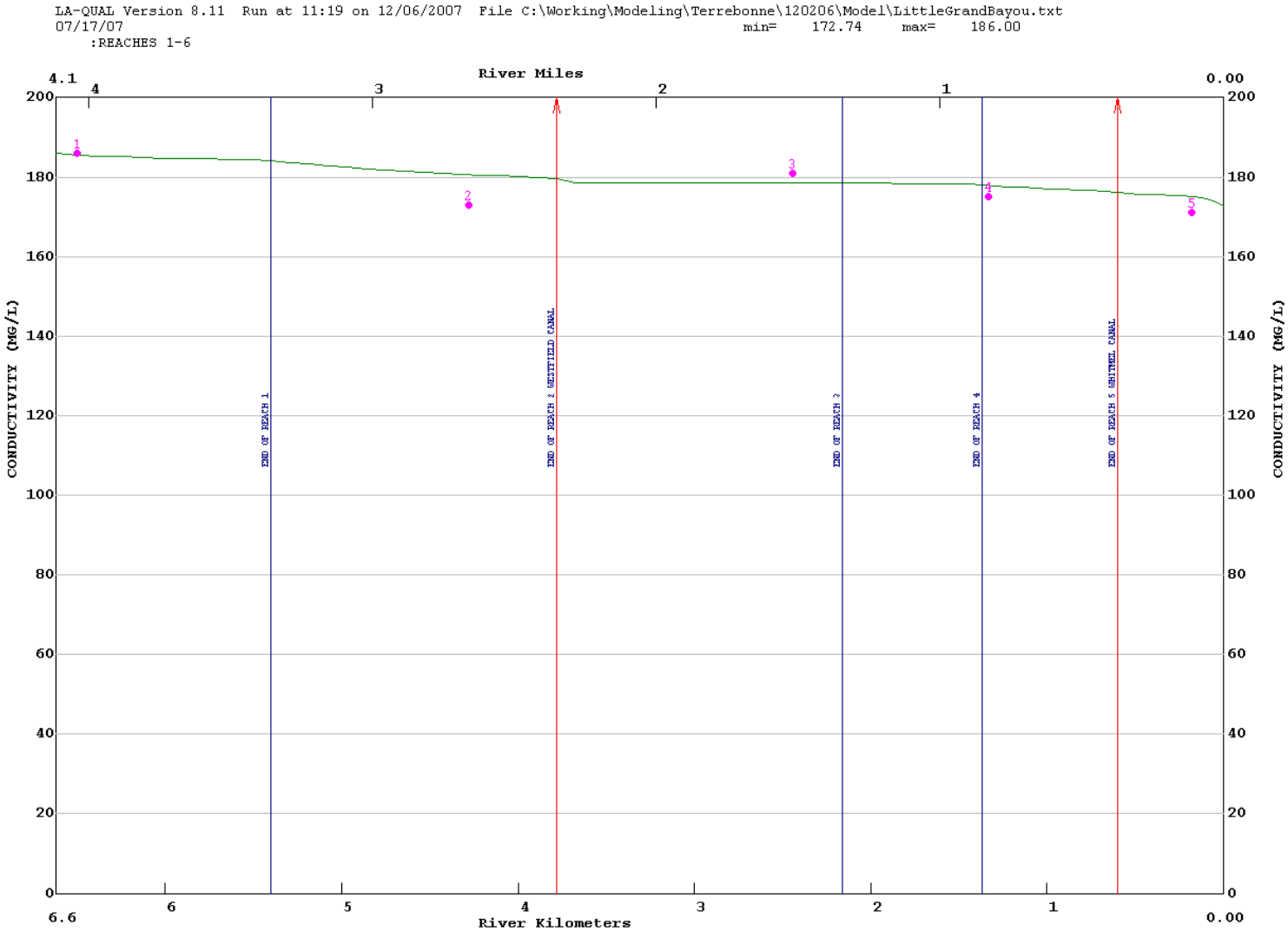

LA-QUAL Version 8.11 Run at 11:19 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07 min= 14.84 max= 66.14
:REACHES 1-6
River Miles
4.1
4
3
2
1
0.00
Width (m)
Width (ft)
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
River Kilometers
6.6
6
5
4
3
2
1
0.00

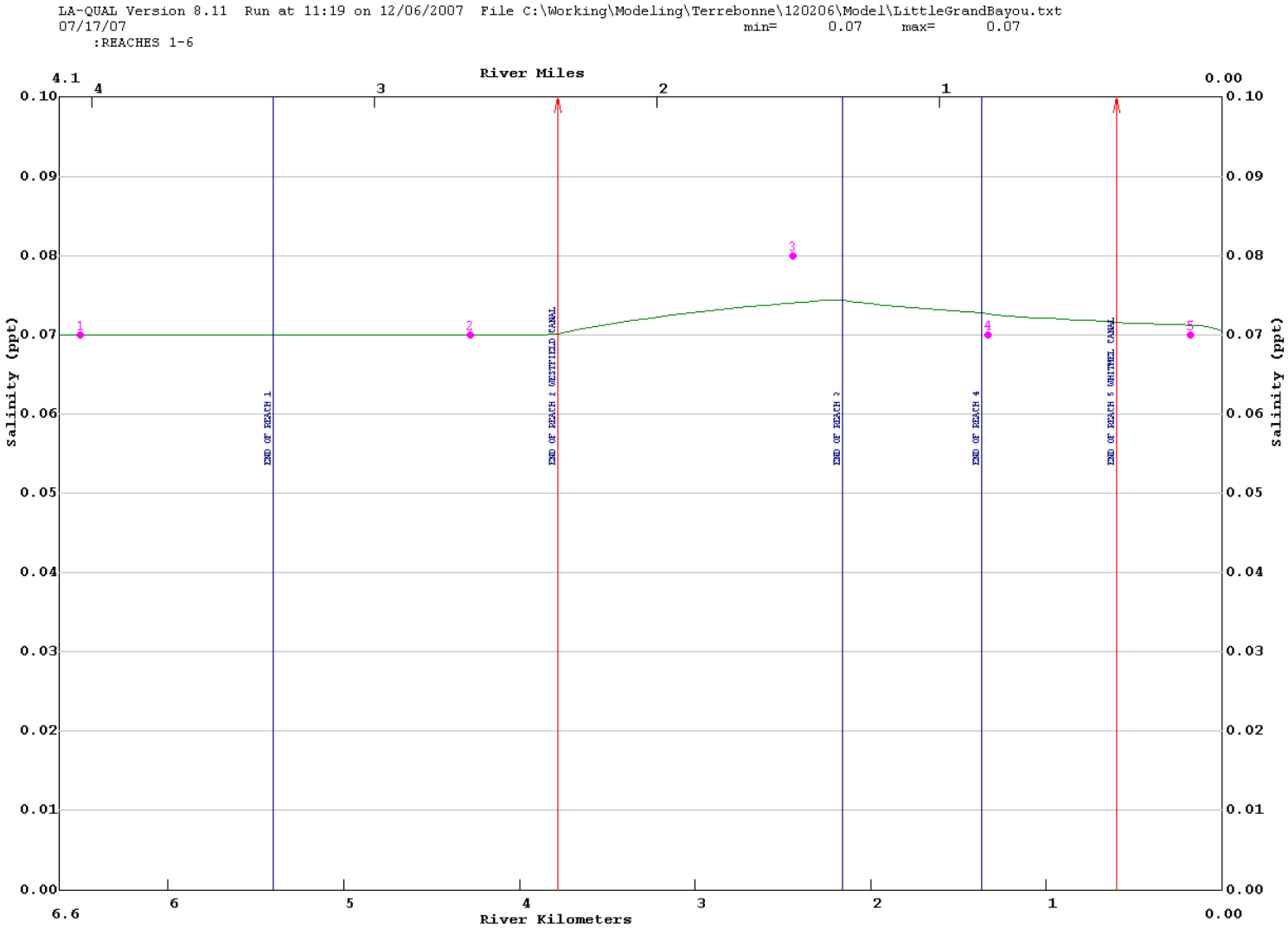

LA-QUAL Version 8.11 Run at 15:34 on 01/16/2008 File C:\Documents and Settings\shanec\My Documents\Modeling\Terrebonne\120206\Model\LittleGrandBayou
07/17/07
:REACHES 1-6
min= 0.02 max= 0.09
River Miles
4.1
4
3
2
1
0.00
Mean Velocity (m/s)
Mean Velocity (fps)
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
6
5
4
3
2
1
0.00
River Kilometers


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
River Miles
4.1
4
3
2
1
0.00
Reaeration Rate (per day)
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
6
5
4
3
2
1
0.00
River Kilometers


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
River Miles
4.1
4
3
2
1
0.00
Dispersion (m²/s)
Dispersion (ft²/s)
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
River Kilometers
6.6
6
5
4
3
2
1
0.00


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
River Miles
4.1
4
3
2
1
0.00
CHLORIDES (MG/L)
20
18
16
14
12
10
8
6
4
2
0
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
1
2
3
4
5
6.6
6
5
4
3
2
1
0.00
River Kilometers


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
River Miles
4.1
0.00
CONDUCTIVITY (MG/L)
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
River Kilometers
6.6
0.00


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
River Miles
4.1
4
3
2
1
0.00
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Salinity (ppt)
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
1
2
3
4
5
6.6
6
5
4
3
2
1
0.00
River Kilometers

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
!234567890123456789012345678901234567890123456789012345678901234567890123456789
ENDATA04
ENDATA05
ENDATA06
ENDATA07
!Reach Identification Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ***  -- ********************************----------**********----------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ***  -------*******-------*******-------*******--------*******
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ***  -----**********----------**********----------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  --------********--------********--------********--------********
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-
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901
!         ***  -----****** ****** ******-------*******-------*******-------*******-------*******-------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  -------*******-------*******-------*******-------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  -------*******-------*******-------*******       -------*******
ENDATA14
!Coliform and Nonconservative Cofficients
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  -------*******-------*******
ENDATA15
!Incremental Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  ---------*********---------*********---------*********
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  ---------*********---------*********---------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  ---------*********---------*********
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  ---------********---------********---------********
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!        ****  ------------------- *** --------*******--------********--------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!        ****  ---------********---------********---------********
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!        ****  ---------********---------********
HDWTR-3     1      0.00    19.41   0.00    0.00
ENDATA22
!Junction Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!        **** ----  ************************************************************
ENDATA23
!Wasteload Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!        ****  --------------------********---------********---------********
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!        ****  ---------********-----********---------*****---------********
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!        ****  ---------********---------********
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!        ****  -------------------- ** --------********--------
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

$$$ DATA TYPE 8 (REACH IDENTIFICATION DATA) $$$
                                                        BEGIN         END     ELEM    REACH     ELEMS   BEGIN    END
CARD TYPE  REACH  ID  NAME                              REACH       REACH   LENGTH   LENGTH    PER RCH   ELEM   ELEM
                                                           km          km       km       km               NUM    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
ENDATA08

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

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

$$$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) $$$
                                                                                                  BOD     ANAER                          BOD2     ANAER
CARD     RCH  RCH  K2                    K2        K2        K2    BKGRND       BOD       BOD     CONV      BOD2      BOD2      BOD2     CONV      BOD2
TYPE     NUM   ID  OPT                   "A"       "B"       "C"       SOD     DECAY      SETT   TO SOD     DECAY     DECAY      SETT   TO SOD     DECAY
                                                                    g/m²/d   per day       m/d             per day   per day       m/d             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      NBOD   ORGN CONV       NH3       NH3      PHOS     DENIT
                                DECA      SETT  TO NH3 SRCE     DECA      SRCE      SRCE      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    ALGAE:     ALGAE    ALG CONV     ALGAE     ALGAE     MACRO     MACRO
                                DEPTH     CHL A      SETT     TO SOD       GROW      RESP      GROW      RESP   SHADING

ENDATA14

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

CARD TYPE      REACH  ID    COLIFORM       NCM       NCM    NCM CONV
                            DIE-OFF     DECAY      SETT     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
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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     FLOW    TEMP    SALIN      CM-I     CM-II
                                                      m³/s      cfs   deg C      ppt      MG/L      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     BOD#1     NBOD                          BOD#2
                                                  mg/L      mg/L      mg/L      mg/L      mg/L      mg/L

HDWTR-2           1     Grand Bayou              2.92      6.82      1.46      0.00      0.00      0.00
ENDATA21
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$$$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

CARD TYPE     ELEMENT   NAME                        PHOS     CHL A      COLI       NCM
                                                    mg/L      mg/L      mg/L      mg/L

HDWTR-3           1     Grand Bayou                 0.00     19.41      0.00      0.00
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       FLOW     FLOW    TEMP    SALIN      CM-I     CM-II
                                                      m³/s        cfs      MGD   deg C      ppt      MG/L      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

$$$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) $$$
                                                                          % BOD                          %
CARD TYPE     ELEMENT   NAME                         DO       BOD      RMVL     NBOD                NITRIF                BOD#2
                                                    mg/L      mg/L                mg/L      mg/L                mg/L      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     CHL A      COLI       NCM
                                                    mg/L      mg/L      mg/L      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"

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
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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 11


FINAL REPORT    Grand Bayou                                     LITTLE GRAND BAYOU
REACH NO.  1     GRAND BAYOU-RKM 5.40                           07/17/07


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

 ELEM  TYPE        FLOW     TEMP     SALN     CM-I    CM-II     DO  BOD#1  BOD#2 EBOD#1 EBOD#2   ORGN    NH3  NO3+2   PHOS  CHL A     COLI     NCM
 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

    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

 ************************************************** HYDRAULIC PARAMETER VALUES ***************************************************
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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/m²/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

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	
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 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/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 LITTLE GRAND BAYOU
REACH NO. 3 WESTFIELD CANAL-RKM 2.16 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 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
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 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

* 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
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	

********** 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/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
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	

********** 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			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
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 LITTLE GRAND BAYOU
REACH NO. 6 WHITMEL CANAL-LAKE VERRET 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 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
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/m³	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

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STREAM SUMMARY                                                    LITTLE GRAND BAYOU
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
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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

		DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS			
Reach	**Name**	**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

		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS				
Reach	**Name**	**Tidal Range**	**Data Source**	**Dispersion Coeff. "a"**	**Dispersion Coeff. "b"**	**Dispersion Coeff. "c"**	**Dispersion Coeff. "d"**	**Data Source**
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"

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Little Grand Bayou Calibration

		DATA TYPE 11 - INITIAL CONDITIONS				DATA TYPE 11 - INITIAL CONDITIONS		
Reach	Name	Temp, deg C	Sal, ppt	DO, mg/l	Data Source	Chlorophyll a	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	

		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	
REACH	NAME	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. Ouflow, 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	

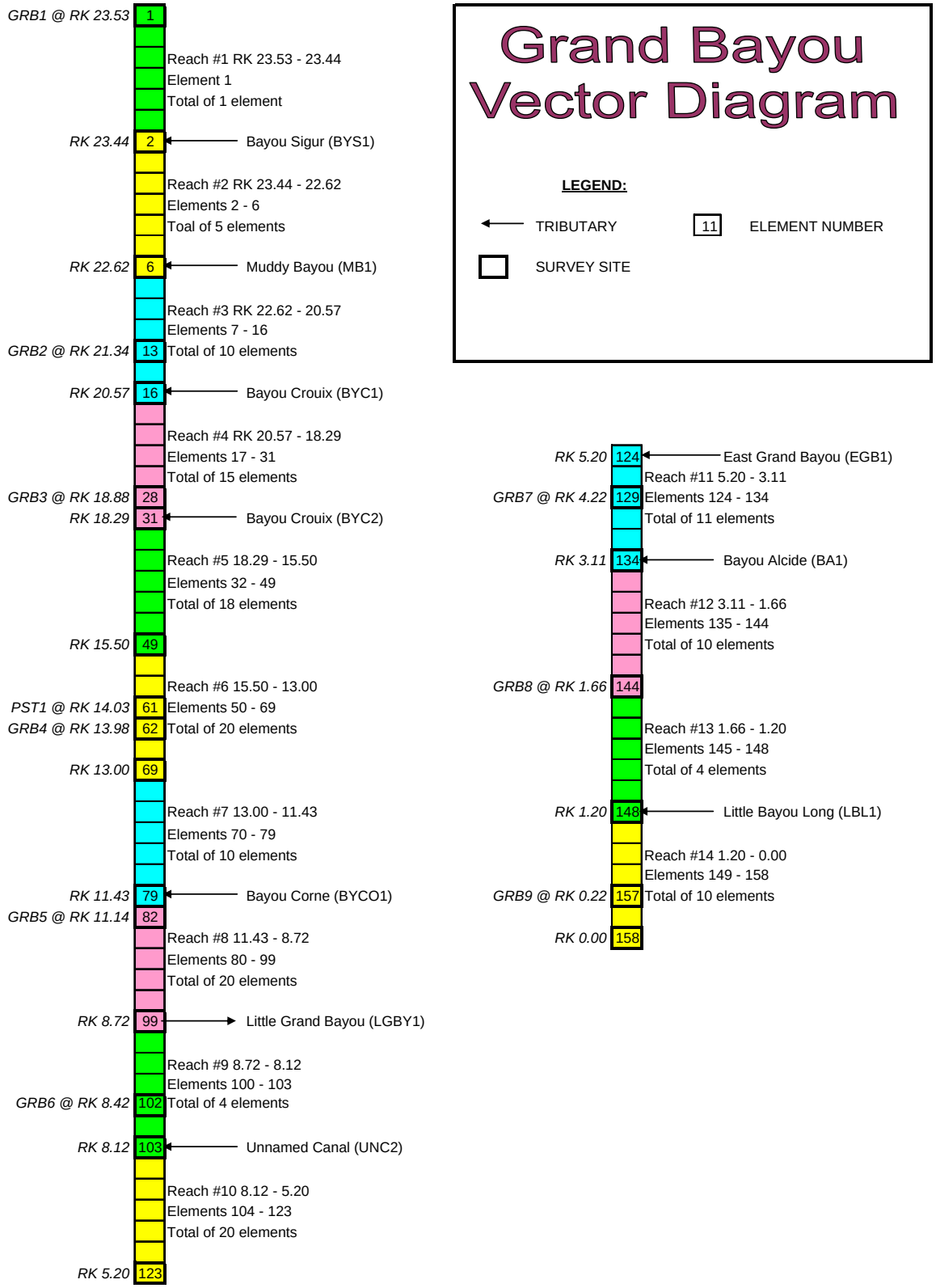
Appendix C – Calibration Model Development

Appendix C1 – Grand Bayou Calibration Model Development

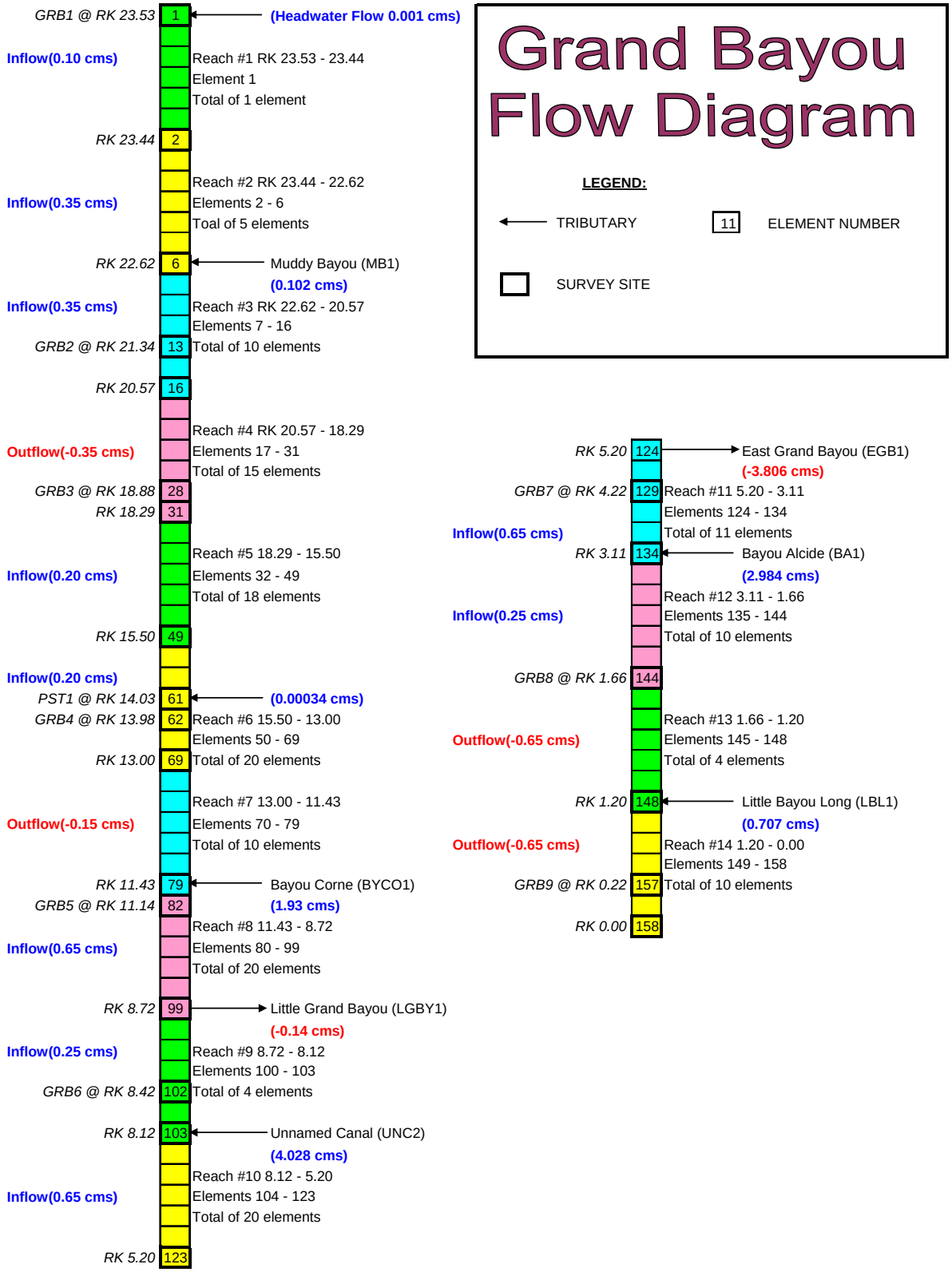
Site Information

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



Flow Diagram



Reach Setup

REACH AND ELEMENT LAYOUT FOR THE 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	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.

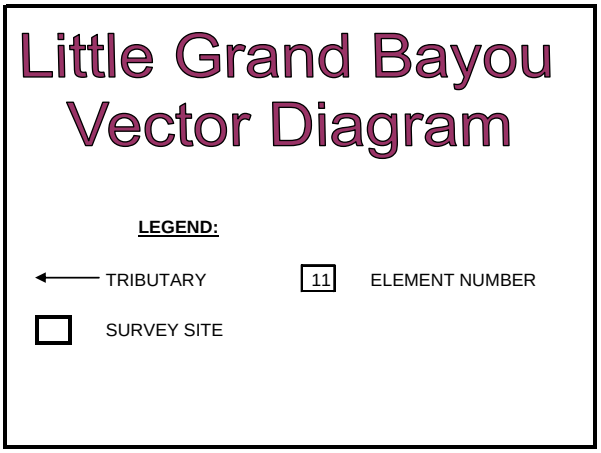
REACH NUMBER & DESCRIPTION	Calibration Model Reach Length	Calibration Model Average Reach Width	Calibration Model Total UCBOD Nonpoint loading	Calibration Model Total UNBOD Nonpoint loading	Calibration Model Total UCBOD Nonpoint loading	Calibration Model Total UNBOD Nonpoint loading	Calibration Model 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--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**

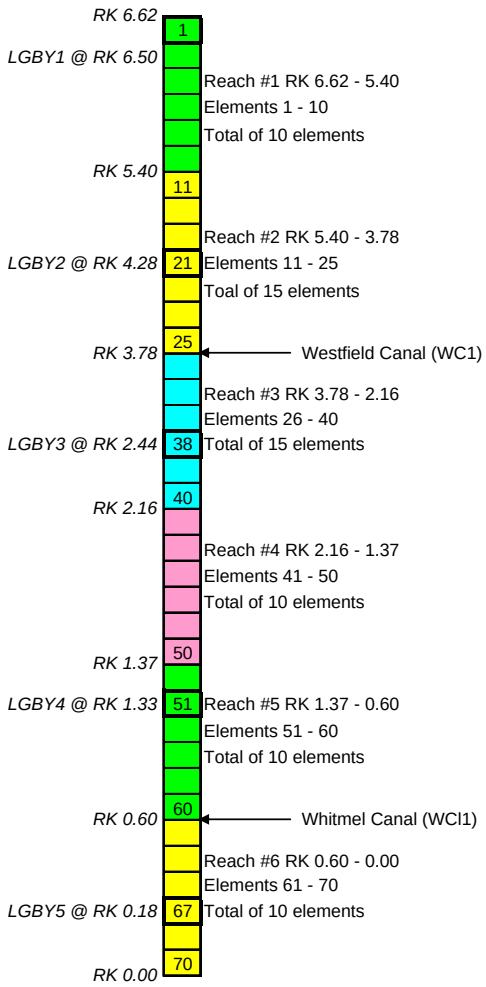
Appendix C2 – Little Grand Bayou Calibration Model Development

Site Information

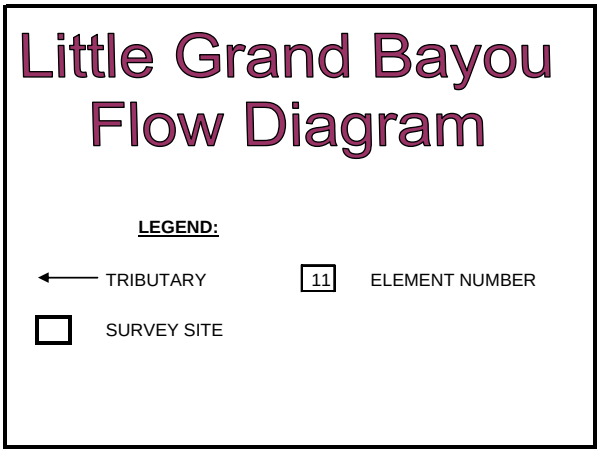
Little Grand Bayou 120206				
Site Number	Site Description	River Kilometer	X	Y
LGBY1	Little Grand Bayou at confluence with Grand Bayou	6.50	678072	3318093
LGBY2	Little Grand Bayou in wide area upstream from Westfield Canal	4.28	679242	3316454
WC1	Westfield Canal at confluence with Little Grand Bayou	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

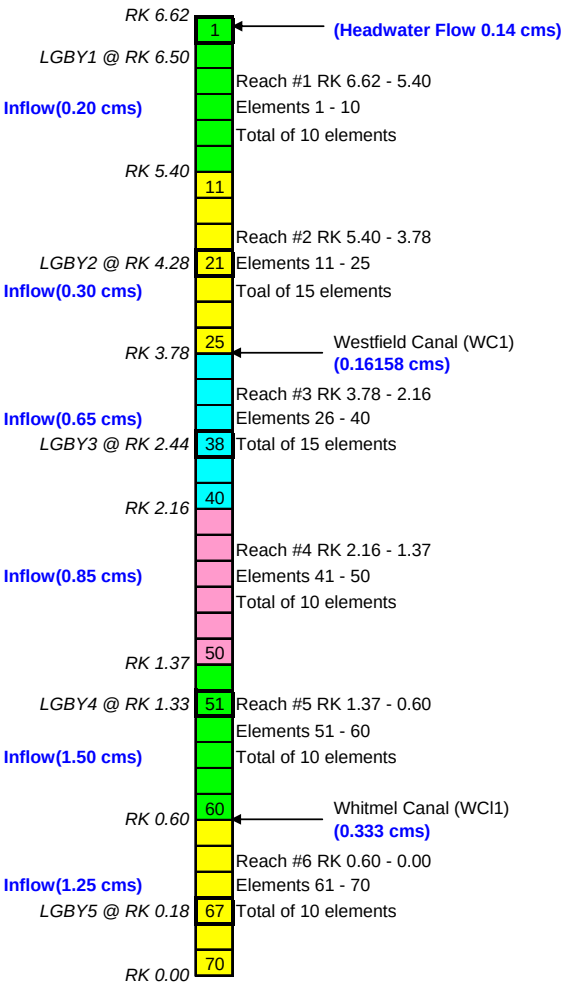
Vector Diagram





Flow Diagram





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)**

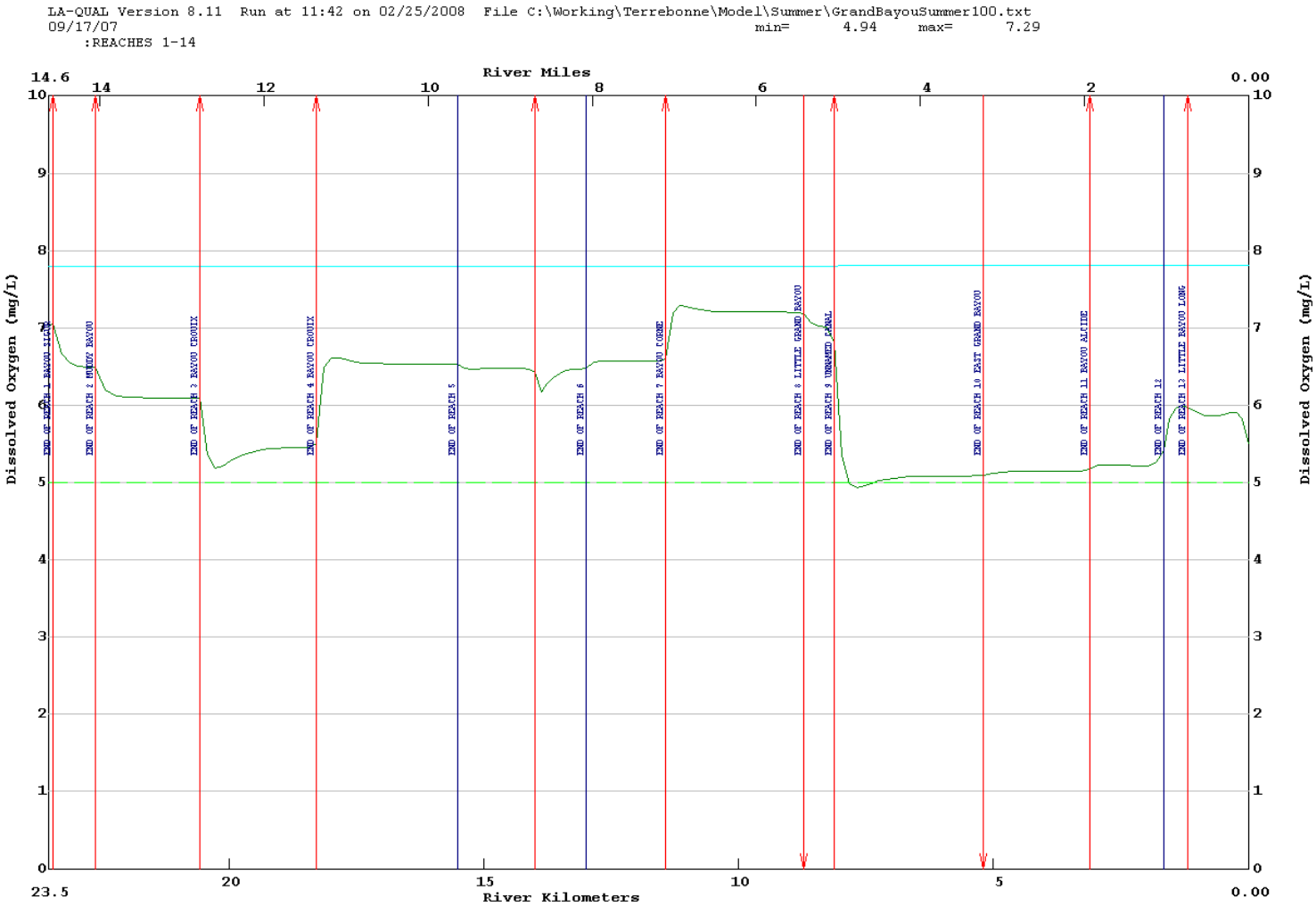
Shaded cells are input values for calculations. If modeling the nitrogen series, be sure that column "I" is clear of all values.

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


LA-QUAL Version 8.11 Run at 11:42 on 02/25/2008 File C:\Working\Terrebonne\Model\Summer\GrandBayouSummer100.txt
09/17/07 min= 4.94 max= 7.29
:REACHES 1-14
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
10
9
8
7
6
5
4
3
2
1
0
END OF REACH 1 BAYOU SIFAK
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCITRE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

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  SETTLED RATE UNITS                 =     2.0
ENDATA03
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ENDATA04
ENDATA05
ENDATA06
ENDATA07
!Reach Identification Data
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!         ***  -- ********************************----------**********----------
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
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!Advective Hydraulic Coefficients
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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
```

```
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HYDR-1     14  0.0000 0.0000 152.400 0.000  0.000  1.225   0.0001  0.035
ENDATA09
!Dispersive Hydraulic Coefficients
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HYDR-2      1  0.00   30.00      0.833     0.00      1.00
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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
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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
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COEF-1      1    4.0  0.00 0.0   0.0    0.118  0.084 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    0.369  0.081 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    0.783  0.074 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    1.695  0.067 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    0.837  0.071 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    0.840  0.078 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1      7    4.0  0.00 0.0   0.0    0.806  0.068 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1      8    4.0  0.00 0.0   0.0    0.397  0.054 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1      9    4.0  0.00 0.0   0.0    0.552  0.052 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1     10    4.0  0.00 0.0   0.0    2.000  0.054 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1     11    4.0  0.00 0.0   0.0    2.000  0.057 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1     12    4.0  0.00 0.0   0.0    2.000  0.055 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1     13    4.0  0.00 0.0   0.0    1.220  0.055 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1     14    4.0  0.00 0.0   0.0    1.169  0.061 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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  -------*******-------*******-------*******-------
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
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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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  -------*******-------*******-------*******       -------*******
ENDATA14
!Coliform and Nonconservative Cofficients
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  -------*******-------*******
ENDATA15
!Incremental Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  ---------********---------********---------********
ENDATA16
!Incremental Data for DO, BOD, and Nitrogen
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  ---------********---------********---------
ENDATA17
!Incremental Data for Phosphorus, Chlorophyll, Coliform and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  ---------********---------********
ENDATA18
!Nonpoint Source Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  ---------********---------********---------********
NONPOINT    1      1.180    0.885   0.0      0.00     0.0       0.00
NONPOINT    2     13.509    8.556   0.0      0.00     0.0       0.00
NONPOINT    3     38.021   15.208   0.0      0.00     0.0       0.00
NONPOINT    4      0.00    11.442   0.0      0.00     0.0       0.00
NONPOINT    5     73.256   24.070   0.0      0.00     0.0       0.00
NONPOINT    6     97.805   30.377   0.0      0.00     0.0       0.00
NONPOINT    7     60.453   20.151   0.0      0.00     0.0       0.00
NONPOINT    8    134.043   48.653   0.0      0.00     0.0       0.00
NONPOINT    9     38.517    3.852   0.0      0.00     0.0       0.00
NONPOINT   10      0.00     0.00    0.0      0.00     0.0       0.00
NONPOINT   11      0.00     0.00    0.0      0.00     0.0       0.00
NONPOINT   12      0.00     0.00    0.0      0.00     0.0       0.00
NONPOINT   13     10.166   20.333   0.0      0.00     0.0       0.00
NONPOINT   14     54.554   97.418   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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!        ****  -------------------- *** --------********--------********--------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!        ****  ---------********---------********---------********
HDWTR-2     1      7.03    2.570    3.666   0.000    0.00      0.000
ENDATA21
!Headwater Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!        ****  ---------********---------********
HDWTR-3     1      0.00    10.00   0.00    0.00
ENDATA22
!Junction Data
```

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!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        **** ----  ************************************************************
ENDATA23
!Wasteload Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  --------------------*********---------*********---------*********
WSTLD-1     2  BAYOU SIGUR           0.00283    28.13     0.17    15.00   345.0
WSTLD-1     7  MUDDY BAYOU           0.00283    28.13     0.08    16.90   169.2
WSTLD-1    17  BAYOU CROUIX (BYC1)   0.00283    28.13     0.12     8.40   250.2
WSTLD-1    32  BAYOU CROUIX (BYC2)   0.00283    28.13     0.14    17.40   296.8
WSTLD-1    62  GATOR SUPER STOP      0.00043              0.11    13.80   234.1
WSTLD-1    80  BAYOU CORNE           0.00283    28.13     0.07    10.20   154.13
WSTLD-1   100  LITTLE GRAND BAYOU   -0.00087
WSTLD-1   104  UNNAMED CANAL         0.00283    28.13     0.07    10.10   166.8
WSTLD-1   124  EAST GRAND BAYOU     -0.00964
WSTLD-1   135  BAYOU ALCIDE          0.00283    28.13     0.07     8.80   160.11
WSTLD-1   149  LITTLE BAYOU LONG     0.00283    28.13     0.07     9.00   153.6
ENDATA24
!Wasteload Data for DO, BOD, and Nitrogen
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------********-----********---------*****---------*********
WSTLD-2     2      7.03    2.570  0.0    4.052     0.00  0.0     0.00    0.000
WSTLD-2     7      7.03    0.508  0.0    0.000     0.00  0.0     0.00    0.000
WSTLD-2    17      7.03    2.570  0.0    1.445     0.00  0.0     0.00    0.000
WSTLD-2    32      7.03    2.570  0.0    2.514     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    80      7.03    0.288  0.0    0.000     0.00  0.0     0.00    0.000
WSTLD-2   100
WSTLD-2   104      7.03    2.570  0.0    1.380     0.00  0.0     0.00    0.000
WSTLD-2   124
WSTLD-2   135      7.03    2.570  0.0    1.226     0.00  0.0     0.00    0.000
WSTLD-2   149      7.03    2.570  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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------********---------*********
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    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                        =  28.13
LOWER BC SALINITY                           =   0.09
LOWER BC CONSERVATIVE MATERIAL I            =   9.30
LOWER BC CONSERVATIVE MATERIAL II           = 202.14
LOWER BC DISSOLVED OXYGEN                   =   5.00
LOWER BC BOD1 BIOCHEMICAL OXYGEN DEMAND     =   0.290
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  -------------------- ** --------********--------
ENDATA28
SENSIT   BASEFLOW   30.0  -30.0
SENSIT   VELOCITY   30.0  -30.0
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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

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LA-QUAL Version 8.11
Louisiana Department of Environmental Quality

Input file is C:\Working\Terrebonne\Model\Summer\GrandBayouSummer100.txt
Output produced at 11:42 on 02/25/2008

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

CARD TYPE       CONTROL TITLES

TITLE01         GRAND BAYOU SUMMER PROJECTION
TITLE02         09/17/07
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
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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

$$$ DATA TYPE 8 (REACH IDENTIFICATION DATA) $$$
                                                      BEGIN         END     ELEM    REACH     ELEMS   BEGIN    END
CARD TYPE  REACH  ID  NAME                            REACH       REACH   LENGTH   LENGTH    PER RCH   ELEM   ELEM
                                                         km          km       km       km               NUM    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
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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       WIDTH       WIDTH       DEPTH       DEPTH       DEPTH      SLOPE    MANNINGS
                            "A"         "B"         "C"         "D"         "E"         "F"                  "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     DISPERSION     DISPERSION     DISPERSION     DISPERSION
                        RANGE        "A"            "B"            "C"            "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
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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       28.13      0.15      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL          2   GB       28.13      0.14      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL          3   GB       28.13      0.11      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL          4   GB       28.13      0.09      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL          5   GB       28.13      0.09      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL          6   GB       28.13      0.10      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL          7   GB       28.13      0.08      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL          8   GB       28.13      0.07      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL          9   GB       28.13      0.07      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL         10   GB       28.13      0.07      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL         11   GB       28.13      0.08      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL         12   GB       28.13      0.08      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL         13   GB       28.13      0.08      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL         14   GB       28.13      0.07      5.00      0.00      0.00      0.00     10.00      0.00
ENDATA11

$$$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) $$$
                                                                                   BOD     ANAER                          BOD2     ANAER
CARD     RCH  RCH  K2                    K2        K2        K2    BKGRND      BOD      BOD    CONV     BOD2     BOD2     BOD2    CONV     BOD2
TYPE     NUM   ID  OPT                   "A"       "B"       "C"       SOD    DECAY     SETT  TO SOD    DECAY    DECAY     SETT  TO SOD    DECAY
                                                                    g/m²/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     0.118    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     0.369    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     0.783    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     1.695    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     0.837    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     0.840    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     0.806    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     0.397    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     0.552    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     2.000    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     2.000    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     2.000    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     1.220    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     1.169    0.061    0.050    0.000    0.000    0.000    0.050    0.000    0.000
ENDATA12
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$$$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) $$$

CARD TYPE      REACH  ID        NBOD      NBOD   ORGN CONV       NH3       NH3      PHOS     DENIT
                                DECA      SETT  TO NH3 SRCE     DECA      SRCE      SRCE      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    ALGAE:     ALGAE    ALG CONV     ALGAE     ALGAE     MACRO     MACRO
                                DEPTH     CHL A      SETT     TO SOD       GROW      RESP      GROW      RESP   SHADING

ENDATA14

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

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

ENDATA16

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

CARD TYPE      REACH  ID          DO       BOD      NBOD                          BOD#2
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ENDATA17

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

 CARD TYPE      REACH  ID        PHOS     CHL A      COLI       NCM

ENDATA18

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

CARD TYPE      REACH  ID       BOD#1     NBOD       COLI       NCM        DO     BOD#2

NONPOINT         1   GB        1.18      0.88      0.00      0.00      0.00      0.00
NONPOINT         2   GB       13.51      8.56      0.00      0.00      0.00      0.00
NONPOINT         3   GB       38.02     15.21      0.00      0.00      0.00      0.00
NONPOINT         4   GB        0.00     11.44      0.00      0.00      0.00      0.00
NONPOINT         5   GB       73.26     24.07      0.00      0.00      0.00      0.00
NONPOINT         6   GB       97.81     30.38      0.00      0.00      0.00      0.00
NONPOINT         7   GB       60.45     20.15      0.00      0.00      0.00      0.00
NONPOINT         8   GB      134.04     48.65      0.00      0.00      0.00      0.00
NONPOINT         9   GB       38.52      3.85      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       10.17     20.33      0.00      0.00      0.00      0.00
NONPOINT        14   GB       54.55     97.42      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     FLOW    TEMP    SALIN      CM-I     CM-II
                                                        m³/s      cfs   deg C      ppt      MG/L      MG/L

HDWTR-1          1     Grand Bayou Upstream    0   0.00283    0.100   28.13     0.15    13.600   300.800   0.00
ENDATA20

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

CARD TYPE     ELEMENT   NAME                        DO     BOD#1     NBOD                          BOD#2
                                                   mg/L      mg/L      mg/L      mg/L      mg/L      mg/L

HDWTR-2          1     Grand Bayou Upstream       7.03      2.57      3.67      0.00      0.00      0.00
ENDATA21

$$$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$
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CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
HDWTR-3	1	Grand Bayou Upstream	0.00	10.00	0.00	0.00

ENDATA22

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

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	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 CROUIX (BYC1)	0.00283	0.09993	0.065	28.13	0.12	8.400	250.200
WSTLD-1	32	18.29	BAYOU CROUIX (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	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 RMVL	NBOD mg/L	mg/L	% NITRIF	mg/L	BOD#2 mg/L
WSTLD-2	2	BAYOU SIGUR	7.03	2.57	0.00	4.05	0.00	0.00	0.00	0.00
WSTLD-2	7	MUDDY BAYOU	7.03	0.51	0.00	0.00	0.00	0.00	0.00	0.00
WSTLD-2	17	BAYOU CROUIX (BYC1)	7.03	2.57	0.00	1.45	0.00	0.00	0.00	0.00
WSTLD-2	32	BAYOU CROUIX (BYC2)	7.03	2.57	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	80	BAYOU CORNE	7.03	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	7.03	2.57	0.00	1.38	0.00	0.00	0.00	0.00

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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                7.03      2.57      0.00      1.23      0.00      0.00      0.00      0.00
WSTLD-2         149     LITTLE BAYOU LONG           7.03      2.57      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     CHL A      COLI       NCM
                                                    mg/L      mg/L      mg/L      mg/L

WSTLD-3           2     BAYOU SIGUR                 0.00     10.00      0.00      0.00
WSTLD-3           7     MUDDY BAYOU                 0.00     10.00      0.00      0.00
WSTLD-3          17     BAYOU CROUIX (BYC1)         0.00     10.00      0.00      0.00
WSTLD-3          32     BAYOU CROUIX (BYC2)         0.00     10.00      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     10.00      0.00      0.00
WSTLD-3         100     LITTLE GRAND BAYOU          0.00      0.00      0.00      0.00
WSTLD-3         104     UNNAMED CANAL               0.00     10.00      0.00      0.00
WSTLD-3         124     EAST GRAND BAYOU            0.00      0.00      0.00      0.00
WSTLD-3         135     BAYOU ALCIDE                0.00     10.00      0.00      0.00
WSTLD-3         149     LITTLE BAYOU LONG           0.00     10.00      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                  =      5.000     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
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$$$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) $$$

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           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

$$$ DATA TYPE 31 (OVERLAY PLOT DATA) $$$
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OVERLAY 1 OVERLAY GBProjection.TXT             :REACHES 1-14
ENDATA31


     .....NO ERRORS DETECTED IN INPUT DATA
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN   4 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED
     .....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11


FINAL REPORT    Grand Bayou Upstream                            GRAND BAYOU SUMMER PROJECTION
REACH NO.  1     SITE GRB1-BAYOU SIGUR                          09/17/07
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********** 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	0.00283	28.13	0.15	13.60	300.80	7.03	1.57	0.00	2.57	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	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	0.00283	0.0	0.00027	3.83	0.85	12.19	935.98	1097.28	10.40	0.00	0.000	0.007	0.000
TOT						3.83			935.98	1097.28					
AVG					0.0003		0.85	12.19			10.40				
CUM						3.83									

********** 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	23.440	7.80	0.96	0.12	0.06	0.00	0.00	0.00	0.00	0.20	0.20	0.20	0.19	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	0.82	0.08	0.05	0.00	0.00	0.05	0.00	0.12		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/m³	COLI #/100mL	NCM
1	23.440	28.13	0.15	13.78	306.56	7.05	3.91	0.00	4.91	0.00	3.64	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU SUMMER PROJECTION
REACH NO. 2 BAYOU SIGUR-MUDDY BAYOU 09/17/07

********** 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
2	UPR RCH	0.00283	28.13	0.15	13.78	306.56	7.05	3.91	0.00	4.91	0.00	3.64	0.00	0.00	0.00	10.00	0.00	0.00
2	WSTLD	0.00283	28.13	0.17	15.00	345.00	7.03	2.57	0.00	2.57	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	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
2	23.44	23.28	0.00566	50.0	0.00038	4.98	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.010	0.000
3	23.28	23.11	0.00566	50.0	0.00038	4.98	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.010	0.000
4	23.11	22.95	0.00566	50.0	0.00038	4.98	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.010	0.000
5	22.95	22.78	0.00566	50.0	0.00038	4.98	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.010	0.000
6	22.78	22.62	0.00566	50.0	0.00038	4.98	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.010	0.000
TOT						24.90			12177.00	13530.00					
AVG					0.0004		0.90	16.50			14.85				
CUM						28.73									

********** 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	7.80	0.91	0.12	0.06	0.00	0.00	0.00	0.00	0.62	0.62	0.62	0.19	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
3	23.112	7.80	0.91	0.12	0.06	0.00	0.00	0.00	0.00	0.62	0.62	0.62	0.19	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
4	22.948	7.80	0.91	0.12	0.06	0.00	0.00	0.00	0.00	0.62	0.62	0.62	0.19	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
5	22.784	7.80	0.91	0.12	0.06	0.00	0.00	0.00	0.00	0.62	0.62	0.62	0.19	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
6	22.620	7.80	0.91	0.12	0.06	0.00	0.00	0.00	0.00	0.62	0.62	0.62	0.19	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			0.78	0.08	0.05	0.00	0.00	0.05	0.00	0.37			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/m³	COLI #/100mL	NCM
2	23.276	28.13	0.16	14.30	322.90	6.66	4.64	0.00	5.64	0.00	3.31	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
3	23.112	28.13	0.16	14.30	322.87	6.55	5.36	0.00	6.36	0.00	3.07	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
4	22.948	28.13	0.16	14.30	322.72	6.51	5.75	0.00	6.75	0.00	2.96	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
5	22.784	28.13	0.16	14.32	321.66	6.49	5.95	0.00	6.95	0.00	2.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
6	22.620	28.13	0.16	14.45	314.28	6.49	5.95	0.00	6.95	0.00	2.79	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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

********** 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
7	UPR RCH	0.00566	28.13	0.16	14.45	314.28	6.49	5.95	0.00	6.95	0.00	2.79	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	ENDING DIST	FLOW	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO

	km	km	m³/s		m/s	days	m	m	m³	m²	m²	m³	m/s	m²/s	m/s
7	22.62	22.42	0.00849	66.7	0.00040	6.00	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	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	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	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	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	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	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	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	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	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.012	0.000
TOT						59.99			44001.24	43738.79					
AVG					0.0004		1.01	21.34			21.46				
CUM						88.71									

********** 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
7	22.415	7.80	0.81	0.11	0.06	0.00	0.00	0.00	0.00	1.31	1.31	1.31	0.17	0.06	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	1.31	1.31	1.31	0.17	0.06	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	1.31	1.31	1.31	0.17	0.06	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	1.31	1.31	1.31	0.17	0.06	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	1.31	1.31	1.31	0.17	0.06	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	1.31	1.31	1.31	0.17	0.06	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	1.31	1.31	1.31	0.17	0.06	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	1.31	1.31	1.31	0.17	0.06	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	1.31	1.31	1.31	0.17	0.06	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	1.31	1.31	1.31	0.17	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			0.70	0.07	0.05	0.00	0.00	0.05	0.00	0.78			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	28.13	0.13	15.17	271.67	6.21	4.74	0.00	5.74	0.00	1.69	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
8	22.210	28.13	0.13	15.17	271.67	6.13	4.93	0.00	5.93	0.00	1.58	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
9	22.005	28.13	0.13	15.17	271.67	6.11	5.03	0.00	6.03	0.00	1.53	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
10	21.800	28.13	0.13	15.17	271.67	6.10	5.08	0.00	6.08	0.00	1.50	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
11	21.595	28.13	0.13	15.17	271.67	6.10	5.11	0.00	6.11	0.00	1.49	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
12	21.390	28.13	0.13	15.17	271.67	6.10	5.12	0.00	6.12	0.00	1.49	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
13	21.185	28.13	0.13	15.17	271.66	6.10	5.13	0.00	6.13	0.00	1.49	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
14	20.980	28.13	0.13	15.16	271.65	6.10	5.13	0.00	6.13	0.00	1.49	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
15	20.775	28.13	0.13	15.13	271.54	6.10	5.12	0.00	6.12	0.00	1.49	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
16	20.570	28.13	0.13	14.84	270.64	6.10	4.89	0.00	5.89	0.00	1.46	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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

********** 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
17	UPR RCH	0.00849	28.13	0.13	14.84	270.64	6.10	4.89	0.00	5.89	0.00	1.46	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	2.57	0.00	2.57	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 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	0.01132	75.0	0.00044	4.02	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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												
CUM						148.95																	

********** 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	7.80	0.52	0.10	0.06	0.00	0.00	0.00	0.00	2.83	2.83	2.83	0.16	0.06	0.00	0.00	0.00	0.00	0.73	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	2.83	2.83	2.83	0.16	0.06	0.00	0.00	0.00	0.00	0.73	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	2.83	2.83	2.83	0.16	0.06	0.00	0.00	0.00	0.00	0.73	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	2.83	2.83	2.83	0.16	0.06	0.00	0.00	0.00	0.00	0.73	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	2.83	2.83	2.83	0.16	0.06	0.00	0.00	0.00	0.00	0.73	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	2.83	2.83	2.83	0.16	0.06	0.00	0.00	0.00	0.00	0.73	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	2.83	2.83	2.83	0.16	0.06	0.00	0.00	0.00	0.00	0.73	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	2.83	2.83	2.83	0.16	0.06	0.00	0.00	0.00	0.00	0.73	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	2.83	2.83	2.83	0.16	0.06	0.00	0.00	0.00	0.00	0.73	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	2.83	2.83	2.83	0.16	0.06	0.00	0.00	0.00	0.00	0.73	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	2.83	2.83	2.83	0.16	0.06	0.00	0.00	0.00	0.00	0.73	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	2.83	2.83	2.83	0.16	0.06	0.00	0.00	0.00	0.00	0.73	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	2.83	2.83	2.83	0.16	0.06	0.00	0.00	0.00	0.00	0.73	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	2.83	2.83	2.83	0.16	0.06	0.00	0.00	0.00	0.00	0.73	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	2.83	2.83	2.83	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			0.45	0.07	0.05	0.00	0.00	0.05	0.00	1.70			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
17	20.418	28.13	0.13	13.47	266.30	5.37	2.70	0.00	3.70	0.00	1.19	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
18	20.266	28.13	0.13	13.47	266.30	5.20	1.72	0.00	2.72	0.00	1.06	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
19	20.114	28.13	0.13	13.47	266.30	5.22	1.09	0.00	2.09	0.00	0.98	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
20	19.962	28.13	0.13	13.47	266.30	5.28	0.69	0.00	1.69	0.00	0.94	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
21	19.810	28.13	0.13	13.47	266.30	5.34	0.44	0.00	1.44	0.00	0.92	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
22	19.658	28.13	0.13	13.47	266.30	5.38	0.28	0.00	1.28	0.00	0.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

23	19.506	28.13	0.13	13.47	266.30	5.41	0.18	0.00	1.18	0.00	0.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
24	19.354	28.13	0.13	13.48	266.30	5.43	0.11	0.00	1.11	0.00	0.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
25	19.202	28.13	0.13	13.48	266.30	5.44	0.07	0.00	1.07	0.00	0.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
26	19.050	28.13	0.13	13.48	266.30	5.45	0.05	0.00	1.05	0.00	0.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
27	18.898	28.13	0.13	13.48	266.30	5.45	0.03	0.00	1.03	0.00	0.88	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
28	18.746	28.13	0.13	13.48	266.32	5.46	0.02	0.00	1.02	0.00	0.88	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
29	18.594	28.13	0.13	13.48	266.37	5.46	0.02	0.00	1.02	0.00	0.88	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
30	18.442	28.13	0.13	13.52	266.63	5.46	0.05	0.00	1.05	0.00	0.88	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
31	18.290	28.13	0.13	13.66	267.77	5.51	0.31	0.00	1.31	0.00	0.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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

********** 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
32	UPR RCH	0.01132	28.13	0.13	13.66	267.77	5.51	0.31	0.00	1.31	0.00	0.90	0.00	0.00	0.00	10.00	0.00	0.00
32	WSTLD	0.00283	28.13	0.14	17.40	296.80	7.03	2.57	0.00	2.57	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 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
32	18.29	18.14	0.01415	80.0	0.00030	5.90	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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				
CUM						255.07									

********** 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	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	1.40	1.40	1.40	0.17	0.06	0.00	0.00	0.00	0.00	0.73	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	1.40	1.40	1.40	0.17	0.06	0.00	0.00	0.00	0.00	0.73	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	1.40	1.40	1.40	0.17	0.06	0.00	0.00	0.00	0.00	0.73	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	1.40	1.40	1.40	0.17	0.06	0.00	0.00	0.00	0.00	0.73	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	1.40	1.40	1.40	0.17	0.06	0.00	0.00	0.00	0.00	0.73	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	1.40	1.40	1.40	0.17	0.06	0.00	0.00	0.00	0.00	0.73	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	1.40	1.40	1.40	0.17	0.06	0.00	0.00	0.00	0.00	0.73	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	1.40	1.40	1.40	0.17	0.06	0.00	0.00	0.00	0.00	0.73	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	1.40	1.40	1.40	0.17	0.06	0.00	0.00	0.00	0.00	0.73	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	1.40	1.40	1.40	0.17	0.06	0.00	0.00	0.00	0.00	0.73	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	1.40	1.40	1.40	0.17	0.06	0.00	0.00	0.00	0.00	0.73	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	1.40	1.40	1.40	0.17	0.06	0.00	0.00	0.00	0.00	0.73	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	1.40	1.40	1.40	0.17	0.06	0.00	0.00	0.00	0.00	0.73	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	1.40	1.40	1.40	0.17	0.06	0.00	0.00	0.00	0.00	0.73	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	1.40	1.40	1.40	0.17	0.06	0.00	0.00	0.00	0.00	0.73	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	1.40	1.40	1.40	0.17	0.06	0.00	0.00	0.00	0.00	0.73	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	1.40	1.40	1.40	0.17	0.06	0.00	0.00	0.00	0.00	0.73	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	1.40	1.40	1.40	0.17	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			0.45	0.07	0.05	0.00	0.00	0.05	0.00	0.84			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
32	18.135	28.13	0.13	14.26	272.40	6.49	1.96	0.00	2.96	0.00	0.97	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

33	17.980	28.13	0.13	14.26	272.40	6.62	2.65	0.00	3.65	0.00	0.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
34	17.825	28.13	0.13	14.26	272.40	6.61	3.02	0.00	4.02	0.00	0.85	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
35	17.670	28.13	0.13	14.26	272.40	6.59	3.22	0.00	4.22	0.00	0.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
36	17.515	28.13	0.13	14.26	272.40	6.57	3.32	0.00	4.32	0.00	0.83	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
37	17.360	28.13	0.13	14.26	272.40	6.55	3.38	0.00	4.38	0.00	0.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
38	17.205	28.13	0.13	14.26	272.40	6.55	3.41	0.00	4.41	0.00	0.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
39	17.050	28.13	0.13	14.26	272.40	6.54	3.43	0.00	4.43	0.00	0.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
40	16.895	28.13	0.13	14.26	272.40	6.54	3.44	0.00	4.44	0.00	0.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
41	16.740	28.13	0.13	14.26	272.40	6.54	3.44	0.00	4.44	0.00	0.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
42	16.585	28.13	0.13	14.26	272.40	6.54	3.44	0.00	4.44	0.00	0.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
43	16.430	28.13	0.13	14.26	272.40	6.54	3.45	0.00	4.45	0.00	0.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
44	16.275	28.13	0.13	14.26	272.40	6.54	3.45	0.00	4.45	0.00	0.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
45	16.120	28.13	0.13	14.26	272.40	6.54	3.45	0.00	4.45	0.00	0.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
46	15.965	28.13	0.13	14.26	272.40	6.54	3.45	0.00	4.45	0.00	0.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
47	15.810	28.13	0.13	14.26	272.40	6.54	3.45	0.00	4.45	0.00	0.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
48	15.655	28.13	0.13	14.26	272.40	6.54	3.45	0.00	4.45	0.00	0.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
49	15.500	28.13	0.13	14.26	272.40	6.53	3.44	0.00	4.44	0.00	0.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU SUMMER 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-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	0.01415	28.13	0.13	14.26	272.40	6.53	3.44	0.00	4.44	0.00	0.82	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

********** 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
50	15.50	15.38	0.01415	80.0	0.00021	6.85	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	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	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	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	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	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	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	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	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	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	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	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	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
63	13.88	13.75	0.01458	80.6	0.00022	6.64	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
64	13.75	13.62	0.01458	80.6	0.00022	6.64	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
65	13.62	13.50	0.01458	80.6	0.00022	6.64	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
66	13.50	13.38	0.01458	80.6	0.00022	6.64	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
67	13.38	13.25	0.01458	80.6	0.00022	6.64	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
68	13.25	13.12	0.01458	80.6	0.00022	6.64	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
69	13.12	13.00	0.01458	80.6	0.00022	6.64	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.009	0.000
TOT						135.30			167392.38	110490.00					
AVG					0.0002		1.51	44.20			66.96				
CUM						390.37									

********** 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
50	15.375	7.80	0.54	0.11	0.06	0.00	0.00	0.00	0.00	1.40	1.40	1.40	0.17	0.06	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	1.40	1.40	1.40	0.17	0.06	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	1.40	1.40	1.40	0.17	0.06	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	1.40	1.40	1.40	0.17	0.06	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	1.40	1.40	1.40	0.17	0.06	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	1.40	1.40	1.40	0.17	0.06	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	1.40	1.40	1.40	0.17	0.06	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	1.40	1.40	1.40	0.17	0.06	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	1.40	1.40	1.40	0.17	0.06	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	1.40	1.40	1.40	0.17	0.06	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	1.40	1.40	1.40	0.17	0.06	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	1.40	1.40	1.40	0.17	0.06	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	1.40	1.40	1.40	0.17	0.06	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	1.40	1.40	1.40	0.17	0.06	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	1.40	1.40	1.40	0.17	0.06	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	1.40	1.40	1.40	0.17	0.06	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	1.40	1.40	1.40	0.17	0.06	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	1.40	1.40	1.40	0.17	0.06	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	1.40	1.40	1.40	0.17	0.06	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	1.40	1.40	1.40	0.17	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	0.46	0.08	0.05	0.00	0.00	0.05	0.00	0.84		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
50	15.375	28.13	0.13	14.26	272.40	6.48	3.40	0.00	4.40	0.00	0.80	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
51	15.250	28.13	0.13	14.26	272.40	6.47	3.38	0.00	4.38	0.00	0.79	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
52	15.125	28.13	0.13	14.26	272.40	6.47	3.37	0.00	4.37	0.00	0.78	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
53	15.000	28.13	0.13	14.26	272.40	6.48	3.36	0.00	4.36	0.00	0.78	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
54	14.875	28.13	0.13	14.26	272.40	6.48	3.36	0.00	4.36	0.00	0.78	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
55	14.750	28.13	0.13	14.26	272.40	6.48	3.36	0.00	4.36	0.00	0.78	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
56	14.625	28.13	0.13	14.26	272.40	6.48	3.36	0.00	4.36	0.00	0.78	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
57	14.500	28.13	0.13	14.26	272.40	6.48	3.36	0.00	4.36	0.00	0.78	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
58	14.375	28.13	0.13	14.26	272.40	6.48	3.36	0.00	4.36	0.00	0.78	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
59	14.250	28.13	0.13	14.26	272.38	6.48	3.36	0.00	4.36	0.00	0.78	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
60	14.125	28.13	0.13	14.26	272.33	6.47	3.37	0.00	4.37	0.00	0.79	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
61	14.000	28.13	0.13	14.26	272.11	6.43	3.46	0.00	4.46	0.00	0.85	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
62	13.875	28.13	0.13	14.25	271.27	6.18	4.14	0.00	5.14	0.00	1.43	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
63	13.750	28.13	0.13	14.25	271.27	6.28	3.75	0.00	4.75	0.00	1.06	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
64	13.625	28.13	0.13	14.25	271.27	6.37	3.56	0.00	4.56	0.00	0.91	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
65	13.500	28.13	0.13	14.25	271.27	6.42	3.46	0.00	4.46	0.00	0.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
66	13.375	28.13	0.13	14.25	271.27	6.45	3.41	0.00	4.41	0.00	0.81	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
67	13.250	28.13	0.13	14.25	271.27	6.46	3.38	0.00	4.38	0.00	0.79	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
68	13.125	28.13	0.13	14.25	271.27	6.47	3.37	0.00	4.37	0.00	0.79	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
69	13.000	28.13	0.13	14.25	271.27	6.48	3.38	0.00	4.38	0.00	0.78	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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-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
70	UPR RCH	0.01458	28.13	0.13	14.25	271.27	6.48	3.38	0.00	4.38	0.00	0.78	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	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	0.01458	80.6	0.00022	8.31	1.55	43.00	10464.05	6751.00	66.65	47.26	0.000	0.009	0.000
71	12.84	12.69	0.01458	80.6	0.00022	8.31	1.55	43.00	10464.05	6751.00	66.65	94.51	0.000	0.009	0.000
72	12.69	12.53	0.01458	80.6	0.00022	8.31	1.55	43.00	10464.05	6751.00	66.65	141.77	0.000	0.009	0.000
73	12.53	12.37	0.01458	80.6	0.00022	8.31	1.55	43.00	10464.05	6751.00	66.65	189.03	0.000	0.009	0.000
74	12.37	12.22	0.01458	80.6	0.00022	8.31	1.55	43.00	10464.05	6751.00	66.65	236.29	0.000	0.009	0.000
75	12.22	12.06	0.01458	80.6	0.00022	8.31	1.55	43.00	10464.05	6751.00	66.65	283.54	0.000	0.009	0.000
76	12.06	11.90	0.01458	80.6	0.00022	8.31	1.55	43.00	10464.05	6751.00	66.65	330.80	0.000	0.009	0.000
77	11.90	11.74	0.01458	80.6	0.00022	8.31	1.55	43.00	10464.05	6751.00	66.65	378.06	0.000	0.009	0.000
78	11.74	11.59	0.01458	80.6	0.00022	8.31	1.55	43.00	10464.05	6751.00	66.65	425.31	0.000	0.009	0.000
79	11.59	11.43	0.01458	80.6	0.00022	8.31	1.55	43.00	10464.05	6751.00	66.65	472.57	0.000	0.010	0.000
TOT						83.07			104640.49	67510.00					
AVG					0.0002		1.55	43.00			66.65				
CUM						473.44									

********** 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
70	12.843	7.80	0.53	0.10	0.06	0.00	0.00	0.00	0.00	1.34	1.34	1.34	0.20	0.06	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	1.34	1.34	1.34	0.20	0.06	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	1.34	1.34	1.34	0.20	0.06	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	1.34	1.34	1.34	0.20	0.06	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	1.34	1.34	1.34	0.20	0.06	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	1.34	1.34	1.34	0.20	0.06	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	1.34	1.34	1.34	0.20	0.06	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	1.34	1.34	1.34	0.20	0.06	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	1.34	1.34	1.34	0.20	0.06	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	1.34	1.34	1.34	0.20	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			0.45	0.07	0.05	0.00	0.00	0.05	0.00	0.81			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/m³	COLI #/100mL	NCM
70	12.843	28.13	0.13	14.25	271.27	6.56	3.51	0.00	4.51	0.00	0.76	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
71	12.686	28.13	0.13	14.25	271.27	6.58	3.57	0.00	4.57	0.00	0.75	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
72	12.529	28.13	0.13	14.25	271.27	6.58	3.60	0.00	4.60	0.00	0.74	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
73	12.372	28.13	0.13	14.25	271.27	6.58	3.61	0.00	4.61	0.00	0.74	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
74	12.215	28.13	0.13	14.25	271.27	6.57	3.62	0.00	4.62	0.00	0.74	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
75	12.058	28.13	0.13	14.25	271.26	6.57	3.62	0.00	4.62	0.00	0.74	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
76	11.901	28.13	0.13	14.24	271.22	6.57	3.62	0.00	4.62	0.00	0.74	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
77	11.744	28.13	0.13	14.24	271.04	6.57	3.62	0.00	4.62	0.00	0.74	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
78	11.587	28.13	0.13	14.21	270.22	6.57	3.63	0.00	4.63	0.00	0.74	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
79	11.430	28.13	0.13	14.08	266.46	6.60	3.68	0.00	4.68	0.00	0.75	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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-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	0.01458	28.13	0.13	14.08	266.46	6.60	3.68	0.00	4.68	0.00	0.75	0.00	0.00	0.00	10.00	0.00	0.00
80	WSTLD	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	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
80	11.43	11.29	0.01741	83.7	0.00026	6.15	1.62	42.06	9244.43	5699.40	68.22	572.31	0.000	0.012	0.000
81	11.29	11.16	0.01741	83.7	0.00026	6.15	1.62	42.06	9244.43	5699.40	68.22	672.05	0.000	0.013	0.000
82	11.16	11.02	0.01741	83.7	0.00026	6.15	1.62	42.06	9244.43	5699.40	68.22	771.79	0.000	0.014	0.000
83	11.02	10.89	0.01741	83.7	0.00026	6.15	1.62	42.06	9244.43	5699.40	68.22	871.53	0.000	0.015	0.000
84	10.89	10.75	0.01741	83.7	0.00026	6.15	1.62	42.06	9244.43	5699.40	68.22	971.27	0.000	0.016	0.000
85	10.75	10.62	0.01741	83.7	0.00026	6.15	1.62	42.06	9244.43	5699.40	68.22	1071.01	0.000	0.017	0.000
86	10.62	10.48	0.01741	83.7	0.00026	6.15	1.62	42.06	9244.43	5699.40	68.22	1170.75	0.000	0.019	0.000
87	10.48	10.35	0.01741	83.7	0.00026	6.15	1.62	42.06	9244.43	5699.40	68.22	1270.49	0.000	0.020	0.000
88	10.35	10.21	0.01741	83.7	0.00026	6.15	1.62	42.06	9244.43	5699.40	68.22	1370.23	0.000	0.021	0.000
89	10.21	10.08	0.01741	83.7	0.00026	6.15	1.62	42.06	9244.43	5699.40	68.22	1469.97	0.000	0.023	0.001

90	10.08	9.94	0.01741	83.7	0.00026	6.15	1.62	42.06	9244.43	5699.40	68.22	1569.70	0.001	0.024	0.001
91	9.94	9.80	0.01741	83.7	0.00026	6.15	1.62	42.06	9244.43	5699.40	68.22	1669.44	0.001	0.026	0.001
92	9.80	9.67	0.01741	83.7	0.00026	6.15	1.62	42.06	9244.43	5699.40	68.22	1769.18	0.001	0.027	0.001
93	9.67	9.53	0.01741	83.7	0.00026	6.15	1.62	42.06	9244.43	5699.40	68.22	1868.92	0.001	0.028	0.001
94	9.53	9.40	0.01741	83.7	0.00026	6.15	1.62	42.06	9244.43	5699.40	68.22	1968.66	0.001	0.030	0.001
95	9.40	9.26	0.01741	83.7	0.00026	6.15	1.62	42.06	9244.43	5699.40	68.22	2068.40	0.001	0.031	0.001
96	9.26	9.13	0.01741	83.7	0.00026	6.15	1.62	42.06	9244.43	5699.40	68.22	2168.14	0.001	0.033	0.001
97	9.13	8.99	0.01741	83.7	0.00026	6.15	1.62	42.06	9244.43	5699.40	68.22	2267.88	0.001	0.034	0.001
98	8.99	8.86	0.01741	83.7	0.00026	6.15	1.62	42.06	9244.43	5699.40	68.22	2367.62	0.001	0.035	0.001
99	8.86	8.72	0.01741	83.7	0.00026	6.15	1.62	42.06	9244.43	5699.40	68.22	2467.36	0.001	0.037	0.001
TOT						122.91			184888.55	113988.01					
AVG					0.0003		1.62	42.06			68.22				
CUM						596.35									

********** 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	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	0.66	0.66	0.66	0.23	0.06	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	0.66	0.66	0.66	0.23	0.06	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	0.66	0.66	0.66	0.23	0.06	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	0.66	0.66	0.66	0.23	0.06	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	0.66	0.66	0.66	0.23	0.06	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	0.66	0.66	0.66	0.23	0.06	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	0.66	0.66	0.66	0.23	0.06	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	0.66	0.66	0.66	0.23	0.06	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	0.66	0.66	0.66	0.23	0.06	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	0.66	0.66	0.66	0.23	0.06	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	0.66	0.66	0.66	0.23	0.06	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	0.66	0.66	0.66	0.23	0.06	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	0.66	0.66	0.66	0.23	0.06	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	0.66	0.66	0.66	0.23	0.06	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	0.66	0.66	0.66	0.23	0.06	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	0.66	0.66	0.66	0.23	0.06	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	0.66	0.66	0.66	0.23	0.06	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	0.66	0.66	0.66	0.23	0.06	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	0.66	0.66	0.66	0.23	0.06	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	0.66	0.66	0.66	0.23	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	0.05	0.05	0.00	0.00	0.05	0.00	0.40			0.14	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
80	11.295	28.13	0.12	13.59	252.23	7.20	4.11	0.00	5.11	0.00	0.81	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
81	11.159	28.13	0.12	13.59	252.23	7.29	4.59	0.00	5.59	0.00	0.86	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
82	11.024	28.13	0.12	13.59	252.23	7.27	4.85	0.00	5.85	0.00	0.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
83	10.888	28.13	0.12	13.59	252.23	7.25	5.01	0.00	6.01	0.00	0.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
84	10.753	28.13	0.12	13.59	252.23	7.23	5.09	0.00	6.09	0.00	0.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
85	10.617	28.13	0.12	13.59	252.23	7.22	5.14	0.00	6.14	0.00	0.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
86	10.482	28.13	0.12	13.59	252.23	7.22	5.17	0.00	6.17	0.00	0.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
87	10.346	28.13	0.12	13.59	252.23	7.21	5.19	0.00	6.19	0.00	0.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
88	10.211	28.13	0.12	13.59	252.23	7.21	5.20	0.00	6.20	0.00	0.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
89	10.075	28.13	0.12	13.59	252.23	7.21	5.20	0.00	6.20	0.00	0.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
90	9.940	28.13	0.12	13.59	252.23	7.21	5.21	0.00	6.21	0.00	0.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
91	9.804	28.13	0.12	13.59	252.23	7.21	5.21	0.00	6.21	0.00	0.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
92	9.669	28.13	0.12	13.59	252.23	7.21	5.21	0.00	6.21	0.00	0.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
93	9.533	28.13	0.12	13.59	252.22	7.21	5.21	0.00	6.21	0.00	0.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
94	9.398	28.13	0.12	13.59	252.22	7.21	5.21	0.00	6.21	0.00	0.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
95	9.262	28.13	0.12	13.59	252.20	7.21	5.21	0.00	6.21	0.00	0.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
96	9.127	28.13	0.12	13.59	252.17	7.21	5.22	0.00	6.22	0.00	0.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
97	8.991	28.13	0.12	13.58	252.11	7.21	5.23	0.00	6.23	0.00	0.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
98	8.856	28.13	0.12	13.58	252.00	7.20	5.27	0.00	6.27	0.00	0.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
99	8.720	28.13	0.12	13.57	251.78	7.18	5.41	0.00	6.41	0.00	0.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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-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	0.01741	28.13	0.12	13.57	251.78	7.18	5.41	0.00	6.41	0.00	0.84	0.00	0.00	0.00	10.00	0.00	0.00
100	WSTLD	-0.00087	28.13	0.12	13.55	251.33	7.07	5.85	0.00	6.85	0.00	0.63	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	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	0.01654	83.7	0.00023	7.57	1.48	48.77	10811.87	7315.20	72.08	2613.81	0.001	0.034	0.001
101	8.57	8.42	0.01654	83.7	0.00023	7.57	1.48	48.77	10811.87	7315.20	72.08	2760.26	0.001	0.036	0.001
102	8.42	8.27	0.01654	83.7	0.00023	7.57	1.48	48.77	10811.87	7315.20	72.08	2906.71	0.001	0.038	0.001
103	8.27	8.12	0.01654	83.7	0.00023	7.57	1.48	48.77	10811.87	7315.20	72.08	3053.16	0.001	0.040	0.001
TOT						30.26			43247.46	29260.80					
AVG					0.0002		1.48	48.77			72.08				
CUM						626.62									

********** 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
100	8.570	7.80	0.55	0.08	0.06	0.00	0.00	0.00	0.00	0.92	0.92	0.92	0.15	0.06	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	0.92	0.92	0.92	0.15	0.06	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	0.92	0.92	0.92	0.15	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
103	8.120	7.80	0.55	0.08	0.06	0.00	0.00	0.00	0.00	0.92	0.92	0.92	0.15	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			0.47	0.05	0.05	0.00	0.00	0.05	0.00	0.55			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/m³	COLI #/100mL	NCM
100	8.570	28.13	0.12	13.55	251.33	7.07	5.85	0.00	6.85	0.00	0.63	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
101	8.420	28.13	0.12	13.51	250.39	7.03	6.05	0.00	7.05	0.00	0.52	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
102	8.270	28.13	0.12	13.44	248.63	7.01	5.98	0.00	6.98	0.00	0.45	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
103	8.120	28.13	0.12	13.31	245.38	6.82	5.31	0.00	6.31	0.00	0.39	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU SUMMER PROJECTION
REACH NO. 10 UNNAMED CANAL-E GRAND BAYOU 09/17/07

********** 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
104	UPR RCH	0.01654	28.13	0.12	13.31	245.38	6.82	5.31	0.00	6.31	0.00	0.39	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	2.57	0.00	2.57	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 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	0.01937	86.1	0.00028	6.08	1.55	45.00	10183.50	6570.00	69.75	3283.11	0.001	0.046	0.001
105	7.97	7.83	0.01937	86.1	0.00028	6.08	1.55	45.00	10183.50	6570.00	69.75	3513.06	0.001	0.049	0.001
106	7.83	7.68	0.01937	86.1	0.00028	6.08	1.55	45.00	10183.50	6570.00	69.75	3743.01	0.001	0.052	0.001
107	7.68	7.54	0.01937	86.1	0.00028	6.08	1.55	45.00	10183.50	6570.00	69.75	3972.96	0.001	0.055	0.001
108	7.54	7.39	0.01937	86.1	0.00028	6.08	1.55	45.00	10183.50	6570.00	69.75	4202.91	0.001	0.058	0.001
109	7.39	7.24	0.01937	86.1	0.00028	6.08	1.55	45.00	10183.50	6570.00	69.75	4432.86	0.001	0.062	0.001
110	7.24	7.10	0.01937	86.1	0.00028	6.08	1.55	45.00	10183.50	6570.00	69.75	4662.81	0.001	0.065	0.001
111	7.10	6.95	0.01937	86.1	0.00028	6.08	1.55	45.00	10183.50	6570.00	69.75	4892.76	0.002	0.068	0.002
112	6.95	6.81	0.01937	86.1	0.00028	6.08	1.55	45.00	10183.50	6570.00	69.75	5122.71	0.002	0.071	0.002
113	6.81	6.66	0.01937	86.1	0.00028	6.08	1.55	45.00	10183.50	6570.00	69.75	5352.66	0.002	0.074	0.002
114	6.66	6.51	0.01937	86.1	0.00028	6.08	1.55	45.00	10183.50	6570.00	69.75	5582.61	0.002	0.077	0.002
115	6.51	6.37	0.01937	86.1	0.00028	6.08	1.55	45.00	10183.50	6570.00	69.75	5812.56	0.002	0.080	0.002
116	6.37	6.22	0.01937	86.1	0.00028	6.08	1.55	45.00	10183.50	6570.00	69.75	6042.51	0.002	0.084	0.002
117	6.22	6.08	0.01937	86.1	0.00028	6.08	1.55	45.00	10183.50	6570.00	69.75	6272.46	0.002	0.087	0.002
118	6.08	5.93	0.01937	86.1	0.00028	6.08	1.55	45.00	10183.50	6570.00	69.75	6502.41	0.002	0.090	0.002
119	5.93	5.78	0.01937	86.1	0.00028	6.08	1.55	45.00	10183.50	6570.00	69.75	6732.36	0.002	0.093	0.002
120	5.78	5.64	0.01937	86.1	0.00028	6.08	1.55	45.00	10183.50	6570.00	69.75	6962.31	0.002	0.096	0.002
121	5.64	5.49	0.01937	86.1	0.00028	6.08	1.55	45.00	10183.50	6570.00	69.75	7192.26	0.002	0.099	0.002
122	5.49	5.35	0.01937	86.1	0.00028	6.08	1.55	45.00	10183.50	6570.00	69.75	7422.21	0.002	0.102	0.002
123	5.35	5.20	0.01937	86.1	0.00028	6.08	1.55	45.00	10183.50	6570.00	69.75	7652.16	0.002	0.106	0.002
TOT						121.70			203670.00	131400.00					
AVG					0.0003		1.55	45.00			69.75				
CUM						748.32									

********** 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
104	7.974	7.80	0.53	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
105	7.828	7.80	0.53	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
106	7.682	7.80	0.53	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
107	7.536	7.80	0.53	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
108	7.390	7.80	0.53	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
109	7.244	7.80	0.53	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
110	7.098	7.80	0.53	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
111	6.952	7.80	0.53	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
112	6.806	7.80	0.53	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
113	6.660	7.80	0.53	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
114	6.514	7.80	0.53	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
115	6.368	7.80	0.53	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
116	6.222	7.80	0.53	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
117	6.076	7.80	0.53	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
118	5.930	7.80	0.53	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
119	5.784	7.80	0.53	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
120	5.638	7.80	0.53	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
121	5.492	7.80	0.53	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
122	5.346	7.80	0.53	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
123	5.200	7.80	0.53	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	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			0.45	0.05	0.05	0.00	0.00	0.05	0.00	2.00			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/m³	COLI #/100mL	NCM
104	7.974	28.13	0.11	13.08	239.79	5.36	3.15	0.00	4.15	0.00	0.24	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
105	7.828	28.13	0.11	13.08	239.79	4.99	1.96	0.00	2.96	0.00	0.13	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
106	7.682	28.13	0.11	13.08	239.79	4.94	1.23	0.00	2.23	0.00	0.07	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
107	7.536	28.13	0.11	13.08	239.79	4.96	0.78	0.00	1.78	0.00	0.04	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
108	7.390	28.13	0.11	13.08	239.79	5.00	0.49	0.00	1.49	0.00	0.02	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
109	7.244	28.13	0.11	13.08	239.78	5.03	0.31	0.00	1.31	0.00	0.01	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
110	7.098	28.13	0.11	13.08	239.78	5.05	0.20	0.00	1.20	0.00	0.01	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
111	6.952	28.13	0.11	13.08	239.78	5.06	0.13	0.00	1.13	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
112	6.806	28.13	0.11	13.08	239.77	5.07	0.08	0.00	1.08	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
113	6.660	28.13	0.11	13.08	239.76	5.08	0.06	0.00	1.06	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
114	6.514	28.13	0.11	13.08	239.74	5.08	0.04	0.00	1.04	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
115	6.368	28.13	0.11	13.08	239.72	5.09	0.02	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

116	6.222	28.13	0.11	13.07	239.68	5.09	0.02	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
117	6.076	28.13	0.11	13.07	239.63	5.09	0.01	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
118	5.930	28.13	0.11	13.07	239.56	5.09	0.01	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
119	5.784	28.13	0.11	13.06	239.46	5.09	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
120	5.638	28.13	0.11	13.05	239.32	5.09	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
121	5.492	28.13	0.11	13.04	239.12	5.09	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
122	5.346	28.13	0.11	13.02	238.86	5.09	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
123	5.200	28.13	0.11	13.00	238.49	5.10	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU SUMMER PROJECTION
REACH NO. 11 E GRAND BAYOU-BAYOU ALCIDE 09/17/07

********** 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
124	UPR RCH	0.01937	28.13	0.11	13.00	238.49	5.10	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	5.13	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	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	0.00973	86.1	0.00014	15.68	1.62	42.95	13177.98	8159.74	69.36	8080.55	0.003	0.116	0.003
125	5.01	4.82	0.00973	86.1	0.00014	15.68	1.62	42.95	13177.98	8159.74	69.36	8508.94	0.003	0.122	0.003
126	4.82	4.63	0.00973	86.1	0.00014	15.68	1.62	42.95	13177.98	8159.74	69.36	8937.32	0.003	0.128	0.003
127	4.63	4.44	0.00973	86.1	0.00014	15.68	1.62	42.95	13177.98	8159.74	69.36	9365.71	0.003	0.134	0.003
128	4.44	4.25	0.00973	86.1	0.00014	15.68	1.62	42.95	13177.98	8159.74	69.36	9794.10	0.003	0.140	0.003
129	4.25	4.06	0.00973	86.1	0.00014	15.68	1.62	42.95	13177.98	8159.74	69.36	10222.48	0.003	0.147	0.003
130	4.06	3.87	0.00973	86.1	0.00014	15.68	1.62	42.95	13177.98	8159.74	69.36	10650.87	0.003	0.153	0.003
131	3.87	3.68	0.00973	86.1	0.00014	15.68	1.62	42.95	13177.98	8159.74	69.36	11079.26	0.004	0.159	0.004
132	3.68	3.49	0.00973	86.1	0.00014	15.68	1.62	42.95	13177.98	8159.74	69.36	11507.64	0.004	0.165	0.004
133	3.49	3.30	0.00973	86.1	0.00014	15.68	1.62	42.95	13177.98	8159.74	69.36	11936.03	0.004	0.171	0.004
134	3.30	3.11	0.00973	86.1	0.00014	15.68	1.62	42.95	13177.98	8159.74	69.36	12364.42	0.004	0.177	0.004
TOT						172.43			144957.77	89757.14					
AVG					0.0001		1.61	42.95			69.36				
CUM						920.75									

********** 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	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	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	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	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	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	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	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	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	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	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	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	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	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	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	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	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	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	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	7.80	0.50	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	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	3.34	3.34	3.34	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	0.05	0.00	2.00			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/m³	COLI #/100mL	NCM
124	5.010	28.13	0.11	12.97	237.95	5.13	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
125	4.820	28.13	0.11	12.92	237.13	5.14	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
126	4.630	28.13	0.11	12.86	236.18	5.15	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
127	4.440	28.13	0.11	12.79	235.07	5.15	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
128	4.250	28.13	0.11	12.71	233.80	5.15	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
129	4.060	28.13	0.11	12.62	232.35	5.15	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
130	3.870	28.13	0.11	12.52	230.71	5.15	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
131	3.680	28.13	0.11	12.40	228.84	5.15	0.01	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
132	3.490	28.13	0.11	12.27	226.74	5.15	0.01	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
133	3.300	28.13	0.11	12.13	224.38	5.15	0.03	0.00	1.03	0.00	0.01	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
134	3.110	28.13	0.10	11.96	221.74	5.18	0.05	0.00	1.05	0.00	0.02	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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-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	0.00973	28.13	0.10	11.96	221.74	5.18	0.05	0.00	1.05	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	2.57	0.00	2.57	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 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
135	3.11	2.96	0.01256	89.2	0.00013	12.74	1.73	55.00	13828.65	7975.00	95.37	12811.02	0.003	0.142	0.003
136	2.96	2.82	0.01256	89.2	0.00013	12.74	1.73	55.00	13828.65	7975.00	95.37	13257.62	0.003	0.147	0.003
137	2.82	2.67	0.01256	89.2	0.00013	12.74	1.73	55.00	13828.65	7975.00	95.37	13704.22	0.003	0.152	0.003
138	2.67	2.53	0.01256	89.2	0.00013	12.74	1.73	55.00	13828.65	7975.00	95.37	14150.82	0.003	0.157	0.003
139	2.53	2.38	0.01256	89.2	0.00013	12.74	1.73	55.00	13828.65	7975.00	95.37	14597.42	0.003	0.161	0.003
140	2.38	2.24	0.01256	89.2	0.00013	12.74	1.73	55.00	13828.65	7975.00	95.37	15044.01	0.004	0.166	0.004
141	2.24	2.10	0.01256	89.2	0.00013	12.74	1.73	55.00	13828.65	7975.00	95.37	15490.61	0.004	0.171	0.004
142	2.10	1.95	0.01256	89.2	0.00013	12.74	1.73	55.00	13828.65	7975.00	95.37	15937.21	0.004	0.176	0.004
143	1.95	1.81	0.01256	89.2	0.00013	12.74	1.73	55.00	13828.65	7975.00	95.37	16383.81	0.004	0.181	0.004
144	1.81	1.66	0.01256	89.2	0.00013	12.74	1.73	55.00	13828.65	7975.00	95.37	16830.41	0.004	0.186	0.004
TOT						127.43			138286.50	79750.00					
AVG					0.0001		1.73	55.00			95.37				
CUM						1048.18									

********** 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
135	2.965	7.81	0.47	0.08	0.06	0.00	0.00	0.00	0.00	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	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	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	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	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	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	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	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	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	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	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	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	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	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	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	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	3.34	3.34	3.34	0.15	0.06	0.00	0.00	0.00	0.00	0.73	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	3.34	3.34	3.34	0.15	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			0.40	0.05	0.05	0.00	0.00	0.05	0.00	2.00			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/m³	COLI #/100mL	NCM
135	2.965	28.13	0.10	11.81	219.21	5.23	0.08	0.00	1.08	0.00	0.03	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
136	2.820	28.13	0.10	11.75	218.68	5.24	0.06	0.00	1.06	0.00	0.02	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
137	2.675	28.13	0.10	11.70	218.09	5.24	0.05	0.00	1.05	0.00	0.02	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
138	2.530	28.13	0.10	11.63	217.46	5.23	0.05	0.00	1.05	0.00	0.03	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
139	2.385	28.13	0.10	11.57	216.76	5.23	0.06	0.00	1.06	0.00	0.04	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
140	2.240	28.13	0.10	11.49	216.01	5.22	0.08	0.00	1.08	0.00	0.07	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
141	2.095	28.13	0.10	11.41	215.19	5.22	0.13	0.00	1.13	0.00	0.11	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
142	1.950	28.13	0.10	11.32	214.30	5.22	0.20	0.00	1.20	0.00	0.20	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
143	1.805	28.13	0.10	11.23	213.34	5.27	0.31	0.00	1.31	0.00	0.35	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
144	1.660	28.13	0.10	11.13	212.32	5.42	0.49	0.00	1.49	0.00	0.61	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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-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	0.01256	28.13	0.10	11.13	212.32	5.42	0.49	0.00	1.49	0.00	0.61	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	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	0.01256	89.2	0.00010	13.51	1.50	85.00	14662.50	9775.00	127.50	17514.66	0.003	0.128	0.003

146	1.54	1.43	0.01256	89.2	0.00010	13.51	1.50	85.00	14662.50	9775.00	127.50	18198.91	0.003	0.133	0.003
147	1.43	1.31	0.01256	89.2	0.00010	13.51	1.50	85.00	14662.50	9775.00	127.50	18883.16	0.003	0.138	0.003
148	1.31	1.20	0.01256	89.2	0.00010	13.51	1.50	85.00	14662.50	9775.00	127.50	19567.41	0.003	0.143	0.003
TOT						54.05			58650.00	39100.00					
AVG					0.0001		1.50	85.00			127.50				
CUM						1102.22									

********** 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
145	1.545	7.81	0.54	0.08	0.06	0.00	0.00	0.00	0.00	2.04	2.04	2.04	0.15	0.06	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	2.04	2.04	2.04	0.15	0.06	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	2.04	2.04	2.04	0.15	0.06	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	2.04	2.04	2.04	0.15	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			0.47	0.05	0.05	0.00	0.00	0.05	0.00	1.22			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/m³	COLI #/100mL	NCM
145	1.545	28.13	0.10	11.03	211.27	5.83	0.76	0.00	1.76	0.00	1.02	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
146	1.430	28.13	0.10	10.92	210.24	5.97	0.94	0.00	1.94	0.00	1.28	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
147	1.315	28.13	0.10	10.82	209.15	6.00	1.09	0.00	2.09	0.00	1.46	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
148	1.200	28.13	0.10	10.71	208.02	5.98	1.23	0.00	2.23	0.00	1.60	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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-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	0.01256	28.13	0.10	10.71	208.02	5.98	1.23	0.00	2.23	0.00	1.60	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	2.57	0.00	2.57	0.00	0.96	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	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	0.01539	91.2	0.00008	16.85	1.23	152.40	22402.80	18288.00	186.69	20847.57	0.002	0.088	0.002
150	1.08	0.96	0.01539	91.2	0.00008	16.85	1.23	152.40	22402.80	18288.00	186.69	22127.73	0.003	0.094	0.003
151	0.96	0.84	0.01539	91.2	0.00008	16.85	1.23	152.40	22402.80	18288.00	186.69	23407.89	0.003	0.099	0.003
152	0.84	0.72	0.01539	91.2	0.00008	16.85	1.23	152.40	22402.80	18288.00	186.69	24688.05	0.003	0.104	0.003
153	0.72	0.60	0.01539	91.2	0.00008	16.85	1.23	152.40	22402.80	18288.00	186.69	25968.21	0.003	0.110	0.003
154	0.60	0.48	0.01539	91.2	0.00008	16.85	1.23	152.40	22402.80	18288.00	186.69	27248.38	0.003	0.115	0.003
155	0.48	0.36	0.01539	91.2	0.00008	16.85	1.23	152.40	22402.80	18288.00	186.69	28528.54	0.003	0.121	0.003
156	0.36	0.24	0.01539	91.2	0.00008	16.85	1.23	152.40	22402.80	18288.00	186.69	29808.70	0.004	0.126	0.004
157	0.24	0.12	0.01539	91.2	0.00008	16.85	1.23	152.40	22402.80	18288.00	186.69	31088.86	0.004	0.131	0.004
158	0.12	0.00	0.01539	91.2	0.00008	16.85	1.23	152.40	22402.80	18288.00	186.69	32369.02	0.004	0.137	0.004
TOT						168.48			224027.98	182880.00					
AVG					0.0001		1.23	152.40			186.69				
CUM						1270.70									

********** 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	7.81	0.67	0.09	0.06	0.00	0.00	0.00	0.00	1.95	1.95	1.95	0.16	0.06	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	1.95	1.95	1.95	0.16	0.06	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	1.95	1.95	1.95	0.16	0.06	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	1.95	1.95	1.95	0.16	0.06	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	1.95	1.95	1.95	0.16	0.06	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	1.95	1.95	1.95	0.16	0.06	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	1.95	1.95	1.95	0.16	0.06	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	1.95	1.95	1.95	0.16	0.06	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	1.95	1.95	1.95	0.16	0.06	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	1.95	1.95	1.95	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			0.57	0.06	0.05	0.00	0.00	0.05	0.00	1.17			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
149	1.080	28.13	0.09	10.58	206.73	5.93	1.38	0.00	2.38	0.00	1.75	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
150	0.960	28.13	0.09	10.47	206.32	5.89	1.46	0.00	2.46	0.00	1.85	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
151	0.840	28.13	0.09	10.35	205.90	5.87	1.49	0.00	2.49	0.00	1.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
152	0.720	28.13	0.09	10.23	205.46	5.87	1.50	0.00	2.50	0.00	1.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
153	0.600	28.13	0.09	10.10	205.00	5.87	1.47	0.00	2.47	0.00	1.87	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
154	0.480	28.13	0.09	9.96	204.52	5.89	1.41	0.00	2.41	0.00	1.81	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
155	0.360	28.13	0.09	9.83	204.03	5.91	1.29	0.00	2.29	0.00	1.69	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
156	0.240	28.13	0.09	9.68	203.51	5.91	1.11	0.00	2.11	0.00	1.48	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
157	0.120	28.13	0.09	9.53	202.98	5.83	0.81	0.00	1.81	0.00	1.12	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
158	0.000	28.13	0.09	9.38	202.43	5.51	0.36	0.00	1.36	0.00	0.52	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

STREAM SUMMARY
Grand Bayou Upstream

GRAND BAYOU SUMMER PROJECTION
09/17/07

TRAVEL TIME	=	1270.70	DAYS		
MAXIMUM EFFLUENT	=	91.22	PERCENT		
FLOW	=	0.00283	TO	0.01937	m³/s
DISPERSION	=	0.0072	TO	0.1862	m²/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	=	0.20	TO	3.34	g/m²/d
NH3 SOURCE	=	0.00	TO	0.00	g/m²/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	=	4.94	TO	7.29	mg/L

.....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

			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 CROUIX (BYC1)	22.62	20.57	0.2050	
4	GB	B CROUIX (BYC1)-B CROUIX (BYC2)	20.57	18.29	0.1520	
5	GB	B CROUIX (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

		DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS			
Reach	**Name**	**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 CROUIX (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 CROUIX (BYC1)-B CROUIX (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 CROUIX (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

		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS				
Reach	**Name**	**Tidal Range**	**Data Source**	**Dispersion Coeff. "a"**	**Dispersion Coeff. "b"**	**Dispersion Coeff. "c"**	**Dispersion Coeff. "d"**	**Data Source**
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 CROUIX (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 CROUIX (BYC1)-B CROUIX (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 CROUIX (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

		DATA TYPE 11 - INITIAL CONDITIONS				DATA TYPE 11 - INITIAL CONDITIONS		
Reach	**Name**	**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 CROUIX (BYC1)	28.13	0.11	5.00		10.00	0	
4	B CROUIX (BYC1)-B CROUIX (BYC2)	28.13	0.09	5.00		10.00	0	
5	B CROUIX (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

		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	
REACH	NAME	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	0.118	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	0.369		0.081		0.05	LTP, BPJ and calibration
3	MUDDY BAYOU-BAYOU CROUIX (BYC1)	4	Owens-Edwards-Gibbs	0.783		0.074		0.05	LTP, BPJ and calibration
4	B CROUIX (BYC1)-B CROUIX (BYC2)	4	Owens-Edwards-Gibbs	1.695		0.067		0.05	LTP, BPJ and calibration
5	B CROUIX (BYC2)-km 15.5	4	Owens-Edwards-Gibbs	0.837		0.071		0.05	LTP, BPJ and calibration
6	km 15.5-km 13.0	4	Owens-Edwards-Gibbs	0.840		0.078		0.05	LTP, BPJ and calibration
7	km 13.0-BAYOU CORNE	4	Owens-Edwards-Gibbs	0.806		0.068		0.05	LTP, BPJ and calibration
8	B CORNE-LITTLE GRAND BAYOU	4	Owens-Edwards-Gibbs	0.397		0.054		0.05	LTP, BPJ and calibration
9	LITTLE GRAND-UNNAMED CANAL	4	Owens-Edwards-Gibbs	0.552		0.052		0.05	LTP, BPJ and calibration
10	UNNAMED CANAL-E GRAND BAYOU	4	Owens-Edwards-Gibbs	2.000		0.054		0.05	LTP, BPJ and calibration
11	E GRAND BAYOU-BAYOU ALCIDE	4	Owens-Edwards-Gibbs	2.000		0.057		0.05	LTP, BPJ and calibration
12	BAYOU ALCIDE-SITE GRB8	4	Owens-Edwards-Gibbs	2.000		0.055		0.05	LTP, BPJ and calibration
13	SITE GRB8-LITTLE BAYOU LONG	4	Owens-Edwards-Gibbs	1.220		0.055		0.05	LTP, BPJ and calibration
14	L BAYOU LONG-LAKE VERRET	4	Owens-Edwards-Gibbs	1.169		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 CROUIX (BYC1)	0.105	0.05		1.00	
4	B CROUIX (BYC1)-B CROUIX (BYC2)	0.099	0.05		1.00	
5	B CROUIX (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. Ouflow, 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 CROUIX (BYC1)		0.000						
4	B CROUIX (BYC1)-B CROUIX (BYC2)		0.000						
5	B CROUIX (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	1.180	0.885	TMDL Loading Spreadsheet.
2	BAYOU SIGUR-MUDDY BAYOU	0.82	13.509	8.556	
3	MUDDY BAYOU-BAYOU CROUIX (BYC1)	2.05	38.021	15.208	
4	B CROUIX (BYC1)-B CROUIX (BYC2)	2.28	0.000	11.442	
5	B CROUIX (BYC2)-km 15.5	2.79	73.256	24.070	
6	km 15.5-km 13.0	2.50	97.805	30.377	
7	km 13.0-BAYOU CORNE	1.57	60.453	20.151	
8	B CORNE-LITTLE GRAND BAYOU	2.71	134.043	48.653	
9	LITTLE GRAND-UNNAMED CANAL	0.60	38.517	3.852	
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	10.166	20.333	
14	L BAYOU LONG-LAKE VERRET	1.20	54.554	97.418	

	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	2.570	3.666	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 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	296.8	Summer critical Flow and Temp. Survey data, Site BYC2
Gator Super Stop	62	0.00043		0.11	13.8	234.1	Permitted flow adjusted for MOS. Survey data, Site PST1
Bayou Corne	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					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					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

	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	2.570		4.052	Summer critical temp and TMDL Loading Spreadsheet
Muddy Bayou	7	7.03	0.508		0.000	Summer critical temp and TMDL Loading Spreadsheet
Bayou Crouix (BYC1)	17	7.03	2.570		1.445	Summer critical temp and TMDL Loading Spreadsheet
Bayou Crouix (BYC2)	32	7.03	2.570		2.514	Summer critical temp and TMDL Loading Spreadsheet
Gator Super Stop	62	2.00	69.000		64.500	Permit and application data
Bayou Corne	80	7.03	0.288		0.000	Summer critical temp and TMDL Loading Spreadsheet
Little Grand Bayou	100					
Unnamed Canal	104	7.03	2.570		1.380	Summer critical temp and TMDL Loading Spreadsheet
East Grand Bayou	124					
Bayou Alcide	135	7.03	2.570		1.226	Summer critical temp and TMDL Loading Spreadsheet
Little Bayou Long	149	7.03	2.570		0.965	Summer critical temp and TMDL Loading Spreadsheet

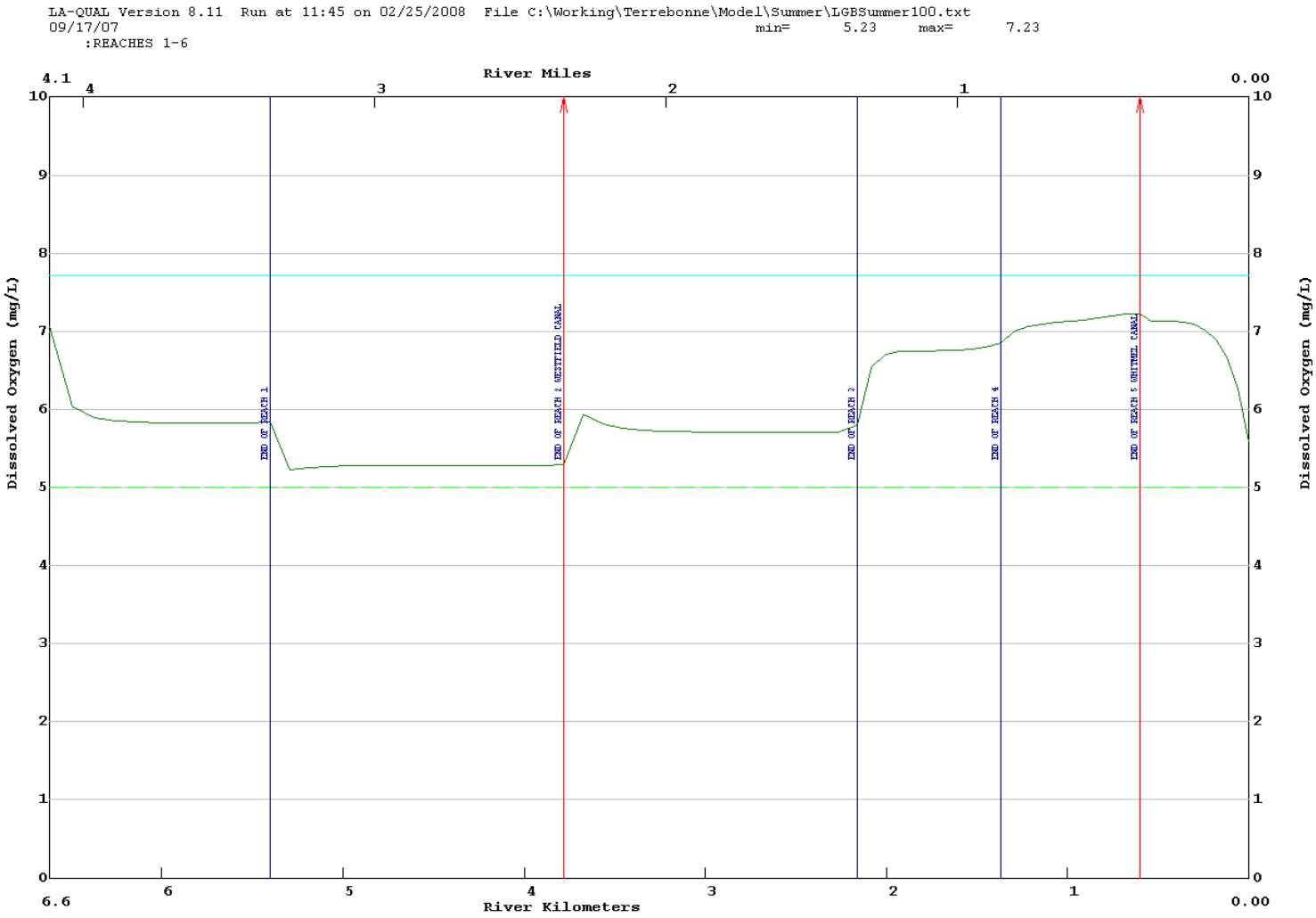
Grand Bayou Summer Projection

	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			Louisiana standard practice, reduction in nutrients will cause a reduction in algae.
Muddy Bayou	7		10			
Bayou Crouix (BYC1)	17		10			
Bayou Crouix (BYC2)	32		10			
Gator Super Stop	62					
Bayou Corne	80		10			
Little Grand Bayou	100					
Unnamed Canal	104		10			
East Grand Bayou	124					
Bayou Alcide	135		10			
Little Bayou Long	149		10			

	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	5.00	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 8.11 Run at 11:45 on 02/25/2008 File C:\Working\Terrebonne\Model\Summer\LGBSummer100.txt
09/17/07 min= 5.23 max= 7.23
:REACHES 1-6
River Miles
4.1
4
3
2
1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL
END OF REACH 3
END OF REACH 4
END OF REACH 5 (WHITMEL CANAL)
6.6
6
5
4
3
2
1
0.00
River Kilometers

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  SETTLED RATE UNITS                 =     2.0
ENDATA03
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
ENDATA04
ENDATA05
ENDATA06
ENDATA07
!Reach Identification Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -- ********************************----------*********----------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -------*******-------*******-------*******--------*******
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -----**********----------**********----------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ***  --------********--------********--------********--------********
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-
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901
!         ***  -----****** ------*******-------*******-------*******-------*******-------
COEF-1      1    4.0  0.00 0.0   0.0    0.655  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    1.104  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    0.774  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    0.206  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    0.022  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    0.023  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
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ***  -------*******-------*******-------*******-------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ***  -------*******-------*******-------*******       -------*******
ENDATA14
!Coliform and Nonconservative Cofficients
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ***  -------*******-------*******
ENDATA15
!Incremental Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ***  ---------********---------********---------********
ENDATA16
!Incremental Data for DO, BOD, and Nitrogen
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ***  ---------********---------********---------
ENDATA17
!Incremental Data for Phosphorus, Chlorophyll, Coliform and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ***  ---------********---------********
ENDATA18
!Nonpoint Source Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ***  ---------********---------********---------********
NONPOINT    1     18.726    5.618   0.0      0.00     0.0       0.00
NONPOINT    2     24.183    4.837   0.0      0.00     0.0       0.00
NONPOINT    3     38.677   16.438   0.0      0.00     0.0       0.00
NONPOINT    4     30.833   10.278   0.0      0.00     0.0       0.00
NONPOINT    5     51.672   16.850   0.0      0.00     0.0       0.00
NONPOINT    6     56.859   21.606   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
```

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!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  -------------------- *** --------********--------********--------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------*********---------*********---------*********
HDWTR-2     1      7.07    5.85     0.62    0.000    0.00      0.000
ENDATA21
!Headwater Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------*********---------*********
HDWTR-3     1      0.00    10.00   0.00    0.00
ENDATA22
!Junction Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        **** ----  ************************************************************
ENDATA23
!Wasteload Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  --------------------*********---------*********---------*********
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------*********-----*********---------*****---------*********
WSTLD-2    26      6.95    2.570  0.0    2.770     0.00  0.0     0.00    0.000
WSTLD-2    61      6.95    2.570  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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------*********---------*********
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                   =   5.00
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  -------------------- ** --------********--------
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
Louisiana Department of Environmental Quality

Input file is C:\Working\Terrebonne\Model\Summer\LGBSummer100.txt
Output produced at 11:45 on 02/25/2008

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

CARD TYPE       CONTROL TITLES

TITLE01         LITTLE GRAND BAYOU SUMMER PROJECTION
TITLE02         09/17/07
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

$$$ DATA TYPE 8 (REACH IDENTIFICATION DATA) $$$
                                                        BEGIN         END     ELEM    REACH     ELEMS   BEGIN    END
CARD TYPE  REACH  ID  NAME                              REACH       REACH   LENGTH   LENGTH    PER RCH   ELEM   ELEM
                                                           km          km       km       km               NUM    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
ENDATA08

$$$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) $$$
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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	28.81	0.07	5.00	0.00	0.00	0.00	10.00	0.00
INITIAL	2	LG	28.81	0.07	5.00	0.00	0.00	0.00	10.00	0.00
INITIAL	3	LG	28.81	0.08	5.00	0.00	0.00	0.00	10.00	0.00
INITIAL	4	LG	28.81	0.07	5.00	0.00	0.00	0.00	10.00	0.00
INITIAL	5	LG	28.81	0.07	5.00	0.00	0.00	0.00	10.00	0.00
INITIAL	6	LG	28.81	0.07	5.00	0.00	0.00	0.00	10.00	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	BOD DECAY per day	BOD SETT m/d	BOD CONV TO SOD	ANAER BOD2 DECAY per day	BOD2 DECAY per day	BOD2 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	0.655	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	1.104	0.056	0.050	0.000	0.000	0.000	0.050	0.000	0.000

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COEF-1     3   LG   4 OWENS <5 FPS     0.000     0.000     0.000     0.774     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     0.206     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     0.022     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     0.023     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      NBOD   ORGN CONV       NH3       NH3      PHOS     DENIT
                                DECA      SETT  TO NH3 SRCE     DECA      SRCE      SRCE      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    ALGAE:     ALGAE    ALG CONV     ALGAE     ALGAE     MACRO     MACRO
                                DEPTH     CHL A      SETT     TO SOD       GROW      RESP      GROW      RESP   SHADING

ENDATA14

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

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

ENDATA16

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

CARD TYPE      REACH  ID          DO       BOD      NBOD                          BOD#2

ENDATA17
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$$$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

 CARD TYPE      REACH  ID        PHOS     CHL A      COLI       NCM

ENDATA18

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

CARD TYPE      REACH  ID       BOD#1     NBOD       COLI       NCM        DO     BOD#2

NONPOINT          1   LG       18.73      5.62      0.00      0.00      0.00      0.00
NONPOINT          2   LG       24.18      4.84      0.00      0.00      0.00      0.00
NONPOINT          3   LG       38.68     16.44      0.00      0.00      0.00      0.00
NONPOINT          4   LG       30.83     10.28      0.00      0.00      0.00      0.00
NONPOINT          5   LG       51.67     16.85      0.00      0.00      0.00      0.00
NONPOINT          6   LG       56.86     21.61      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     FLOW    TEMP    SALIN      CM-I     CM-II
                                                        m³/s      cfs   deg C      ppt      MG/L      MG/L

HDWTR-1           1     Grand Bayou             0   0.00087    0.031   28.13     0.12    13.550   251.330   0.00
ENDATA20

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

CARD TYPE     ELEMENT   NAME                        DO     BOD#1     NBOD                          BOD#2
                                                   mg/L      mg/L      mg/L      mg/L      mg/L      mg/L

HDWTR-2           1     Grand Bayou               7.07      5.85      0.62      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
                                                   mg/L      mg/L      mg/L      mg/L

HDWTR-3           1     Grand Bayou                0.00     10.00      0.00      0.00
ENDATA22

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

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       FLOW     FLOW    TEMP    SALIN      CM-I     CM-II
                                                       m³/s        cfs      MGD   deg C      ppt      MG/L      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

$$$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) $$$
                                                                          % BOD                          %
CARD TYPE     ELEMENT   NAME                          DO       BOD      RMVL     NBOD                NITRIF                BOD#2
                                                     mg/L      mg/L                mg/L      mg/L                mg/L      mg/L

WSTLD-2          26     WESTFIELD CANAL             6.95      2.57      0.00      2.77      0.00      0.00      0.00      0.00
WSTLD-2          61     WHITMEL CANAL               6.95      2.57      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     CHL A      COLI       NCM
                                                     mg/L      mg/L      mg/L      mg/L

WSTLD-3          26     WESTFIELD CANAL             0.00     10.00      0.00      0.00
WSTLD-3          61     WHITMEL CANAL               0.00     10.00      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                  =      5.000     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
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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           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

$$$ DATA TYPE 30 (PLOT CONTROL CARDS) $$$
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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 LGBProjection.TXT            :REACHES 1-6
ENDATA31



     .....NO ERRORS DETECTED IN INPUT DATA
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN   4 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED
     .....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11


FINAL REPORT    Grand Bayou                                     LITTLE GRAND BAYOU SUMMER PROJECTION
REACH NO.  1     GRAND BAYOU-RKM 5.40                           09/17/07
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********** 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	0.00087	28.13	0.12	13.55	251.33	7.07	4.85	0.00	5.85	0.00	0.62	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	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	0.00087	0.0	0.00010	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	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	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	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	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	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	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	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	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	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				
CUM						146.24									

********** 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	7.71	1.36	0.10	0.06	0.00	0.00	0.00	0.00	1.14	1.14	1.14	0.19	0.06	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	1.14	1.14	1.14	0.19	0.06	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	1.14	1.14	1.14	0.19	0.06	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	1.14	1.14	1.14	0.19	0.06	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	1.14	1.14	1.14	0.19	0.06	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	1.14	1.14	1.14	0.19	0.06	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	1.14	1.14	1.14	0.19	0.06	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	1.14	1.14	1.14	0.19	0.06	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	1.14	1.14	1.14	0.19	0.06	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	1.14	1.14	1.14	0.19	0.06	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	0.05	0.00	0.65			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	28.81	0.12	13.55	251.33	6.05	9.07	0.00	10.07	0.00	1.74	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
2	6.376	28.81	0.12	13.55	251.33	5.89	10.25	0.00	11.25	0.00	1.97	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
3	6.254	28.81	0.12	13.55	251.33	5.85	10.63	0.00	11.63	0.00	2.02	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
4	6.132	28.81	0.12	13.55	251.33	5.84	10.75	0.00	11.75	0.00	2.04	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
5	6.010	28.81	0.12	13.55	251.33	5.83	10.79	0.00	11.79	0.00	2.04	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
6	5.888	28.81	0.12	13.55	251.33	5.83	10.81	0.00	11.81	0.00	2.04	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
7	5.766	28.81	0.12	13.55	251.33	5.83	10.81	0.00	11.81	0.00	2.04	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
8	5.644	28.81	0.12	13.55	251.33	5.83	10.81	0.00	11.81	0.00	2.04	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

9	5.522	28.81	0.12	13.55	251.33	5.83	10.81	0.00	11.81	0.00	2.04	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
10	5.400	28.81	0.12	13.55	251.33	5.84	10.72	0.00	11.72	0.00	2.01	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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-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	0.00087	28.81	0.12	13.55	251.33	5.84	10.72	0.00	11.72	0.00	2.01	0.00	0.00	0.00	10.00	0.00	0.00

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

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW 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	0.00087	0.0	0.00007	17.96	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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				
CUM						415.64									

********** 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	7.71	1.32	0.08	0.06	0.00	0.00	0.00	0.00	1.92	1.92	1.92	0.22	0.06	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	1.92	1.92	1.92	0.22	0.06	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	1.92	1.92	1.92	0.22	0.06	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	1.92	1.92	1.92	0.22	0.06	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	1.92	1.92	1.92	0.22	0.06	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	1.92	1.92	1.92	0.22	0.06	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	1.92	1.92	1.92	0.22	0.06	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	1.92	1.92	1.92	0.22	0.06	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	1.92	1.92	1.92	0.22	0.06	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	1.92	1.92	1.92	0.22	0.06	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	1.92	1.92	1.92	0.22	0.06	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	1.92	1.92	1.92	0.22	0.06	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	1.92	1.92	1.92	0.22	0.06	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	1.92	1.92	1.92	0.22	0.06	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	1.92	1.92	1.92	0.22	0.06	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	0.05	0.00	1.10			0.13	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
11	5.292	28.81	0.12	13.55	251.33	5.23	8.96	0.00	9.96	0.00	1.06	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
12	5.184	28.81	0.12	13.55	251.33	5.26	8.43	0.00	9.43	0.00	0.88	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
13	5.076	28.81	0.12	13.55	251.33	5.28	8.27	0.00	9.27	0.00	0.85	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
14	4.968	28.81	0.12	13.55	251.33	5.28	8.23	0.00	9.23	0.00	0.85	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
15	4.860	28.81	0.12	13.55	251.33	5.28	8.21	0.00	9.21	0.00	0.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
16	4.752	28.81	0.12	13.55	251.33	5.28	8.21	0.00	9.21	0.00	0.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
17	4.644	28.81	0.12	13.55	251.33	5.28	8.21	0.00	9.21	0.00	0.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
18	4.536	28.81	0.12	13.55	251.33	5.28	8.21	0.00	9.21	0.00	0.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
19	4.428	28.81	0.12	13.55	251.33	5.28	8.21	0.00	9.21	0.00	0.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
20	4.320	28.81	0.12	13.55	251.33	5.28	8.20	0.00	9.20	0.00	0.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
21	4.212	28.81	0.12	13.55	251.32	5.28	8.20	0.00	9.20	0.00	0.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
22	4.104	28.81	0.12	13.55	251.25	5.28	8.20	0.00	9.20	0.00	0.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
23	3.996	28.81	0.12	13.53	250.84	5.28	8.20	0.00	9.20	0.00	0.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
24	3.888	28.81	0.12	13.43	248.21	5.28	8.20	0.00	9.20	0.00	0.85	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
25	3.780	28.81	0.11	12.77	231.58	5.29	8.00	0.00	9.00	0.00	0.94	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT Grand Bayou LITTLE GRAND BAYOU SUMMER PROJECTION
REACH NO. 3 WESTFIELD CANAL-RKM 2.16 09/17/07

********** 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	0.00087	28.81	0.11	12.77	231.58	5.29	8.00	0.00	9.00	0.00	0.94	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	2.57	0.00	2.57	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 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
26	3.78	3.67	0.00370	76.5	0.00021	6.00	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	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	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	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	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	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	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	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	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	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	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	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	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	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	0.64	27.74	1917.18	2995.60	17.75	786.34	0.001	0.021	0.001
TOT						89.96			28757.72	44933.95					
AVG					0.0002		0.64	27.74			17.75				
CUM						505.59									

********** 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

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
26	3.672	7.71	1.29	0.09	0.06	0.00	0.00	0.00	0.00	1.35	1.35	1.35	0.21	0.06	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	1.35	1.35	1.35	0.21	0.06	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	1.35	1.35	1.35	0.21	0.06	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	1.35	1.35	1.35	0.21	0.06	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	1.35	1.35	1.35	0.21	0.06	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	1.35	1.35	1.35	0.21	0.06	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	1.35	1.35	1.35	0.21	0.06	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	1.35	1.35	1.35	0.21	0.06	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	1.35	1.35	1.35	0.21	0.06	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	1.35	1.35	1.35	0.21	0.06	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	1.35	1.35	1.35	0.21	0.06	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	1.35	1.35	1.35	0.21	0.06	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	1.35	1.35	1.35	0.21	0.06	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	1.35	1.35	1.35	0.21	0.06	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	1.35	1.35	1.35	0.21	0.06	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	0.05	0.00	0.77			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/m³	COLI #/100mL	NCM
26	3.672	28.81	0.08	11.22	192.18	5.94	6.51	0.00	7.51	0.00	2.16	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
27	3.564	28.81	0.08	11.22	192.18	5.82	7.66	0.00	8.66	0.00	2.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
28	3.456	28.81	0.08	11.22	192.18	5.77	8.29	0.00	9.29	0.00	2.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
29	3.348	28.81	0.08	11.22	192.18	5.74	8.64	0.00	9.64	0.00	2.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
30	3.240	28.81	0.08	11.22	192.18	5.73	8.82	0.00	9.82	0.00	2.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
31	3.132	28.81	0.08	11.22	192.18	5.72	8.92	0.00	9.92	0.00	2.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
32	3.024	28.81	0.08	11.22	192.18	5.71	8.98	0.00	9.98	0.00	2.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
33	2.916	28.81	0.08	11.22	192.18	5.71	9.01	0.00	10.01	0.00	2.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
34	2.808	28.81	0.08	11.22	192.18	5.71	9.03	0.00	10.03	0.00	2.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
35	2.700	28.81	0.08	11.22	192.18	5.71	9.04	0.00	10.04	0.00	2.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
36	2.592	28.81	0.08	11.22	192.18	5.71	9.05	0.00	10.05	0.00	2.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
37	2.484	28.81	0.08	11.22	192.18	5.71	9.05	0.00	10.05	0.00	2.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
38	2.376	28.81	0.08	11.22	192.17	5.71	9.07	0.00	10.07	0.00	2.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
39	2.268	28.81	0.08	11.21	192.15	5.71	9.11	0.00	10.11	0.00	2.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
40	2.160	28.81	0.08	11.21	192.11	5.80	9.27	0.00	10.27	0.00	2.13	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT Grand Bayou LITTLE GRAND BAYOU SUMMER PROJECTION
REACH NO. 4 RKM 2.16-RKM 1.37 09/17/07

********** 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	0.00370	28.81	0.08	11.21	192.11	5.80	9.27	0.00	10.27	0.00	2.13	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	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	0.00370	76.5	0.00014	6.45	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	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	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	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	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	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	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	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	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	0.90	29.00	2061.90	2291.00	26.10	1588.19	0.001	0.037	0.001
TOT						64.50			20619.00	22910.00					
AVG					0.0001		0.90	29.00			26.10				
CUM						570.09									

********** 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	7.71	0.92	0.09	0.06	0.00	0.00	0.00	0.00	0.36	0.36	0.36	0.18	0.06	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	0.36	0.36	0.36	0.18	0.06	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	0.36	0.36	0.36	0.18	0.06	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	0.36	0.36	0.36	0.18	0.06	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	0.36	0.36	0.36	0.18	0.06	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	0.36	0.36	0.36	0.18	0.06	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	0.36	0.36	0.36	0.18	0.06	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	0.36	0.36	0.36	0.18	0.06	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	0.36	0.36	0.36	0.18	0.06	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	0.36	0.36	0.36	0.18	0.06	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	0.05	0.00	0.21			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
41	2.081	28.81	0.08	11.20	192.05	6.55	9.65	0.00	10.65	0.00	2.11	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
42	2.002	28.81	0.08	11.20	191.98	6.71	9.84	0.00	10.84	0.00	2.10	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
43	1.923	28.81	0.08	11.19	191.88	6.75	9.96	0.00	10.96	0.00	2.09	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
44	1.844	28.81	0.08	11.17	191.74	6.75	10.03	0.00	11.03	0.00	2.09	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
45	1.765	28.81	0.08	11.15	191.56	6.75	10.06	0.00	11.06	0.00	2.09	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
46	1.686	28.81	0.08	11.13	191.31	6.75	10.07	0.00	11.07	0.00	2.08	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
47	1.607	28.81	0.08	11.09	190.99	6.76	10.05	0.00	11.05	0.00	2.08	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
48	1.528	28.81	0.08	11.05	190.59	6.77	9.99	0.00	10.99	0.00	2.07	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
49	1.449	28.81	0.08	11.00	190.07	6.80	9.85	0.00	10.85	0.00	2.05	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
50	1.370	28.81	0.08	10.93	189.41	6.86	9.58	0.00	10.58	0.00	2.02	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT Grand Bayou LITTLE GRAND BAYOU SUMMER PROJECTION
REACH NO. 5 RKM 1.37-WHITMEL CANAL 09/17/07

********** 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	0.00370	28.81	0.08	10.93	189.41	6.86	9.58	0.00	10.58	0.00	2.02	0.00	0.00	0.00	10.00	0.00	0.00

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

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO

	km	km	m³/s		m/s	days	m	m	m³	m²	m²	m³	m/s	m²/s	m/s
51	1.37	1.29	0.00370	76.5	0.00007	11.92	1.10	45.00	3811.50	3465.00	49.50	1770.11	0.001	0.026	0.001
52	1.29	1.22	0.00370	76.5	0.00007	11.92	1.10	45.00	3811.50	3465.00	49.50	1952.02	0.001	0.029	0.001
53	1.22	1.14	0.00370	76.5	0.00007	11.92	1.10	45.00	3811.50	3465.00	49.50	2133.93	0.001	0.031	0.001
54	1.14	1.06	0.00370	76.5	0.00007	11.92	1.10	45.00	3811.50	3465.00	49.50	2315.84	0.001	0.034	0.001
55	1.06	0.98	0.00370	76.5	0.00007	11.92	1.10	45.00	3811.50	3465.00	49.50	2497.76	0.001	0.036	0.001
56	0.98	0.91	0.00370	76.5	0.00007	11.92	1.10	45.00	3811.50	3465.00	49.50	2679.67	0.001	0.039	0.001
57	0.91	0.83	0.00370	76.5	0.00007	11.92	1.10	45.00	3811.50	3465.00	49.50	2861.58	0.001	0.042	0.001
58	0.83	0.75	0.00370	76.5	0.00007	11.92	1.10	45.00	3811.50	3465.00	49.50	3043.49	0.001	0.044	0.001
59	0.75	0.68	0.00370	76.5	0.00007	11.92	1.10	45.00	3811.50	3465.00	49.50	3225.41	0.001	0.047	0.001
60	0.68	0.60	0.00370	76.5	0.00007	11.92	1.10	45.00	3811.50	3465.00	49.50	3407.32	0.002	0.050	0.002
TOT						119.23			38115.00	34650.00					
AVG					0.0001		1.10	45.00			49.50				
CUM						689.32									

********** 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	7.71	0.75	0.10	0.06	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.17	0.06	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
52	1.216	7.71	0.75	0.10	0.06	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.17	0.06	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
53	1.139	7.71	0.75	0.10	0.06	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.17	0.06	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
54	1.062	7.71	0.75	0.10	0.06	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.17	0.06	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
55	0.985	7.71	0.75	0.10	0.06	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.17	0.06	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
56	0.908	7.71	0.75	0.10	0.06	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.17	0.06	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
57	0.831	7.71	0.75	0.10	0.06	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.17	0.06	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
58	0.754	7.71	0.75	0.10	0.06	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.17	0.06	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
59	0.677	7.71	0.75	0.10	0.06	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.17	0.06	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
60	0.600	7.71	0.75	0.10	0.06	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.17	0.06	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.64	0.06	0.05	0.00	0.00	0.05	0.00	0.02			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

51	1.293	28.81	0.08	10.86	188.70	7.00	9.15	0.00	10.15	0.00	1.95	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
52	1.216	28.81	0.08	10.78	187.97	7.06	8.92	0.00	9.92	0.00	1.92	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
53	1.139	28.81	0.08	10.69	187.15	7.10	8.77	0.00	9.77	0.00	1.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
54	1.062	28.81	0.08	10.60	186.26	7.12	8.67	0.00	9.67	0.00	1.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
55	0.985	28.81	0.08	10.50	185.29	7.13	8.58	0.00	9.58	0.00	1.88	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
56	0.908	28.81	0.08	10.39	184.24	7.15	8.48	0.00	9.48	0.00	1.88	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
57	0.831	28.81	0.08	10.28	183.11	7.17	8.33	0.00	9.33	0.00	1.87	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
58	0.754	28.81	0.08	10.15	181.90	7.20	8.10	0.00	9.10	0.00	1.85	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
59	0.677	28.81	0.08	10.02	180.61	7.23	7.74	0.00	8.74	0.00	1.83	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
60	0.600	28.81	0.07	9.87	179.23	7.23	7.17	0.00	8.17	0.00	1.79	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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-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	0.00370	28.81	0.07	9.87	179.23	7.23	7.17	0.00	8.17	0.00	1.79	0.00	0.00	0.00	10.00	0.00	0.00
61	WSTLD	0.00283	28.81	0.07	8.80	172.00	6.95	2.57	0.00	2.57	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 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	0.00653	86.7	0.00007	9.67	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	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	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	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	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	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	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	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	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	1.38	66.14	5456.71	3968.52	90.95	6185.28	0.002	0.059	0.002
TOT						96.72			54567.15	39685.20					
AVG					0.0001		1.38	66.14			90.95				
CUM						786.04									

********** 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	7.71	0.60	0.12	0.06	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.19	0.06	0.00	0.00	0.00	0.00	0.75	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	0.04	0.04	0.04	0.19	0.06	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	0.04	0.04	0.04	0.19	0.06	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	0.04	0.04	0.04	0.19	0.06	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	0.04	0.04	0.04	0.19	0.06	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	0.04	0.04	0.04	0.19	0.06	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	0.04	0.04	0.04	0.19	0.06	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	0.04	0.04	0.04	0.19	0.06	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	0.04	0.04	0.04	0.18	0.06	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	0.04	0.04	0.04	0.18	0.06	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	0.05	0.00	0.02			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
61	0.540	28.81	0.07	9.75	178.05	7.14	6.43	0.00	7.43	0.00	1.73	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
62	0.480	28.81	0.07	9.70	177.42	7.13	6.20	0.00	7.20	0.00	1.69	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
63	0.420	28.81	0.07	9.65	176.76	7.13	6.07	0.00	7.07	0.00	1.67	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
64	0.360	28.81	0.07	9.60	176.07	7.12	6.02	0.00	7.02	0.00	1.66	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
65	0.300	28.81	0.07	9.54	175.36	7.09	6.02	0.00	7.02	0.00	1.68	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
66	0.240	28.81	0.07	9.48	174.62	7.02	6.09	0.00	7.09	0.00	1.71	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
67	0.180	28.81	0.07	9.42	173.86	6.89	6.22	0.00	7.22	0.00	1.77	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
68	0.120	28.81	0.07	9.36	173.08	6.66	6.45	0.00	7.45	0.00	1.87	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
69	0.060	28.81	0.07	9.30	172.27	6.27	6.79	0.00	7.79	0.00	2.02	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
70	0.000	28.81	0.07	9.23	171.44	5.60	7.29	0.00	8.29	0.00	2.24	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

STREAM SUMMARY
Grand Bayou

LITTLE GRAND BAYOU SUMMER PROJECTION
09/17/07

TRAVEL TIME = 786.04 DAYS

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MAXIMUM EFFLUENT  =          86.68 PERCENT

FLOW              =   0.00087 TO    0.00653   m³/s
DISPERSION        =   0.0014  TO    0.0591    m²/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               =    0.04   TO    1.92      g/m²/d
NH3 SOURCE        =    0.00   TO    0.00      g/m²/d
REAERATION        =    0.60   TO    1.36      per day
BOD SETTLING      =    0.06   TO    0.06      per day
NBOD DECAY        =    0.17   TO    0.22      per day
NBOD SETTLING     =    0.06   TO    0.06      per day

TEMPERATURE       =   28.81   TO   28.81      deg C
DISSOLVED OXYGEN  =    5.23   TO    7.23      mg/L


    .....EXECUTION COMPLETED
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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

		DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS			
Reach	**Name**	**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

		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS				
Reach	**Name**	**Tidal Range**	**Data Source**	**Dispersion Coeff. "a"**	**Dispersion Coeff. "b"**	**Dispersion Coeff. "c"**	**Dispersion Coeff. "d"**	**Data Source**
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

		DATA TYPE 11 - INITIAL CONDITIONS				DATA TYPE 11 - INITIAL CONDITIONS		
Reach	Name	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	

		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	
REACH	NAME	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	0.655	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	1.104		0.056		0.05	LTP, BPJ and calibration
3	WESTFIELD CANAL-RKM 2.16	4	Owens-Edwards-Gibbs	0.774		0.058		0.05	LTP, BPJ and calibration
4	RKM 2.16-RKM 1.37	4	Owens-Edwards-Gibbs	0.206		0.057		0.05	LTP, BPJ and calibration
5	RKM 1.37-WHITMEL CANAL	4	Owens-Edwards-Gibbs	0.022		0.064		0.05	LTP, BPJ and calibration
6	WHITMEL CANAL-LAKE VERRET	4	Owens-Edwards-Gibbs	0.023		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. Ouflow, 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	18.726	5.618	TMDL Loading Spreadsheet
2	RKM 5.40-WESTFIELD CANAL	1.62	24.183	4.837	
3	WESTFIELD CANAL-RKM 2.16	1.62	38.677	16.438	
4	RKM 2.16-RKM 1.37	0.79	30.833	10.278	
5	RKM 1.37-WHITMEL CANAL	0.77	51.672	16.850	
6	WHITMEL CANAL-LAKE VERRET	0.60	56.859	21.606	

	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	7.07	5.85	0.62	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	2.57		2.77	90% DO saturation and TMDL Loading Spreadsheet
Whitmel Canal	61	6.95	2.57		2.47	

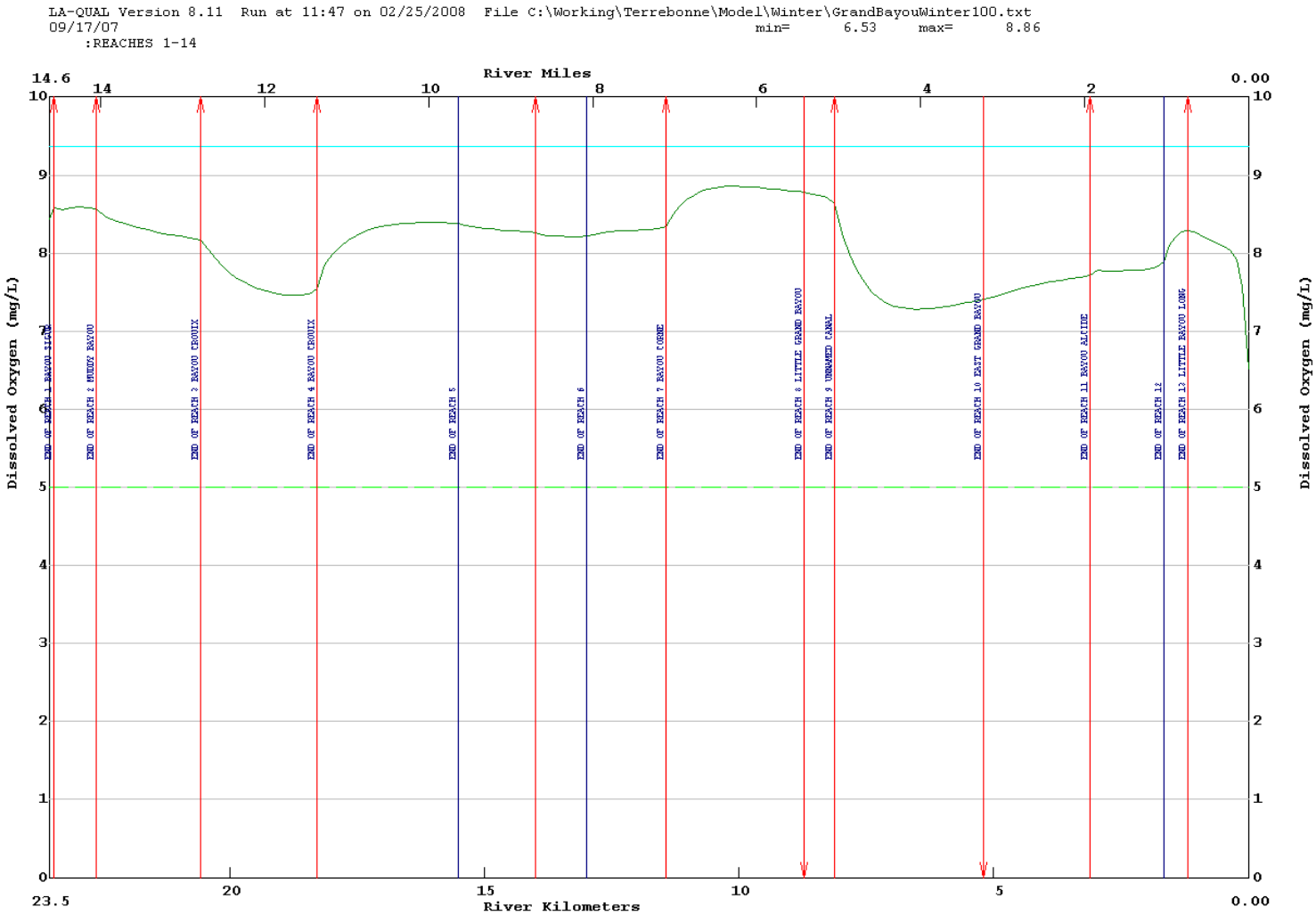
Little Grand Bayou Summer Projection

	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	5.00	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


LA-QUAL Version 8.11 Run at 11:47 on 02/25/2008 File C:\Working\Terrebonne\Model\Winter\GrandBayouWinter100.txt
09/17/07 min= 6.53 max= 8.86
:REACHES 1-14
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LAFITE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALFINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

Input File

```
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  SETTLED RATE UNITS                 =     2.0
ENDATA03
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
ENDATA04
ENDATA05
ENDATA06
ENDATA07
!Reach Identification Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -- ********************************----------**********----------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -------*******-------*******-------*******--------*******
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
```

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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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  -----**********----------**********----------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  --------********--------********--------********--------********
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-
!2345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
1
!         ***  -----******----- ******-------*******-------*******-------*******-------*******------
-
COEF-1      1    4.0  0.00 0.0   0.0    0.118  0.084 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    0.369  0.081 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    0.783  0.074 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    1.695  0.067 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    0.837  0.071 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    0.840  0.078 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1      7    4.0  0.00 0.0   0.0    0.806  0.068 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1      8    4.0  0.00 0.0   0.0    0.397  0.054 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1      9    4.0  0.00 0.0   0.0    0.552  0.052 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1     10    4.0  0.00 0.0   0.0    2.000  0.054 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1     11    4.0  0.00 0.0   0.0    2.000  0.057 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1     12    4.0  0.00 0.0   0.0    2.000  0.055 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1     13    4.0  0.00 0.0   0.0    1.220  0.055 0.05    0.00    0.0   0.000  0.05   0.00   0.00
COEF-1     14    4.0  0.00 0.0   0.0    1.169  0.061 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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!         ***  -------*******-------*******-------*******-------
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
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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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -------*******-------*******-------*******       -------*******
ENDATA14
!Coliform and Nonconservative Cofficients
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -------*******-------*******
ENDATA15
!Incremental Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  ---------*********---------*********---------*********
ENDATA16
!Incremental Data for DO, BOD, and Nitrogen
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  ---------*********---------*********---------
ENDATA17
!Incremental Data for Phosphorus, Chlorophyll, Coliform and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  ---------*********---------*********
ENDATA18
!Nonpoint Source Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  ---------*********---------*********---------*********
NONPOINT    1      1.180    0.885   0.0      0.00     0.0       0.00
NONPOINT    2     13.509    8.556   0.0      0.00     0.0       0.00
NONPOINT    3     38.021   15.208   0.0      0.00     0.0       0.00
NONPOINT    4      0.000   11.442   0.0      0.00     0.0       0.00
NONPOINT    5     73.256   24.070   0.0      0.00     0.0       0.00
NONPOINT    6     97.805   30.377   0.0      0.00     0.0       0.00
NONPOINT    7     60.453   20.151   0.0      0.00     0.0       0.00
NONPOINT    8    134.043   48.653   0.0      0.00     0.0       0.00
NONPOINT    9     38.517    3.852   0.0      0.00     0.0       0.00
NONPOINT   10      0.00     0.00    0.0      0.00     0.0       0.00
NONPOINT   11      0.00     0.00    0.0      0.00     0.0       0.00
NONPOINT   12      0.00     0.00    0.0      0.00     0.0       0.00
NONPOINT   13     10.166   20.333   0.0      0.00     0.0       0.00
NONPOINT   14     54.554   97.418   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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  -------------------- *** --------********--------********--------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------*********---------*********---------*********
HDWTR-2     1      8.43    2.570    3.666   0.000    0.00      0.000
ENDATA21
!Headwater Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------*********---------*********
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HDWTR-3     1      0.00    10.00   0.00    0.00
ENDATA22
!Junction Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!        **** ----  ************************************************************
ENDATA23
!Wasteload Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!        ****  --------------------*********---------*********---------*********
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 CROUIX (BYC1)   0.0283     18.50     0.12     8.40   250.2
WSTLD-1    32  BAYOU CROUIX (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    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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!        ****  ---------*********-----*********---------*****---------*********
WSTLD-2     2      8.43    2.570  0.0    4.052     0.00  0.0     0.00    0.000
WSTLD-2     7      8.43    0.508  0.0    0.000     0.00  0.0     0.00    0.000
WSTLD-2    17      8.43    2.570  0.0    1.445     0.00  0.0     0.00    0.000
WSTLD-2    32      8.43    2.570  0.0    2.514     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    80      8.43    0.288  0.0    0.000     0.00  0.0     0.00    0.000
WSTLD-2   100
WSTLD-2   104      8.43    2.570  0.0    1.380     0.00  0.0     0.00    0.000
WSTLD-2   124
WSTLD-2   135      8.43    2.570  0.0    1.226     0.00  0.0     0.00    0.000
WSTLD-2   149      8.43    2.570  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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!        ****  ---------*********---------*********
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    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                   =   5.00
LOWER BC BOD1 BIOCHEMICAL OXYGEN DEMAND     =   0.290
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789 0
!        ****  -------------------- ** --------********--------
```

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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

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LA-QUAL Version 8.11
Louisiana Department of Environmental Quality

Input file is C:\Working\Terrebonne\Model\Winter\GrandBayouWinter100.txt
Output produced at 11:47 on 02/25/2008

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

CARD TYPE       CONTROL TITLES

TITLE01         GRAND BAYOU WINTER PROJECTION
TITLE02         09/17/07
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)
```

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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

$$$ DATA TYPE 8 (REACH IDENTIFICATION DATA) $$$
                                                      BEGIN         END     ELEM    REACH     ELEMS   BEGIN    END
CARD TYPE  REACH  ID  NAME                            REACH        REACH   LENGTH   LENGTH    PER RCH   ELEM   ELEM
                                                         km           km       km       km               NUM    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
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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       WIDTH       WIDTH       DEPTH       DEPTH       DEPTH      SLOPE    MANNINGS
                            "A"         "B"         "C"         "D"         "E"         "F"                   "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     DISPERSION     DISPERSION     DISPERSION     DISPERSION
                        RANGE        "A"            "B"            "C"            "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
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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       18.50      0.15      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL          2   GB       18.50      0.14      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL          3   GB       18.50      0.11      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL          4   GB       18.50      0.09      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL          5   GB       18.50      0.09      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL          6   GB       18.50      0.10      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL          7   GB       18.50      0.08      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL          8   GB       18.50      0.07      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL          9   GB       18.50      0.07      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL         10   GB       18.50      0.07      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL         11   GB       18.50      0.08      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL         12   GB       18.50      0.08      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL         13   GB       18.50      0.08      5.00      0.00      0.00      0.00     10.00      0.00
INITIAL         14   GB       18.50      0.07      5.00      0.00      0.00      0.00     10.00      0.00
ENDATA11

$$$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) $$$
                                                                                                   BOD     ANAER                          BOD2     ANAER
CARD     RCH  RCH  K2                    K2        K2        K2    BKGRND       BOD       BOD     CONV      BOD2      BOD2      BOD2     CONV      BOD2
TYPE     NUM   ID  OPT                   "A"       "B"       "C"      SOD     DECAY      SETT   TO SOD     DECAY     DECAY      SETT   TO SOD     DECAY
                                                                   g/m²/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     0.118     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     0.369     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     0.783     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     1.695     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     0.837     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     0.840     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     0.806     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     0.397     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     0.552     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     2.000     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     2.000     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     2.000     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     1.220     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     1.169     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      NBOD   ORGN CONV       NH3       NH3      PHOS     DENIT
                                DECA      SETT  TO NH3 SRCE     DECA      SRCE      SRCE      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    ALGAE:     ALGAE    ALG CONV     ALGAE     ALGAE     MACRO     MACRO
                                DEPTH     CHL A      SETT     TO SOD       GROW      RESP      GROW      RESP   SHADING

ENDATA14

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

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

ENDATA16

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

CARD TYPE      REACH  ID          DO       BOD      NBOD                          BOD#2
```

ENDATA17

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

CARD TYPE	REACH	ID	PHOS	CHL A	COLI	NCM

ENDATA18

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

CARD TYPE	REACH	ID	BOD#1	NBOD	COLI	NCM	DO	BOD#2
NONPOINT	1	GB	1.18	0.88	0.00	0.00	0.00	0.00
NONPOINT	2	GB	13.51	8.56	0.00	0.00	0.00	0.00
NONPOINT	3	GB	38.02	15.21	0.00	0.00	0.00	0.00
NONPOINT	4	GB	0.00	11.44	0.00	0.00	0.00	0.00
NONPOINT	5	GB	73.26	24.07	0.00	0.00	0.00	0.00
NONPOINT	6	GB	97.81	30.38	0.00	0.00	0.00	0.00
NONPOINT	7	GB	60.45	20.15	0.00	0.00	0.00	0.00
NONPOINT	8	GB	134.04	48.65	0.00	0.00	0.00	0.00
NONPOINT	9	GB	38.52	3.85	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	10.17	20.33	0.00	0.00	0.00	0.00
NONPOINT	14	GB	54.55	97.42	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	FLOW	TEMP	SALIN	CM-I	CM-II	
				m^3/s	cfs	deg C	ppt	MG/L	MG/L	
HDWTR-1	1	Grand Bayou Upstream	0	0.02830	0.999	18.50	0.15	13.600	300.800	0.00

ENDATA20

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

CARD TYPE	ELEMENT	NAME	DO	BOD#1	NBOD			BOD#2
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
HDWTR-2	1	Grand Bayou Upstream	8.43	2.57	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
                                                    mg/L      mg/L      mg/L      mg/L

HDWTR-3           1     Grand Bayou Upstream        0.00     10.00      0.00      0.00
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       FLOW     FLOW    TEMP    SALIN      CM-I     CM-II
                                                      m³/s        cfs      MGD   deg C      ppt      MG/L      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 CROUIX (BYC1)    0.02830    0.99929    0.646   18.50     0.12     8.400   250.200
WSTLD-1       32      18.29  BAYOU CROUIX (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       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

$$$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) $$$
                                                                   % BOD                          %
CARD TYPE     ELEMENT   NAME                          DO       BOD      RMVL     NBOD                NITRIF                BOD#2
                                                     mg/L      mg/L                mg/L      mg/L                mg/L      mg/L

WSTLD-2           2     BAYOU SIGUR                 8.43      2.57      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 CROUIX (BYC1)         8.43      2.57      0.00      1.45      0.00      0.00      0.00      0.00
WSTLD-2          32     BAYOU CROUIX (BYC2)         8.43      2.57      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          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      2.57      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      2.57      0.00      1.23      0.00      0.00      0.00      0.00
WSTLD-2         149     LITTLE BAYOU LONG          8.43      2.57      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     CHL A      COLI       NCM
                                                   mg/L      mg/L      mg/L      mg/L

WSTLD-3           2     BAYOU SIGUR                0.00     10.00      0.00      0.00
WSTLD-3           7     MUDDY BAYOU                0.00     10.00      0.00      0.00
WSTLD-3          17     BAYOU CROUIX (BYC1)        0.00     10.00      0.00      0.00
WSTLD-3          32     BAYOU CROUIX (BYC2)        0.00     10.00      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     10.00      0.00      0.00
WSTLD-3         100     LITTLE GRAND BAYOU         0.00      0.00      0.00      0.00
WSTLD-3         104     UNNAMED CANAL              0.00     10.00      0.00      0.00
WSTLD-3         124     EAST GRAND BAYOU           0.00      0.00      0.00      0.00
WSTLD-3         135     BAYOU ALCIDE               0.00     10.00      0.00      0.00
WSTLD-3         149     LITTLE BAYOU LONG          0.00     10.00      0.00      0.00
ENDATA26

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

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                  =      5.000     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"
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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           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

$$$ DATA TYPE 31 (OVERLAY PLOT DATA) $$$
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OVERLAY 1 OVERLAY GBProjection.TXT            :REACHES 1-14
ENDATA31


     .....NO ERRORS DETECTED IN INPUT DATA
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN   3 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED
     .....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11


FINAL REPORT    Grand Bayou Upstream                            GRAND BAYOU WINTER PROJECTION
REACH NO.  1     SITE GRB1-BAYOU SIGUR                          09/17/07

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

 ELEM  TYPE        FLOW     TEMP     SALN     CM-I    CM-II     DO  BOD#1  BOD#2 EBOD#1 EBOD#2   ORGN    NH3  NO3+2   PHOS  CHL A     COLI     NCM
 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

    1  HDWTR     0.02830   18.50     0.15    13.60   300.80   8.43   1.57   0.00   2.57   0.00   3.67   0.00   0.00   0.00  10.00     0.00    0.00

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

 ELEM   BEGIN  ENDING       FLOW   PCT   ADVCTV    TRAVEL   DEPTH   WIDTH    VOLUME    SURFACE  X-SECT     TIDAL   TIDAL   DISPRSN    MEAN
  NO.    DIST    DIST               EFF     VELO      TIME                                 AREA    AREA     PRISM    VELO              VELO
          km      km        m³/s            m/s      days       m       m        m³         m²      m²        m³     m/s      m²/s     m/s

    1   23.53   23.44    0.02830   0.0   0.00272      0.38    0.85   12.19    935.98    1097.28   10.40      0.00   0.000     0.072   0.003

  TOT                                               0.38                     935.98    1097.28
  AVG                                     0.0027            0.85   12.19                         10.40
  CUM                                               0.38

 ********************************************** 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
 NO.     DIST  D.O.    RATE  DECAY  SETT  DECAY  DECAY  SETT  DECAY   SOD   SOD   SOD  DECAY  SETT  DECAY  SRCE   RATE  SRCE  PROD  PROD  DECAY  DECAY  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
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1	23.440	9.36	0.80	0.08	0.05	0.00	0.00	0.00	0.00	0.11	0.11	0.11	0.10	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.82	0.08	0.05	0.00	0.00	0.05	0.00	0.12			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/m³	COLI #/100mL	NCM
1	23.440	18.50	0.15	13.78	306.56	8.58	2.15	0.00	3.15	0.00	3.86	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU WINTER PROJECTION
REACH NO. 2 BAYOU SIGUR-MUDDY BAYOU 09/17/07

********** 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
2	UPR RCH	0.02830	18.50	0.15	13.78	306.56	8.58	2.15	0.00	3.15	0.00	3.86	0.00	0.00	0.00	10.00	0.00	0.00
2	WSTLD	0.02830	18.50	0.17	15.00	345.00	8.43	2.57	0.00	2.57	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	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
2	23.44	23.28	0.05660	50.0	0.00381	0.50	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	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	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	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	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.105	0.004
TOT						2.49			12177.00	13530.00					
AVG					0.0038		0.90	16.50			14.85				
CUM						2.87									

********** 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	9.36	0.75	0.08	0.05	0.00	0.00	0.00	0.00	0.34	0.34	0.34	0.10	0.05	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	0.34	0.34	0.34	0.10	0.05	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	0.34	0.34	0.34	0.10	0.05	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	0.34	0.34	0.34	0.10	0.05	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	0.34	0.34	0.34	0.10	0.05	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	0.05	0.00	0.37			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/m³	COLI #/100mL	NCM
2	23.276	18.50	0.16	14.30	322.90	8.56	2.71	0.00	3.71	0.00	4.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
3	23.112	18.50	0.16	14.30	322.87	8.58	3.06	0.00	4.06	0.00	4.05	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
4	22.948	18.50	0.16	14.30	322.72	8.59	3.40	0.00	4.40	0.00	4.10	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
5	22.784	18.50	0.16	14.32	321.66	8.59	3.70	0.00	4.70	0.00	4.12	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
6	22.620	18.50	0.16	14.45	314.28	8.57	3.85	0.00	4.85	0.00	3.97	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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

********** 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
7	UPR RCH	0.05660	18.50	0.16	14.45	314.28	8.57	3.85	0.00	4.85	0.00	3.97	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	BEGIN	ENDING	FLOW	PCT	ADVCTV	TRAVEL	DEPTH	WIDTH	VOLUME	SURFACE	X-SECT	TIDAL	TIDAL	DISPRSN	MEAN

NO.	DIST km	DIST km	m³/s	EFF	VELO m/s	TIME days	m	m	m³	AREA m²	AREA m²	PRISM m³	VELO m/s	m²/s	VELO m/s
7	22.62	22.42	0.08490	66.7	0.00396	0.60	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	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	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	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	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	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	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	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	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	1.01	21.34	4400.12	4373.88	21.46	0.00	0.000	0.119	0.004
TOT						6.00			44001.24	43738.79					
AVG					0.0040		1.01	21.34			21.46				
CUM						8.87									

********** 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
7	22.415	9.36	0.68	0.07	0.05	0.00	0.00	0.00	0.00	0.71	0.71	0.71	0.09	0.05	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	0.71	0.71	0.71	0.09	0.05	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	0.71	0.71	0.71	0.09	0.05	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	0.71	0.71	0.71	0.09	0.05	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	0.71	0.71	0.71	0.09	0.05	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	0.71	0.71	0.71	0.09	0.05	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	0.71	0.71	0.71	0.09	0.05	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	0.71	0.71	0.71	0.09	0.05	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	0.71	0.71	0.71	0.09	0.05	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	0.71	0.71	0.71	0.09	0.05	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	0.05	0.00	0.78			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	18.50	0.13	15.17	271.67	8.47	3.17	0.00	4.17	0.00	2.77	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
8	22.210	18.50	0.13	15.17	271.67	8.41	3.44	0.00	4.44	0.00	2.75	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
9	22.005	18.50	0.13	15.17	271.67	8.37	3.69	0.00	4.69	0.00	2.73	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
10	21.800	18.50	0.13	15.17	271.67	8.33	3.93	0.00	4.93	0.00	2.71	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
11	21.595	18.50	0.13	15.17	271.67	8.30	4.16	0.00	5.16	0.00	2.69	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
12	21.390	18.50	0.13	15.17	271.67	8.27	4.37	0.00	5.37	0.00	2.67	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
13	21.185	18.50	0.13	15.17	271.66	8.24	4.56	0.00	5.56	0.00	2.66	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
14	20.980	18.50	0.13	15.16	271.65	8.22	4.74	0.00	5.74	0.00	2.64	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
15	20.775	18.50	0.13	15.13	271.54	8.20	4.89	0.00	5.89	0.00	2.62	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
16	20.570	18.50	0.13	14.84	270.64	8.17	4.90	0.00	5.90	0.00	2.56	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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

********** 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
17	UPR RCH	0.08490	18.50	0.13	14.84	270.64	8.17	4.90	0.00	5.90	0.00	2.56	0.00	0.00	0.00	10.00	0.00	0.00
17	WSTLD	0.02830	18.50	0.12	8.40	250.20	8.43	2.57	0.00	2.57	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 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	0.11320	75.0	0.00438	0.40	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	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	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	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	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	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	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	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	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	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	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	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	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	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	1.57	16.46	3927.78	2501.77	25.84	0.00	0.000	0.191	0.004
TOT						6.02			58916.64	37526.52					
AVG					0.0044		1.57	16.46			25.84				
CUM						14.90									

********** 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	9.36	0.43	0.06	0.05	0.00	0.00	0.00	0.00	1.54	1.54	1.54	0.09	0.05	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	1.54	1.54	1.54	0.09	0.05	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	1.54	1.54	1.54	0.09	0.05	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	1.54	1.54	1.54	0.09	0.05	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	1.54	1.54	1.54	0.09	0.05	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	1.54	1.54	1.54	0.09	0.05	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	1.54	1.54	1.54	0.09	0.05	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	1.54	1.54	1.54	0.09	0.05	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	1.54	1.54	1.54	0.09	0.05	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	1.54	1.54	1.54	0.09	0.05	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	1.54	1.54	1.54	0.09	0.05	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	1.54	1.54	1.54	0.09	0.05	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	1.54	1.54	1.54	0.09	0.05	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	1.54	1.54	1.54	0.09	0.05	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	1.54	1.54	1.54	0.09	0.05	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	0.05	0.00	1.70			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
17	20.418	18.50	0.13	13.47	266.30	8.05	4.20	0.00	5.20	0.00	2.27	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
18	20.266	18.50	0.13	13.47	266.30	7.92	4.03	0.00	5.03	0.00	2.23	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
19	20.114	18.50	0.13	13.47	266.30	7.82	3.86	0.00	4.86	0.00	2.19	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
20	19.962	18.50	0.13	13.47	266.30	7.73	3.70	0.00	4.70	0.00	2.15	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
21	19.810	18.50	0.13	13.47	266.30	7.66	3.54	0.00	4.54	0.00	2.12	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

22	19.658	18.50	0.13	13.47	266.30	7.61	3.39	0.00	4.39	0.00	2.08	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
23	19.506	18.50	0.13	13.48	266.30	7.56	3.25	0.00	4.25	0.00	2.05	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
24	19.354	18.50	0.13	13.48	266.30	7.53	3.11	0.00	4.11	0.00	2.02	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
25	19.202	18.50	0.13	13.48	266.30	7.50	2.98	0.00	3.98	0.00	1.99	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
26	19.050	18.50	0.13	13.48	266.30	7.48	2.85	0.00	3.85	0.00	1.96	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
27	18.898	18.50	0.13	13.48	266.30	7.47	2.73	0.00	3.73	0.00	1.94	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
28	18.746	18.50	0.13	13.48	266.32	7.46	2.62	0.00	3.62	0.00	1.91	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
29	18.594	18.50	0.13	13.48	266.37	7.46	2.51	0.00	3.51	0.00	1.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
30	18.442	18.50	0.13	13.52	266.63	7.47	2.42	0.00	3.42	0.00	1.87	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
31	18.290	18.50	0.13	13.66	267.77	7.54	2.39	0.00	3.39	0.00	1.87	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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

********** 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
32	UPR RCH	0.11320	18.50	0.13	13.66	267.77	7.54	2.39	0.00	3.39	0.00	1.87	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	2.57	0.00	2.57	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 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
32	18.29	18.14	0.14150	80.0	0.00304	0.59	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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				
CUM						25.51									

********** 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	9.36	0.44	0.07	0.05	0.00	0.00	0.00	0.00	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.05	0.00	0.84			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

32	18.135	18.50	0.13	14.26	272.40	7.85	2.57	0.00	3.57	0.00	1.93	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
33	17.980	18.50	0.13	14.26	272.40	7.98	2.72	0.00	3.72	0.00	1.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
34	17.825	18.50	0.13	14.26	272.40	8.08	2.86	0.00	3.86	0.00	1.85	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
35	17.670	18.50	0.13	14.26	272.40	8.16	2.99	0.00	3.99	0.00	1.81	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
36	17.515	18.50	0.13	14.26	272.40	8.23	3.11	0.00	4.11	0.00	1.78	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
37	17.360	18.50	0.13	14.26	272.40	8.27	3.22	0.00	4.22	0.00	1.75	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
38	17.205	18.50	0.13	14.26	272.40	8.31	3.33	0.00	4.33	0.00	1.72	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
39	17.050	18.50	0.13	14.26	272.40	8.34	3.43	0.00	4.43	0.00	1.70	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
40	16.895	18.50	0.13	14.26	272.40	8.36	3.52	0.00	4.52	0.00	1.67	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
41	16.740	18.50	0.13	14.26	272.40	8.37	3.61	0.00	4.61	0.00	1.65	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
42	16.585	18.50	0.13	14.26	272.40	8.38	3.69	0.00	4.69	0.00	1.63	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
43	16.430	18.50	0.13	14.26	272.40	8.39	3.77	0.00	4.77	0.00	1.61	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
44	16.275	18.50	0.13	14.26	272.40	8.39	3.84	0.00	4.84	0.00	1.59	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
45	16.120	18.50	0.13	14.26	272.40	8.39	3.91	0.00	4.91	0.00	1.58	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
46	15.965	18.50	0.13	14.26	272.40	8.39	3.97	0.00	4.97	0.00	1.56	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
47	15.810	18.50	0.13	14.26	272.40	8.39	4.03	0.00	5.03	0.00	1.55	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
48	15.655	18.50	0.13	14.26	272.40	8.39	4.09	0.00	5.09	0.00	1.53	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
49	15.500	18.50	0.13	14.26	272.40	8.38	4.14	0.00	5.14	0.00	1.52	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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-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	0.14150	18.50	0.13	14.26	272.40	8.38	4.14	0.00	5.14	0.00	1.52	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

********** 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
50	15.50	15.38	0.14150	80.0	0.00211	0.68	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	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	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	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	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	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	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	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	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	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	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	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	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
63	13.88	13.75	0.14193	80.1	0.00212	0.68	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
64	13.75	13.62	0.14193	80.1	0.00212	0.68	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
65	13.62	13.50	0.14193	80.1	0.00212	0.68	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
66	13.50	13.38	0.14193	80.1	0.00212	0.68	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
67	13.38	13.25	0.14193	80.1	0.00212	0.68	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
68	13.25	13.12	0.14193	80.1	0.00212	0.68	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
69	13.12	13.00	0.14193	80.1	0.00212	0.68	1.51	44.20	8369.62	5524.50	66.96	0.00	0.000	0.090	0.002
TOT						13.68			167392.38	110490.00					
AVG					0.0021		1.51	44.20			66.96				
CUM						39.18									

********** 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
50	15.375	9.36	0.45	0.07	0.05	0.00	0.00	0.00	0.00	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.76	0.76	0.76	0.09	0.05	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	0.05	0.00	0.84			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
50	15.375	18.50	0.13	14.26	272.40	8.36	4.19	0.00	5.19	0.00	1.50	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
51	15.250	18.50	0.13	14.26	272.40	8.35	4.24	0.00	5.24	0.00	1.48	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
52	15.125	18.50	0.13	14.26	272.40	8.33	4.29	0.00	5.29	0.00	1.47	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
53	15.000	18.50	0.13	14.26	272.40	8.32	4.33	0.00	5.33	0.00	1.45	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
54	14.875	18.50	0.13	14.26	272.40	8.31	4.36	0.00	5.36	0.00	1.44	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
55	14.750	18.50	0.13	14.26	272.40	8.30	4.40	0.00	5.40	0.00	1.43	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
56	14.625	18.50	0.13	14.26	272.40	8.30	4.43	0.00	5.43	0.00	1.42	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
57	14.500	18.50	0.13	14.26	272.40	8.29	4.46	0.00	5.46	0.00	1.41	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
58	14.375	18.50	0.13	14.26	272.40	8.28	4.49	0.00	5.49	0.00	1.40	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
59	14.250	18.50	0.13	14.26	272.40	8.28	4.51	0.00	5.51	0.00	1.39	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
60	14.125	18.50	0.13	14.26	272.39	8.27	4.55	0.00	5.55	0.00	1.39	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
61	14.000	18.50	0.13	14.26	272.37	8.26	4.60	0.00	5.60	0.00	1.42	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
62	13.875	18.50	0.13	14.26	272.28	8.24	4.75	0.00	5.75	0.00	1.54	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
63	13.750	18.50	0.13	14.26	272.28	8.23	4.76	0.00	5.76	0.00	1.52	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
64	13.625	18.50	0.13	14.26	272.28	8.22	4.76	0.00	5.76	0.00	1.50	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
65	13.500	18.50	0.13	14.26	272.28	8.22	4.77	0.00	5.77	0.00	1.48	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
66	13.375	18.50	0.13	14.26	272.28	8.22	4.77	0.00	5.77	0.00	1.47	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
67	13.250	18.50	0.13	14.26	272.28	8.21	4.78	0.00	5.78	0.00	1.45	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
68	13.125	18.50	0.13	14.26	272.28	8.21	4.78	0.00	5.78	0.00	1.44	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
69	13.000	18.50	0.13	14.26	272.28	8.22	4.79	0.00	5.79	0.00	1.43	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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-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
70	UPR RCH	0.14193	18.50	0.13	14.26	272.28	8.22	4.79	0.00	5.79	0.00	1.43	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	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	0.14193	80.1	0.00213	0.85	1.55	43.00	10464.05	6751.00	66.65	47.26	0.000	0.092	0.002
71	12.84	12.69	0.14193	80.1	0.00213	0.85	1.55	43.00	10464.05	6751.00	66.65	94.51	0.000	0.092	0.002
72	12.69	12.53	0.14193	80.1	0.00213	0.85	1.55	43.00	10464.05	6751.00	66.65	141.77	0.000	0.092	0.002
73	12.53	12.37	0.14193	80.1	0.00213	0.85	1.55	43.00	10464.05	6751.00	66.65	189.03	0.000	0.092	0.002
74	12.37	12.22	0.14193	80.1	0.00213	0.85	1.55	43.00	10464.05	6751.00	66.65	236.29	0.000	0.092	0.002
75	12.22	12.06	0.14193	80.1	0.00213	0.85	1.55	43.00	10464.05	6751.00	66.65	283.54	0.000	0.092	0.002
76	12.06	11.90	0.14193	80.1	0.00213	0.85	1.55	43.00	10464.05	6751.00	66.65	330.80	0.000	0.092	0.002
77	11.90	11.74	0.14193	80.1	0.00213	0.85	1.55	43.00	10464.05	6751.00	66.65	378.06	0.000	0.092	0.002
78	11.74	11.59	0.14193	80.1	0.00213	0.85	1.55	43.00	10464.05	6751.00	66.65	425.31	0.000	0.092	0.002
79	11.59	11.43	0.14193	80.1	0.00213	0.85	1.55	43.00	10464.05	6751.00	66.65	472.57	0.000	0.092	0.002
TOT						8.53			104640.49	67510.00					
AVG					0.0021		1.55	43.00			66.65				
CUM						47.72									

********** 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
70	12.843	9.36	0.44	0.06	0.05	0.00	0.00	0.00	0.00	0.73	0.73	0.73	0.11	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
71	12.686	9.36	0.44	0.06	0.05	0.00	0.00	0.00	0.00	0.73	0.73	0.73	0.11	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
72	12.529	9.36	0.44	0.06	0.05	0.00	0.00	0.00	0.00	0.73	0.73	0.73	0.11	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
73	12.372	9.36	0.44	0.06	0.05	0.00	0.00	0.00	0.00	0.73	0.73	0.73	0.11	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
74	12.215	9.36	0.44	0.06	0.05	0.00	0.00	0.00	0.00	0.73	0.73	0.73	0.11	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
75	12.058	9.36	0.44	0.06	0.05	0.00	0.00	0.00	0.00	0.73	0.73	0.73	0.11	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
76	11.901	9.36	0.44	0.06	0.05	0.00	0.00	0.00	0.00	0.73	0.73	0.73	0.11	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
77	11.744	9.36	0.44	0.06	0.05	0.00	0.00	0.00	0.00	0.73	0.73	0.73	0.11	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
78	11.587	9.36	0.44	0.06	0.05	0.00	0.00	0.00	0.00	0.73	0.73	0.73	0.11	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
79	11.430	9.36	0.44	0.06	0.05	0.00	0.00	0.00	0.00	0.73	0.73	0.73	0.11	0.05	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	0.05	0.00	0.81			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/m³	COLI #/100mL	NCM
70	12.843	18.50	0.13	14.26	272.28	8.24	4.82	0.00	5.82	0.00	1.41	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
71	12.686	18.50	0.13	14.26	272.28	8.26	4.85	0.00	5.85	0.00	1.39	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
72	12.529	18.50	0.13	14.26	272.28	8.27	4.88	0.00	5.88	0.00	1.38	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
73	12.372	18.50	0.13	14.26	272.28	8.28	4.90	0.00	5.90	0.00	1.36	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
74	12.215	18.50	0.13	14.26	272.28	8.29	4.93	0.00	5.93	0.00	1.35	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
75	12.058	18.50	0.13	14.26	272.27	8.30	4.95	0.00	5.95	0.00	1.34	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
76	11.901	18.50	0.13	14.26	272.23	8.30	4.97	0.00	5.97	0.00	1.33	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
77	11.744	18.50	0.13	14.25	272.06	8.30	4.98	0.00	5.98	0.00	1.32	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
78	11.587	18.50	0.13	14.22	271.23	8.31	4.97	0.00	5.97	0.00	1.31	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
79	11.430	18.50	0.13	14.09	267.42	8.35	4.89	0.00	5.89	0.00	1.28	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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

********** 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
80	UPR RCH	0.14193	18.50	0.13	14.09	267.42	8.35	4.89	0.00	5.89	0.00	1.28	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	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
80	11.43	11.29	0.17023	83.4	0.00250	0.63	1.62	42.06	9244.43	5699.40	68.22	572.31	0.000	0.112	0.002
81	11.29	11.16	0.17023	83.4	0.00250	0.63	1.62	42.06	9244.43	5699.40	68.22	672.05	0.000	0.112	0.002
82	11.16	11.02	0.17023	83.4	0.00250	0.63	1.62	42.06	9244.43	5699.40	68.22	771.79	0.000	0.112	0.002
83	11.02	10.89	0.17023	83.4	0.00250	0.63	1.62	42.06	9244.43	5699.40	68.22	871.53	0.000	0.112	0.002
84	10.89	10.75	0.17023	83.4	0.00250	0.63	1.62	42.06	9244.43	5699.40	68.22	971.27	0.000	0.112	0.002
85	10.75	10.62	0.17023	83.4	0.00250	0.63	1.62	42.06	9244.43	5699.40	68.22	1071.01	0.000	0.112	0.002
86	10.62	10.48	0.17023	83.4	0.00250	0.63	1.62	42.06	9244.43	5699.40	68.22	1170.75	0.000	0.112	0.002
87	10.48	10.35	0.17023	83.4	0.00250	0.63	1.62	42.06	9244.43	5699.40	68.22	1270.49	0.000	0.112	0.002
88	10.35	10.21	0.17023	83.4	0.00250	0.63	1.62	42.06	9244.43	5699.40	68.22	1370.23	0.000	0.112	0.002

89	10.21	10.08	0.17023	83.4	0.00250	0.63	1.62	42.06	9244.43	5699.40	68.22	1469.97	0.000	0.112	0.002
90	10.08	9.94	0.17023	83.4	0.00250	0.63	1.62	42.06	9244.43	5699.40	68.22	1569.70	0.001	0.112	0.002
91	9.94	9.80	0.17023	83.4	0.00250	0.63	1.62	42.06	9244.43	5699.40	68.22	1669.44	0.001	0.112	0.002
92	9.80	9.67	0.17023	83.4	0.00250	0.63	1.62	42.06	9244.43	5699.40	68.22	1769.18	0.001	0.112	0.002
93	9.67	9.53	0.17023	83.4	0.00250	0.63	1.62	42.06	9244.43	5699.40	68.22	1868.92	0.001	0.112	0.002
94	9.53	9.40	0.17023	83.4	0.00250	0.63	1.62	42.06	9244.43	5699.40	68.22	1968.66	0.001	0.112	0.002
95	9.40	9.26	0.17023	83.4	0.00250	0.63	1.62	42.06	9244.43	5699.40	68.22	2068.40	0.001	0.112	0.002
96	9.26	9.13	0.17023	83.4	0.00250	0.63	1.62	42.06	9244.43	5699.40	68.22	2168.14	0.001	0.112	0.002
97	9.13	8.99	0.17023	83.4	0.00250	0.63	1.62	42.06	9244.43	5699.40	68.22	2267.88	0.001	0.112	0.002
98	8.99	8.86	0.17023	83.4	0.00250	0.63	1.62	42.06	9244.43	5699.40	68.22	2367.62	0.001	0.112	0.002
99	8.86	8.72	0.17023	83.4	0.00250	0.63	1.62	42.06	9244.43	5699.40	68.22	2467.36	0.001	0.112	0.002
TOT						12.57			184888.55	113988.01					
AVG					0.0025		1.62	42.06			68.22				
CUM						60.29									

********** 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	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	0.36	0.36	0.36	0.12	0.05	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	0.36	0.36	0.36	0.12	0.05	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	0.36	0.36	0.36	0.12	0.05	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	0.36	0.36	0.36	0.12	0.05	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	0.36	0.36	0.36	0.12	0.05	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	0.36	0.36	0.36	0.12	0.05	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	0.36	0.36	0.36	0.12	0.05	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	0.36	0.36	0.36	0.12	0.05	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	0.36	0.36	0.36	0.12	0.05	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	0.36	0.36	0.36	0.12	0.05	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	0.36	0.36	0.36	0.12	0.05	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	0.36	0.36	0.36	0.12	0.05	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	0.36	0.36	0.36	0.12	0.05	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	0.36	0.36	0.36	0.12	0.05	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	0.36	0.36	0.36	0.12	0.05	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	0.36	0.36	0.36	0.12	0.05	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	0.36	0.36	0.36	0.12	0.05	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	0.36	0.36	0.36	0.12	0.05	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	0.36	0.36	0.36	0.12	0.05	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	0.36	0.36	0.36	0.12	0.05	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	0.05	0.00	0.40			0.14	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
80	11.295	18.50	0.12	13.58	252.64	8.50	4.47	0.00	5.47	0.00	1.15	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
81	11.159	18.50	0.12	13.58	252.64	8.61	4.64	0.00	5.64	0.00	1.19	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
82	11.024	18.50	0.12	13.58	252.64	8.69	4.79	0.00	5.79	0.00	1.22	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
83	10.888	18.50	0.12	13.58	252.64	8.75	4.94	0.00	5.94	0.00	1.26	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
84	10.753	18.50	0.12	13.58	252.64	8.79	5.08	0.00	6.08	0.00	1.28	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
85	10.617	18.50	0.12	13.58	252.64	8.82	5.21	0.00	6.21	0.00	1.31	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
86	10.482	18.50	0.12	13.58	252.64	8.84	5.33	0.00	6.33	0.00	1.33	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
87	10.346	18.50	0.12	13.58	252.64	8.85	5.45	0.00	6.45	0.00	1.35	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
88	10.211	18.50	0.12	13.58	252.64	8.86	5.55	0.00	6.55	0.00	1.37	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
89	10.075	18.50	0.12	13.58	252.64	8.86	5.66	0.00	6.66	0.00	1.39	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
90	9.940	18.50	0.12	13.58	252.64	8.85	5.75	0.00	6.75	0.00	1.41	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
91	9.804	18.50	0.12	13.58	252.64	8.85	5.85	0.00	6.85	0.00	1.42	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
92	9.669	18.50	0.12	13.58	252.64	8.84	5.93	0.00	6.93	0.00	1.43	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
93	9.533	18.50	0.12	13.58	252.64	8.83	6.01	0.00	7.01	0.00	1.44	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
94	9.398	18.50	0.12	13.58	252.64	8.83	6.09	0.00	7.09	0.00	1.45	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
95	9.262	18.50	0.12	13.58	252.64	8.82	6.16	0.00	7.16	0.00	1.46	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
96	9.127	18.50	0.12	13.58	252.64	8.81	6.23	0.00	7.23	0.00	1.47	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
97	8.991	18.50	0.12	13.58	252.64	8.80	6.30	0.00	7.30	0.00	1.48	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
98	8.856	18.50	0.12	13.58	252.64	8.79	6.36	0.00	7.36	0.00	1.48	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
99	8.720	18.50	0.12	13.58	252.63	8.78	6.44	0.00	7.44	0.00	1.48	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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-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	0.17023	18.50	0.12	13.58	252.63	8.78	6.44	0.00	7.44	0.00	1.48	0.00	0.00	0.00	10.00	0.00	0.00
100	WSTLD	-0.00699	18.50	0.12	13.58	252.61	8.76	6.62	0.00	7.62	0.00	1.41	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	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	0.16324	83.4	0.00226	0.77	1.48	48.77	10811.87	7315.20	72.08	2613.81	0.001	0.094	0.002
101	8.57	8.42	0.16324	83.4	0.00226	0.77	1.48	48.77	10811.87	7315.20	72.08	2760.26	0.001	0.094	0.002
102	8.42	8.27	0.16324	83.4	0.00226	0.77	1.48	48.77	10811.87	7315.20	72.08	2906.71	0.001	0.094	0.002
103	8.27	8.12	0.16324	83.4	0.00226	0.77	1.48	48.77	10811.87	7315.20	72.08	3053.16	0.001	0.094	0.002
TOT						3.07			43247.46	29260.80					
AVG					0.0023		1.48	48.77			72.08				
CUM						63.35									

********** 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
100	8.570	9.36	0.46	0.05	0.05	0.00	0.00	0.00	0.00	0.50	0.50	0.50	0.08	0.05	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	0.50	0.50	0.50	0.08	0.05	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	0.50	0.50	0.50	0.08	0.05	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	0.50	0.50	0.50	0.08	0.05	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	0.05	0.00	0.55			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/m³	COLI #/100mL	NCM
100	8.570	18.50	0.12	13.58	252.61	8.76	6.62	0.00	7.62	0.00	1.41	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
101	8.420	18.50	0.12	13.58	252.50	8.74	6.79	0.00	7.79	0.00	1.35	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
102	8.270	18.50	0.12	13.56	251.99	8.71	6.90	0.00	7.90	0.00	1.29	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
103	8.120	18.50	0.12	13.46	249.63	8.64	6.83	0.00	7.83	0.00	1.23	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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-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	0.16324	18.50	0.12	13.46	249.63	8.64	6.83	0.00	7.83	0.00	1.23	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	2.57	0.00	2.57	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	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
104	8.12	7.97	0.19154	85.8	0.00275	0.62	1.55	45.00	10183.50	6570.00	69.75	3283.11	0.001	0.119	0.003
105	7.97	7.83	0.19154	85.8	0.00275	0.62	1.55	45.00	10183.50	6570.00	69.75	3513.06	0.001	0.119	0.003
106	7.83	7.68	0.19154	85.8	0.00275	0.62	1.55	45.00	10183.50	6570.00	69.75	3743.01	0.001	0.119	0.003
107	7.68	7.54	0.19154	85.8	0.00275	0.62	1.55	45.00	10183.50	6570.00	69.75	3972.96	0.001	0.119	0.003
108	7.54	7.39	0.19154	85.8	0.00275	0.62	1.55	45.00	10183.50	6570.00	69.75	4202.91	0.001	0.119	0.003
109	7.39	7.24	0.19154	85.8	0.00275	0.62	1.55	45.00	10183.50	6570.00	69.75	4432.86	0.001	0.119	0.003
110	7.24	7.10	0.19154	85.8	0.00275	0.62	1.55	45.00	10183.50	6570.00	69.75	4662.81	0.001	0.119	0.003
111	7.10	6.95	0.19154	85.8	0.00275	0.62	1.55	45.00	10183.50	6570.00	69.75	4892.76	0.002	0.119	0.003
112	6.95	6.81	0.19154	85.8	0.00275	0.62	1.55	45.00	10183.50	6570.00	69.75	5122.71	0.002	0.119	0.003
113	6.81	6.66	0.19154	85.8	0.00275	0.62	1.55	45.00	10183.50	6570.00	69.75	5352.66	0.002	0.119	0.003
114	6.66	6.51	0.19154	85.8	0.00275	0.62	1.55	45.00	10183.50	6570.00	69.75	5582.61	0.002	0.119	0.003
115	6.51	6.37	0.19154	85.8	0.00275	0.62	1.55	45.00	10183.50	6570.00	69.75	5812.56	0.002	0.120	0.003
116	6.37	6.22	0.19154	85.8	0.00275	0.62	1.55	45.00	10183.50	6570.00	69.75	6042.51	0.002	0.121	0.003
117	6.22	6.08	0.19154	85.8	0.00275	0.62	1.55	45.00	10183.50	6570.00	69.75	6272.46	0.002	0.122	0.003
118	6.08	5.93	0.19154	85.8	0.00275	0.62	1.55	45.00	10183.50	6570.00	69.75	6502.41	0.002	0.124	0.003
119	5.93	5.78	0.19154	85.8	0.00275	0.62	1.55	45.00	10183.50	6570.00	69.75	6732.36	0.002	0.126	0.003
120	5.78	5.64	0.19154	85.8	0.00275	0.62	1.55	45.00	10183.50	6570.00	69.75	6962.31	0.002	0.128	0.003
121	5.64	5.49	0.19154	85.8	0.00275	0.62	1.55	45.00	10183.50	6570.00	69.75	7192.26	0.002	0.130	0.003
122	5.49	5.35	0.19154	85.8	0.00275	0.62	1.55	45.00	10183.50	6570.00	69.75	7422.21	0.002	0.132	0.003
123	5.35	5.20	0.19154	85.8	0.00275	0.62	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				
CUM						75.66									

********** 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

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
104	7.974	9.36	0.44	0.05	0.05	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.08	0.05	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	1.82	1.82	1.82	0.08	0.05	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	1.82	1.82	1.82	0.08	0.05	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	1.82	1.82	1.82	0.08	0.05	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	1.82	1.82	1.82	0.08	0.05	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	1.82	1.82	1.82	0.08	0.05	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	1.82	1.82	1.82	0.08	0.05	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	1.82	1.82	1.82	0.08	0.05	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	1.82	1.82	1.82	0.08	0.05	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	1.82	1.82	1.82	0.08	0.05	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	1.82	1.82	1.82	0.08	0.05	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	1.82	1.82	1.82	0.08	0.05	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	1.82	1.82	1.82	0.08	0.05	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	1.82	1.82	1.82	0.08	0.05	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	1.82	1.82	1.82	0.08	0.05	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	1.82	1.82	1.82	0.08	0.05	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	1.82	1.82	1.82	0.08	0.05	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	1.82	1.82	1.82	0.08	0.05	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	1.82	1.82	1.82	0.08	0.05	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	1.82	1.82	1.82	0.08	0.05	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	0.05	0.00	2.00			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/m³	COLI #/100mL	NCM
104	7.974	18.50	0.11	13.07	239.96	8.25	5.97	0.00	6.97	0.00	1.16	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
105	7.828	18.50	0.11	13.07	239.96	7.98	5.63	0.00	6.63	0.00	1.07	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
106	7.682	18.50	0.11	13.07	239.96	7.77	5.31	0.00	6.31	0.00	0.99	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
107	7.536	18.50	0.11	13.07	239.96	7.62	5.01	0.00	6.01	0.00	0.92	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
108	7.390	18.50	0.11	13.07	239.96	7.50	4.73	0.00	5.73	0.00	0.85	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
109	7.244	18.50	0.11	13.07	239.96	7.42	4.47	0.00	5.47	0.00	0.79	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
110	7.098	18.50	0.11	13.07	239.96	7.36	4.21	0.00	5.21	0.00	0.73	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
111	6.952	18.50	0.11	13.07	239.96	7.33	3.98	0.00	4.98	0.00	0.68	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
112	6.806	18.50	0.11	13.07	239.96	7.30	3.75	0.00	4.75	0.00	0.63	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
113	6.660	18.50	0.11	13.07	239.96	7.29	3.54	0.00	4.54	0.00	0.59	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
114	6.514	18.50	0.11	13.07	239.96	7.29	3.34	0.00	4.34	0.00	0.54	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

115	6.368	18.50	0.11	13.07	239.96	7.29	3.15	0.00	4.15	0.00	0.50	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
116	6.222	18.50	0.11	13.07	239.96	7.30	2.97	0.00	3.97	0.00	0.47	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
117	6.076	18.50	0.11	13.07	239.96	7.31	2.81	0.00	3.81	0.00	0.43	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
118	5.930	18.50	0.11	13.07	239.96	7.32	2.65	0.00	3.65	0.00	0.40	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
119	5.784	18.50	0.11	13.07	239.96	7.34	2.50	0.00	3.50	0.00	0.37	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
120	5.638	18.50	0.11	13.07	239.96	7.35	2.36	0.00	3.36	0.00	0.35	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
121	5.492	18.50	0.11	13.07	239.96	7.37	2.22	0.00	3.22	0.00	0.32	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
122	5.346	18.50	0.11	13.07	239.96	7.39	2.10	0.00	3.10	0.00	0.30	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
123	5.200	18.50	0.11	13.07	239.96	7.41	1.97	0.00	2.97	0.00	0.27	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU WINTER PROJECTION
REACH NO. 11 E GRAND BAYOU-BAYOU ALCIDE 09/17/07

********** 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
124	UPR RCH	0.19154	18.50	0.11	13.07	239.96	7.41	1.97	0.00	2.97	0.00	0.27	0.00	0.00	0.00	10.00	0.00	0.00
124	WSTLD	-0.08891	18.50	0.11	13.07	239.96	7.44	1.82	0.00	2.82	0.00	0.25	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	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
124	5.20	5.01	0.10263	85.8	0.00148	1.49	1.62	42.95	13177.98	8159.74	69.36	8080.55	0.003	0.124	0.003
125	5.01	4.82	0.10263	85.8	0.00148	1.49	1.62	42.95	13177.98	8159.74	69.36	8508.94	0.003	0.129	0.003
126	4.82	4.63	0.10263	85.8	0.00148	1.49	1.62	42.95	13177.98	8159.74	69.36	8937.32	0.003	0.135	0.003
127	4.63	4.44	0.10263	85.8	0.00148	1.49	1.62	42.95	13177.98	8159.74	69.36	9365.71	0.003	0.141	0.003
128	4.44	4.25	0.10263	85.8	0.00148	1.49	1.62	42.95	13177.98	8159.74	69.36	9794.10	0.003	0.147	0.003
129	4.25	4.06	0.10263	85.8	0.00148	1.49	1.62	42.95	13177.98	8159.74	69.36	10222.48	0.003	0.153	0.003
130	4.06	3.87	0.10263	85.8	0.00148	1.49	1.62	42.95	13177.98	8159.74	69.36	10650.87	0.003	0.158	0.004
131	3.87	3.68	0.10263	85.8	0.00148	1.49	1.62	42.95	13177.98	8159.74	69.36	11079.26	0.004	0.164	0.004
132	3.68	3.49	0.10263	85.8	0.00148	1.49	1.62	42.95	13177.98	8159.74	69.36	11507.64	0.004	0.170	0.004
133	3.49	3.30	0.10263	85.8	0.00148	1.49	1.62	42.95	13177.98	8159.74	69.36	11936.03	0.004	0.176	0.004
134	3.30	3.11	0.10263	85.8	0.00148	1.49	1.62	42.95	13177.98	8159.74	69.36	12364.42	0.004	0.182	0.004
TOT						16.35			144957.77	89757.14					
AVG					0.0015		1.61	42.95			69.36				
CUM						92.01									

********** 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	9.36	0.42	0.05	0.05	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.09	0.05	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	1.82	1.82	1.82	0.09	0.05	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	1.82	1.82	1.82	0.09	0.05	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	1.82	1.82	1.82	0.09	0.05	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	1.82	1.82	1.82	0.09	0.05	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	1.82	1.82	1.82	0.09	0.05	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	1.82	1.82	1.82	0.09	0.05	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	1.82	1.82	1.82	0.09	0.05	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	1.82	1.82	1.82	0.09	0.05	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	1.82	1.82	1.82	0.09	0.05	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	1.82	1.82	1.82	0.09	0.05	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	0.05	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
124	5.010	18.50	0.11	13.07	239.96	7.44	1.82	0.00	2.82	0.00	0.25	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
125	4.820	18.50	0.11	13.07	239.96	7.48	1.59	0.00	2.59	0.00	0.21	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
126	4.630	18.50	0.11	13.07	239.96	7.52	1.39	0.00	2.39	0.00	0.17	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
127	4.440	18.50	0.11	13.07	239.95	7.55	1.21	0.00	2.21	0.00	0.15	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
128	4.250	18.50	0.11	13.07	239.94	7.58	1.06	0.00	2.06	0.00	0.12	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
129	4.060	18.50	0.11	13.07	239.91	7.61	0.93	0.00	1.93	0.00	0.10	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
130	3.870	18.50	0.11	13.06	239.81	7.63	0.81	0.00	1.81	0.00	0.09	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
131	3.680	18.50	0.11	13.05	239.54	7.65	0.71	0.00	1.71	0.00	0.08	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
132	3.490	18.50	0.11	13.01	238.84	7.67	0.64	0.00	1.64	0.00	0.07	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
133	3.300	18.50	0.11	12.91	237.03	7.69	0.59	0.00	1.59	0.00	0.08	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
134	3.110	18.50	0.11	12.67	232.44	7.72	0.61	0.00	1.61	0.00	0.12	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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-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	0.10263	18.50	0.11	12.67	232.44	7.72	0.61	0.00	1.61	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	2.57	0.00	2.57	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 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
135	3.11	2.96	0.13093	88.9	0.00137	1.22	1.73	55.00	13828.65	7975.00	95.37	12811.02	0.003	0.148	0.003
136	2.96	2.82	0.13093	88.9	0.00137	1.22	1.73	55.00	13828.65	7975.00	95.37	13257.62	0.003	0.153	0.003
137	2.82	2.67	0.13093	88.9	0.00137	1.22	1.73	55.00	13828.65	7975.00	95.37	13704.22	0.003	0.157	0.003
138	2.67	2.53	0.13093	88.9	0.00137	1.22	1.73	55.00	13828.65	7975.00	95.37	14150.82	0.003	0.162	0.003
139	2.53	2.38	0.13093	88.9	0.00137	1.22	1.73	55.00	13828.65	7975.00	95.37	14597.42	0.003	0.167	0.004
140	2.38	2.24	0.13093	88.9	0.00137	1.22	1.73	55.00	13828.65	7975.00	95.37	15044.01	0.004	0.172	0.004
141	2.24	2.10	0.13093	88.9	0.00137	1.22	1.73	55.00	13828.65	7975.00	95.37	15490.61	0.004	0.176	0.004
142	2.10	1.95	0.13093	88.9	0.00137	1.22	1.73	55.00	13828.65	7975.00	95.37	15937.21	0.004	0.181	0.004
143	1.95	1.81	0.13093	88.9	0.00137	1.22	1.73	55.00	13828.65	7975.00	95.37	16383.81	0.004	0.186	0.004
144	1.81	1.66	0.13093	88.9	0.00137	1.22	1.73	55.00	13828.65	7975.00	95.37	16830.41	0.004	0.191	0.004
TOT						12.22			138286.50	79750.00					
AVG					0.0014		1.73	55.00			95.37				
CUM						104.23									

********** 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
135	2.965	9.36	0.39	0.05	0.05	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.08	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
136	2.820	9.36	0.39	0.05	0.05	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.08	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
137	2.675	9.36	0.39	0.05	0.05	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.08	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
138	2.530	9.36	0.39	0.05	0.05	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.08	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
139	2.385	9.36	0.39	0.05	0.05	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.08	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
140	2.240	9.36	0.39	0.05	0.05	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.08	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00

141	2.095	9.36	0.39	0.05	0.05	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.08	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
142	1.950	9.36	0.39	0.05	0.05	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.08	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
143	1.805	9.36	0.39	0.05	0.05	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.08	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
144	1.660	9.36	0.39	0.05	0.05	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.08	0.05	0.00	0.00	0.00	0.00	0.47	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	2.00			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/m³	COLI #/100mL	NCM
135	2.965	18.50	0.10	12.15	222.70	7.79	0.78	0.00	1.78	0.00	0.23	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
136	2.820	18.50	0.10	12.15	222.70	7.78	0.70	0.00	1.70	0.00	0.20	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
137	2.675	18.50	0.10	12.15	222.70	7.77	0.63	0.00	1.63	0.00	0.18	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
138	2.530	18.50	0.10	12.15	222.69	7.77	0.56	0.00	1.56	0.00	0.15	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
139	2.385	18.50	0.10	12.15	222.69	7.78	0.51	0.00	1.51	0.00	0.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
140	2.240	18.50	0.10	12.15	222.67	7.78	0.46	0.00	1.46	0.00	0.12	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
141	2.095	18.50	0.10	12.14	222.64	7.79	0.42	0.00	1.42	0.00	0.12	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
142	1.950	18.50	0.10	12.14	222.58	7.80	0.39	0.00	1.39	0.00	0.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
143	1.805	18.50	0.10	12.13	222.44	7.83	0.40	0.00	1.40	0.00	0.19	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
144	1.660	18.50	0.10	12.12	222.17	7.90	0.45	0.00	1.45	0.00	0.33	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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-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	0.13093	18.50	0.10	12.12	222.17	7.90	0.45	0.00	1.45	0.00	0.33	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	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	0.13093	88.9	0.00103	1.30	1.50	85.00	14662.50	9775.00	127.50	17514.66	0.003	0.131	0.003
146	1.54	1.43	0.13093	88.9	0.00103	1.30	1.50	85.00	14662.50	9775.00	127.50	18198.91	0.003	0.136	0.003
147	1.43	1.31	0.13093	88.9	0.00103	1.30	1.50	85.00	14662.50	9775.00	127.50	18883.16	0.003	0.141	0.003
148	1.31	1.20	0.13093	88.9	0.00103	1.30	1.50	85.00	14662.50	9775.00	127.50	19567.41	0.003	0.146	0.003
TOT						5.18			58650.00	39100.00					
AVG					0.0010		1.50	85.00			127.50				
CUM						109.42									

********** 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
145	1.545	9.36	0.45	0.05	0.05	0.00	0.00	0.00	0.00	1.11	1.11	1.11	0.08	0.05	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	1.11	1.11	1.11	0.08	0.05	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	1.11	1.11	1.11	0.08	0.05	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	1.11	1.11	1.11	0.08	0.05	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	0.05	0.00	1.22			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/m³	COLI #/100mL	NCM
145	1.545	18.50	0.10	12.10	221.66	8.10	0.60	0.00	1.60	0.00	0.66	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
146	1.430	18.50	0.10	12.06	220.75	8.21	0.75	0.00	1.75	0.00	0.93	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
147	1.315	18.50	0.10	11.98	219.09	8.27	0.90	0.00	1.90	0.00	1.18	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
148	1.200	18.50	0.10	11.84	216.12	8.29	1.08	0.00	2.08	0.00	1.41	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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-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	0.13093	18.50	0.10	11.84	216.12	8.29	1.08	0.00	2.08	0.00	1.41	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	2.57	0.00	2.57	0.00	0.96	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	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	0.15923	90.9	0.00085	1.63	1.23	152.40	22402.80	18288.00	186.69	20847.57	0.002	0.090	0.003
150	1.08	0.96	0.15923	90.9	0.00085	1.63	1.23	152.40	22402.80	18288.00	186.69	22127.73	0.003	0.096	0.003
151	0.96	0.84	0.15923	90.9	0.00085	1.63	1.23	152.40	22402.80	18288.00	186.69	23407.89	0.003	0.101	0.003
152	0.84	0.72	0.15923	90.9	0.00085	1.63	1.23	152.40	22402.80	18288.00	186.69	24688.05	0.003	0.106	0.003
153	0.72	0.60	0.15923	90.9	0.00085	1.63	1.23	152.40	22402.80	18288.00	186.69	25968.21	0.003	0.112	0.003
154	0.60	0.48	0.15923	90.9	0.00085	1.63	1.23	152.40	22402.80	18288.00	186.69	27248.38	0.003	0.117	0.003
155	0.48	0.36	0.15923	90.9	0.00085	1.63	1.23	152.40	22402.80	18288.00	186.69	28528.54	0.003	0.122	0.003
156	0.36	0.24	0.15923	90.9	0.00085	1.63	1.23	152.40	22402.80	18288.00	186.69	29808.70	0.004	0.128	0.004
157	0.24	0.12	0.15923	90.9	0.00085	1.63	1.23	152.40	22402.80	18288.00	186.69	31088.86	0.004	0.133	0.004
158	0.12	0.00	0.15923	90.9	0.00085	1.63	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				
CUM						125.70									

********** 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	9.37	0.55	0.06	0.05	0.00	0.00	0.00	0.00	1.06	1.06	1.06	0.09	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
150	0.960	9.37	0.55	0.06	0.05	0.00	0.00	0.00	0.00	1.06	1.06	1.06	0.09	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
151	0.840	9.37	0.55	0.06	0.05	0.00	0.00	0.00	0.00	1.06	1.06	1.06	0.09	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
152	0.720	9.37	0.55	0.06	0.05	0.00	0.00	0.00	0.00	1.06	1.06	1.06	0.09	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
153	0.600	9.37	0.55	0.06	0.05	0.00	0.00	0.00	0.00	1.06	1.06	1.06	0.09	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
154	0.480	9.37	0.55	0.06	0.05	0.00	0.00	0.00	0.00	1.06	1.06	1.06	0.09	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
155	0.360	9.37	0.55	0.06	0.05	0.00	0.00	0.00	0.00	1.06	1.06	1.06	0.09	0.05	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
156	0.240	9.37	0.55	0.06	0.05	0.00	0.00	0.00	0.00	1.06	1.06	1.06	0.09	0.05	0.00	0.00	0.00	0.00	0.47	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	1.06	1.06	1.06	0.09	0.05	0.00	0.00	0.00	0.00	0.47	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	1.06	1.06	1.06	0.08	0.05	0.00	0.00	0.00	0.00	0.47	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	1.17			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
149	1.080	18.50	0.10	11.58	210.40	8.27	1.36	0.00	2.36	0.00	1.67	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
150	0.960	18.50	0.10	11.58	210.38	8.23	1.49	0.00	2.49	0.00	1.93	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
151	0.840	18.50	0.10	11.57	210.34	8.19	1.60	0.00	2.60	0.00	2.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
152	0.720	18.50	0.10	11.54	210.26	8.16	1.68	0.00	2.68	0.00	2.31	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
153	0.600	18.50	0.10	11.50	210.12	8.12	1.75	0.00	2.75	0.00	2.44	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
154	0.480	18.50	0.10	11.43	209.85	8.09	1.78	0.00	2.78	0.00	2.51	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
155	0.360	18.50	0.10	11.29	209.36	8.04	1.75	0.00	2.75	0.00	2.50	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
156	0.240	18.50	0.10	11.05	208.49	7.92	1.63	0.00	2.63	0.00	2.35	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
157	0.120	18.50	0.09	10.64	206.98	7.57	1.32	0.00	2.32	0.00	1.93	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
158	0.000	18.50	0.09	9.92	204.38	6.53	0.67	0.00	1.67	0.00	0.99	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

STREAM SUMMARY
Grand Bayou Upstream

GRAND BAYOU WINTER PROJECTION
09/17/07

TRAVEL TIME	=	125.70	DAYS		
MAXIMUM EFFLUENT	=	90.87	PERCENT		
FLOW	=	0.02830	TO	0.19154	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	=	0.11	TO	1.82	g/m²/d
NH3 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	=	6.53	TO	8.86	mg/L

.....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 CROUIX (BYC1)	22.62	20.57	0.2050	
4	GB	B CROUIX (BYC1)-B CROUIX (BYC2)	20.57	18.29	0.1520	
5	GB	B CROUIX (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

		DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS			
Reach	**Name**	**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 CROUIX (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 CROUIX (BYC1)-B CROUIX (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 CROUIX (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

		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS				
Reach	**Name**	**Tidal Range**	**Data Source**	**Dispersion Coeff. "a"**	**Dispersion Coeff. "b"**	**Dispersion Coeff. "c"**	**Dispersion Coeff. "d"**	**Data Source**
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 CROUIX (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 CROUIX (BYC1)-B CROUIX (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 CROUIX (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

		DATA TYPE 11 - INITIAL CONDITIONS				DATA TYPE 11 - INITIAL CONDITIONS		
Reach	**Name**	**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 CROUIX (BYC1)	18.50	0.11	5.00		10.00	0	
4	B CROUIX (BYC1)-B CROUIX (BYC2)	18.50	0.09	5.00		10.00	0	
5	B CROUIX (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

		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	
REACH	NAME	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	0.118	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	0.369		0.081		0.05	LTP, BPJ and calibration
3	MUDDY BAYOU-BAYOU CROUIX (BYC1)	4	Owens-Edwards-Gibbs	0.783		0.074		0.05	LTP, BPJ and calibration
4	B CROUIX (BYC1)-B CROUIX (BYC2)	4	Owens-Edwards-Gibbs	1.695		0.067		0.05	LTP, BPJ and calibration
5	B CROUIX (BYC2)-km 15.5	4	Owens-Edwards-Gibbs	0.837		0.071		0.05	LTP, BPJ and calibration
6	km 15.5-km 13.0	4	Owens-Edwards-Gibbs	0.840		0.078		0.05	LTP, BPJ and calibration
7	km 13.0-BAYOU CORNE	4	Owens-Edwards-Gibbs	0.806		0.068		0.05	LTP, BPJ and calibration
8	B CORNE-LITTLE GRAND BAYOU	4	Owens-Edwards-Gibbs	0.397		0.054		0.05	LTP, BPJ and calibration
9	LITTLE GRAND-UNNAMED CANAL	4	Owens-Edwards-Gibbs	0.552		0.052		0.05	LTP, BPJ and calibration
10	UNNAMED CANAL-E GRAND BAYOU	4	Owens-Edwards-Gibbs	2.000		0.054		0.05	LTP, BPJ and calibration
11	E GRAND BAYOU-BAYOU ALCIDE	4	Owens-Edwards-Gibbs	2.000		0.057		0.05	LTP, BPJ and calibration
12	BAYOU ALCIDE-SITE GRB8	4	Owens-Edwards-Gibbs	2.000		0.055		0.05	LTP, BPJ and calibration
13	SITE GRB8-LITTLE BAYOU LONG	4	Owens-Edwards-Gibbs	1.220		0.055		0.05	LTP, BPJ and calibration
14	L BAYOU LONG-LAKE VERRET	4	Owens-Edwards-Gibbs	1.169		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 CROUIX (BYC1)	0.105	0.05		1.00	
4	B CROUIX (BYC1)-B CROUIX (BYC2)	0.099	0.05		1.00	
5	B CROUIX (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. Ouflow, 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 CROUIX (BYC1)		0.000						
4	B CROUIX (BYC1)-B CROUIX (BYC2)		0.000						
5	B CROUIX (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 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	1.180	0.885	TMDL Loading Spreadsheet.
2	BAYOU SIGUR-MUDDY BAYOU	0.82	13.509	8.556	
3	MUDDY BAYOU-BAYOU CROUIX (BYC1)	2.05	38.021	15.208	
4	B CROUIX (BYC1)-B CROUIX (BYC2)	2.28	0.000	11.442	
5	B CROUIX (BYC2)-km 15.5	2.79	73.256	24.070	
6	km 15.5-km 13.0	2.50	97.805	30.377	
7	km 13.0-BAYOU CORNE	1.57	60.453	20.151	
8	B CORNE-LITTLE GRAND BAYOU	2.71	134.043	48.653	
9	LITTLE GRAND-UNNAMED CANAL	0.60	38.517	3.852	
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	10.166	20.333	
14	L BAYOU LONG-LAKE VERRET	1.20	54.554	97.418	

	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		0.0283	18.50	0.15	13.6	300.8	Site GRB1 Field and Lab data. Flow and Temp set to critical conditions.

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	2.570	3.666	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	0.0283	18.5	0.17	15	345	Winter critical Flow and Temp. Survey data, Site BYS1
Muddy Bayou	7	0.0283	18.5	0.08	16.9	169.2	Winter critical Flow and Temp. Survey data, Site MB1
Bayou Crouix (BYC1)	17	0.0283	18.5	0.12	8.4	250.2	Winter critical Flow and Temp. Survey data, Site BYC1
Bayou Crouix (BYC2)	32	0.0283	18.5	0.14	17.4	296.8	Winter critical Flow and Temp. Survey data, Site BYC2
Gator Super Stop	62	0.00043		0.11	13.8	234.1	Permitted flow adjusted for MOS. Survey data, Site PST1
Bayou Corne	80	0.0283	18.5	0.07	10.2	154.13	Winter critical Flow and Temp. Survey data, Site BYCO1
Little Grand Bayou	100	-0.00699					Flow follows same % of total flow as from calibration.
Unnamed Canal	104	0.0283	18.5	0.07	10.1	166.8	Winter critical Flow and Temp. Survey data, Site UNC2
East Grand Bayou	124	-0.08891					Flow follows same % of total flow as from calibration.
Bayou Alcide	135	0.0283	18.5	0.07	8.8	160.11	Winter critical Flow and Temp. Survey data, Site BA1
Little Bayou Long	149	0.0283	18.5	0.07	9	153.6	Winter critical Flow and Temp. 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	8.43	2.570		4.052	Winter critical temp and TMDL Loading Spreadsheet
Muddy Bayou	7	8.43	0.508		0.000	Winter critical temp and TMDL Loading Spreadsheet
Bayou Crouix (BYC1)	17	8.43	2.570		1.445	Winter critical temp and TMDL Loading Spreadsheet
Bayou Crouix (BYC2)	32	8.43	2.570		2.514	Winter critical temp and TMDL Loading Spreadsheet
Gator Super Stop	62	2.00	69.000		64.500	Permit and application data
Bayou Corne	80	8.43	0.288		0.000	Winter critical temp and TMDL Loading Spreadsheet
Little Grand Bayou	100					
Unnamed Canal	104	8.43	2.570		1.380	Winter critical temp and TMDL Loading Spreadsheet
East Grand Bayou	124					
Bayou Alcide	135	8.43	2.570		1.226	Winter critical temp and TMDL Loading Spreadsheet
Little Bayou Long	149	8.43	2.570		0.965	Winter critical temp and TMDL Loading Spreadsheet

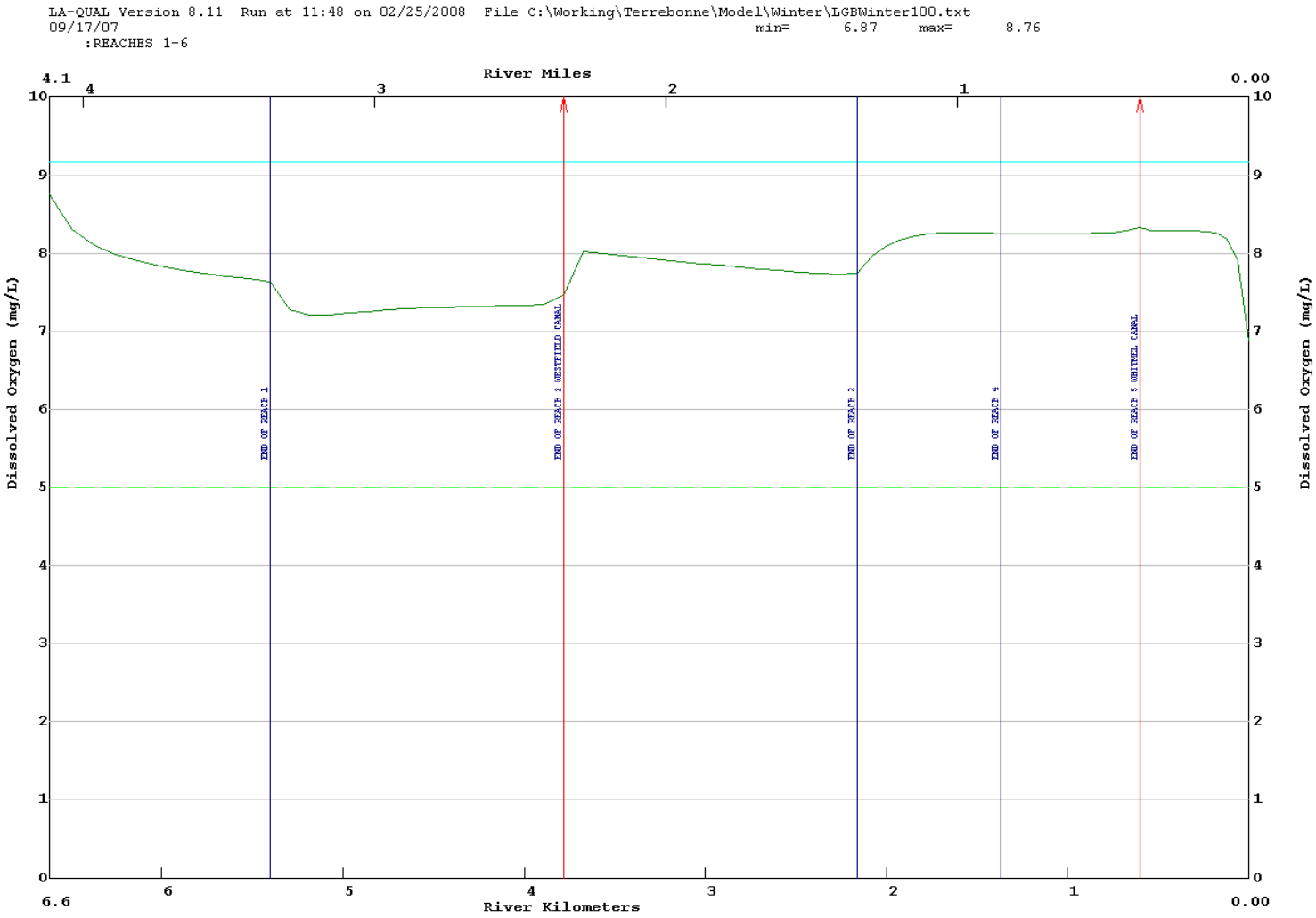
Grand Bayou Winter Projection

	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			Louisiana standard practice, reduction in nutrients will cause a reduction in algae.
Muddy Bayou	7		10			
Bayou Crouix (BYC1)	17		10			
Bayou Crouix (BYC2)	32		10			
Gator Super Stop	62					
Bayou Corne	80		10			
Little Grand Bayou	100					
Unnamed Canal	104		10			
East Grand Bayou	124					
Bayou Alcide	135		10			
Little Bayou Long	149		10			

	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	5.00	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


LA-QUAL Version 8.11 Run at 11:48 on 02/25/2008 File C:\Working\Terrebonne\Model\Winter\LGBWinter100.txt
09/17/07
:REACHES 1-6
min= 6.87 max= 8.76
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL
END OF REACH 3
END OF REACH 4
END OF REACH 5 (WHITMEL CANAL
6.6
River Kilometers

Input File

```
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  SETTLED RATE UNITS                 =     2.0
ENDATA03
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
ENDATA04
ENDATA05
ENDATA06
ENDATA07
!Reach Identification Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -- ********************************----------**********----------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -------*******-------*******-------*******--------*******
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -----**********----------**********----------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  --------********--------********--------********--------********
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-
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
1
!         ***  -----******----- ******-------*******-------*******-------*******-------*******------
-
COEF-1      1    4.0  0.00 0.0   0.0    0.655  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    1.104  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    0.774  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    0.206  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    0.022  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    0.023  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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -------*******-------*******-------*******-------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -------*******-------*******-------*******       -------*******
ENDATA14
!Coliform and Nonconservative Cofficients
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -------*******-------*******
ENDATA15
!Incremental Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  ---------*********---------*********---------*********
ENDATA16
!Incremental Data for DO, BOD, and Nitrogen
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  ---------*********---------*********---------
ENDATA17
!Incremental Data for Phosphorus, Chlorophyll, Coliform and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  ---------*********---------*********
ENDATA18
!Nonpoint Source Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  ---------*********---------*********---------*********
NONPOINT    1     18.726    5.618   0.0      0.00     0.0       0.00
NONPOINT    2     24.183    4.837   0.0      0.00     0.0       0.00
NONPOINT    3     38.677   16.438   0.0      0.00     0.0       0.00
NONPOINT    4     30.833   10.278   0.0      0.00     0.0       0.00
NONPOINT    5     51.672   16.850   0.0      0.00     0.0       0.00
NONPOINT    6     56.859   21.606   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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  -------------------- *** --------********--------********--------
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------*********---------*********---------*********
HDWTR-2     1      8.76    6.62     1.38    0.000    0.00      0.000
ENDATA21
!Headwater Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------*********---------*********
HDWTR-3     1      0.00    10.00   0.00    0.00
ENDATA22
!Junction Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        **** ----  ************************************************************
ENDATA23
!Wasteload Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  --------------------*********---------*********---------*********
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------*********-----*********---------*****---------*********
WSTLD-2    26      8.26    2.570  0.0    2.770     0.00  0.0     0.00    0.000
WSTLD-2    61      8.26    2.570  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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------*********---------*********
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                   =   5.00
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
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  -------------------- ** --------********--------
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
Louisiana Department of Environmental Quality

Input file is C:\Working\Terrebonne\Model\Winter\LGBWinter100.txt
Output produced at 11:48 on 02/25/2008

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

CARD TYPE       CONTROL TITLES

TITLE01         LITTLE GRAND BAYOU WINTER PROJECTION
TITLE02         09/17/07
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

$$$ DATA TYPE 8 (REACH IDENTIFICATION DATA) $$$
                                                        BEGIN         END     ELEM    REACH     ELEMS   BEGIN    END
CARD TYPE  REACH  ID  NAME                              REACH       REACH   LENGTH   LENGTH    PER RCH   ELEM   ELEM
                                                           km          km       km       km               NUM    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
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	0.00	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	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL	1	LG	19.55	0.07	5.00	0.00	0.00	0.00	10.00	0.00
INITIAL	2	LG	19.55	0.07	5.00	0.00	0.00	0.00	10.00	0.00
INITIAL	3	LG	19.55	0.08	5.00	0.00	0.00	0.00	10.00	0.00
INITIAL	4	LG	19.55	0.07	5.00	0.00	0.00	0.00	10.00	0.00
INITIAL	5	LG	19.55	0.07	5.00	0.00	0.00	0.00	10.00	0.00
INITIAL	6	LG	19.55	0.07	5.00	0.00	0.00	0.00	10.00	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	BOD DECAY per day	BOD SETT m/d	BOD CONV TO SOD	ANAER BOD2 DECAY per day	BOD2 DECAY per day	BOD2 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	0.655	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	1.104	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     0.774     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     0.206     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     0.022     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     0.023     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      NBOD   ORGN CONV       NH3       NH3      PHOS     DENIT
                                DECA      SETT  TO NH3 SRCE     DECA      SRCE      SRCE      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    ALGAE:     ALGAE    ALG CONV     ALGAE     ALGAE     MACRO     MACRO
                                DEPTH     CHL A      SETT     TO SOD       GROW      RESP      GROW      RESP   SHADING

ENDATA14

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

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

ENDATA16

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

CARD TYPE      REACH  ID          DO       BOD      NBOD                          BOD#2

ENDATA17
```

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

 CARD TYPE      REACH  ID        PHOS     CHL A      COLI       NCM

ENDATA18

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

CARD TYPE      REACH  ID       BOD#1     NBOD       COLI       NCM        DO     BOD#2

NONPOINT          1   LG       18.73      5.62      0.00      0.00      0.00      0.00
NONPOINT          2   LG       24.18      4.84      0.00      0.00      0.00      0.00
NONPOINT          3   LG       38.68     16.44      0.00      0.00      0.00      0.00
NONPOINT          4   LG       30.83     10.28      0.00      0.00      0.00      0.00
NONPOINT          5   LG       51.67     16.85      0.00      0.00      0.00      0.00
NONPOINT          6   LG       56.86     21.61      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     FLOW    TEMP    SALIN      CM-I     CM-II
                                                        m³/s      cfs   deg C      ppt      MG/L      MG/L

HDWTR-1           1     Grand Bayou             0   0.00699    0.247   18.50     0.12    13.580   252.620   0.00
ENDATA20

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

CARD TYPE     ELEMENT   NAME                        DO     BOD#1     NBOD                          BOD#2
                                                   mg/L      mg/L      mg/L      mg/L      mg/L      mg/L

HDWTR-2           1     Grand Bayou               8.76      6.62      1.38      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
                                                   mg/L      mg/L      mg/L      mg/L

HDWTR-3           1     Grand Bayou                0.00     10.00      0.00      0.00
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       FLOW     FLOW    TEMP    SALIN      CM-I     CM-II
                                                       m³/s        cfs      MGD   deg C      ppt      MG/L      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

$$$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) $$$
                                                                          % BOD                          %
CARD TYPE     ELEMENT   NAME                          DO       BOD      RMVL     NBOD                NITRIF                BOD#2
                                                     mg/L      mg/L                mg/L      mg/L                mg/L      mg/L

WSTLD-2          26     WESTFIELD CANAL             8.26      2.57      0.00      2.77      0.00      0.00      0.00      0.00
WSTLD-2          61     WHITMEL CANAL               8.26      2.57      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     CHL A      COLI       NCM
                                                     mg/L      mg/L      mg/L      mg/L

WSTLD-3          26     WESTFIELD CANAL             0.00     10.00      0.00      0.00
WSTLD-3          61     WHITMEL CANAL               0.00     10.00      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                  =      5.000     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"

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           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

$$$ DATA TYPE 30 (PLOT CONTROL CARDS) $$$
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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 LGBProjection.TXT            :REACHES 1-6
ENDATA31



     .....NO ERRORS DETECTED IN INPUT DATA
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN   3 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED
     .....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11


FINAL REPORT    Grand Bayou                                     LITTLE GRAND BAYOU WINTER PROJECTION
REACH NO.  1     GRAND BAYOU-RKM 5.40                           09/17/07
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********** 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	0.00699	18.50	0.12	13.58	252.62	8.76	5.62	0.00	6.62	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	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	0.00699	0.0	0.00078	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	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	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	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	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	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	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	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	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	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				
CUM						18.20									

********** 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	9.17	1.14	0.06	0.05	0.00	0.00	0.00	0.00	0.64	0.64	0.64	0.11	0.05	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	0.64	0.64	0.64	0.11	0.05	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	0.64	0.64	0.64	0.11	0.05	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	0.64	0.64	0.64	0.11	0.05	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	0.64	0.64	0.64	0.11	0.05	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	0.64	0.64	0.64	0.11	0.05	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	0.64	0.64	0.64	0.10	0.05	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	0.64	0.64	0.64	0.10	0.05	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	0.64	0.64	0.64	0.10	0.05	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	0.64	0.64	0.64	0.10	0.05	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	0.05	0.00	0.65			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/m³	COLI #/100mL	NCM
1	6.498	19.55	0.12	13.58	252.62	8.31	7.42	0.00	8.42	0.00	1.85	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
2	6.376	19.55	0.12	13.58	252.62	8.11	8.70	0.00	9.70	0.00	2.16	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
3	6.254	19.55	0.12	13.58	252.62	7.98	9.78	0.00	10.78	0.00	2.41	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
4	6.132	19.55	0.12	13.58	252.62	7.90	10.68	0.00	11.68	0.00	2.60	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
5	6.010	19.55	0.12	13.58	252.62	7.83	11.42	0.00	12.42	0.00	2.76	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
6	5.888	19.55	0.12	13.58	252.62	7.78	12.05	0.00	13.05	0.00	2.88	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
7	5.766	19.55	0.12	13.58	252.62	7.74	12.57	0.00	13.57	0.00	2.97	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
8	5.644	19.55	0.12	13.58	252.62	7.70	13.00	0.00	14.00	0.00	3.05	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

9	5.522	19.55	0.12	13.58	252.62	7.68	13.36	0.00	14.36	0.00	3.10	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
10	5.400	19.55	0.12	13.58	252.62	7.64	13.58	0.00	14.58	0.00	3.09	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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-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	0.00699	19.55	0.12	13.58	252.62	7.64	13.58	0.00	14.58	0.00	3.09	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	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	0.00699	0.0	0.00056	2.24	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	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	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	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	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	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	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	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	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	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	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	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	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	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	0.62	20.00	1350.00	2160.00	12.50	0.00	0.000	0.011	0.001
TOT						33.53			20250.00	32400.00					
AVG					0.0006		0.62	20.00			12.50				
CUM						51.73									

********** 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	9.17	1.11	0.05	0.05	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	0.49	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	1.07	1.07	1.07	0.12	0.05	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	1.07	1.07	1.07	0.12	0.05	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	1.07	1.07	1.07	0.12	0.05	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	1.07	1.07	1.07	0.12	0.05	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	1.07	1.07	1.07	0.12	0.05	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	1.07	1.07	1.07	0.12	0.05	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	1.07	1.07	1.07	0.12	0.05	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
19	4.428	9.17	1.11	0.05	0.05	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	0.49	0.00	0.00	0.00	0.00
20	4.320	9.17	1.11	0.05	0.05	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	0.49	0.00	0.00	0.00	0.00
21	4.212	9.17	1.11	0.05	0.05	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	0.49	0.00	0.00	0.00	0.00
22	4.104	9.17	1.11	0.05	0.05	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	0.49	0.00	0.00	0.00	0.00
23	3.996	9.17	1.11	0.05	0.05	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	0.49	0.00	0.00	0.00	0.00
24	3.888	9.17	1.11	0.05	0.05	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	0.49	0.00	0.00	0.00	0.00
25	3.780	9.17	1.11	0.05	0.05	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	0.49	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			1.12	0.06	0.05	0.00	0.00	0.05	0.00	1.10			0.13	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
11	5.292	19.55	0.12	13.58	252.62	7.28	13.18	0.00	14.18	0.00	2.63	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
12	5.184	19.55	0.12	13.58	252.62	7.21	12.86	0.00	13.86	0.00	2.29	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
13	5.076	19.55	0.12	13.58	252.62	7.21	12.60	0.00	13.60	0.00	2.05	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
14	4.968	19.55	0.12	13.58	252.62	7.23	12.39	0.00	13.39	0.00	1.87	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
15	4.860	19.55	0.12	13.58	252.62	7.26	12.22	0.00	13.22	0.00	1.74	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
16	4.752	19.55	0.12	13.58	252.62	7.27	12.08	0.00	13.08	0.00	1.65	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
17	4.644	19.55	0.12	13.58	252.62	7.29	11.96	0.00	12.96	0.00	1.58	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
18	4.536	19.55	0.12	13.58	252.62	7.30	11.87	0.00	12.87	0.00	1.52	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
19	4.428	19.55	0.12	13.58	252.62	7.31	11.79	0.00	12.79	0.00	1.49	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
20	4.320	19.55	0.12	13.58	252.62	7.32	11.73	0.00	12.73	0.00	1.46	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
21	4.212	19.55	0.12	13.58	252.61	7.32	11.67	0.00	12.67	0.00	1.44	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
22	4.104	19.55	0.12	13.58	252.53	7.33	11.63	0.00	12.63	0.00	1.42	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
23	3.996	19.55	0.12	13.56	252.04	7.33	11.56	0.00	12.56	0.00	1.42	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
24	3.888	19.55	0.12	13.44	248.97	7.35	11.31	0.00	12.31	0.00	1.44	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
25	3.780	19.55	0.11	12.68	229.54	7.47	9.52	0.00	10.52	0.00	1.74	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT Grand Bayou LITTLE GRAND BAYOU WINTER PROJECTION
REACH NO. 3 WESTFIELD CANAL-RKM 2.16 09/17/07

********** 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	0.00699	19.55	0.11	12.68	229.54	7.47	9.52	0.00	10.52	0.00	1.74	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	2.57	0.00	2.57	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 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
26	3.78	3.67	0.03529	80.2	0.00199	0.63	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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				
CUM						61.16									

********** 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

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
26	3.672	9.17	1.08	0.06	0.05	0.00	0.00	0.00	0.00	0.75	0.75	0.75	0.11	0.05	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	0.75	0.75	0.75	0.11	0.05	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	0.75	0.75	0.75	0.11	0.05	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	0.75	0.75	0.75	0.11	0.05	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	0.75	0.75	0.75	0.11	0.05	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	0.75	0.75	0.75	0.11	0.05	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	0.75	0.75	0.75	0.11	0.05	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	0.75	0.75	0.75	0.11	0.05	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	0.75	0.75	0.75	0.11	0.05	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
35	2.700	9.17	1.08	0.06	0.05	0.00	0.00	0.00	0.00	0.75	0.75	0.75	0.11	0.05	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
36	2.592	9.17	1.08	0.06	0.05	0.00	0.00	0.00	0.00	0.75	0.75	0.75	0.11	0.05	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
37	2.484	9.17	1.08	0.06	0.05	0.00	0.00	0.00	0.00	0.75	0.75	0.75	0.11	0.05	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
38	2.376	9.17	1.08	0.06	0.05	0.00	0.00	0.00	0.00	0.75	0.75	0.75	0.11	0.05	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
39	2.268	9.17	1.08	0.06	0.05	0.00	0.00	0.00	0.00	0.75	0.75	0.75	0.11	0.05	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
40	2.160	9.17	1.08	0.06	0.05	0.00	0.00	0.00	0.00	0.75	0.75	0.75	0.11	0.05	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			1.09	0.06	0.05	0.00	0.00	0.05	0.00	0.77			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/m³	COLI #/100mL	NCM
26	3.672	19.55	0.08	11.11	189.57	8.02	5.05	0.00	6.05	0.00	2.58	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
27	3.564	19.55	0.08	11.11	189.57	8.00	5.53	0.00	6.53	0.00	2.66	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
28	3.456	19.55	0.08	11.11	189.57	7.97	5.97	0.00	6.97	0.00	2.74	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
29	3.348	19.55	0.08	11.11	189.57	7.95	6.38	0.00	7.38	0.00	2.81	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
30	3.240	19.55	0.08	11.11	189.57	7.92	6.77	0.00	7.77	0.00	2.88	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
31	3.132	19.55	0.08	11.11	189.57	7.89	7.13	0.00	8.13	0.00	2.93	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
32	3.024	19.55	0.08	11.11	189.57	7.87	7.48	0.00	8.48	0.00	2.99	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
33	2.916	19.55	0.08	11.11	189.57	7.85	7.80	0.00	8.80	0.00	3.03	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
34	2.808	19.55	0.08	11.11	189.57	7.82	8.10	0.00	9.10	0.00	3.08	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
35	2.700	19.55	0.08	11.11	189.57	7.80	8.38	0.00	9.38	0.00	3.12	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
36	2.592	19.55	0.08	11.11	189.57	7.78	8.65	0.00	9.65	0.00	3.15	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
37	2.484	19.55	0.08	11.11	189.57	7.76	8.89	0.00	9.89	0.00	3.18	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
38	2.376	19.55	0.08	11.11	189.57	7.75	9.13	0.00	10.13	0.00	3.21	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
39	2.268	19.55	0.08	11.11	189.57	7.73	9.35	0.00	10.35	0.00	3.24	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
40	2.160	19.55	0.08	11.11	189.57	7.75	9.59	0.00	10.59	0.00	3.26	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT Grand Bayou LITTLE GRAND BAYOU WINTER PROJECTION
REACH NO. 4 RKM 2.16-RKM 1.37 09/17/07

********** 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	0.03529	19.55	0.08	11.11	189.57	7.75	9.59	0.00	10.59	0.00	3.26	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	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	0.03529	80.2	0.00135	0.68	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	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	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	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	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	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	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	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	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	0.90	29.00	2061.90	2291.00	26.10	0.00	0.000	0.037	0.001
TOT						6.76			20619.00	22910.00					
AVG					0.0014		0.90	29.00			26.10				
CUM						67.93									

********** 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	9.17	0.77	0.06	0.05	0.00	0.00	0.00	0.00	0.20	0.20	0.20	0.10	0.05	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	0.20	0.20	0.20	0.10	0.05	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	0.20	0.20	0.20	0.10	0.05	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	0.20	0.20	0.20	0.10	0.05	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	0.20	0.20	0.20	0.10	0.05	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	0.20	0.20	0.20	0.10	0.05	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	0.20	0.20	0.20	0.10	0.05	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	0.20	0.20	0.20	0.10	0.05	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	0.20	0.20	0.20	0.10	0.05	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	0.20	0.20	0.20	0.10	0.05	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	0.05	0.00	0.21			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
41	2.081	19.55	0.08	11.11	189.57	7.96	9.91	0.00	10.91	0.00	3.28	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
42	2.002	19.55	0.08	11.11	189.57	8.09	10.19	0.00	11.19	0.00	3.29	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
43	1.923	19.55	0.08	11.11	189.57	8.17	10.45	0.00	11.45	0.00	3.31	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
44	1.844	19.55	0.08	11.11	189.57	8.22	10.70	0.00	11.70	0.00	3.32	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
45	1.765	19.55	0.08	11.11	189.57	8.25	10.92	0.00	11.92	0.00	3.33	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
46	1.686	19.55	0.08	11.11	189.57	8.26	11.14	0.00	12.14	0.00	3.34	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
47	1.607	19.55	0.08	11.11	189.57	8.27	11.34	0.00	12.34	0.00	3.34	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
48	1.528	19.55	0.08	11.11	189.57	8.27	11.52	0.00	12.52	0.00	3.35	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
49	1.449	19.55	0.08	11.11	189.57	8.26	11.69	0.00	12.69	0.00	3.36	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
50	1.370	19.55	0.08	11.11	189.57	8.26	11.82	0.00	12.82	0.00	3.35	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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-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	0.03529	19.55	0.08	11.11	189.57	8.26	11.82	0.00	12.82	0.00	3.35	0.00	0.00	0.00	10.00	0.00	0.00

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

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO

	km	km	m³/s		m/s	days	m	m	m³	m²	m²	m³	m/s	m²/s	m/s
51	1.37	1.29	0.03529	80.2	0.00071	1.25	1.10	45.00	3811.50	3465.00	49.50	0.00	0.000	0.023	0.001
52	1.29	1.22	0.03529	80.2	0.00071	1.25	1.10	45.00	3811.50	3465.00	49.50	0.00	0.000	0.023	0.001
53	1.22	1.14	0.03529	80.2	0.00071	1.25	1.10	45.00	3811.50	3465.00	49.50	0.00	0.000	0.023	0.001
54	1.14	1.06	0.03529	80.2	0.00071	1.25	1.10	45.00	3811.50	3465.00	49.50	0.00	0.000	0.023	0.001
55	1.06	0.98	0.03529	80.2	0.00071	1.25	1.10	45.00	3811.50	3465.00	49.50	0.00	0.000	0.023	0.001
56	0.98	0.91	0.03529	80.2	0.00071	1.25	1.10	45.00	3811.50	3465.00	49.50	0.00	0.000	0.023	0.001
57	0.91	0.83	0.03529	80.2	0.00071	1.25	1.10	45.00	3811.50	3465.00	49.50	0.00	0.000	0.023	0.001
58	0.83	0.75	0.03529	80.2	0.00071	1.25	1.10	45.00	3811.50	3465.00	49.50	0.00	0.000	0.023	0.001
59	0.75	0.68	0.03529	80.2	0.00071	1.25	1.10	45.00	3811.50	3465.00	49.50	0.00	0.000	0.023	0.001
60	0.68	0.60	0.03529	80.2	0.00071	1.25	1.10	45.00	3811.50	3465.00	49.50	0.00	0.000	0.023	0.001
TOT						12.50			38115.00	34650.00					
AVG					0.0007		1.10	45.00			49.50				
CUM						80.43									

********** 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	9.17	0.63	0.06	0.05	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.09	0.05	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
52	1.216	9.17	0.63	0.06	0.05	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.09	0.05	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
53	1.139	9.17	0.63	0.06	0.05	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.09	0.05	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
54	1.062	9.17	0.63	0.06	0.05	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.09	0.05	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
55	0.985	9.17	0.63	0.06	0.05	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.09	0.05	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
56	0.908	9.17	0.63	0.06	0.05	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.09	0.05	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
57	0.831	9.17	0.63	0.06	0.05	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.09	0.05	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
58	0.754	9.17	0.63	0.06	0.05	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.09	0.05	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
59	0.677	9.17	0.63	0.06	0.05	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.09	0.05	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
60	0.600	9.17	0.63	0.06	0.05	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.09	0.05	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.64	0.06	0.05	0.00	0.00	0.05	0.00	0.02			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

51	1.293	19.55	0.08	11.11	189.57	8.25	11.86	0.00	12.86	0.00	3.31	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
52	1.216	19.55	0.08	11.11	189.57	8.25	11.88	0.00	12.88	0.00	3.28	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
53	1.139	19.55	0.08	11.11	189.57	8.25	11.91	0.00	12.91	0.00	3.26	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
54	1.062	19.55	0.08	11.11	189.57	8.25	11.93	0.00	12.93	0.00	3.24	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
55	0.985	19.55	0.08	11.11	189.56	8.25	11.94	0.00	12.94	0.00	3.22	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
56	0.908	19.55	0.08	11.11	189.55	8.25	11.96	0.00	12.96	0.00	3.20	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
57	0.831	19.55	0.08	11.10	189.49	8.26	11.95	0.00	12.95	0.00	3.18	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
58	0.754	19.55	0.08	11.07	189.28	8.26	11.89	0.00	12.89	0.00	3.17	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
59	0.677	19.55	0.08	10.98	188.60	8.28	11.60	0.00	12.60	0.00	3.13	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
60	0.600	19.55	0.08	10.68	186.31	8.32	10.49	0.00	11.49	0.00	3.04	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

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-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	0.03529	19.55	0.08	10.68	186.31	8.32	10.49	0.00	11.49	0.00	3.04	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	2.57	0.00	2.57	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 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	0.06359	89.0	0.00070	0.99	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	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	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	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	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	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	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	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	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	1.38	66.14	5456.71	3968.52	90.95	0.00	0.000	0.027	0.001
TOT						9.93			54567.15	39685.20					
AVG					0.0007		1.38	66.14			90.95				
CUM						90.36									

********** 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
61	0.540	9.17	0.50	0.08	0.05	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.10	0.05	0.00	0.00	0.00	0.00	0.49	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	0.02	0.02	0.02	0.10	0.05	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	0.02	0.02	0.02	0.10	0.05	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	0.02	0.02	0.02	0.10	0.05	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	0.02	0.02	0.02	0.10	0.05	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	0.02	0.02	0.02	0.10	0.05	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	0.02	0.02	0.02	0.10	0.05	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	0.02	0.02	0.02	0.10	0.05	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	0.02	0.02	0.02	0.10	0.05	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	0.02	0.02	0.02	0.10	0.05	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	0.05	0.00	0.02			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/m³	COLI #/100mL	NCM
61	0.540	19.55	0.08	10.08	181.75	8.30	7.98	0.00	8.98	0.00	2.83	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
62	0.480	19.55	0.08	10.08	181.75	8.29	7.98	0.00	8.98	0.00	2.80	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
63	0.420	19.55	0.08	10.08	181.74	8.29	7.99	0.00	8.99	0.00	2.78	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
64	0.360	19.55	0.08	10.08	181.73	8.29	7.99	0.00	8.99	0.00	2.77	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
65	0.300	19.55	0.08	10.08	181.69	8.29	8.00	0.00	9.00	0.00	2.75	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
66	0.240	19.55	0.08	10.07	181.60	8.28	8.00	0.00	9.00	0.00	2.74	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
67	0.180	19.55	0.08	10.05	181.38	8.26	7.99	0.00	8.99	0.00	2.72	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
68	0.120	19.55	0.08	10.00	180.80	8.18	7.98	0.00	8.98	0.00	2.70	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
69	0.060	19.55	0.07	9.88	179.35	7.90	7.94	0.00	8.94	0.00	2.66	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
70	0.000	19.55	0.07	9.58	175.67	6.87	7.83	0.00	8.83	0.00	2.56	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

STREAM SUMMARY
Grand Bayou

LITTLE GRAND BAYOU WINTER PROJECTION
09/17/07

TRAVEL TIME = 90.36 DAYS

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MAXIMUM EFFLUENT  =          89.01 PERCENT

FLOW              =   0.00699 TO    0.06359   m³/s
DISPERSION        =   0.0113  TO    0.0411    m²/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               =    0.02   TO    1.07      g/m²/d
NH3 SOURCE        =    0.00   TO    0.00      g/m²/d
REAERATION        =    0.50   TO    1.14      per day
BOD SETTLING      =    0.05   TO    0.05      per day
NBOD DECAY        =    0.09   TO    0.12      per day
NBOD SETTLING     =    0.05   TO    0.05      per day

TEMPERATURE       =   19.55   TO   19.55      deg C
DISSOLVED OXYGEN  =    6.87   TO    8.32      mg/L


    .....EXECUTION COMPLETED
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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	

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		DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS			
Reach	Name	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

		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS				
Reach	Name	Tidal Range	Data Source	Dispersion Coeff. "a"	Dispersion Coeff. "b"	Dispersion Coeff. "c"	Dispersion Coeff. "d"	Data Source
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"

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		DATA TYPE 11 - INITIAL CONDITIONS				DATA TYPE 11 - INITIAL CONDITIONS		
Reach	Name	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	

		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	
REACH	NAME	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	0.655	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	1.104		0.056		0.05	LTP, BPJ and calibration
3	WESTFIELD CANAL-RKM 2.16	4	Owens-Edwards-Gibbs	0.774		0.058		0.05	LTP, BPJ and calibration
4	RKM 2.16-RKM 1.37	4	Owens-Edwards-Gibbs	0.206		0.057		0.05	LTP, BPJ and calibration
5	RKM 1.37-WHITMEL CANAL	4	Owens-Edwards-Gibbs	0.022		0.064		0.05	LTP, BPJ and calibration
6	WHITMEL CANAL-LAKE VERRET	4	Owens-Edwards-Gibbs	0.023		0.082		0.05	LTP, BPJ and calibration

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		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. Ouflow, 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						

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		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	18.726	5.618	TMDL Loading Spreadsheet
2	RKM 5.40-WESTFIELD CANAL	1.62	24.183	4.837	
3	WESTFIELD CANAL-RKM 2.16	1.62	38.677	16.438	
4	RKM 2.16-RKM 1.37	0.79	30.833	10.278	
5	RKM 1.37-WHITMEL CANAL	0.77	51.672	16.850	
6	WHITMEL CANAL-LAKE VERRET	0.60	56.859	21.606	

	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	8.76	6.62	1.38	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
Whitmel 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	2.57		2.77	90% DO saturation and TMDL Loading Spreadsheet
Whitmel Canal	61	8.26	2.57		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.
Whitmel 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	5.00	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

Summer Projection, Non-Point Benthic Load Input and TMDL Calculations:

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

Shaded cells are input values for calcul | MARGIN OF SAFETY (MOS) (%) = [MOG + MOU] = **20%**
Values to be used in the projection mod | Note: Margin of Safety applies only to Man-Made loads, not Backgrou

	Calibration Model Values															Reduced Man-Made Loads				Projected Model Loads					
Reach Number and Description	Total Non-Point UCBOD	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 UCBOD Load	Reduced UNBOD Load	Reduced SOD Load at Projection Temp.	SOD @ 20°C	Total Non-Point UCBOD INPUTS	Non-Point UNBOD INPUTS	**Total MOS at Projection Temp.**	**Non-Point UCBOD 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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.118	1.180	0.885	0.00	1.18	0.88	0.22
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.369	13.509	8.556	0.00	13.51	8.56	8.34
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.783	38.021	15.208	0.00	38.02	15.21	57.17
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	1.695	0.000	11.442	0.00	0.00	11.44	106.15
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.837	73.256	24.070	0.00	73.26	24.07	116.93
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.840	97.805	30.377	0.00	97.81	30.38	154.88
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.806	60.453	20.151	0.00	60.45	20.15	90.80
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.397	134.043	48.653	0.00	134.04	48.65	75.54
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.552	38.517	3.852	0.00	38.52	3.85	26.96
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	2.000	0.000	0.000	0.00	0.00	0.00	438.51
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	2.000	0.000	0.000	0.00	0.00	0.00	299.57
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	2.000	0.000	0.000	0.00	0.00	0.00	266.14
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	1.220	10.166	20.333	0.00	10.17	20.33	79.59
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	1.169	54.554	97.418	0.00	54.55	97.42	356.73
Sub-Total									28.00	141.73			28.00	0.00	28.00	0.00	0.00	0.00		521.50	280.94	0.00	**521.50**	**280.94**	**2077.50**

Summer TMDL Calculations for Point Source loads:

GRAND BAYOU (SUBSEGMENT 120206)

Input data into the shaded cells.

Point Source Loading Calculations

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_3N (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**
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**
SUB-TOTAL Loads										**2.53**	**2.03**	**0.51**		**2.37**	**1.89**	**0.47**	**0.00**	**0.00**	**0.00**	**4.90**	**3.92**	**0.98**

(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]

Summer TMDL calculations and Projection model calculations for Headwater / Tributary loads:

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, b	

Headwater / Tributary Load Determinations

	FROM CALIBRATION			BACKGROUND VALUES				Reduced Background Loads		Reduced Man-Made Loads		PROJECTION VALUES				
Headwater / Tributary Description and Reach #	Seasonal Critical flow (cms)	Total UCBOD (mg O_2/L)	Total UNBOD (mg O_2/L)	Background UCBOD conc. (mg O_2/L)	Background UNBOD conc. (mg O_2/L)	Background % Reduction	Percent reduction of Man-Made loads	Total reduced Background UCBOD load (kg O_2/day)	Reduced Background UNBOD load (kg O_2/day)	Reduced UCBOD load (kg O_2/day)	Reduced UNBOD load (kg O_2/day)	Projection UCBOD 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)**
Grand Bayou	0.00283	10.72	3.67	2.57	5.44	0%	100%	0.63	0.90	0.00	0.00	2.570	3.666	**0.00**	**0.63**	**0.90**
Bayou Sigur	0.00283	13.41	4.05	2.57	5.44	0%	100%	0.63	0.99	0.00	0.00	2.570	4.052	**0.00**	**0.63**	**0.99**
Muddy Bayou	0.00283	0.51	0.00	2.57	5.44	0%	100%	0.12	0.00	0.00	0.00	0.508	0.000	**0.00**	**0.12**	**0.00**
Bayou Crouix (BYC1)	0.00283	6.91	1.45	2.57	5.44	0%	100%	0.63	0.35	0.00	0.00	2.570	1.445	**0.00**	**0.63**	**0.35**
Bayou Crouix (BYC2)	0.00283	10.31	2.51	2.57	5.44	0%	100%	0.63	0.61	0.00	0.00	2.570	2.514	**0.00**	**0.63**	**0.61**
Bayou Corne	0.00283	0.29	0.00	2.57	5.44	0%	100%	0.07	0.00	0.00	0.00	0.288	0.000	**0.00**	**0.07**	**0.00**
Unnamed Canal	0.00283	5.48	1.38	2.57	5.44	0%	100%	0.63	0.34	0.00	0.00	2.570	1.380	**0.00**	**0.63**	**0.34**
Bayou Alcide	0.00283	5.54	1.23	2.57	5.44	0%	100%	0.63	0.30	0.00	0.00	2.570	1.226	**0.00**	**0.63**	**0.30**
Little Bayou Long	0.00283	5.77	0.97	2.57	5.44	0%	100%	0.63	0.24	0.00	0.00	2.570	0.965	**0.00**	**0.63**	**0.24**
SUB-TOTAL TMDL LOADING								**4.59**	**3.73**	**0.00**	**0.00**			**0.00**	**4.59**	**3.73**

Appendix E2 – Little Grand Bayou Summer Loading

Summer Projection, Non-Point Benthic Load Input and TMDL Calculations:

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

Shaded cells are input values for calcula | MARGIN OF SAFETY (MOS) (%) = [MOG + MOU] = **20%**
Values to be used in the projection mod | Note: Margin of Safety applies only to Man-Made loads, not Background loads.

	Calibration Model Values															Reduced Man-Made Loads				Projected Model Loads					
Reach Number and Description	Total Non-Point UCBOD	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 UCBOD Load	Reduced UNBOD Load	Reduced SOD Load at Projection Temp.	SOD @ 20°C	Total Non-Point UCBOD INPUTS	Non-Point UNBOD INPUTS	**Total MOS at Projection Temp.**	**Non-Point UCBOD 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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.655	18.726	5.618	0.00	18.73	5.62	20.67
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	1.104	24.183	4.837	0.00	24.18	4.84	62.32
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.774	38.677	16.438	0.00	38.68	16.44	60.54
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.206	30.833	10.278	0.00	30.83	10.28	8.20
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.022	51.672	16.850	0.00	51.67	16.85	1.36
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.023	56.859	21.606	0.00	56.86	21.61	1.57
Sub-Total									12.00	129.37			12.00	0.00	12.00	0.00	0.00	0.00		220.95	75.63	0.00	**220.95**	**75.63**	**154.65**

Summer TMDL calculations and Projection model calculations for Headwater / Tributary loads:

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" & "F

Headwater / Tributary Load Determinations

	FROM CALIBRATION			BACKGROUND VALUES				Reduced Background Loads		Reduced Man-Made Loads		PROJECTION VALUES				
Headwater / Tributary Description and Reach #	Seasonal Critical flow (cms)	Total UCBOD (mg O_2/L)	Total UNBOD (mg O_2/L)	Background UCBOD conc. (mg O_2/L)	Background UNBOD conc. (mg O_2/L)	Background % Reduction	Percent reduction of Man-Made loads	Total reduced Background UCBOD load (kg O_2/day)	Reduced Background UNBOD load (kg O_2/day)	Reduced UCBOD load (kg O_2/day)	Reduced UNBOD load (kg O_2/day)	Projection UCBOD 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%	100%	0.63	0.68	0.00	0.00	2.570	2.770	**0.00**	**0.63**	**0.68**
Whitmel Canal	0.00283	9.37	2.47	2.57	5.44	0%	100%	0.63	0.60	0.00	0.00	2.570	2.470	**0.00**	**0.63**	**0.60**
SUB-TOTAL TMDL LOADING								**1.26**	**1.28**	**0.00**	**0.00**			**0.00**	**1.26**	**1.28**

Appendix E3 – Grand Bayou Winter Loading

Winter Projection, Non-Point Benthic Load Input and TMDL Calculations:

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

Shaded cells are input values for calculati MARGIN OF SAFETY (MOS) (%) = [MOG + MOU] = **20%**
Values to be used in the projection models.

	Calibration Model Values															Reduced Man-Made Loads				Projected Model Loads					
Reach Number and Description	Total Non-Point UCBOD	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 UCBOD Load	Reduced UNBOD Load	Reduced SOD Load at Projection Temp.	SOD @ 20°C	Total Non-Point UCBOD INPUTS	Non-Point UNBOD INPUTS	**Total MOS at Projection Temp.**	**Non-Point UCBOD 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	18.50	2.00	2.00	65.80	0%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.118	1.180	0.885	0.00	1.18	0.88	0.12
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.369	13.509	8.556	0.00	13.51	8.56	4.55
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.783	38.021	15.208	0.00	38.02	15.21	31.18
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	1.695	0.000	11.442	0.00	0.00	11.44	57.88
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.837	73.256	24.070	0.00	73.26	24.07	63.76
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.840	97.805	30.377	0.00	97.81	30.38	84.45
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.806	60.453	20.151	0.00	60.45	20.15	49.51
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.397	134.043	48.653	0.00	134.04	48.65	41.19
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.552	38.517	3.852	0.00	38.52	3.85	14.70
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	2.000	0.000	0.000	0.00	0.00	0.00	239.11
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	2.000	0.000	0.000	0.00	0.00	0.00	163.35
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	2.000	0.000	0.000	0.00	0.00	0.00	145.12
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	1.220	10.166	20.333	0.00	10.17	20.33	43.40
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	1.169	54.554	97.418	0.00	54.55	97.42	194.52
Sub-Total									28.00	141.73			28.00	0.00	28.00	0.00	0.00	0.00		521.50	280.94	0.00	**521.50**	**280.94**	**1132.83**

Winter TMDL Calculations for Point Source loads:

GRAND BAYOU (SUBSEGMENT 120206)

Input data into the shaded cells.

Point Source Loading Calculations

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_3N (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**
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**
SUB-TOTAL Loads										**2.53**	**2.03**	**0.51**		**2.37**	**1.89**	**0.47**	**0.00**	**0.00**	**0.00**	**4.90**	**3.92**	**0.98**

(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]

Winter TMDL calculations and Projection model calculations for Headwater / Tributary loads:

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, b	

Headwater / Tributary Load Determinations

	FROM CALIBRATION			BACKGROUND VALUES				Reduced Background Loads		Reduced Man-Made Loads		PROJECTION VALUES				
Headwater / Tributary Description and Reach #	Seasonal Critical flow (cms)	Total UCBOD (mg O_2/L)	Total UNBOD (mg O_2/L)	Background UCBOD conc. (mg O_2/L)	Background UNBOD conc. (mg O_2/L)	Background % Reduction	Percent reduction of Man-Made loads	Total reduced Background UCBOD load (kg O_2/day)	Reduced Background UNBOD load (kg O_2/day)	Reduced UCBOD load (kg O_2/day)	Reduced UNBOD load (kg O_2/day)	Projection UCBOD 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)**
Grand Bayou	0.02830	10.72	3.67	2.57	5.44	0%	100%	6.28	8.96	0.00	0.00	2.570	3.666	**0.00**	**6.28**	**8.96**
Bayou Sigur	0.02830	13.41	4.05	2.57	5.44	0%	100%	6.28	9.91	0.00	0.00	2.570	4.052	**0.00**	**6.28**	**9.91**
Muddy Bayou	0.02830	0.51	0.00	2.57	5.44	0%	100%	1.24	0.00	0.00	0.00	0.508	0.000	**0.00**	**1.24**	**0.00**
Bayou Crouix (BYC1)	0.02830	6.91	1.45	2.57	5.44	0%	100%	6.28	3.53	0.00	0.00	2.570	1.445	**0.00**	**6.28**	**3.53**
Bayou Crouix (BYC2)	0.02830	10.31	2.51	2.57	5.44	0%	100%	6.28	6.15	0.00	0.00	2.570	2.514	**0.00**	**6.28**	**6.15**
Bayou Corne	0.02830	0.29	0.00	2.57	5.44	0%	100%	0.70	0.00	0.00	0.00	0.288	0.000	**0.00**	**0.70**	**0.00**
Unnamed Canal	0.02830	5.48	1.38	2.57	5.44	0%	100%	6.28	3.37	0.00	0.00	2.570	1.380	**0.00**	**6.28**	**3.37**
Bayou Alcide	0.02830	5.54	1.23	2.57	5.44	0%	100%	6.28	3.00	0.00	0.00	2.570	1.226	**0.00**	**6.28**	**3.00**
Little Bayou Long	0.02830	5.77	0.97	2.57	5.44	0%	100%	6.28	2.36	0.00	0.00	2.570	0.965	**0.00**	**6.28**	**2.36**
SUB-TOTAL TMDL LOADING								**45.93**	**37.28**	**0.00**	**0.00**			**0.00**	**45.93**	**37.28**

Appendix E4 – Little Grand Bayou Winter Loading

Winter Projection, Non-Point Benthic Load Input and TMDL Calculations:

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

Shaded cells are input values for calcula | MARGIN OF SAFETY (MOS) (%) = [MOG + MOU] = **20%**
Values to be used in the projection models.

	Calibration Model Values															Reduced Man-Made Loads				Projected Model Loads					
Reach Number and Description	Total Non-Point UCBOD	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 UCBOD Load	Reduced UNBOD Load	Reduced SOD Load at Projection Temp.	SOD @ 20°C	Total Non-Point UCBOD INPUTS	Non-Point UNBOD INPUTS	**Total MOS at Projection Temp.**	**Non-Point UCBOD 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	19.55	2.00	2.00	8.68	0%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.655	18.726	5.618	0.00	18.73	5.62	11.53
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	1.104	24.183	4.837	0.00	24.18	4.84	34.78
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.774	38.677	16.438	0.00	38.68	16.44	33.79
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.206	30.833	10.278	0.00	30.83	10.28	4.58
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.022	51.672	16.850	0.00	51.67	16.85	1.36
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%	100%	2.00	0.00	2.00	0.00	0.00	0.00	0.023	56.859	21.606	0.00	56.86	21.61	1.57
Sub-Total									12.00	129.37			12.00	0.00	12.00	0.00	0.00	0.00		220.95	75.63	0.00	**220.95**	**75.63**	**87.61**

Winter TMDL calculations and Projection model calculations for Headwater / Tributary loads:

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, b

Headwater / Tributary Load Determinations

	FROM CALIBRATION			BACKGROUND VALUES				Reduced Background Loads		Reduced Man-Made Loads		PROJECTION VALUES				
Headwater / Tributary Description and Reach #	Seasonal Critical flow (cms)	Total UCBOD (mg O_2/L)	Total UNBOD (mg O_2/L)	Background UCBOD conc. (mg O_2/L)	Background UNBOD conc. (mg O_2/L)	Background % Reduction	Percent reduction of Man-Made loads	Total reduced Background UCBOD load (kg O_2/day)	Reduced Background UNBOD load (kg O_2/day)	Reduced UCBOD load (kg O_2/day)	Reduced UNBOD load (kg O_2/day)	Projection UCBOD 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	0.02830	7.94	2.77	2.57	5.44	0%	100%	6.28	6.77	0.00	0.00	2.570	2.770	**0.00**	**6.28**	**6.77**
Whitmel Canal	0.02830	9.37	2.47	2.57	5.44	0%	100%	6.28	6.04	0.00	0.00	2.570	2.470	**0.00**	**6.28**	**6.04**
SUB-TOTAL TMDL LOADING								**12.57**	**12.81**	**0.00**	**0.00**			**0.00**	**12.57**	**12.81**

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:
Guage Height:
Date: 6/22/2004

WIDTH[1] (ft):	**40.00**
AREA[2] (ft²):	**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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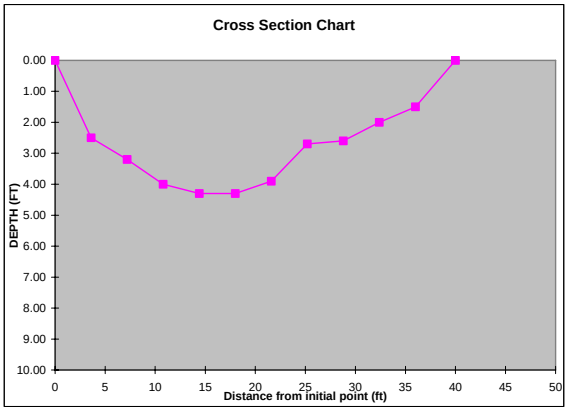
40					
	Total	40.00		111.90	100.00%



Data Collection Crew	Boffy, Savant	Office Data Work	
Measurement made by:	Savant	**Data Inputed 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:
Guage 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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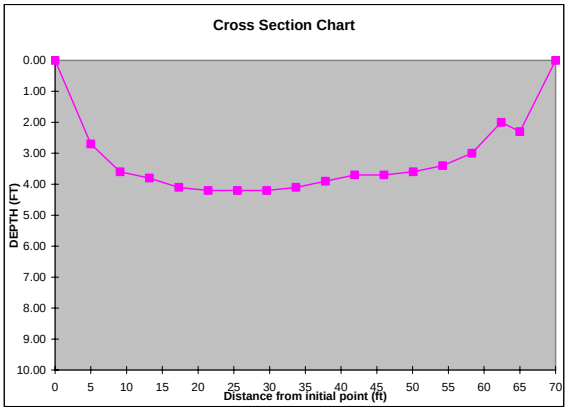
39					
40					
	Total	70.00		230.68	100.00%



Data Collection Crew	Boffy,Savant	Office Data Work	
Measurement made by:	Savant	**Data Inputed 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: 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:
Guage Height:
Date: 6/22/2004

WIDTH[1] (ft):	145.00
AREA[2] (ft^2):	721.14
AVG. DEPTH[3] (ft):	4.97

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	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%
18					
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21					
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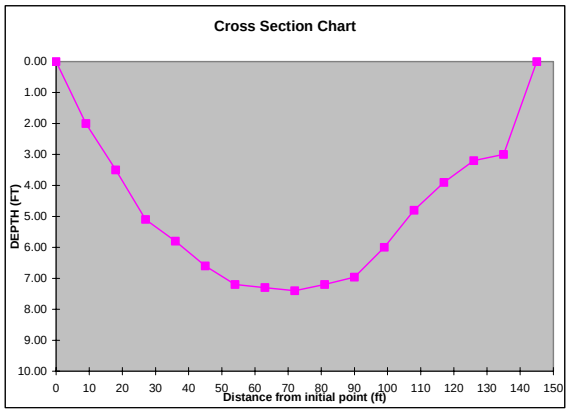
39					
40					
	Total	145.00		721.14	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	Earles	Data Inputed by / Date:	Guy LaFleur 7/6/04
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: GRB5 **Subsegment:** 120206 **Waterbody:** Grand Bayou
Site Description: Midway between Bayou Corne and 1st Unmaed Canal
Type of Equipment: ☑ Fathometer ☐ Hydrotrac ☐ Manual
Initial Bank: ☐ RDB ☑ LDB
Tapedown: NA
Guage Height: NA
Date: 6/22/2004

WIDTH[1] (ft):	138.00
AREA[2] (ft[2]):	734.16
AVG. DEPTH[3](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%
22					
23					
24					
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26					
27					
28					
29					
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37					
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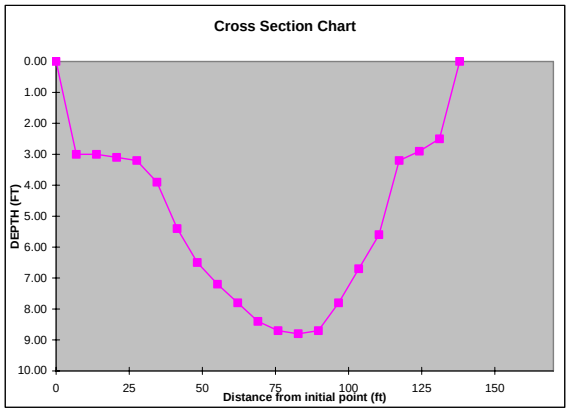
39					
40					
	Total	138.00		734.16	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	Earles	Data Inputed by / Date:	Dickinson 7/5/04
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: 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
Guage Height: NA
Date: 6/22/2004

WIDTH[1] (ft):	160.00
AREA[2] (ft[2]):	775.45
AVG. DEPTH[3](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%
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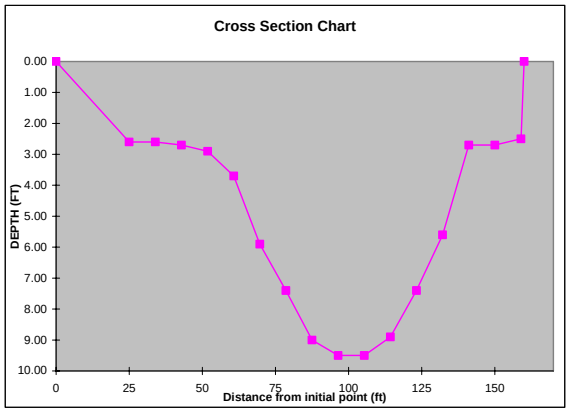
	Total	160.00		775.45	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	Earles	Data Inputed by / Date:	Dickinson 7/5/04
Notetaker/Recorder:	Dickinson	Data Input Checked by / Date:	
Other:	Lafleur		

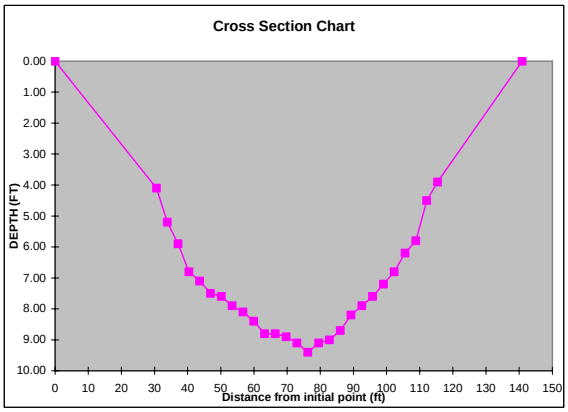
Note 1: WIDTH (ft) = sum of the width column
Note 2: AREA (sq.ft.) = sum of the area column
Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
Note 4: Width of element
Note 5: Area=Width*Depth for element
Note 6: Percent area = element area/total area x 100%
Note 7: Percent area 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: 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
Guage Height: N/A
Date: 6/22/2004

WIDTH[1] (ft):	140.90
AREA[2] (ft[2]):	746.60
AVG. DEPTH[3](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					
34					
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 Inputed by / Date:	C. Schwartzenburg / 7-7-04
Notetaker/Recorder:	C Schwartzenburg	Data Input Checked by / Date:	KM Jones / 7-7-04
Other:			

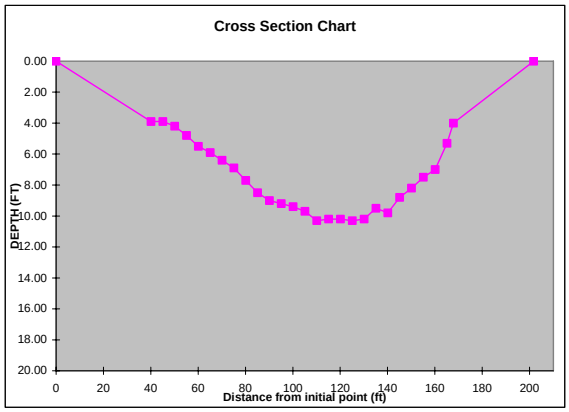
Note 1: WIDTH (ft) = sum of the width column
Note 2: AREA (sq.ft.) = sum of the area column
Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
Note 4: Width of element
Note 5: Area=Width*Depth for element
Note 6: Percent area = element area/total area x 100%
Note 7: Percent area 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: 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
Guage 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 Inputed 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
Guage Height: N/A
Date: 6/22/2004

WIDTH[1] (ft):	500.00
AREA[2] (ft[2]):	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					
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36					
37					
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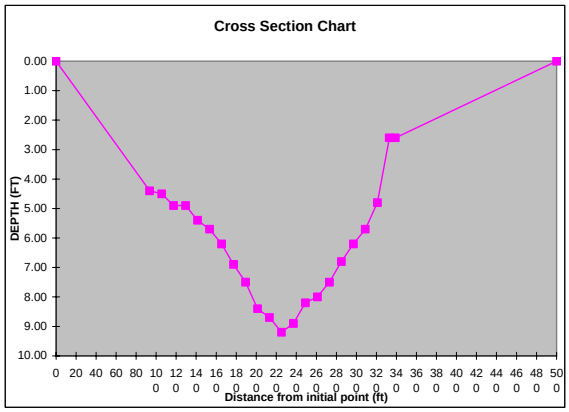
40					
	Total	500.00		2009.70	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	KM Jones	Data Inputed by / Date:	C. Schwartzenburg / 7-7-04
Notetaker/Recorder:	C Schwartzenburg	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:
Guage Height:
Date: 6/22/2004

WIDTH[1] (ft):	86.00
AREA[2] (ft[2]):	555.80
AVG. DEPTH[3](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					
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26					
27					
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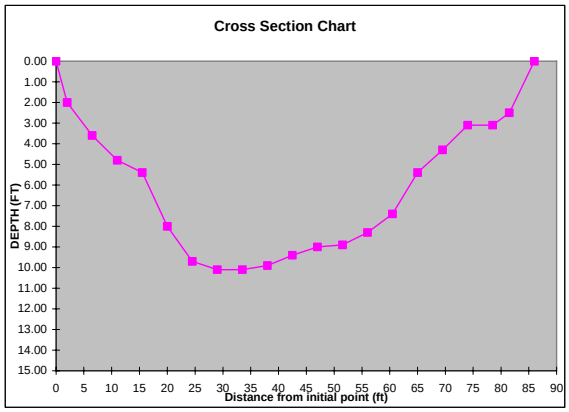
40					
	Total	86.00		555.80	100.00%



Data Collection Crew	Boffy, Savant	Office Data Work	
Measurement made by:	Savant	Data Inputed 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:
Guage 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					
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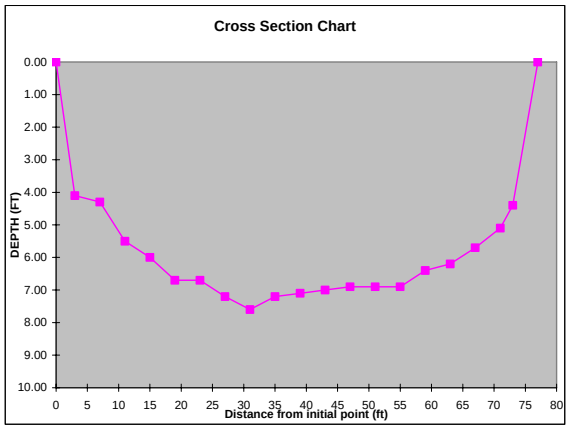
38					
39					
40					
	Total	77.00		460.05	100.00%



Data Collection Crew	Boffy, Savant	Office Data Work	
Measurement made by:	Savant	Data Inputed 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: BYC1 **Subsegment:** 120206 **Waterbody:** Bayou Crouix
Site Description:
Type of Equipment: ☑ Fathometer ☐ Hydrotrac ☐ Manual
Initial Bank: ☑ RDB ☐ LDB
Tapedown:
Guage 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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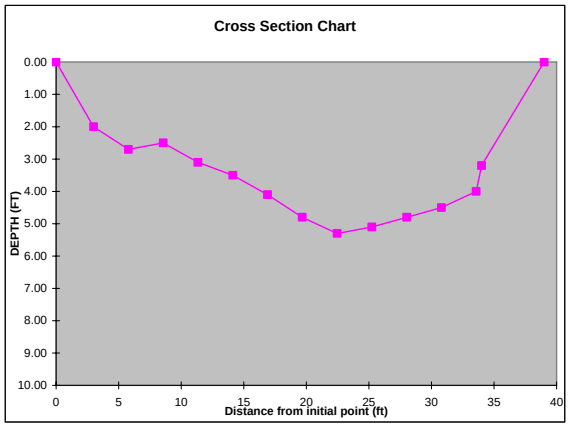
39					
40					
	Total	39.00		133.16	100.00%



Data Collection Crew	Boffy, Savant	Office Data Work	
Measurement made by:	Savant	Data Inputed 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:
Guage 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					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
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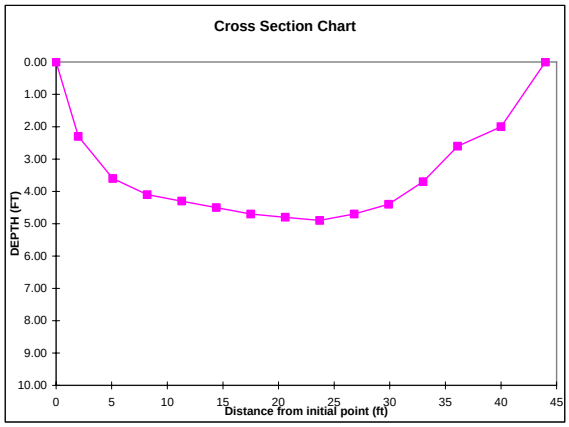
40					
	Total	44.00		158.34	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:		Data Inputed 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
Guage Height: NA
Date: 6/22/2004

WIDTH[1] (ft):	48.70
AREA[2] (ft[2]):	96.68
AVG. DEPTH[3](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					
13					
14					
15					
16					
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21					
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27					
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29					
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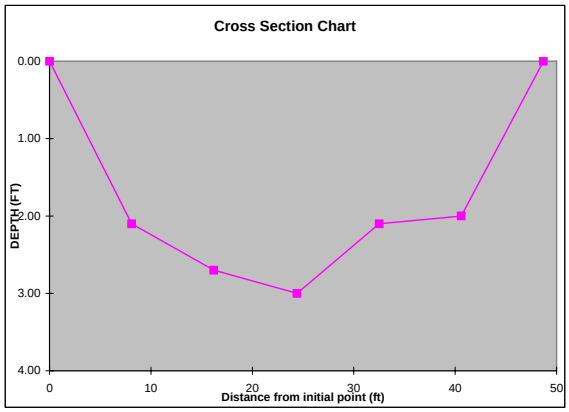
35					
36					
37					
38					
39					
40					
	Total	48.70		96.68	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	Earles	Data Inputed 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
Guage Height: N/A
Date: 11/3/2005

WIDTH[1] (ft):	145.00
AREA[2] (ft[2]):	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					
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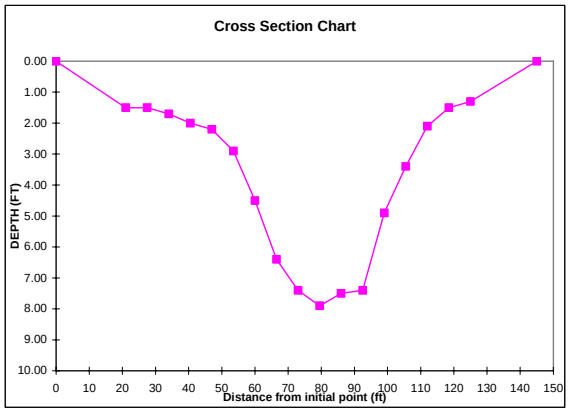
40					
	Total	145.00		449.30	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	R. Brignac	Data Inputed by / Date:	C. Schwartzenburg / 11/4/05
Notetaker/Recorder:	C. Schwartzenburg	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.

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
Guage 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%
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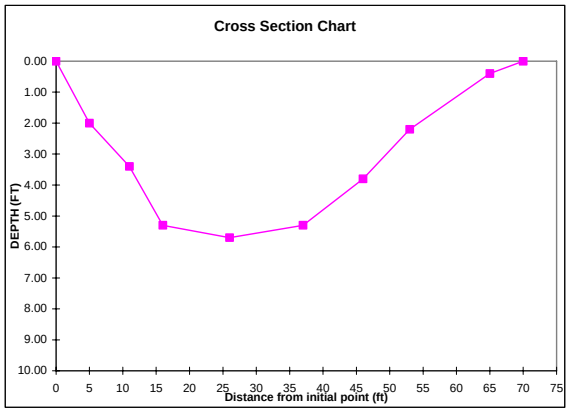
40					
	Total	70.00		237.00	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	R. Brignac	Data Inputed by / Date:	C. Schwartzenburg / 11/4/05
Notetaker/Recorder:	C. Schwartzenburg	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.

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
Guage Height: NA
Date: 6/22/2004

WIDTH[1] (ft):	48.70
AREA[2] (ft[2]):	96.68
AVG. DEPTH[3](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					
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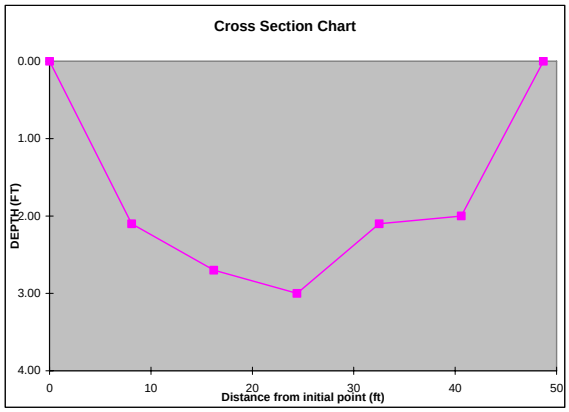
40					
	Total	48.70		96.68	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	Earles	Data Inputed by / Date:	Dickinson
Notetaker/Recorder:	Dickinson	Data Input Checked by / Date:	
Other:	Lafleur		

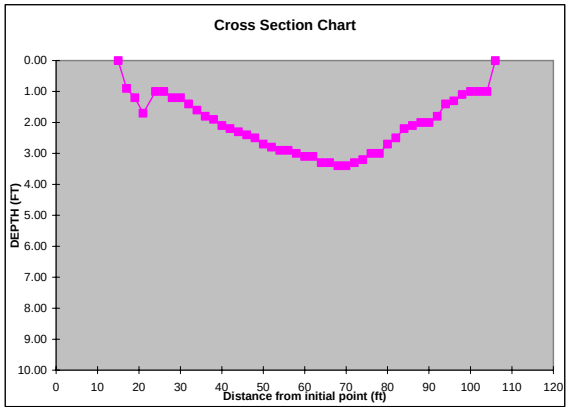
Note 1: WIDTH (ft) = sum of the width column
Note 2: AREA (sq.ft.) = sum of the area column
Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
Note 4: Width of element
Note 5: Area=Width*Depth for element
Note 6: Percent area = element area/total area x 100%
Note 7: Percent area 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: 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:
Guage Height:
Date: 9/9/2004

WIDTH[1] (ft):	**91.00**
AREA[2] (ft²):	**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 Inputed by / Date:**	9/9/2004
Notetaker/Recorder:	Fontenot	**Data Input Checked by / Date:**	9/9/2004
Other:			Jimbo Earles

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: LGBY4 **Subsegment:** 120206 **Waterbody:** Litle Grand Bayou

Site Description: Little Grand Bayou @ Hwy 402 Boat Launch

Type of Equipment: ☑ Fathometer ☐ Hydrotrac ☐ Manual

Initial Bank: ☑ RDB ☐ LDB

Tapedown:

Guage Height:

Date: 6/22/2004

WIDTH[1] (ft):	**96.00**
AREA[2] (ft²):	**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%
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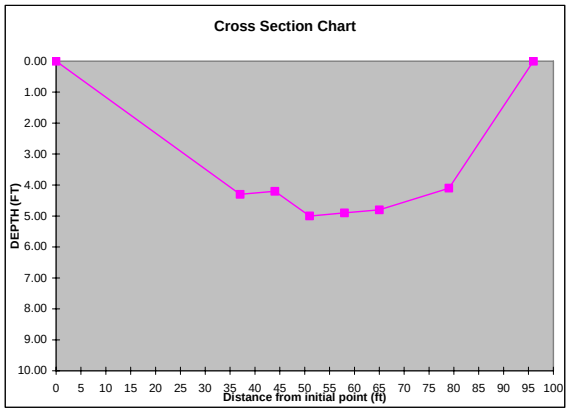
40					
	Total	96.00		307.25	100.00%



Data Collection Crew	Butler, Chuck Fotenot	Office Data Work	
Measurement made by:	Butler, Chuck Fotenot	**Data Inputed by / Date:**	Butler / 628/04
Notetaker/Recorder:	Butler, Chuck Fotenot	**Data Input Checked by / Date:**	Fontenot / 6/28/04
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: 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:
Guage Height:
Date: 6/22/2004

WIDTH[1] (ft):	217.00
AREA[2] (ft[2]):	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%
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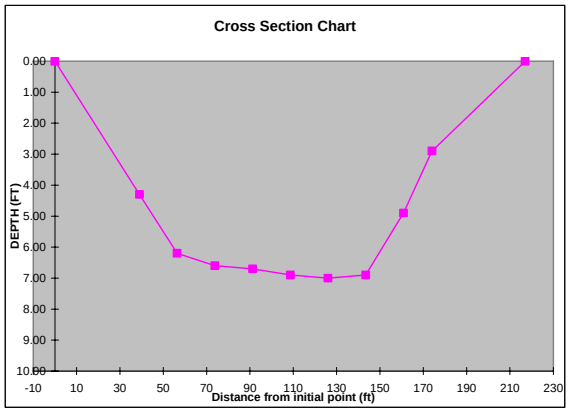
40					
	Total	217.00		979.12	100.00%



Data Collection Crew	Butler, Chuck Fotenot	Office Data Work	
Measurement made by:	Butler, Chuck Fotenot	Data Inputed by / Date:	Butler / 6/28/04
Notetaker/Recorder:	Butler, Chuck Fotenot	Data Input Checked by / Date:	Fontenot / 6/28/04
Other:			

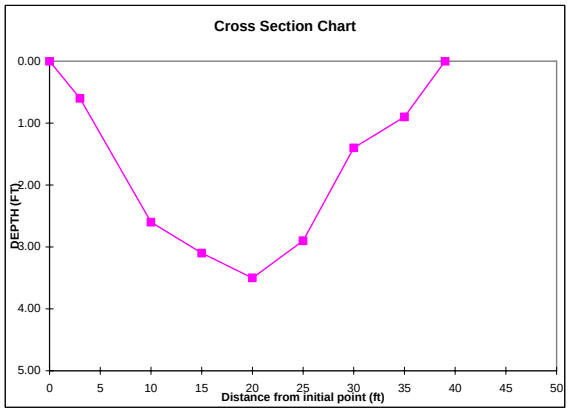
Note 1: WIDTH (ft) = sum of the width column
Note 2: AREA (sq.ft.) = sum of the area column
Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
Note 4: Width of element
Note 5: Area=Width*Depth for element
Note 6: Percent area = element area/total area x 100%
Note 7: Percent area 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: 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
Guage Height: N/A
Date: 11/3/2005

WIDTH[1] (ft):	39.00
AREA[2] (ft[2]):	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					
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	39.00		77.15	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	R. Brignac	Data Inputed by / Date:	C. Schwartzenburg/ 11/4/05
Notetaker/Recorder:	C. Schwartzenburg	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: 1110

Waterbody: Grand Bayou Tapedown 1: Staff Gauge 1:

Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:

Site Location: Turtle Cove Pierre Pl. Bayou Sigue

Personnel: Bigeou, Hughs

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 Characterization: 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: 40803

Continuous Monitor Retrieved: ☐ Continuous Monitor Deployment Depth (m):

Continuous Monitor Location:

Water Quality Field Parameters

IBU 22 IBAD 105

Time: 1110 Temp.(°C): 27.30 pH: 8.14 Spcond(µmhos/cm): 300.8

D.O.: 3.60 D.O. %: 45.9 Salinity: 0.15 Depth (m): 1m Secchi (in): 12in

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): 5 min (300 sec)

Mid Stream: Distance (ft): 10 ft Time (s): 5 min (300 sec)

Left Descending Bank: Distance (ft): 100 ft Time (s): 5 min (300 sec)

Cross Section Measurement: ☑ Measurement Location: GRB1 on 6/22/04

Type of Measurement Manual: ☐ Fathometer ☑ Cross Section File Name:

GPS Measurement: ☐ GPS SSF File Name:

Site GPS ☐ Cross Section GPS: ☐

Comments: x-section done on 6/22/04

GR#1 06/23/09 1110 hr.

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(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used

In Situ Probe S/N: 40803 Surveyor 4a S/N: 3200S013439 GPS Unit:

AquaCalc S/N: Fathometer: Laser Cor:

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

GRB2

Site Information

Site #: ~~[illegible]~~ Subsegment: 120206 Date: 6/22/04 Time: 0940

Waterbody: Grand Bayou Tapedown 1: Staff Gauge 1:

Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:

Site Location: just downstream of confluence w/ Bayou Blue

Personnel: Bryan, Hayley

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: ☑ with Drogue

Flow Direction: Upstream ☐ Downstream ☑ Totally 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: 40303

Continuous Monitor Retrieved: ☐ Continuous Monitor Deployment Depth (m):

Continuous Monitor Location:

Water Quality Field Parameters: IBU 7.2

Time: 0940 Temp.(°C): 27.55 pH: 7.64 Spcond(µmhos/cm): 208.8

D.O.: 2.45 D.O. %: 30.7 Salinity: 0.10 Depth (m): 1m Secchi (in): 9.5in

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): 1.5 m (90 sec)

Mid Stream: Distance (ft): 40 ft Time (s): 5 min (300 sec)

Left Descending Bank: Distance (ft): Leg 7A 5 ft Time (s): 5 min (300 sec)

Cross Section Measurement: ☑ Measurement Location: GRB2 on 6/22/04

Type of Measurement Manual: ☐ Fathometer ☑ Cross Section File Name:

GPS Measurement: ☐ GPS SSF File Name:

Site GPS: ☐ Cross Section GPS ☐

Comments: X-Section done on 6/22/04

GRB2 06/12/04 0920 hrs.

Photos Taken ☐ Picture File #: _____

Tapedown Established: ☐ Tapedown Location: _____

Benchmark Established: ☐ Benchmark Location: _____

Survey Equipment Used: ☐

Dye 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(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used

In Situ Probe S/N: 403 03 Surveying Ga S/N: 320050 13439 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 #: GRB3 Subsegment: 120206 Date: 6/3/01 Time: 0940 hrs

Waterbody: Grand Bayou Tapedown 1: Staff Gauge 1:

Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:

Site Location: just N of 996 Bridge

Personnel: Boffey, Sonia

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: 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: 37761

Continuous Monitor Retrieved: ☐ Continuous Monitor Deployment Depth (m): 1

Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 0940 Temp. (°C): 27.86 pH: 7.28 Spcond (µmhos/cm): 210.3 DO V 2.4 IB. II 5.2

D.O.: 2.63 D.O. %: 33.6 Salinity: 0.10 Depth (m): 1 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 ☐

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 SBS File Name: _____

Site GPS: ☐ Cross Section GPS: ☐

Comments: _____

GRB 3 06/22/09 2:40 PM

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(µhmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(°C):	pH:	Spcond(µhmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(°C):	pH:	Spcond(µhmos/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

Field Site Survey Doc
Revision 2.0
Revised 1/23/03

Site Information

Site #: GRB4 Subsegment: 120206 Date: 6 23 04 Time: 1210hrs

Waterbody: Grand Bayou Tape down 1: Staff Gauge 1:

Gauge Height 1: Tape down 2: Staff Gauge 2: Gauge Height 2:

Site Location: At HWY 70 on Southside of bridge

Personnel: LaFleur, Dickinson, Earles

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: 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: 1210hrs Temp (°C): 27.54 pH: 7.00 Spcond (µmhos/cm): 188 IBa-10.9 IBv-7.5

D.O.: 1.98 D.O. %: 25.5 Salinity: 0.09 Depth (m): 1.0m Secchi (in): 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 ☐

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:

GRB4 06/23/04 1210 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(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used

In Situ Probe S/N: 40807 Surveyor 4a S/N: 51968 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

Field Site Survey Doc
Revision 2.2
Jan/Feb 1/23/03

Site Information

Site # GRB5 Subsegment 120206 Date: 8/13/04 Time: 1146 hrs

Waterbody Grand Bayou Tapedown 1 _____ Staff Gauge 1: _____

Gauge Height 1 _____ Tapedown 2 _____ Staff Gauge 2: _____ Gauge Height 2 _____

Site Location: Midway between Bayou Corne and 1st unnamed canal

Personnel: Lotfiey, Farlee, Dickinson

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 < 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 ☒

Emergent Aquatic Vegetation % Surface Coverage: < 1 ☐ 1-25% ☒ 26-50% ☐ 51-75% ☐ 75-100% ☐

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): 27.34 pH: 6.89 Spcond(µhmos/cm): 151.5 Inv - 7.5 Ba - 10.9

D.O.: 2.56 D.O. %: 32.2 Salinity: 0.07 Depth (m): 1.0m Secchi (in): 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): 737.5 ~ 30 ft from bank

Mid Stream: Distance (ft): 189.0ft Time (s): 730.5

Left Descending Bank: Distance (ft): 200.0ft Time (s): 740.5 > 15ft 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: _____

GRB5 06/23/01 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 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:

Prefiling Measurements:

Time:	Temp.(C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: 4C8617 Surveyor 4a S/N: 51968 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 #: GB 36 Subsegment: 120206 Date: 6 23 04 Time: 1000hrs

Waterbody: Between Little Grand Bayou and Grand Bayou Tapedown 1: Staff Gauge 1:

Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:

Site Location: Between Little Grand Bayou and 1rd Unnamed Canal

Personnel: LaFleur, Farles, Dickerson

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: 1000hrs Temp.(°C): 27.68 pH: 6.92 Spcond(µmhos/cm): 166.5 IDV - 9.4 DXV - 10.9

D.O.: 2.42 D.O. %: 30.7 Salinity: 0.07 Depth (m): 1.0m Secchi (m): 30.0in

Flow Measurement: ☐ Measurement Location: _____

Type of Measurement: Wading ☐ Bridge Board ☐ Boat Board ☐

AquaCalc File Name: _____

Flow Estimated: ☒ Measurement Location: A7 site

Using Discharge Equipment ☐ Type: Wading ☐ Bridge Board ☐ Boat Board ☐

Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank: Distance (ft): 52.0 ft Time (s): 63.0 s → 26.0 ft from bank

Mid Stream: Distance (ft): 44.0 ft Time (s): 80.0 s

Left Descending Bank: Distance (ft): 61.2 ft Time (s): 62.0 s → 77.0 ft 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: _____

GRB6 [illegible] 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% ☐

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(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: 40807 Surveyor 4a S/N: 51970 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

Field Site Survey.doc

Site Information

Site #: GB 07 Subsegment: 120206 Date: 6/23/04 Time: 1145

Waterbody: Grand Bayou Tapedown 1: Staff Gauge 1:

Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:

Site Location: Between Bayou Pierre and E. Grand Bayou

Personnel: Jones, Schwartz

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: ☐

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 ☐ 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 Specond(µhmos/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 ☐

AquaCalc 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): 96.9 Time (s): 240

49.3 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 [illegible] 11-13 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% ☐ 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(µhmos/cm):**
D.O.:	**D.O. %:**	**Salinity:**	**Depth (m):**
Time:	**Temp.(°C):**	**pH:**	**Spcond(µhmos/cm):**
D.O.:	**D.O. %:**	**Salinity:**	**Depth (m):**
Time:	**Temp.(°C):**	**pH:**	**Spcond(µhmos/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:	LC 1178
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

Field Site Survey doc
Revision 2.0

Site Information

Site #: 6288 Subsegment: 120206 Date: 6-23-04 Time: 1025

Waterbody: Grand Bayou Tapedown 1: Staff Gauge 1:

Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:

Site Location: 14 Stream from Confluence with Little Bayou Long

Personnel: James 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 ☐
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 ☐

Emergent/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(µhmos/cm):** 169.7

D.O.: 3.43 **D.O. %:** 44.5 **Salinity:** 0.08 **Depth (m):** 1m **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

54.5 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 26/23/24 1025 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 ☐ Wetlands ☐

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(µhmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(°C):	pH:	Spcond(µhmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(°C):	pH:	Spcond(µhmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: 37462 Surveyor 4a S/N: _____ GPS Unit _____

AquaCalc S/N: _____ Fathometer: _____ Laser Gun 161178

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

FieldSite Survey.doc
Revision 2.0
Revised 10/2/03

Site Information

Site # GRG9 Subsegment: 120206 Date: 6/23/04 Time: 0920

Waterbody: Grand Bayou Tapedown 1: Staff Gauge 1:

Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:

Site Location: Just upstream Lake Verret

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 > 50° ☐	11-15 ☐	Variable ☐
0-10% ☐	Cold < 50° ☐	>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 ☐ 1-25% ☐ 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 Sp.cond (µmhos/cm): 166.9

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. Right Descending Bank: Distance (ft): 38.1 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 Marsh: ☐ Fathometer ☐ Cross Section File Name: _____

GPS Measurement: ☐ GPS SSF File Name: _____

Site GPS: ☐ Cross Section GPS: ☐

Comments: _____

2889 04/25/04 0930 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(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/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 6C1178

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

Field Site Survey.doc
Revision 2.0
Revised 3/25/03

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: <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: 0815 Temp.(°C): 28.49 pH: 6.89 Spcond(µhmos/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 ☐

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:

LV1 06/23/04 0815 h.

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(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/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: 6/23/04 Time: 1045

Waterbody: Bayou Sauk Tapedown 1: Staff Gauge 1:

Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:

Site Location: Just Above Confluence w/ Grand Bayou

Personnel: R. James, Hyslop

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 Influenced: ☐ 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 Cinsitu

Continuous Monitor Retrieved: ☐ Continuous Monitor Deployment Depth (m):

Continuous Monitor Location:

Water Quality Field Parameters

Time: 1045 Temp. (°C): 28.42 pH: 7.96 Spcond (µmhos/cm): 345.0 DBU 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 ☐

Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank: Distance (ft): OFT Time (s): 5min (300sec)

Mid Stream: Distance (ft): OFT Time (s): 5min (300sec)

Left Descending Bank: Distance (ft): OFT Time (s): 5min (300sec)

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:

BY51 06/23/01 1095 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% ☐ 25-50% ☐ 51-75% ☐ 75-100% ☐

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(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: 40303 Surveyor 4a 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 #: MB1 Subsegment: 120206 Date: 6/22/04 Time: 0820hrs
Waterbody: Muddy Bayou Tapedown 1: 8.6 Staff Gauge 1: ____
Gauge Height 1: ____ Tapedown 2: ____ Staff Gauge 2: ____ Gauge Height 2: ____
Site Location: Just Above confluence with Grand Bayou
Personnel: Hughes, Grigsby
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: 0820hrs Temp.(°C): 27.10 pH: 7.4 Spcond(µhmos/cm): 171.4
D.O.: 2.20 D.O. %: 27.7 Salinity: .08 Depth (m): 1m Secchi (in): 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 ☐
Drogue Estimate: ☐ Dye Estimate: ☐
Right Descending Bank: Distance (ft): 0 ft Time (s): 5 min
Mid Stream: Distance (ft): 8 Time (s): 3.5 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 SSF File Name: ____
Site GPS: ☐ Cross Section GPS: ☐
Comments: Log on outer bank(s)

MB1 06/23/04 0820 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(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(C):	pH:	Spcond(hmos/cm):
D.O.	D.O. %:	Salinity:	Depth (m):

Equipment Used.

In Situ Probe S/N: 40803 Surveyor 4a S/N: 320050134 38 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: 6/25/04 Time: 1305 hrs.

Waterbody: Bayou Crooks Tapedown 1: Staff Gauge 1:

Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:

Site Location: Just above confluence w/ GB

Personnel: Betty, Savant

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 Sample 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): 28.18 pH: 7.32 Spcond (µmos/cm): 250.2 1 Bolt 5.3

D.O.: 2.48 D.O. %: 21.8 Salinity: 0.12 Depth (m): 1 Secchi (in): ___

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: _____

BYC1 06/23/04 1305 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(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/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: _____

Refererces

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

Field Sur Survey.doc
Revision 2.0
Revised 1/25/03

Site Information

Site # BK2 Subsegment: 120204 Date: 6/23/04 Time: 1240hrs

Waterbody: Bayou Crosix Tapedown 1: Staff Gauge 1:

Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:

Site Location: Just above confluence of GB (south of 996 bridge)

Personnel: Betty Gaunt

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° ☐	6-12 ☐	E ☐ W ☐
Cloud Cover:	Cool > 50° ☐	13-15 ☐	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: <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: 1240 Temp.: °C): 28.6 pH: 7.27 Spcond(µmhos/cm): 246.8

D.O.: 2.75 D.O. %: 35.4 Salinity: 0.14 Depth (m): 1 Secchi (in):

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:

3VCD 05/13/09 1240 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(µhmos/cm):**	
D.O.:		**D.O. %:**		**Salinity:**		**Depth (m):**	
Time:		**Temp.(°C):**		**pH:**		**Spcond(µhmos/cm):**	
D.O.:		**D.O. %:**		**Salinity:**		**Depth (m):**	
Time:		**Temp.(°C):**		**pH:**		**Spcond(µhmos/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

Field Site Survey doc
Revision 2.0
Revised 3/21/03

Site Information

Site # PST-1 Subsegment 120206 Date: 6/23/04 Time: 0510 hrs

Waterbody: Grand Bayou (Lower Reach) Tapedown 1: _____ Staff Gauge 1: _____

Gauge Height 1: _____ Tapedown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____

Site Location: North side of Hwy 70 bridge

Personnel: Betty, Savanna

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 > 55° ☐	6-11 ☐	E ☐ W ☐
Cloud Cover:	Cool > 60° ☐	11-15 ☐	Variable ☐
0 – 10% ☐	Cold < 50° ☐	>16 ☐	
11 – 40% ☐			
41 – 70% ☐			
71 – 100% ☑			

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 ☐

Emergent/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: 33761 (In-situ)

Continuous Monitor Retrieved: ☐ Continuous Monitor Deployment Depth (m): _____

Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 0610 hrs Temp (°C): 27.17 pH: 7.29 Spcond (µmhos/cm): 234.1 DBV 7.4 DB.H 5.2

D.O.: 2.11 D.O. %: 26.3 Salinity: 0.11 Depth (m): 0.150 Secchi (in): ____

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: _____

ICT-1 06/25/07 0810 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(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Equipment Used:

In Situ Probe S/N: 31741 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

Form Site Survey.doc
Revision 2.0
Revised 3/25/03

Site Information

Site # BVC01 Subsegment: 120206 Date: 6/23/04 Time: 1247 hrs.

Waterbody: Bayou Cane Tapedown 1: Staff Gauge 1:

Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:

Site Location: Just above confluence with Grand Bayou

Personnel: Lafleur, Dickinson, Earles

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/Emergent 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

IBV – 7.5
IBc – 10.9

Time: 1247 hrs Temp. (°C): 26.99 pH: 6.85 Spcond (µmhos/cm): 143.3

D.O.: 2.54 D.O. %: 31.2 Salinity: 0.06 Depth (m): 1.0m Secchi (in): 48in

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 SST File Name:

Site GPS: ☐ Cross Section GPS: ☐

Comments:

BYC01 06/23/09 1217 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(hmos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp.(C): pH: Spcond(hmos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp.(C): pH: Spcond(hmos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Equipment Used:

In Situ Probe S/N: 40801 Surveyor 4a S/N: 51948 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 #: UNC2 Subsegment: 120206 Date: 6/13/04 Time: 0930hrs
Waterbody: 2nd Unnamed Canal Tapedown 1: Staff Gauge 1:
Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:
Site Location: Just above confluence with Grand Bayou
Personnel: Jackson, Earles, Dickinson
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): 1.0m
Continuous Monitor Location: At site

Water Quality Field Parameters

Time: 0930hrs Temp. (°C): 27.93 pH: 7.03 Spcond (µmhos/cm): 146.8
D.O.: 3.47 D.O. %: 44.2 Salinity: 0.07 Depth (m): 1.0m Secchi (in): NA

IBU - 7.6
IBdt - 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 SSF File Name:
Site GPS: ☐ Cross Section GPS: ☐
Comments:

UNCC 06/22/04 0.30 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(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used.

In Situ Probe S/N: 46807 Surveyor 4a S/N: ~~4000501204~~ S/1968 GL 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 #: EGB 1 Subsegment: 120206 Date: 6/23/04 Time: 1230

Waterbody: East Grand Bayou Tapedown 1: Staff Gauge 1:

Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:

Site Location: Just off from Grand Bayou Main channel

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 ☐
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: 1230 Temp.(°C): 28.29 pH: 6.98 Spcond(µhmos/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 were taken because of heavy rain & lightning.

EG01 06/22/04 1220 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(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Equipment Used:

In Situ Probe S/N: 37762 Surveyor 4a S/N: _____ GPS Unit _____

AquaCale S/N _____ Fathometer: _____ Laser Gun LC 1178

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 #: BA 1 Subsegment: 120206 Date: 6/23/04 Time: 1115

Waterbody: Bayou Alcide Tapedown 1: Staff Gauge 1:

Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:

Site Location: Just Above confluence with 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 ☐
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(µhmos/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 06/23/04 1115 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(µhmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(°C):	pH:	Spcond(µhmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(°C):	pH:	Spcond(µhmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: 37742 Surveyor 4a S/N: _____ GPS Unit _____

AquaCalc S/N: _____ Fathometer: _____ Laser Gun [redacted]

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 1 Subsegment: 120206 Date: 6/23/04 Time: 1000

Waterbody: Little Bayou Long Tapedown 1: Staff Gauge 1:

Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:

Site Location: Just Above Confluence with Grand Bayou

Personnel: James 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 ☐
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 Spcond(µhmos/cm): 153.6

D.O.: 4.84 D.O. %: 73.8 Salinity: 0.07 Depth (m): 1m 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 ☐ 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(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/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 LF 1428

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 #: LGBY1 Subsegment: 120206 Date: 6/19/04 Time: 1055hrs
Waterbody: Little Grand Bayou Tapedown 1: Staff Gauge 1:
Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:
Site Location: just below confluence with Grand Bayou
Personnel: LaFleur, Dickinson, Foster
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 ☒ 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

LBV-74 LBatt 10.9

Time: 1055hrs Temp. (°C): 27.85 pH: 6.91 Spcond (µmhos/cm): 167.2
D.O.: 2.92 D.O. %: 36.9 Salinity: 2.07 Depth (m): 0.30 m Secchi (in): NO

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): 49.04 Time (s): 50.0s ~5ft from bank
Mid Stream: Distance (ft): 62.28 Time (s): 61.5s
Left Descending Bank: Distance (ft): 36.05 Time (s): 52.0s ~7.5ft from bank
Cross Section Measurement: ☐ Measurement Location:
Type of Measurement: Manual ☐ Fathometer ☐ Cross Section File Name:
GPS Measurement: ☐ GPS SST File Name:
Site GPS ☐ Cross Section GPS ☐
Comments:

1GBY1 06/28/09 1035 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(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: 40809 Surveyor 4a S/N: 31910 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 # 16842 Subsegment: 120206 Date: 6/23/04 Time: 0915 hrs
Waterbody: Little Grand Bayou Tapedown 1: Staff Gauge 1:
Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2
Site Location: Upstream of Westfield canal in wide area
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° ☐	5-10 ☐	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: ☐ No 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 Situ 41501
Continuous Monitor Retrieved: ☐ Continuous Monitor Deployment Depth (m):
Continuous Monitor Location:

Water Quality Field Parameters

IBATT - 11.8
IBU - 7.4

Time: 0915hrs **Temp.(°C):** 26.58 **pH:** 6.77 **Spcond(µhmos/cm):** 166.8
D.O.: .60 **D.O.%:** 7.5 **Salinity:** 0.07 **Depth (m):** .5 **Secchi (in):** 36 in.

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: Not Possible to Do flow due to 75 % of submersed Aquatic Vegetation.

LGBY2 06/23/09 0915 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(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Equipment Used:

In Situ Probe S/N: 41501 Surveyor 4a S/N: 52772 GPS Unit: _____

AquaCals S/N _____ Fathometer: _____ Laser Gun _____

Carters 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

Field Site Survey.doc
Revision 2.0
Revised 3/21/01

Site Information

Site #: 66B42 Subsegment: 120206 Date: 6/23/04 Time: 1010 hrs

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: 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° ☐	6-11 ☐	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: INSAK 41501

Continuous Monitor Retrieved: ☐ Continuous Monitor Deployment Depth (m):

Continuous Monitor Location:

Water Quality Field Parameters

IBU - 7.5
IBatt - 11.8

Time: 1010hrs Temp.(°C): 27.46 pH: 6.83 Spcond(µhmos/cm): 174.5

D.O.: 1.77 D.O. %: 22.4 Salinity: .08 Depth (m): 1 Secchi (in):

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): 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 SSF File Name:

Site GPS: ☐ Cross Section GPS: ☐

Comments:

LGBY3 06/23/04 1010 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(µhmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(°C):	pH:	Spcond(µhmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(°C):	pH:	Spcond(µhmos/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 #: LGBY4 Subsegment: 120206 Date: 6/23/04 Time: 1030 hrs.

Waterbody: LGBY4 Little Grand Bayou Tapedown 1: Staff Gauge 1:

Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:

Site Location: At Hwy 402 Boat launch

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° ☐	>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 ☐

Existing 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: INSitu 41501

Continuous Monitor Retrieved: ☐ Continuous Monitor Deployment Depth (m):

Continuous Monitor Location:

Water Quality Field Parameters

IBU – 7.5
IBatt – 11.8

Time: 1030hrs Temp.(°C): 27.50 pH: 6.93 Spcond(µhmos/cm): 170

D.O.: 2.22 D.O. %: 27.9 Salinity: .08 Depth (m): .5 Secchi (in): 36 in

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-BY1 06/23/01 1030 h

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(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Equipment Used:

In Situ Probe S/N: 41524 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 # LGBU5 Subsegment: 120206 Date: 6/17/04 Time 1130 hrs.
Waterbody: Little Grand Bayou Tapedown 1: Staff Gauge 1:
Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:
Site Location: Mouth of lake verret upstream in L. Grand Bayou
Personnel: Butler, Fontenot
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 Influenced: ☐ 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: 1130 hrs Temp. (°C): 28.25 pH: 6.96 Spcond (µmhos/cm): 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 ☐
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): 20 ft Time (s): 3.00 min
Mid Stream: Distance (ft): 62 ft Time (s): 3.00 min
Left Descending Bank: Distance (ft): 52 ft 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 #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: 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% ☐ 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(µhmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(°C):	pH:	Spcond(µhmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(°C):	pH:	Spcond(µhmos/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

Field Site Survey.doc
Revision 2.0
Revised 3/25/03

Site Information

Site #: L-12 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 L. 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: ☒ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken ☒ Water Quality Field Parameters ☐ Profiling ☐
Continuous Monitor Deployed: ☐ ~~Continuous Monitor~~ S/N: 41501 (In Situ)
Continuous Monitor Retrieved: ☐ Continuous Monitor Deployment Depth (m):
Continuous Monitor Location:

Water Quality Field Parameters

IBU - 7.1
IBatt - 11.7

Time: 1110 hrs Temp.(°C): 30.10 pH: 4.78 Spcond(µhmos/cm): 166.6
D.O.: 9.70 D.O. %: 99.0 Salinity: .07 Depth (m): 1 Secchi (in): 15 IA

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:

LV2 06/23/09 1110 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(µhmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp.(°C):	pH:	Spcond(µhmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp (°C):	pH:	Spcond(µhmos/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

Field Site Survey doc
Revision 2.0
Revised 3/25/07

Site Information

Site # WC1 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 Situ 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(µhmos/cm): 163.3 IBOD - 11.7 IBU - 6.1
D.O.: 1.94 D.O. %: 26.5 Salinity: 0.07 Depth (m): .5 Secchi (in):

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:

WC1 06/22/04 0915 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(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/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

Site Information

Site #: WCL1 Subsegment: 120206 Date: 6/23/09 Time: 1210 hrs

Waterbody: Wilkinal 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: Butler, Fotenot

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. %: 37.0 Salinity: 0.07 Depth (m): 1 Secchi (in): _____

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): 3 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 #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(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/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

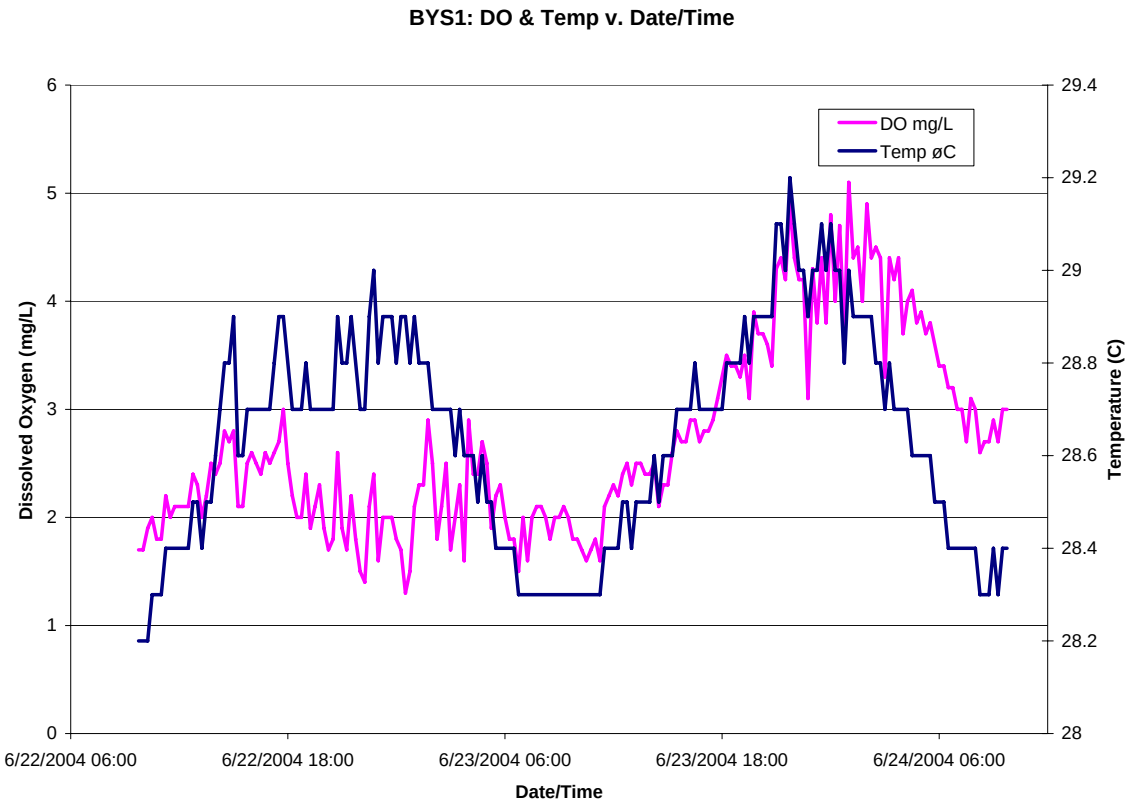
Field Site Survey.doc
Revision 1.0

Appendix F5 – Continuous Monitor Data

Grand Bayou/Little Grand 120206 Continuous Monitoring Averages						
Site ID	Temp, øC	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, øC	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, øC	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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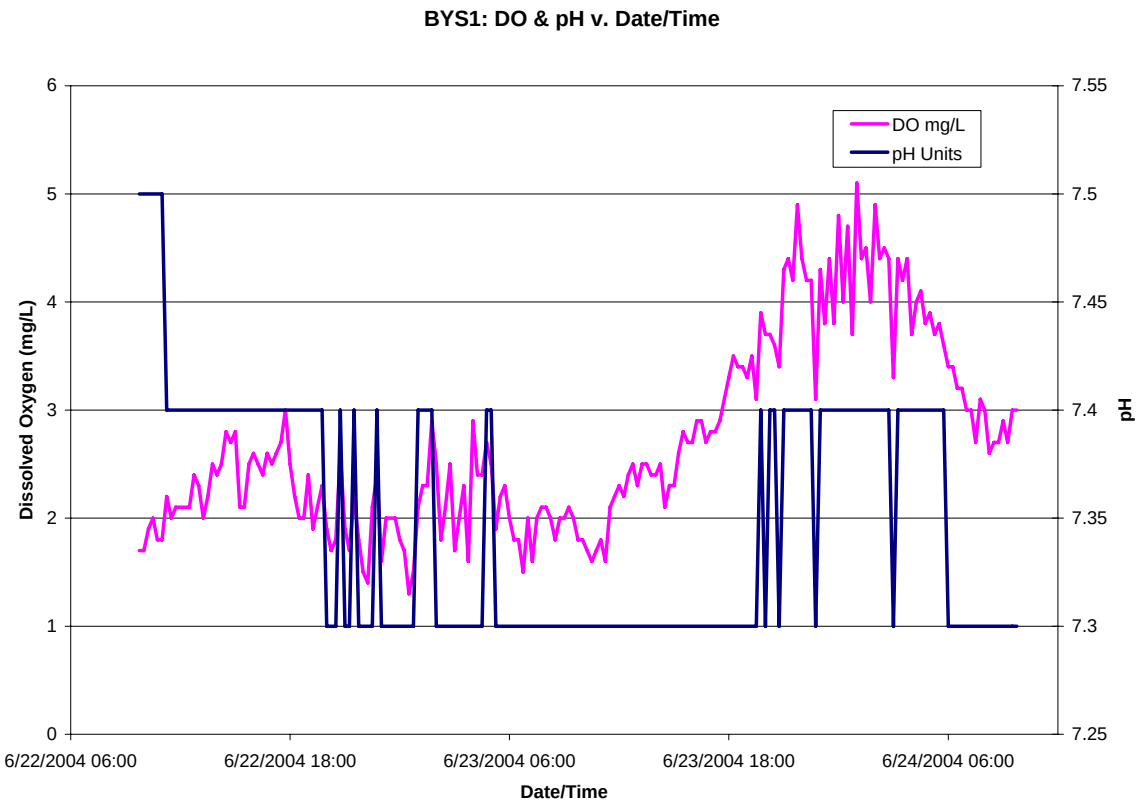
DO mg/L
Temp øC
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00
0
1
2
3
4
5
6
28
28.2
28.4
28.6
28.8
29
29.2
29.4


BYS1: DO & pH v. Date/Time
DO mg/L
pH Units
Dissolved Oxygen (mg/L)
pH
Date/Time
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00
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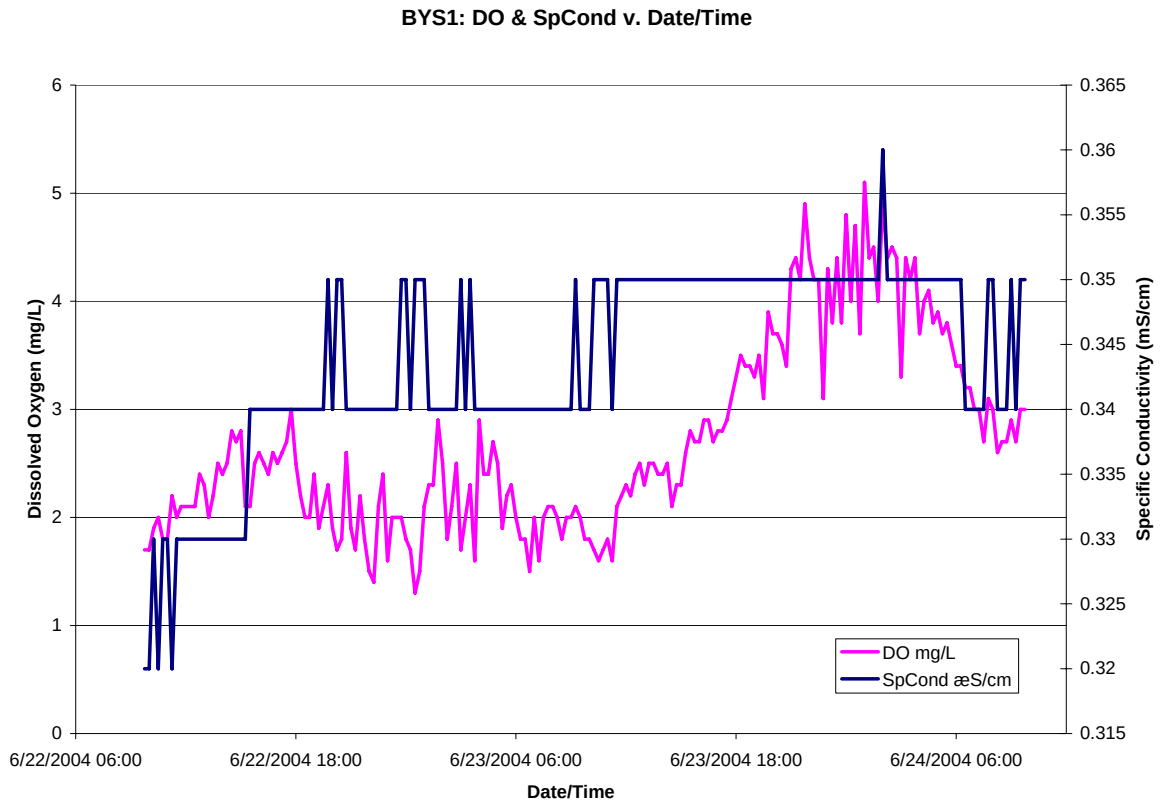
7.4
7.45
7.5
7.55



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

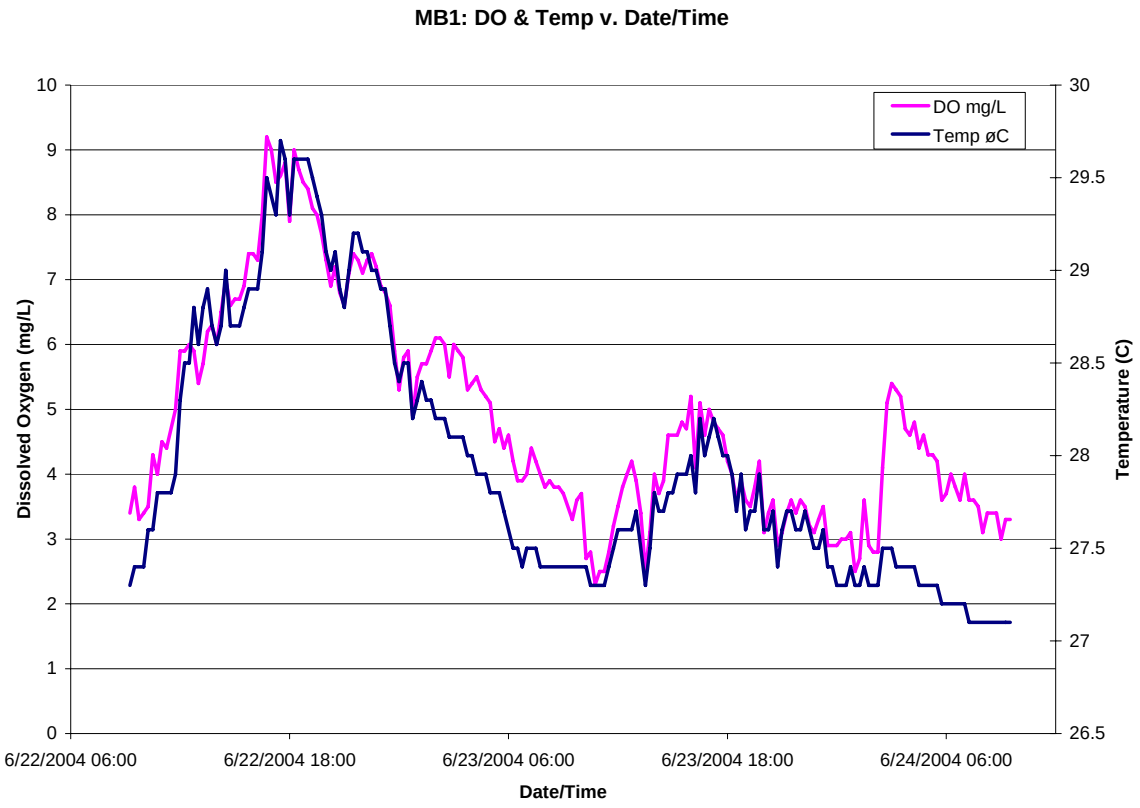
Date	Time			Temp	pH	SpCond	Sal	DO%	DO
MMDDYY	HHMMSS			øC	Units	mS/cm	ppt	Sat	mg/l
6/22/2004	9:45:00			28.2	7.5	0.328	0.2	21.7	1.7
6/22/2004	10:00:00			28.2	7.5	0.329	0.2	22.3	1.7
6/22/2004	10:15:00			28.2	7.5	0.331	0.2	25.0	1.9
6/22/2004	10:30:00			28.3	7.5	0.329	0.2	25.9	2.0
6/22/2004	10:45:00			28.3	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

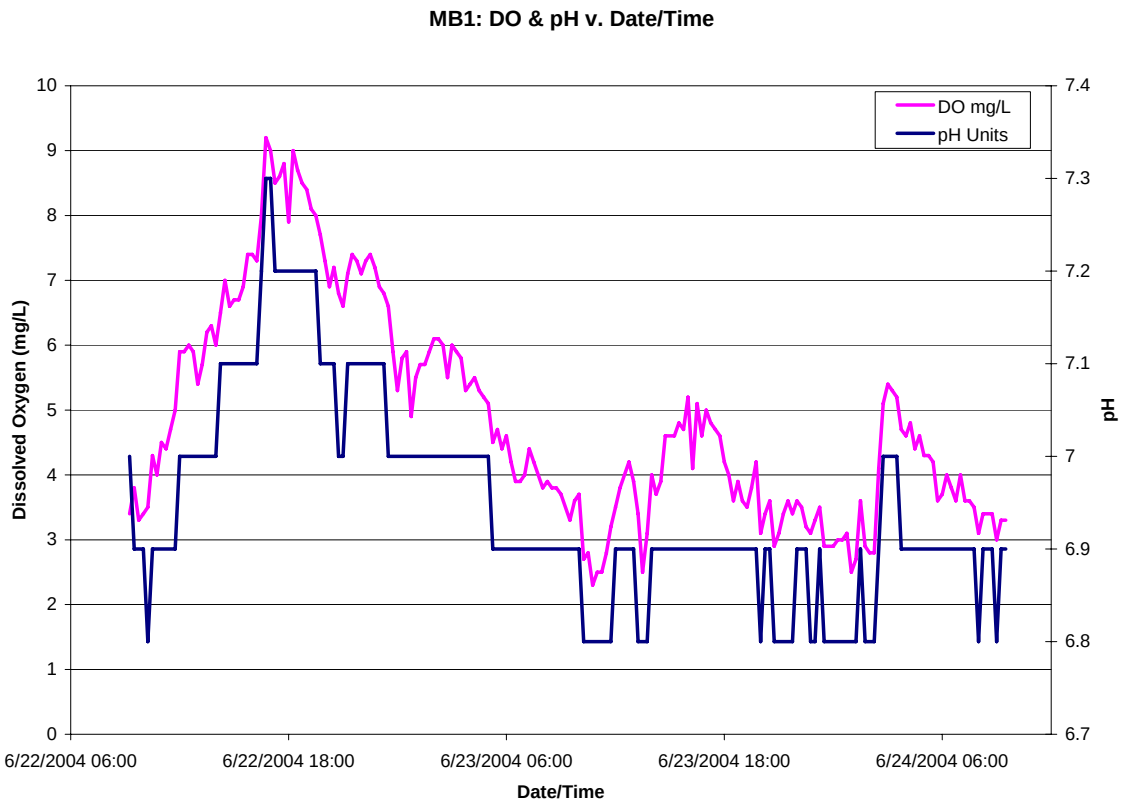
6/22/2004	11:30:00			28.4	7.4	0.331	0.2	25.3	2.0
6/22/2004	11:45:00			28.4	7.4	0.332	0.2	27.4	2.1
6/22/2004	12:00:00			28.4	7.4	0.334	0.2	26.7	2.1
6/22/2004	12:15:00			28.4	7.4	0.333	0.2	27.4	2.1
6/22/2004	12:30:00			28.4	7.4	0.334	0.2	27.5	2.1
6/22/2004	12:45:00			28.5	7.4	0.335	0.2	31.4	2.4
6/22/2004	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

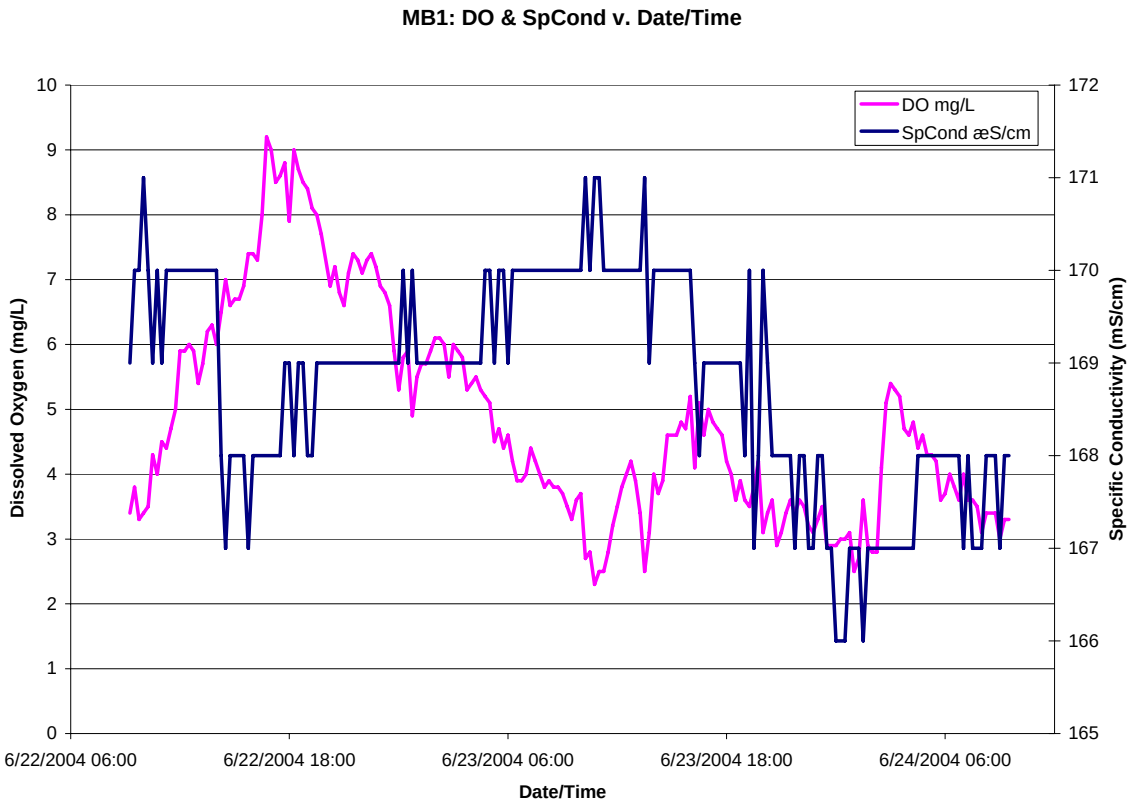
6/22/2004	23:30:00			28.9	7.3	0.341	0.2	25.8	2.0
6/22/2004	23:45:00			28.9	7.3	0.35	0.2	25.5	2.0
6/23/2004	0:00:00			28.8	7.3	0.351	0.2	22.7	1.8
6/23/2004	0:15:00			28.9	7.3	0.348	0.2	22.5	1.7
6/23/2004	0:30:00			28.9	7.3	0.354	0.2	17.4	1.3
6/23/2004	0:45:00			28.8	7.3	0.355	0.2	19.4	1.5
6/23/2004	1:00:00			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
6/23/2004	11:45:00			28.4	7.3	0.353	0.2	28.1	2.2
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
DO mg/L
Temp øC
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00


MB1: DO & pH v. Date/Time
DO mg/L
pH Units
Dissolved Oxygen (mg/L)
pH
Date/Time
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00



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

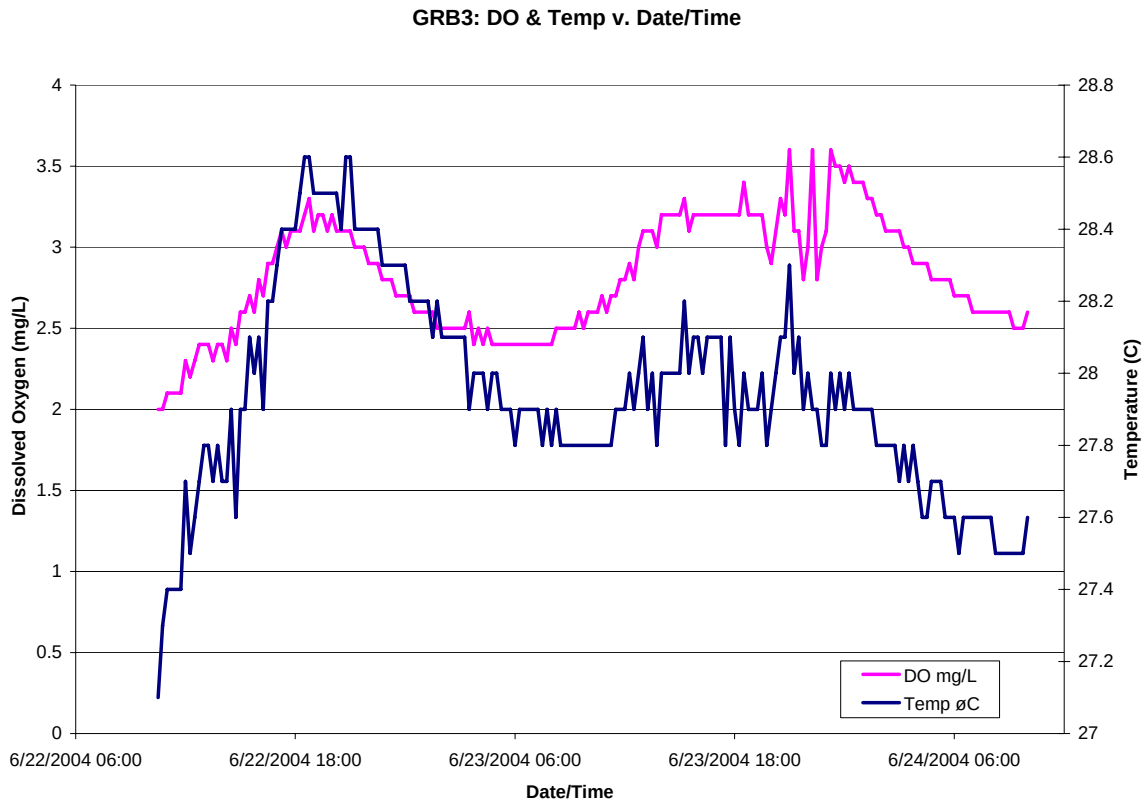
Date	Time			Temp	SpCond	Sal	pH	DO	DO%
MMDDYY	HHMMSS			øC	æS/cm	ppt	Units	mg/l	Sat
6/22/2004	9:15:00			27.3	169	0.1	7.0	3.4	43.3
6/22/2004	9:30:00			27.4	170	0.1	6.9	3.8	47.5
6/22/2004	9:45:00			27.4	170	0.1	6.9	3.3	41.9
6/22/2004	10:00:00			27.4	171	0.1	6.9	3.4	43.0
6/22/2004	10:15:00			27.6	170	0.1	6.8	3.5	44.3
6/22/2004	10:30:00			27.6	169	0.1	6.9	4.3	54.8

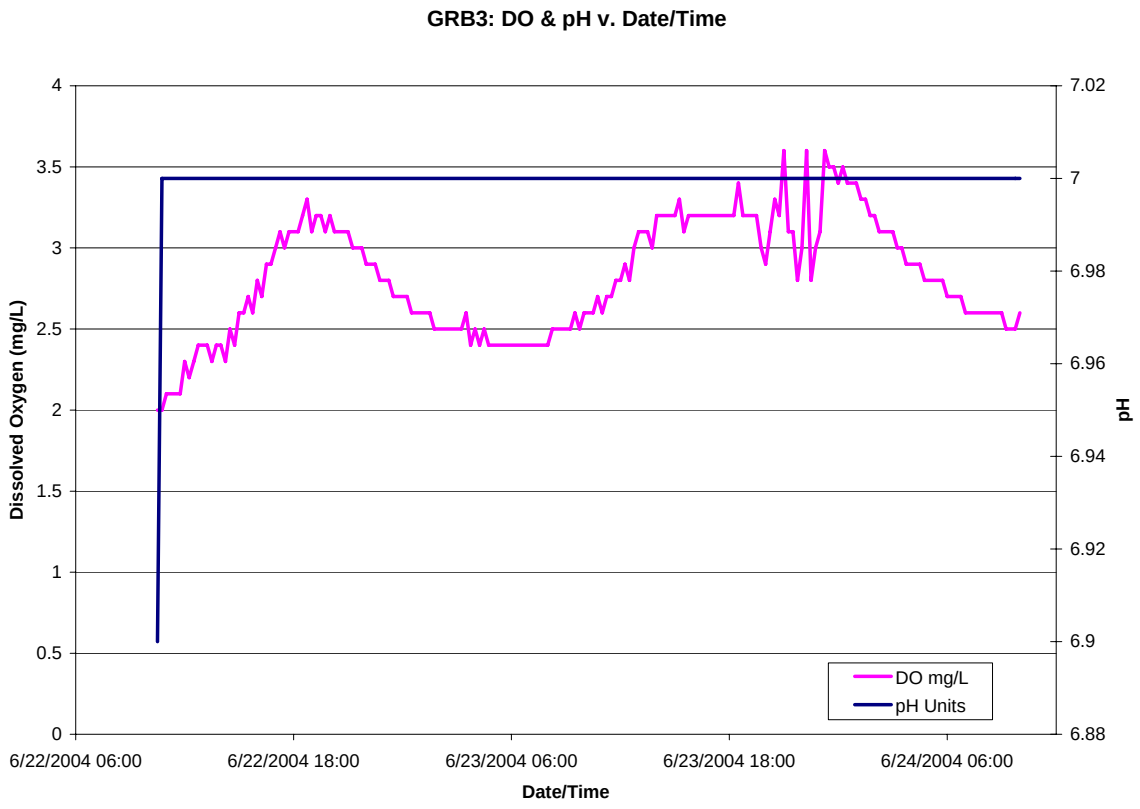
6/22/2004	10:45:00			27.8	170	0.1	6.9	4.0	51.0
6/22/2004	11:00:00			27.8	169	0.1	6.9	4.5	57.6
6/22/2004	11:15:00			27.8	170	0.1	6.9	4.4	55.4
6/22/2004	11:30:00			27.8	170	0.1	6.9	4.7	60.4
6/22/2004	11:45:00			27.9	170	0.1	6.9	5.0	64.2
6/22/2004	12:00:00			28.3	170	0.1	7.0	5.9	75.5
6/22/2004	12:15:00			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

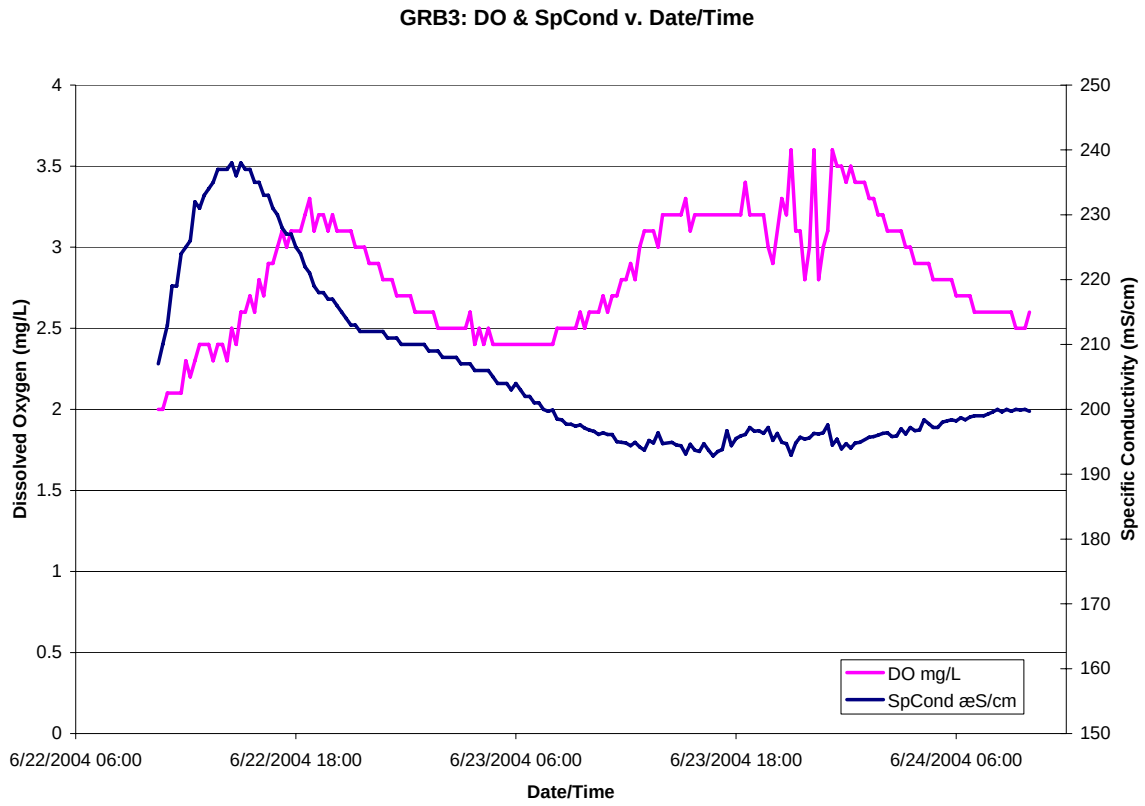
6/22/2004	22:45:00			29.0	169	0.1	7.1	7.2	93.9
6/22/2004	23:00:00			28.9	169	0.1	7.1	6.9	90.0
6/22/2004	23:15:00			28.9	169	0.1	7.1	6.8	87.9
6/22/2004	23:30:00			28.7	169	0.1	7.0	6.6	84.8
6/22/2004	23:45:00			28.5	169	0.1	7.0	5.9	75.8
6/23/2004	0:00:00			28.4	169	0.1	7.0	5.3	67.6
6/23/2004	0:15:00			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

6/23/2004	10:45:00			27.3	171	0.1	6.8	2.3	28.8
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
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
DO mg/L
Temp øC
4
3.5
3
2.5
2
1.5
1
0.5
0
28.8
28.6
28.4
28.2
28
27.8
27.6
27.4
27.2
27
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00


GRB3: DO & pH v. Date/Time
Dissolved Oxygen (mg/L)
pH
Date/Time
DO mg/L
pH Units
4
3.5
3
2.5
2
1.5
1
0.5
0
7.02
7
6.98
6.96
6.94
6.92
6.9
6.88
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00



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	SpCond	Sal	pH	DO	DO%
	øC	æS/cm	ppt	Units	mg/l	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

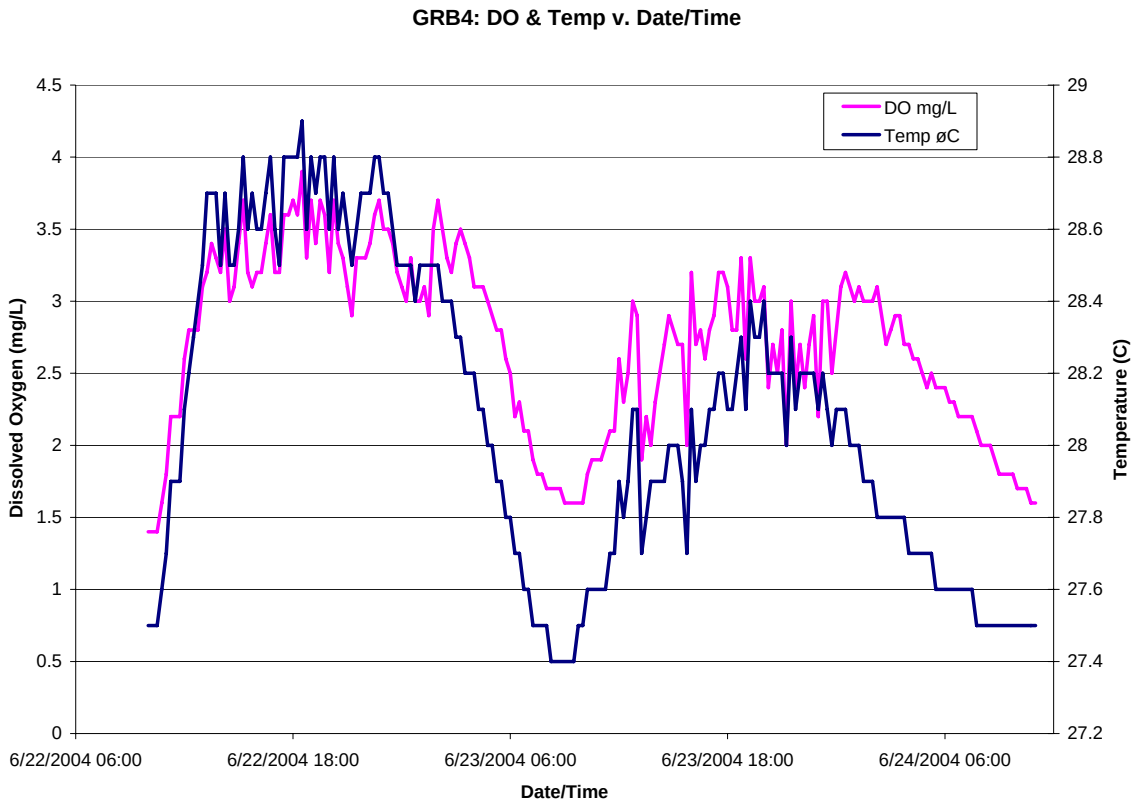
Date	Time			Temp	SpCond	Sal	pH	DO	DO%
MMDDYY	HHMMSS			øC	æS/cm	ppt	Units	mg/l	Sat
6/22/2004	10:30:00			27.1	207	0.1	6.9	2.0	24.8
6/22/2004	10:45:00			27.3	210	0.1	7.0	2.0	25.5
6/22/2004	11:00:00			27.4	213	0.1	7.0	2.1	26.3
6/22/2004	11:15:00			27.4	219	0.1	7.0	2.1	26.6
6/22/2004	11:30:00			27.4	219	0.1	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

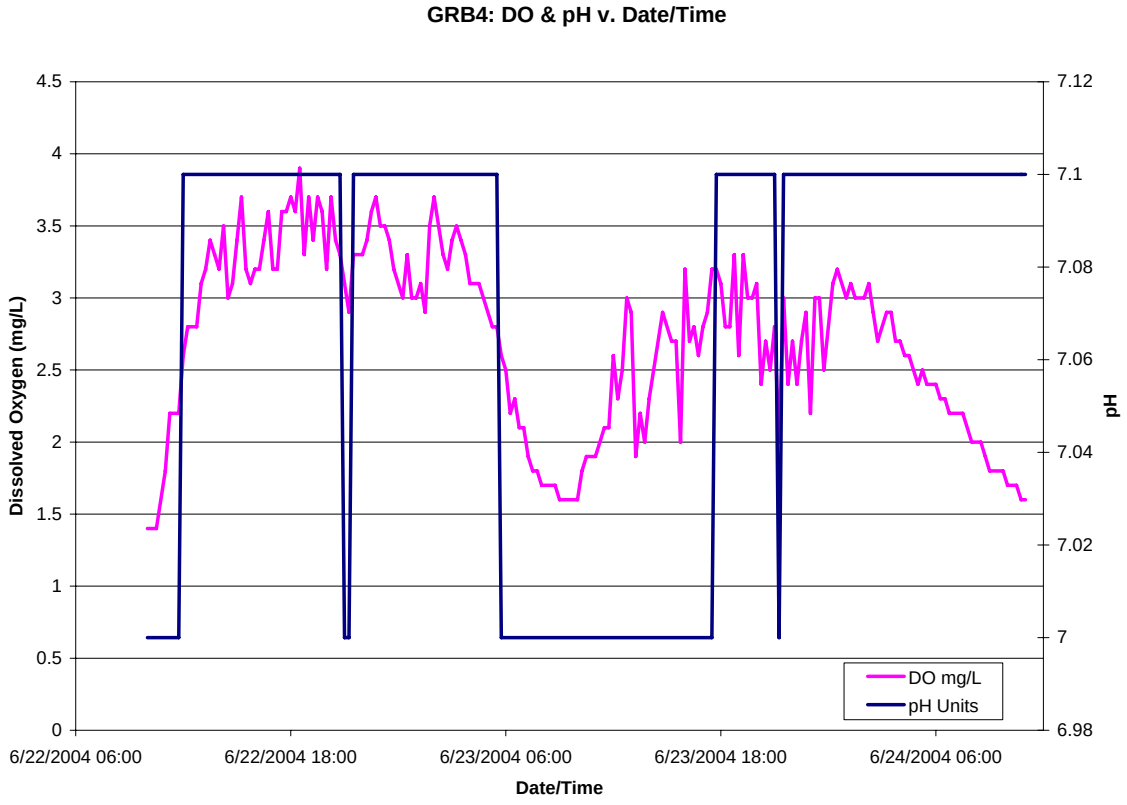
6/22/2004	12:15:00			27.5	226	0.1	7.0	2.2	28.4
6/22/2004	12:30:00			27.6	232	0.1	7.0	2.3	29.7
6/22/2004	12:45:00			27.7	231	0.1	7.0	2.4	30.3
6/22/2004	13:00:00			27.8	233	0.1	7.0	2.4	31.0
6/22/2004	13:15:00			27.8	234	0.1	7.0	2.4	30.0
6/22/2004	13:30:00			27.7	235	0.1	7.0	2.3	29.5
6/22/2004	13:45:00			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

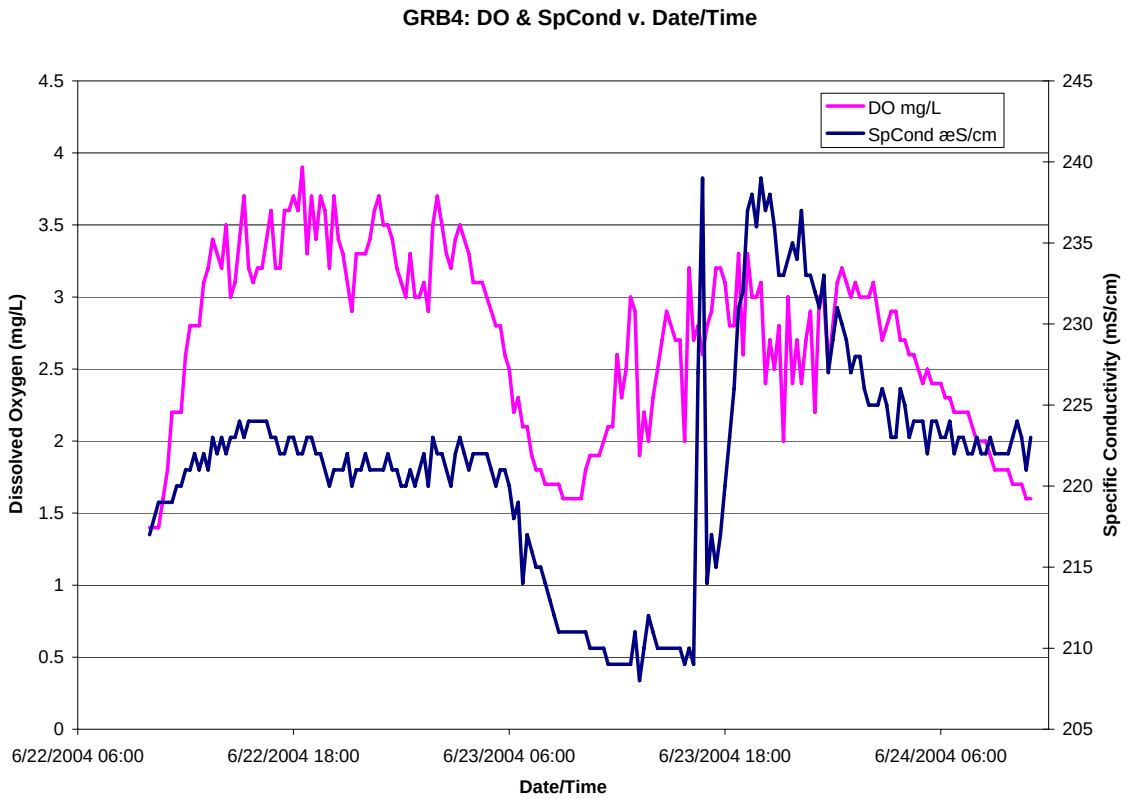
6/23/2004	0:15:00			28.2	210	0.1	7.0	2.7	34.1
6/23/2004	0:30:00			28.2	210	0.1	7.0	2.6	33.7
6/23/2004	0:45:00			28.2	210	0.1	7.0	2.6	33.6
6/23/2004	1:00:00			28.2	210	0.1	7.0	2.6	33.5
6/23/2004	1:15:00			28.2	209	0.1	7.0	2.6	33.0
6/23/2004	1:30:00			28.1	209	0.1	7.0	2.6	32.8
6/23/2004	1:45:00			28.2	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
DO mg/L
Temp øC
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
29
28.8
28.6
28.4
28.2
28
27.8
27.6
27.4
27.2
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00


GRB4: DO & pH v. Date/Time
DO mg/L
pH Units
Dissolved Oxygen (mg/L)
pH
Date/Time
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
7.12
7.1
7.08
7.06
7.04
7.02
7
6.98
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00



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

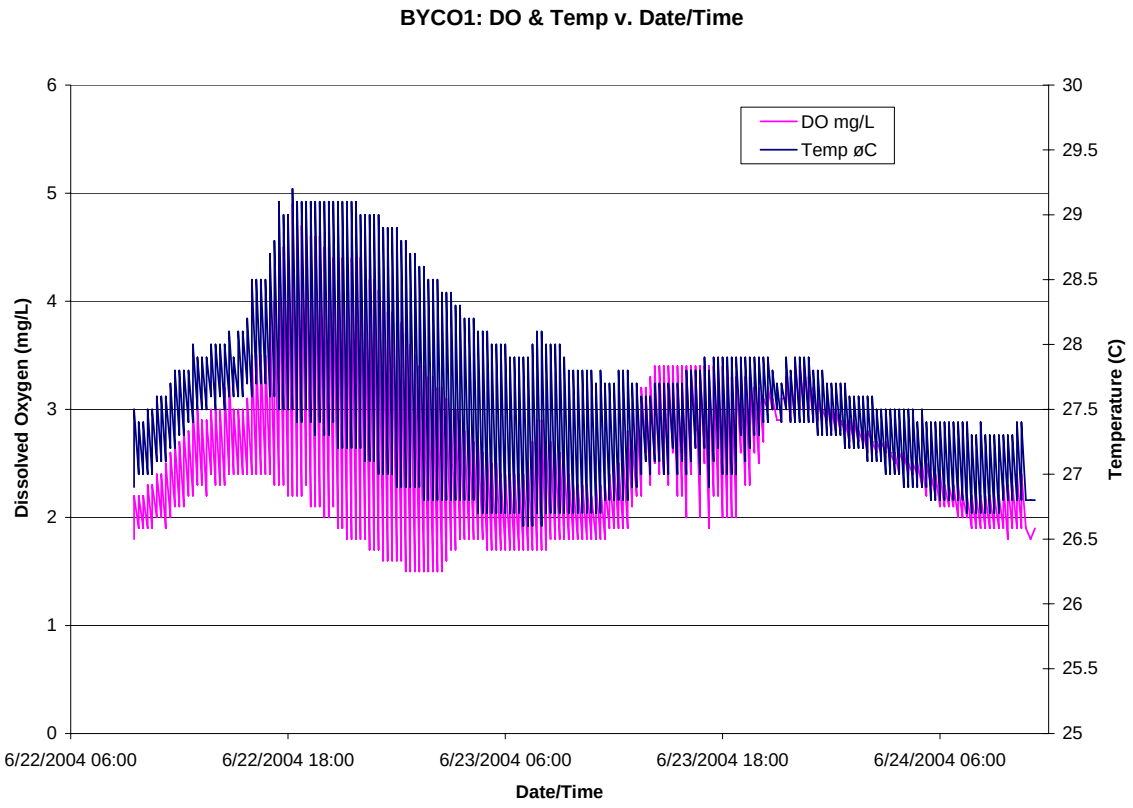
Date	Time			Temp	SpCond	Sal	pH	DO	DO%
MMDDYY	HHMMSS			øC	æS/cm	ppt	Units	mg/l	Sat
6/22/2004	10:00:00			27.5	217	0.1	7.0	1.4	17.4
6/22/2004	10:15:00			27.5	218	0.1	7.0	1.4	17.6
6/22/2004	10:30:00			27.5	219	0.1	7.0	1.4	17.8
6/22/2004	10:45:00			27.6	219	0.1	7.0	1.6	20.4
6/22/2004	11:00:00			27.7	219	0.1	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

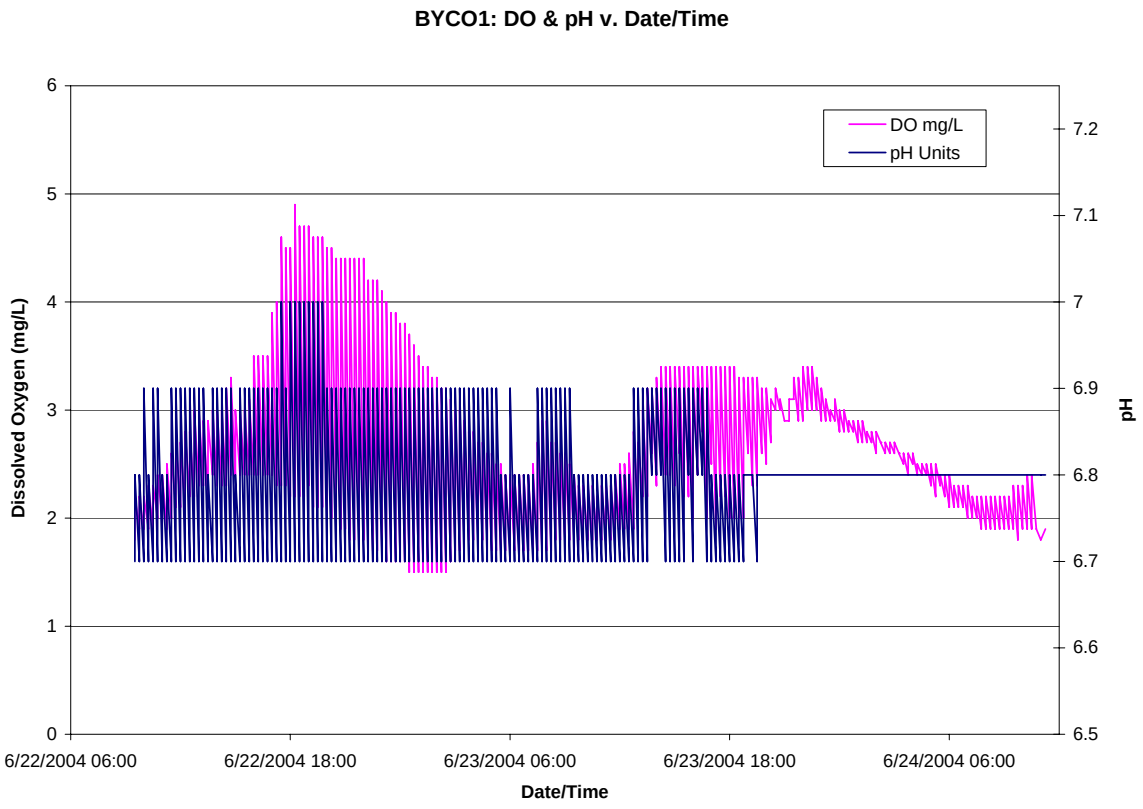
6/22/2004	11:45:00			27.9	220	0.1	7.0	2.2	28.4
6/22/2004	12:00:00			28.1	221	0.1	7.1	2.6	32.7
6/22/2004	12:15:00			28.2	221	0.1	7.1	2.8	35.8
6/22/2004	12:30:00			28.3	222	0.1	7.1	2.8	36.5
6/22/2004	12:45:00			28.4	221	0.1	7.1	2.8	35.8
6/22/2004	13:00:00			28.5	222	0.1	7.1	3.1	39.7
6/22/2004	13:15:00			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

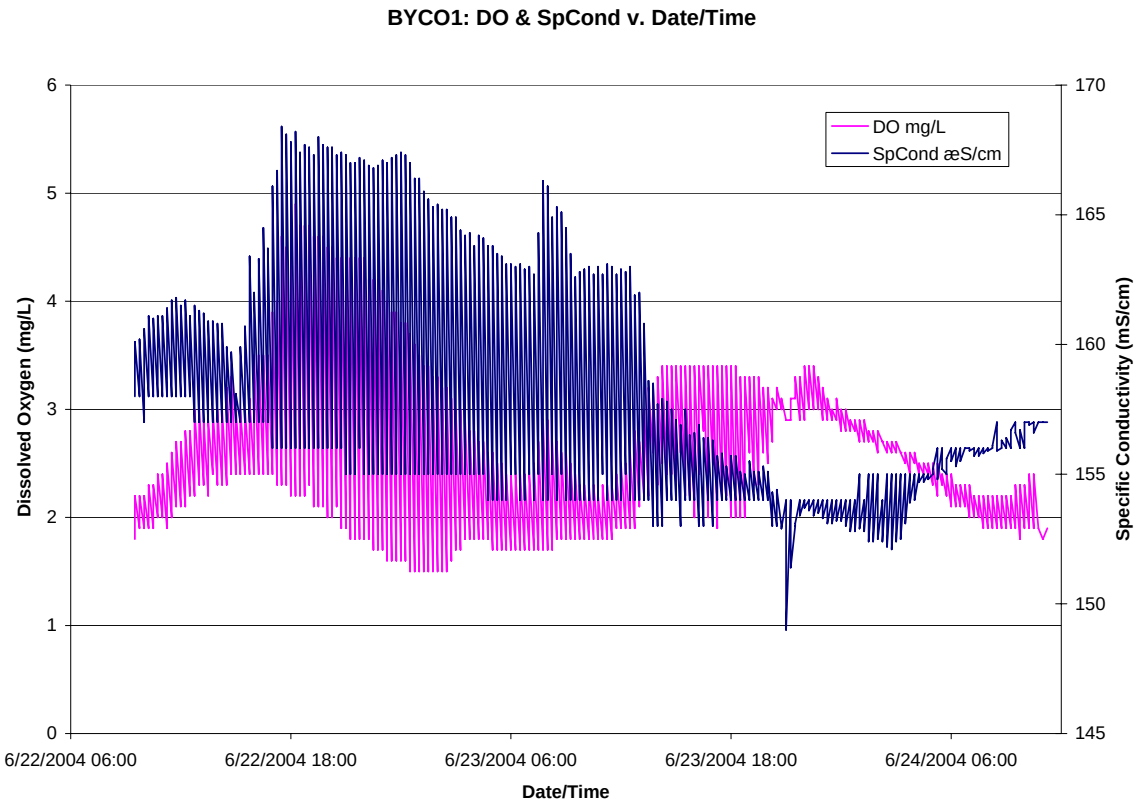
6/22/2004	23:45:00			28.5	221	0.1	7.1	3.2	41.7
6/23/2004	0:00:00			28.5	220	0.1	7.1	3.1	39.5
6/23/2004	0:15:00			28.5	220	0.1	7.1	3.0	39.1
6/23/2004	0:30:00			28.5	221	0.1	7.1	3.3	42.7
6/23/2004	0:45:00			28.4	220	0.1	7.1	3.0	38.7
6/23/2004	1:00:00			28.5	221	0.1	7.1	3.0	39.2
6/23/2004	1:15:00			28.5	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
DO mg/L
Temp øC
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00


BYCO1: DO & pH v. Date/Time
DO mg/L
pH Units
Dissolved Oxygen (mg/L)
pH
Date/Time
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00



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

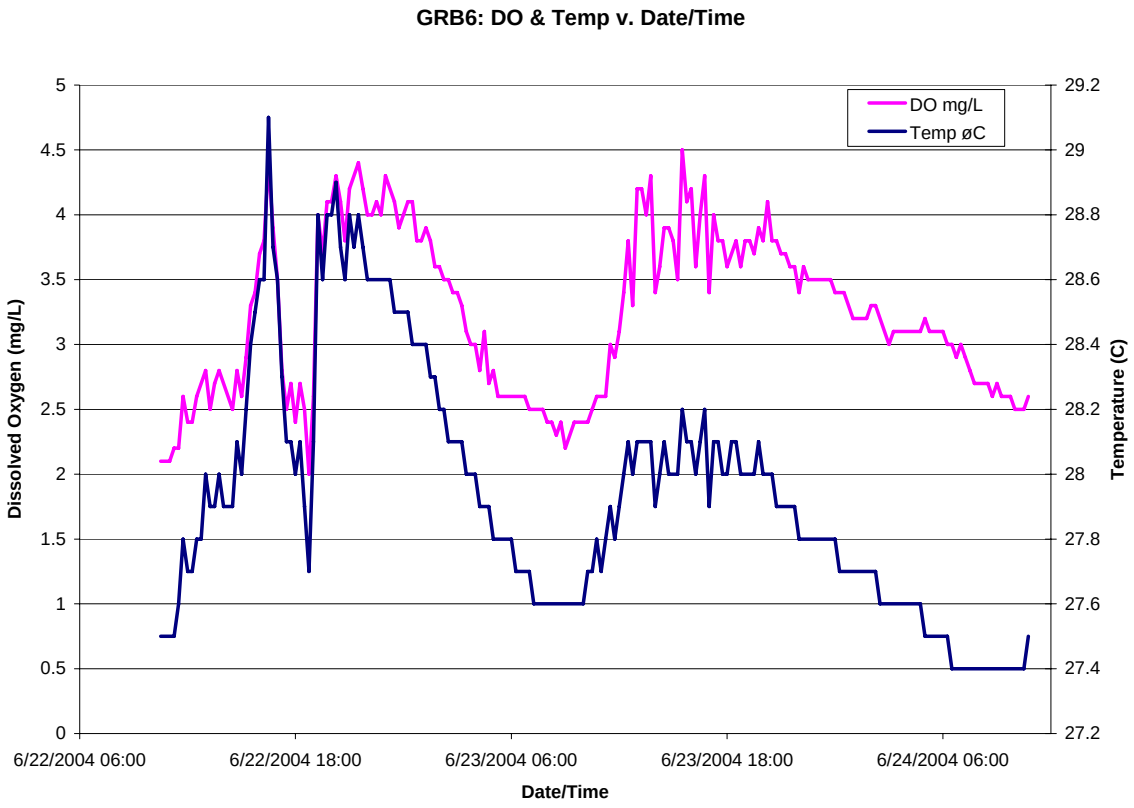
Date	Time			Temp	SpCond	Sal	pH	DO	DO%
MMDDYY	HHMMSS			øC	æS/cm	ppt	Units	mg/l	Sat
6/22/2004	9:30:00			26.9	158	0.1	6.7	1.8	22.6
6/22/2004	9:45:00			27.0	158	0.1	6.7	1.9	23.4
6/22/2004	10:00:00			27.0	157	0.1	6.7	1.9	23.4
6/22/2004	10:15:00			27.0	158	0.1	6.7	1.9	23.3
6/22/2004	10:30:00			27.0	158	0.1	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

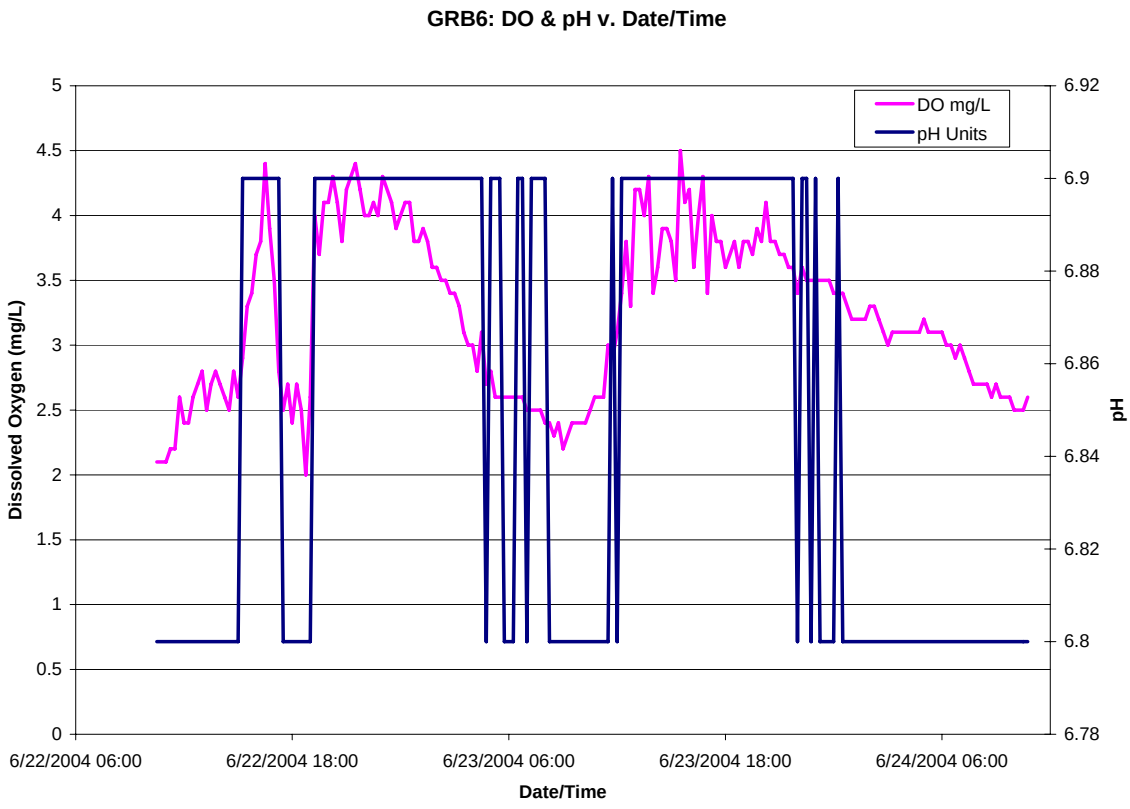
6/22/2004	11:30:00			27.2	158	0.1	6.7	2.0	24.8
6/22/2004	11:45:00			27.2	158	0.1	6.7	2.1	25.9
6/22/2004	12:00:00			27.3	158	0.1	6.7	2.1	26.6
6/22/2004	12:15:00			27.3	158	0.1	6.7	2.1	26.8
6/22/2004	12:30:00			27.4	158	0.1	6.7	2.2	28.0
6/22/2004	12:45:00			27.4	157	0.1	6.7	2.2	28.4
6/22/2004	13:00:00			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

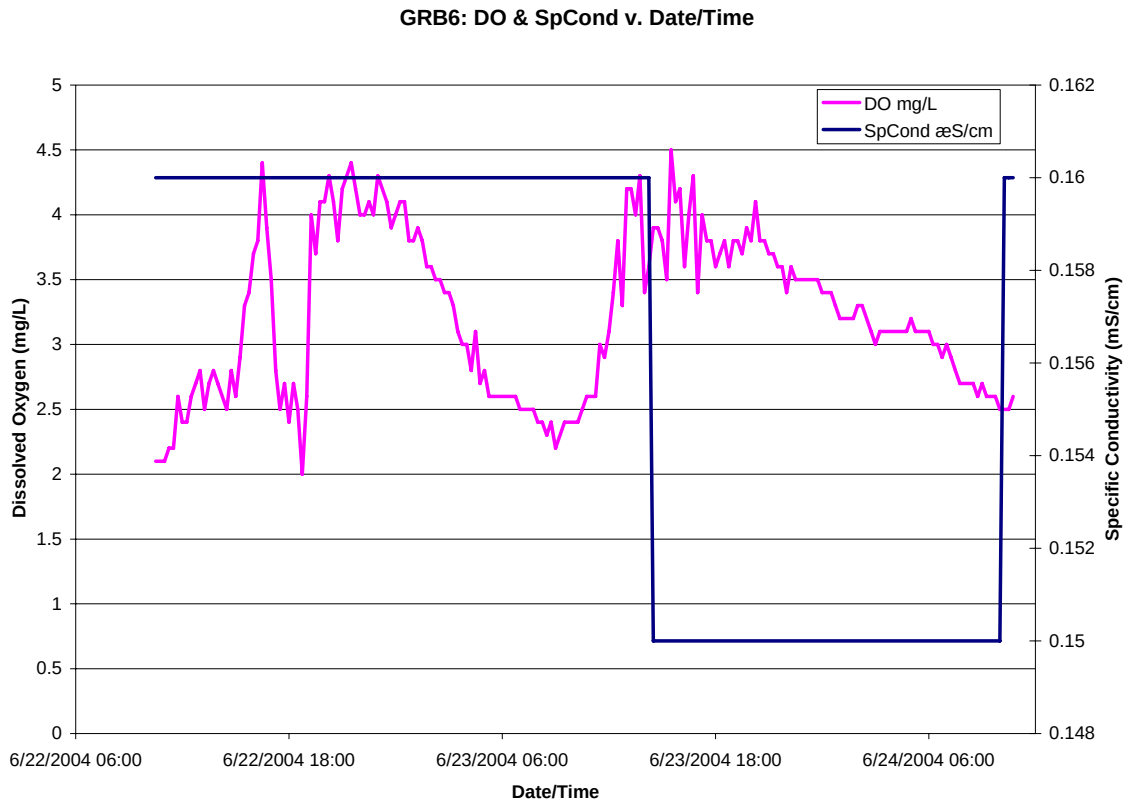
6/22/2004	23:30:00			27.0	155	0.1	6.7	1.6	20.5
6/22/2004	23:45:00			27.0	155	0.1	6.7	1.6	20.1
6/23/2004	0:00:00			27.0	155	0.1	6.7	1.6	20.4
6/23/2004	0:15:00			26.9	155	0.1	6.7	1.6	19.7
6/23/2004	0:30:00			26.9	155	0.1	6.7	1.5	19.3
6/23/2004	0:45:00			26.9	155	0.1	6.7	1.5	18.9
6/23/2004	1:00:00			26.9	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
DO mg/L
Temp øC
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00


GRB6: DO & pH v. Date/Time
DO mg/L
pH Units
Dissolved Oxygen (mg/L)
pH
Date/Time
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00



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

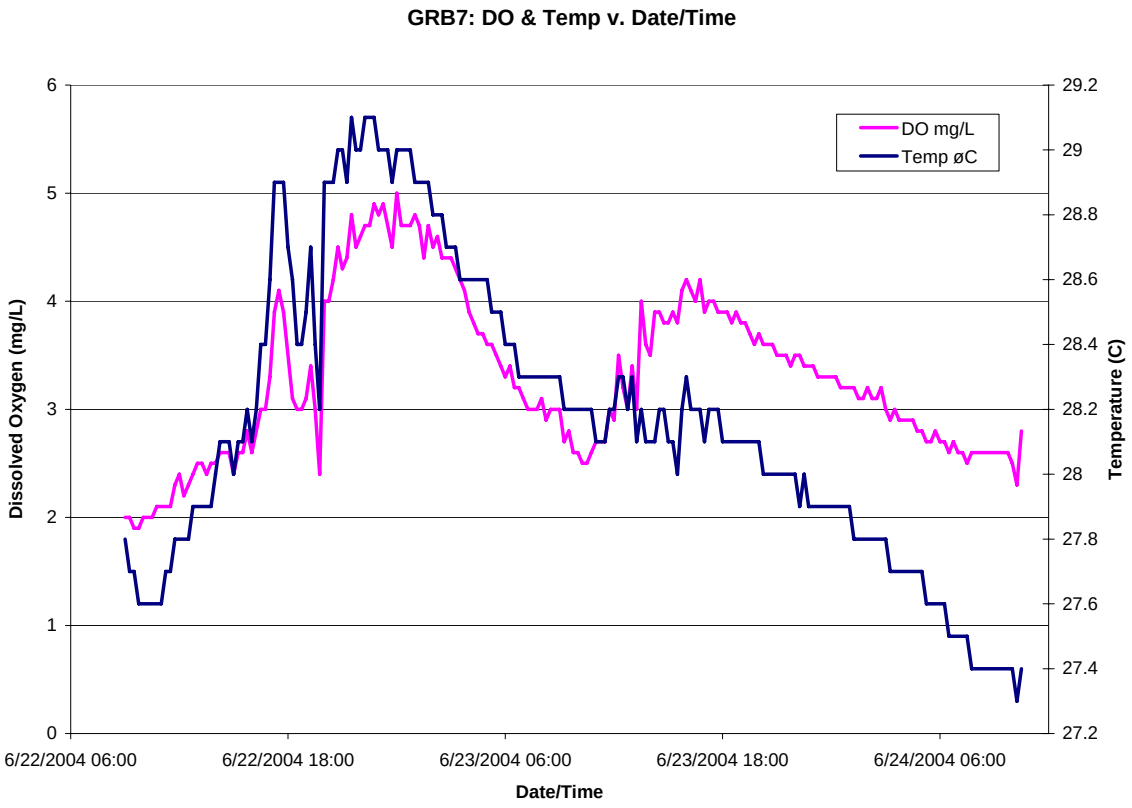
Date	Time			Temp	pH	SpCond	Sal	DO%	DO	Dep10
MMDDYY	HHMMSS			øC	Units	mS/cm	ppt	Sat	mg/l	meters
6/22/2004	10:30:00			27.5	6.8	0.1679	0.1	26.7	2.1	0.88
6/22/2004	10:45:00			27.5	6.8	0.1679	0.1	26.0	2.1	0.88
6/22/2004	11:00:00			27.5	6.8	0.1678	0.1	26.9	2.1	0.88
6/22/2004	11:15:00			27.5	6.8	0.168	0.1	27.2	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
DO mg/L
Temp øC
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00
0
1
2
3
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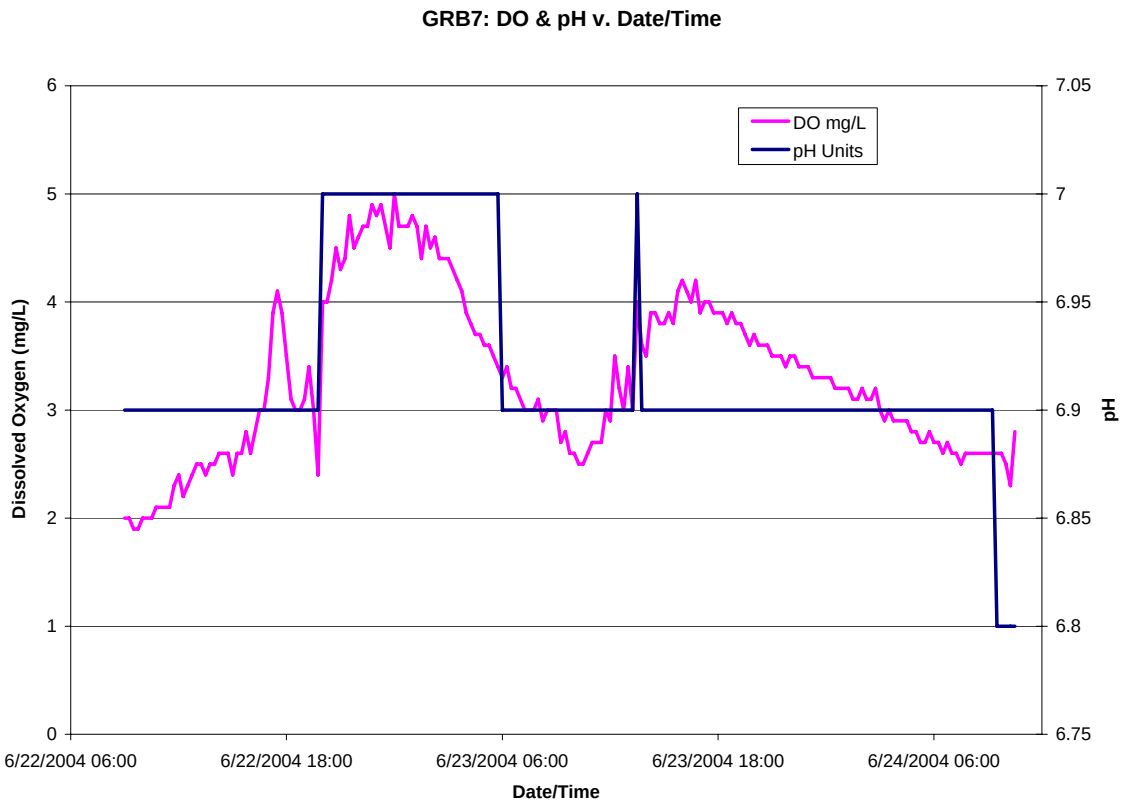
28.6
28.8
29
29.2


GRB7: DO & pH v. Date/Time
DO mg/L
pH Units
Dissolved Oxygen (mg/L)
pH
Date/Time
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00
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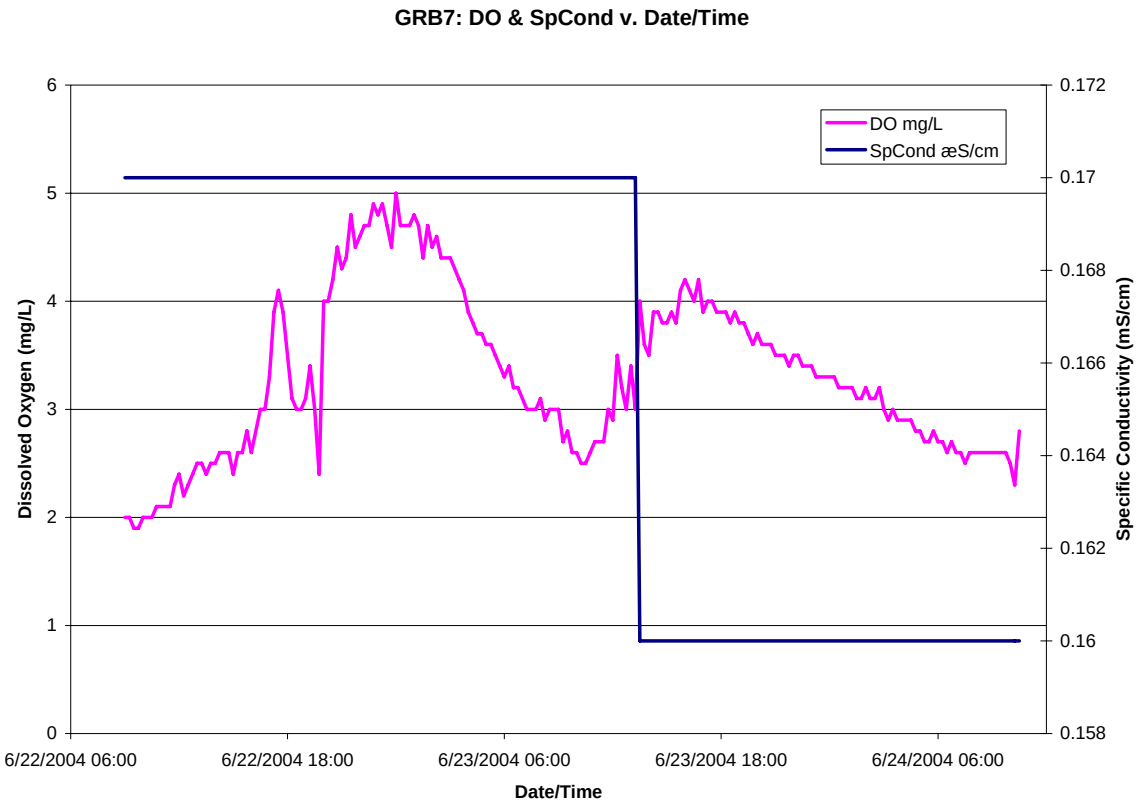
2
3
4
5
6
6.75
6.8
6.85
6.9
6.95
7
7.05



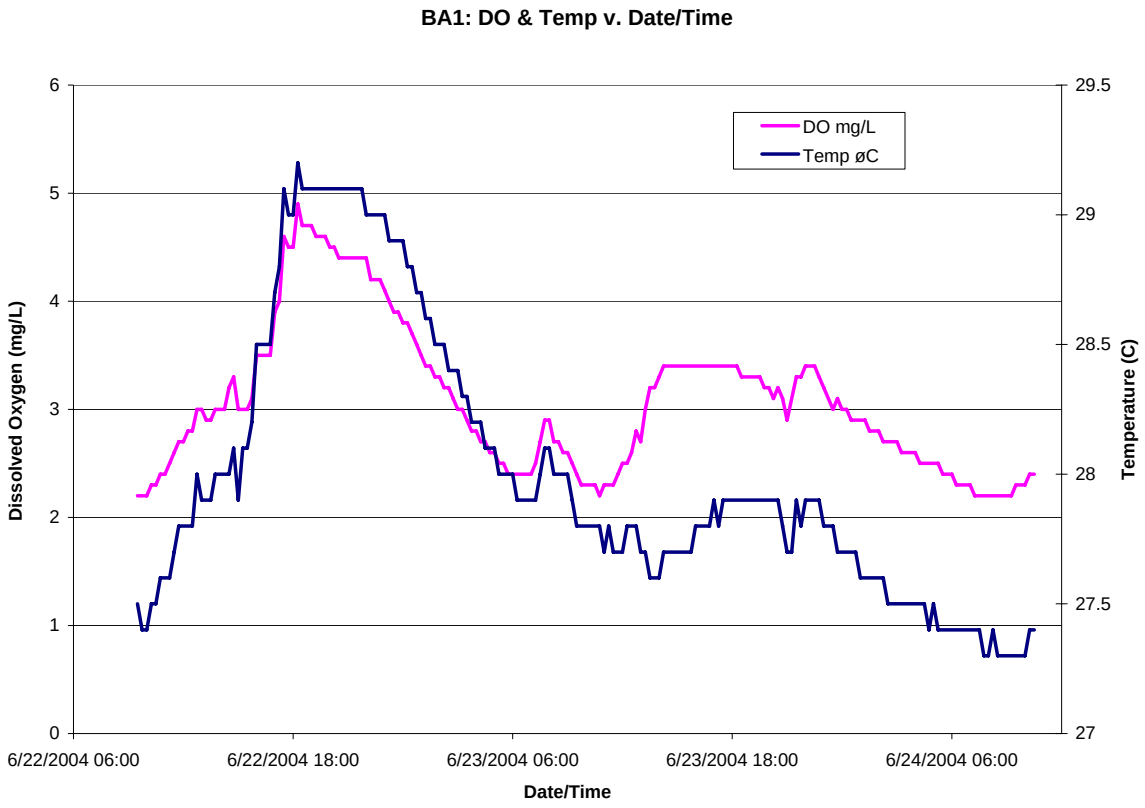
MiniSonde 4a 41500								
Log File Name : GRB7		Summary: 06/23/2004 00:00:00 to 06/24/2004 00:00:00						
Setup Date (MMDDYY) : 062104								
Setup Time (HHMMSS) : 113200			Temp	pH	SpCond	Sal	DO%	DO
Starting Date (MMDDYY) : 062104			øC	Units	mS/cm	ppt	Sat	mg/l
Starting Time (HHMMSS) : 114500		Average	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
DO mg/L
Temp øC
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00
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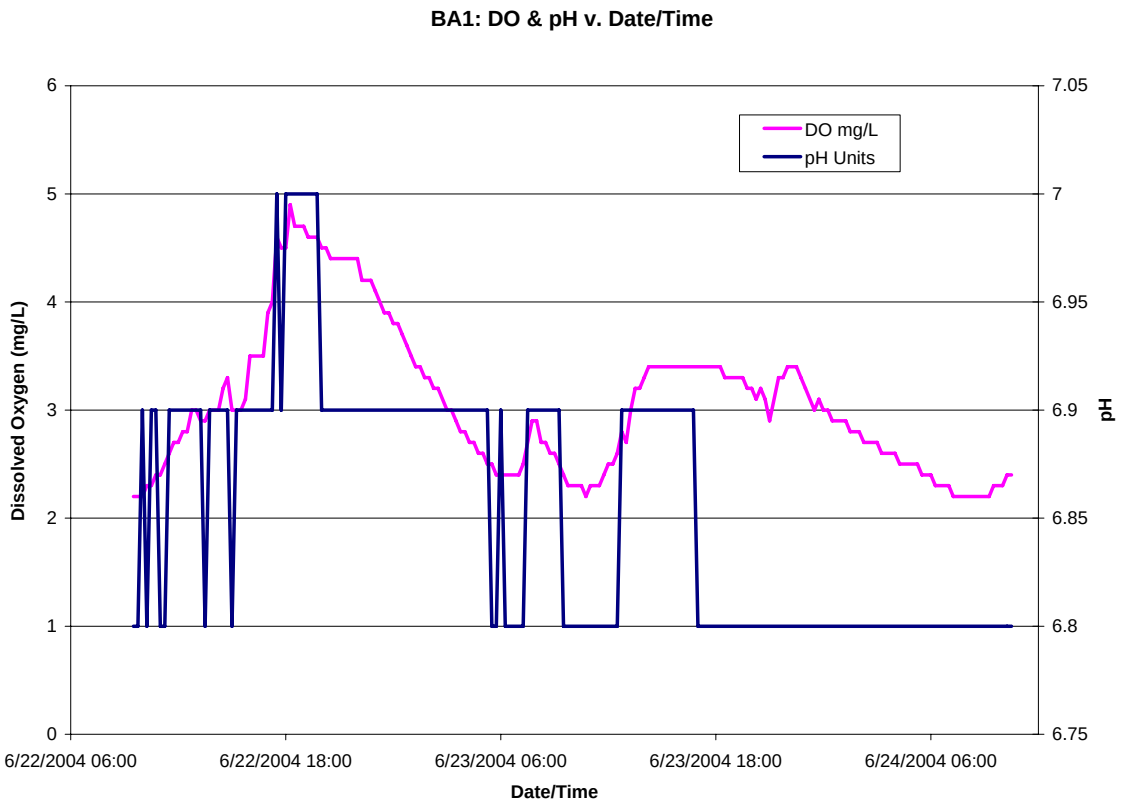
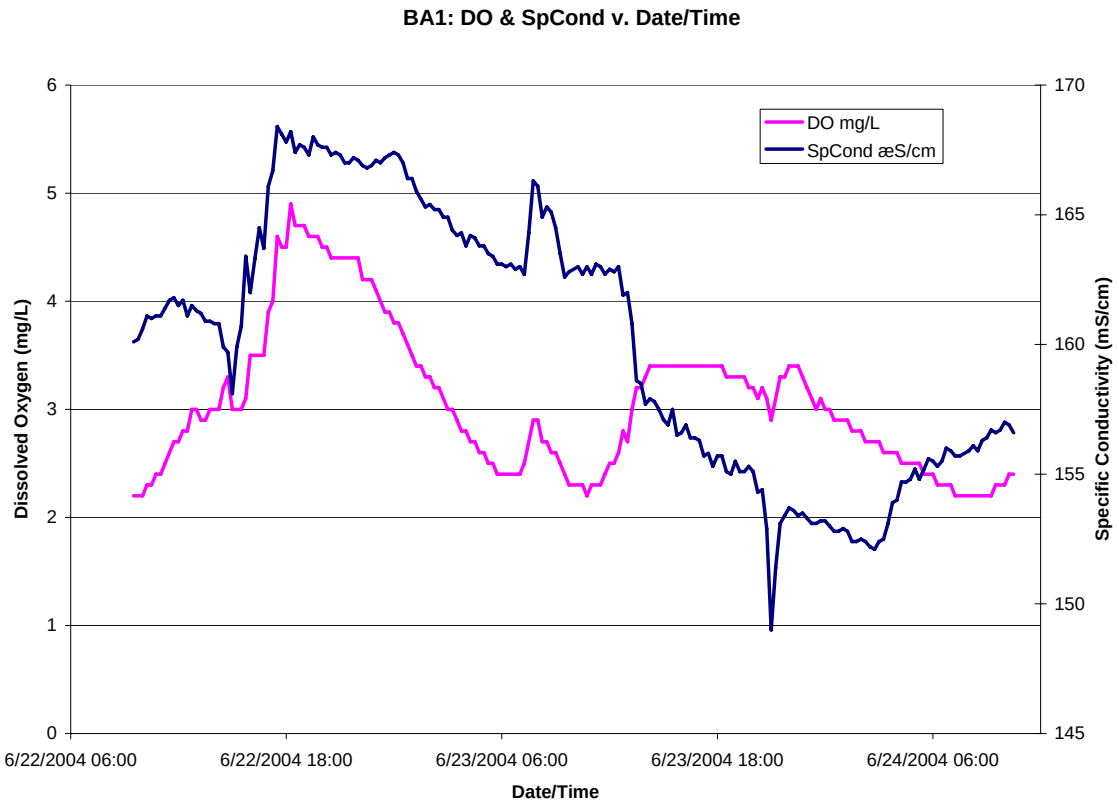
27
27.5
28
28.5
29
29.5


BA1: DO & pH v. Date/Time
DO mg/L
pH Units
Dissolved Oxygen (mg/L)
pH
Date/Time
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00
0
1
2
3
4
5
6
6.75
6.8
6.85
6.9
6.95
7
7.05



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

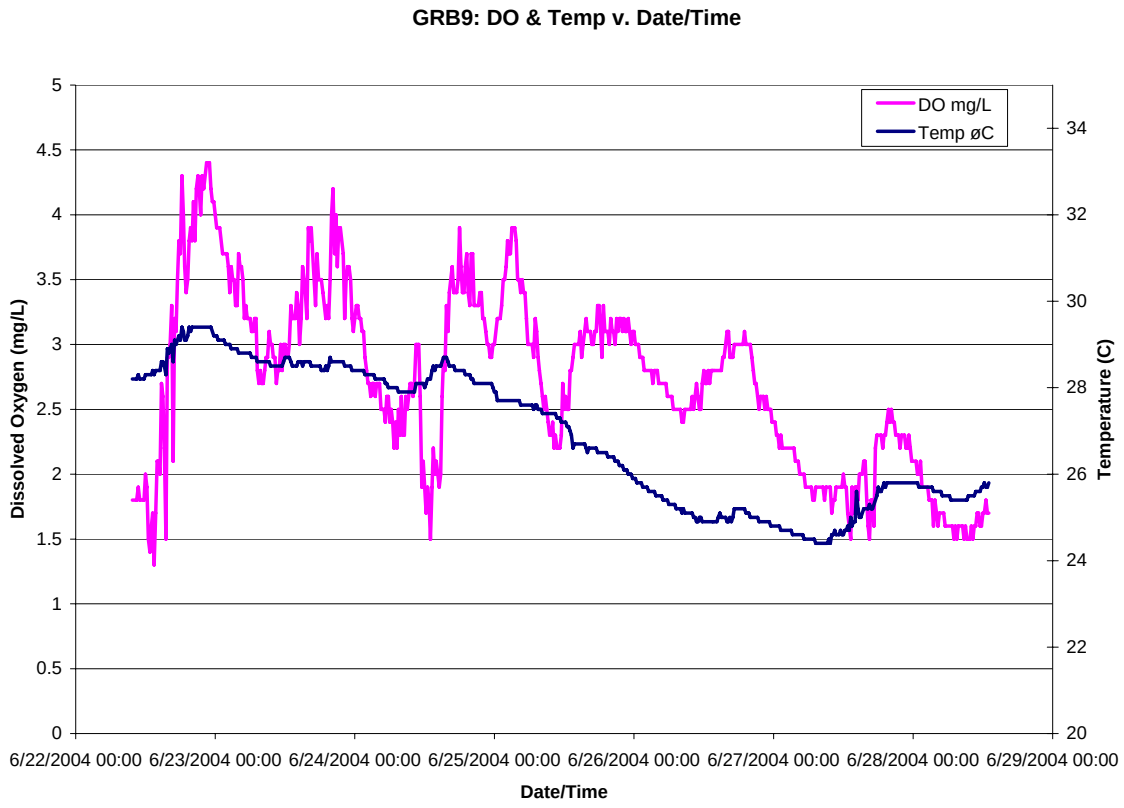
Date	Time			Temp	SpCond	Sal	pH	DO	DO%
MMDDYY	HHMMSS			øC	æS/cm	ppt	Units	mg/l	Sat
6/22/2004	9:30:00			27.5	160.1	0.1	6.8	2.2	27.5
6/22/2004	9:45:00			27.5	160.2	0.1	6.8	2.2	27.5
6/22/2004	10:00:00			27.4	160.6	0.1	6.9	2.2	28.0
6/22/2004	10:15:00			27.5	161.1	0.1	6.8	2.3	28.7
6/22/2004	10:30:00			27.5	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
DO mg/L
Temp øC
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
20
22
24
26
28
30
32
34
6/22/2004 00:00
6/23/2004 00:00
6/24/2004 00:00
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6/26/2004 00:00
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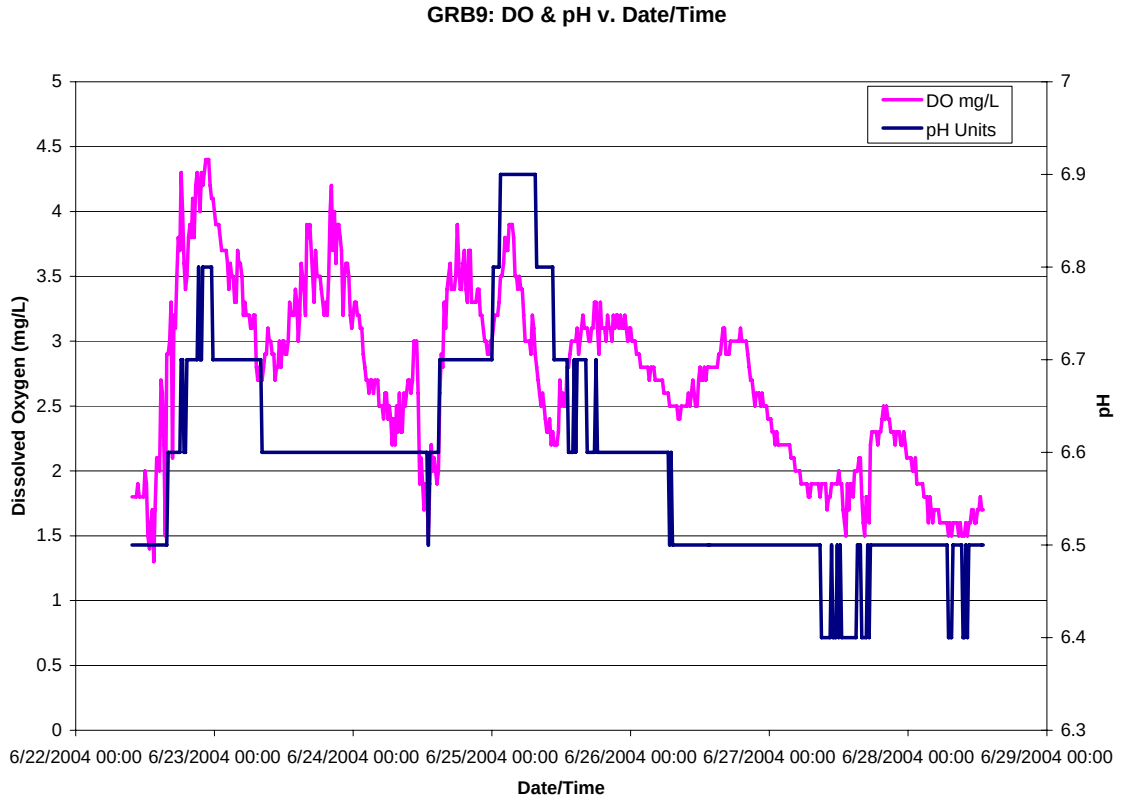
6/28/2004 00:00
6/29/2004 00:00


GRB9: DO & pH v. Date/Time
DO mg/L
pH Units
Dissolved Oxygen (mg/L)
pH
Date/Time
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
6.3
6.4
6.5
6.6
6.7
6.8
6.9
7
6/22/2004 00:00
6/23/2004 00:00
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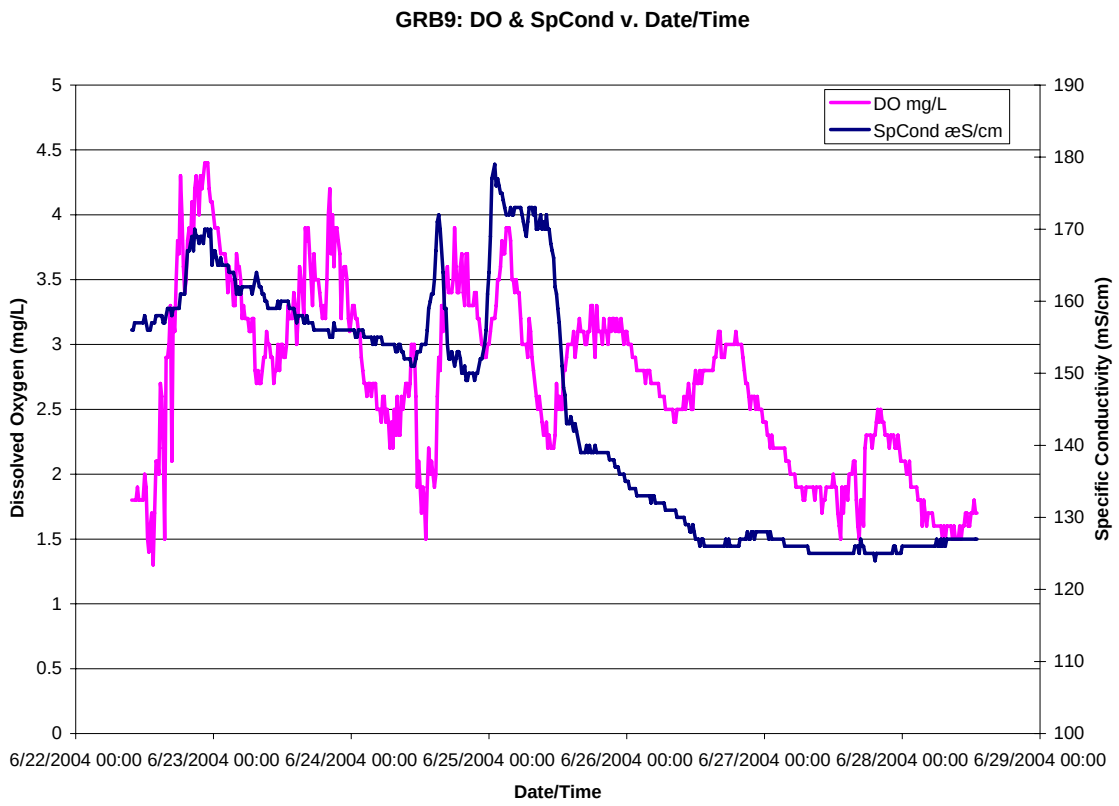
6/28/2004 00:00
6/29/2004 00:00



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

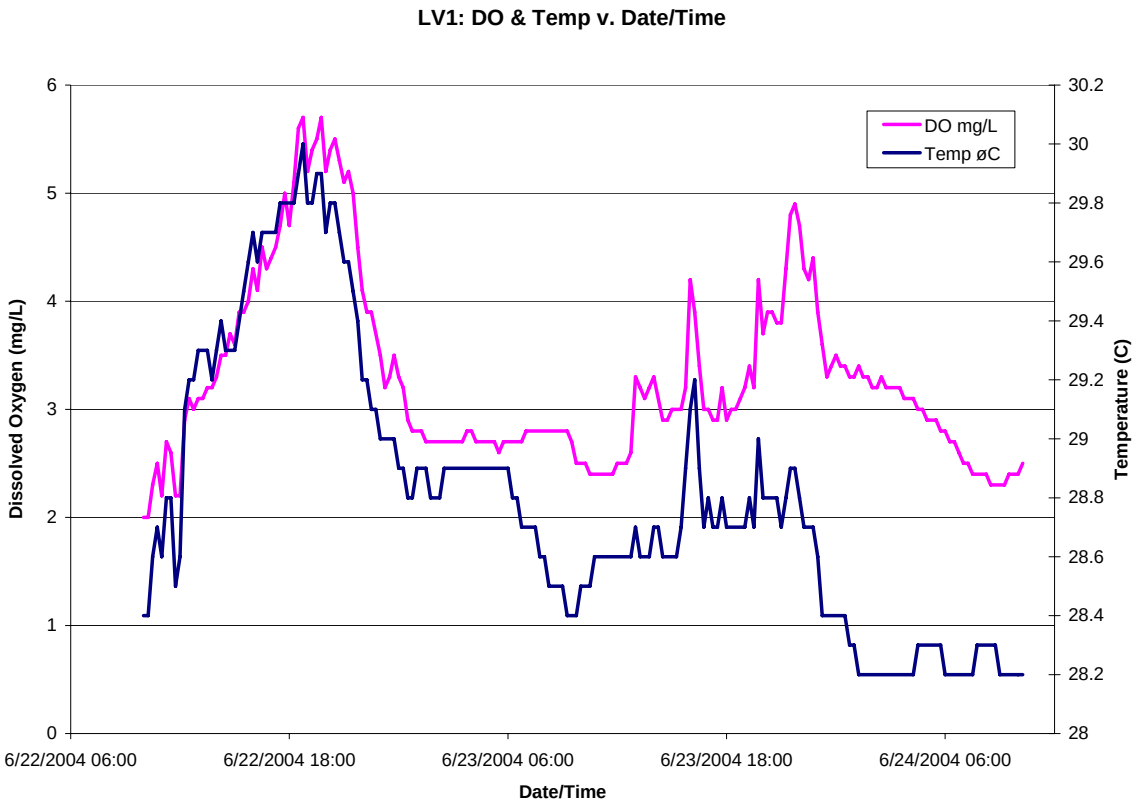
6/26/2004	113000			25.0	129	0.1	6.5	2.5	30.1	0.99
6/26/2004	114500			24.9	128	0.1	6.5	2.7	33.1	0.99
6/26/2004	120000			24.9	127	0.1	6.5	2.8	33.2	0.99
6/26/2004	121500			24.9	127	0.1	6.5	2.7	32.9	0.99
6/26/2004	123000			24.9	127	0.1	6.5	2.7	32.5	0.99
6/26/2004	124500			24.9	126	0.1	6.5	2.8	33.2	0.99
6/26/2004	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
DO mg/L
Temp øC
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00
0
1
2
3
4
5
6
28
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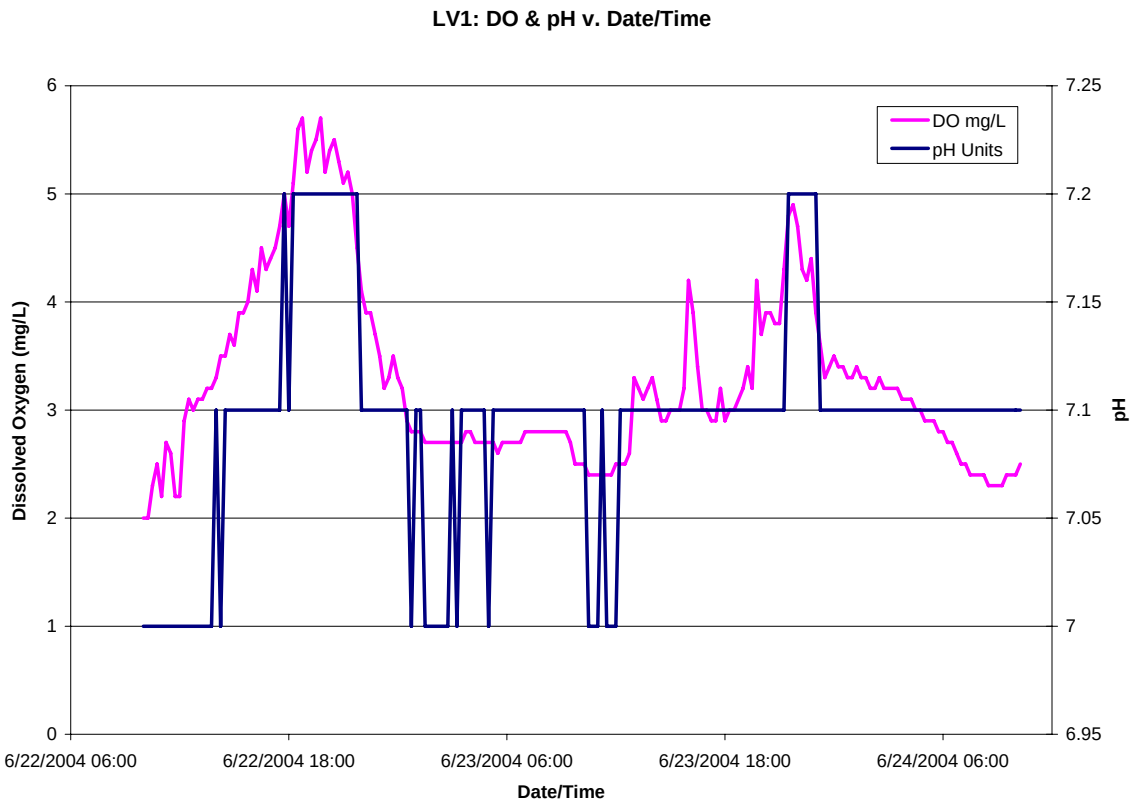
29.6
29.8
30
30.2


LV1: DO & pH v. Date/Time
DO mg/L
pH Units
Dissolved Oxygen (mg/L)
pH
Date/Time
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00
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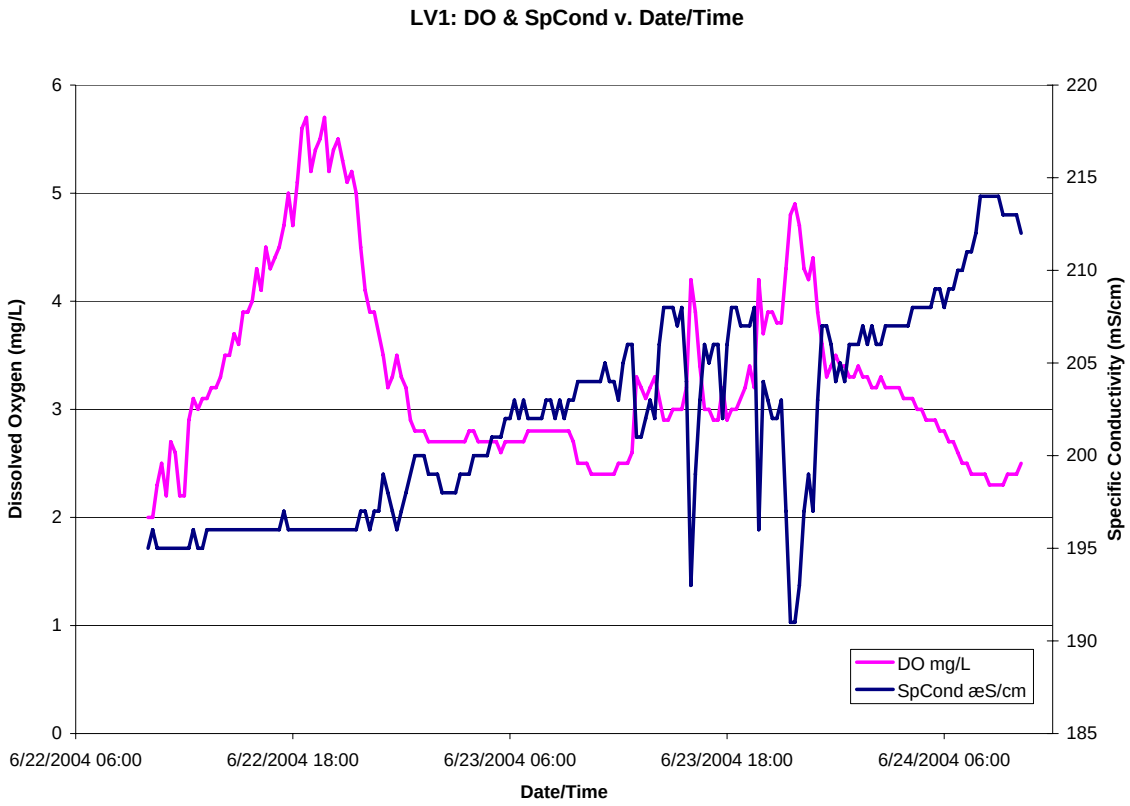
2
3
4
5
6
6.95
7
7.05
7.1
7.15
7.2
7.25



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	SpCond	Sal	pH	DO	DO%
	øC	æS/cm	ppt	Units	mg/l	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

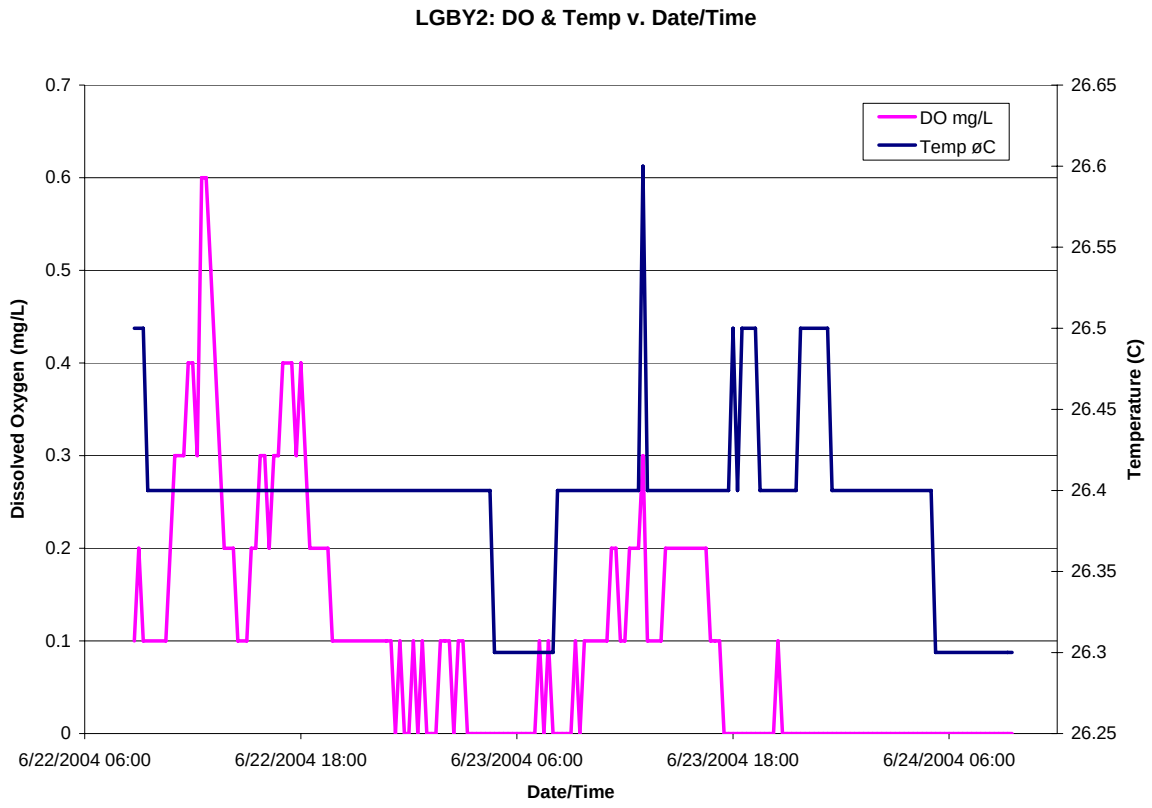
Date	Time			Temp	SpCond	Sal	pH	DO	DO%
MMDDYY	HHMMSS			øC	æS/cm	ppt	Units	mg/l	Sat
6/22/2004	10:00:00			28.4	195	0.1	7.0	2.0	25.1
6/22/2004	10:15:00			28.4	196	0.1	7.0	2.0	25.7
6/22/2004	10:30:00			28.6	195	0.1	7.0	2.3	30.0
6/22/2004	10:45:00			28.7	195	0.1	7.0	2.5	31.9
6/22/2004	11:00:00			28.6	195	0.1	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

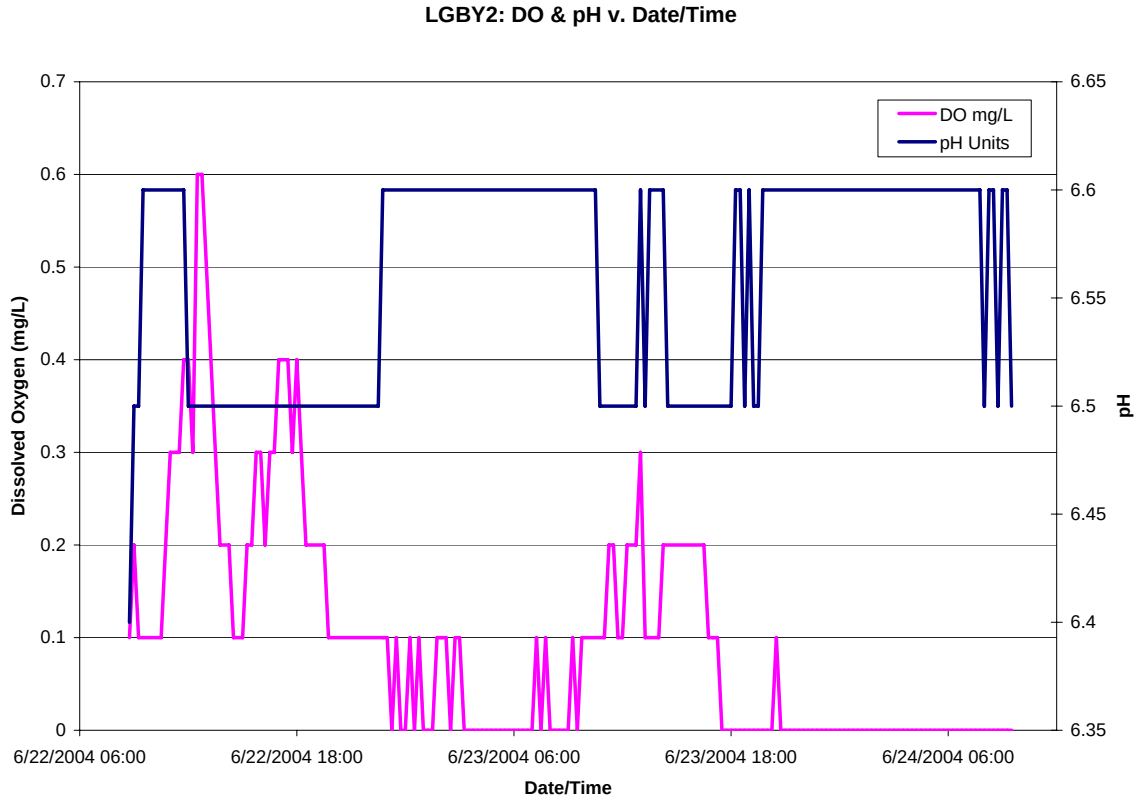
6/22/2004	11:45:00			28.5	195	0.1	7.0	2.2	27.7
6/22/2004	12:00:00			28.6	195	0.1	7.0	2.2	27.9
6/22/2004	12:15:00			29.1	195	0.1	7.0	2.9	37.2
6/22/2004	12:30:00			29.2	196	0.1	7.0	3.1	40.1
6/22/2004	12:45:00			29.2	195	0.1	7.0	3.0	39.7
6/22/2004	13:00:00			29.3	195	0.1	7.0	3.1	41.1
6/22/2004	13:15:00			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

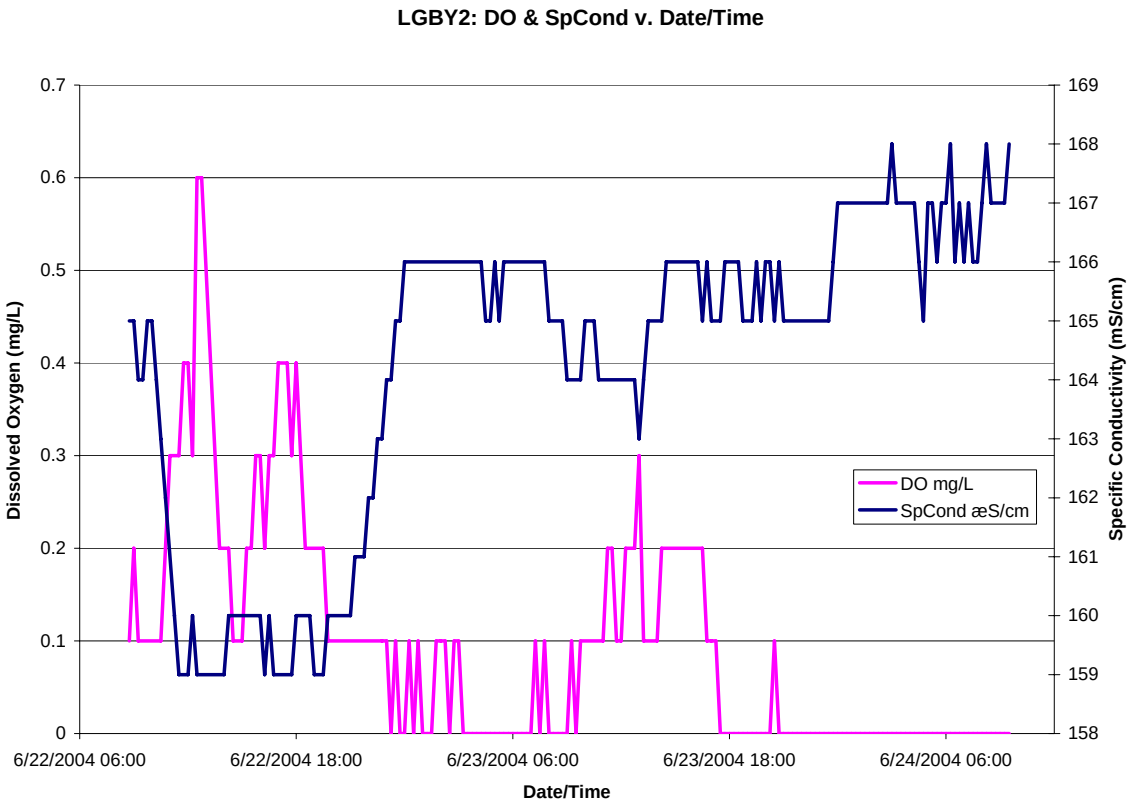
6/22/2004	23:45:00			29.0	196	0.1	7.1	3.5	45.9
6/23/2004	0:00:00			29.0	197	0.1	7.1	3.3	42.7
6/23/2004	0:15:00			28.9	198	0.1	7.1	3.2	41.6
6/23/2004	0:30:00			28.8	199	0.1	7.1	2.9	37.3
6/23/2004	0:45:00			28.8	200	0.1	7.0	2.8	35.7
6/23/2004	1:00:00			28.9	200	0.1	7.1	2.8	35.8
6/23/2004	1:15:00			28.9	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
DO mg/L
Temp øC
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
26.65
26.6
26.55
26.5
26.45
26.4
26.35
26.3
26.25
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00


LGBY2: DO & pH v. Date/Time
DO mg/L
pH Units
Dissolved Oxygen (mg/L)
pH
Date/Time
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
6.65
6.6
6.55
6.5
6.45
6.4
6.35
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00



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	SpCond	Sal	pH	DO	DO%	Dep10
	øC	æS/cm	ppt	Units	mg/l	Sat	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

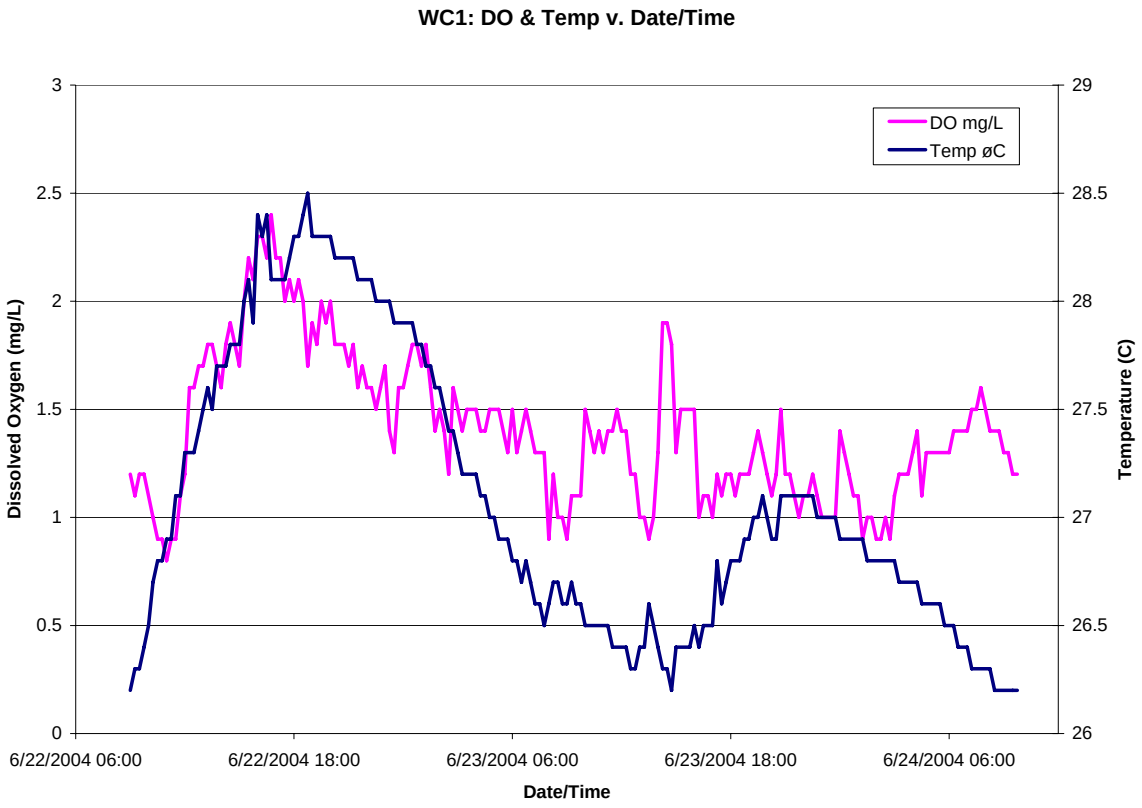
Date	Time			Temp	SpCond	Sal	pH	DO	DO%	Dep10
MMDDYY	HHMMSS			øC	æS/cm	ppt	Units	mg/l	Sat	meters
62204	84500			26.5	165	0.1	6.4	0.1	1.5	0.63
62204	90000			26.5	165	0.1	6.5	0.2	1.9	0.62
62204	91500			26.5	164	0.1	6.5	0.1	1.1	0.62
62204	93000			26.5	164	0.1	6.6	0.1	1.0	0.62
62204	94500			26.5	165	0.1	6.6	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

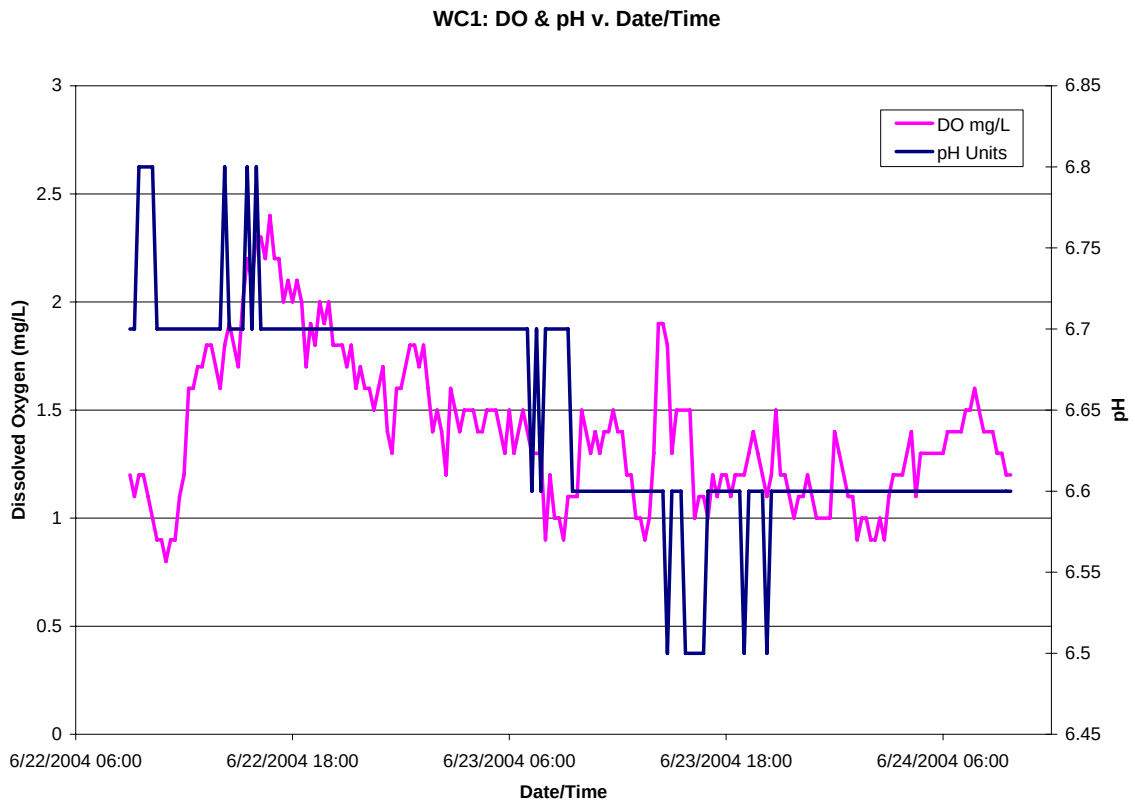
62204	103000			26.5	163	0.1	6.6	0.1	1.4	0.62
62204	104500			26.5	162	0.1	6.6	0.2	2.4	0.62
62204	110000			26.5	161	0.1	6.6	0.3	3.6	0.62
62204	111500			26.4	160	0.1	6.6	0.3	3.3	0.62
62204	113000			26.4	159	0.1	6.6	0.3	4.3	0.62
62204	114500			26.4	159	0.1	6.6	0.4	5.3	0.62
62204	120000			26.4	159	0.1	6.5	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

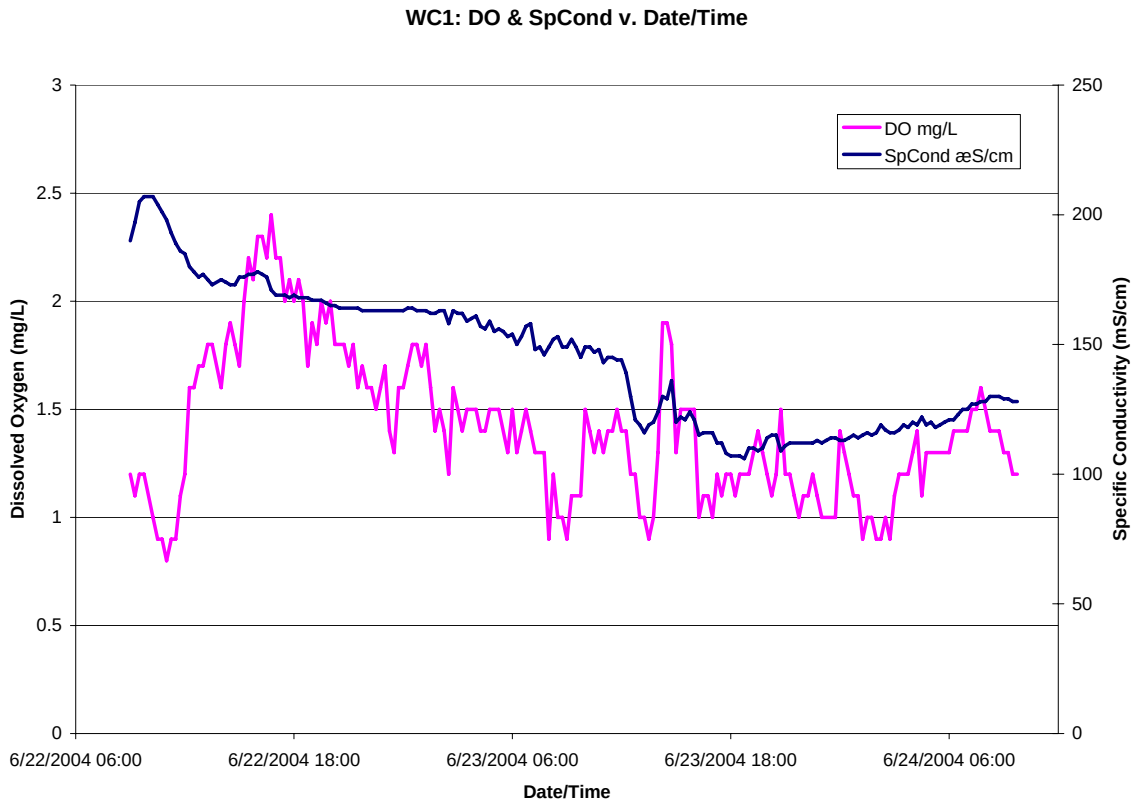
62204	223000			26.4	163	0.1	6.5	0.1	0.8	0.63
62204	224500			26.4	163	0.1	6.6	0.1	0.7	0.63
62204	230000			26.4	164	0.1	6.6	0.1	0.7	0.63
62204	231500			26.4	164	0.1	6.6	0.0	0.5	0.63
62204	233000			26.4	165	0.1	6.6	0.1	0.6	0.63
62204	234500			26.4	165	0.1	6.6	0.0	0.5	0.63
62304	0			26.4	166	0.1	6.6	0.0	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
DO mg/L
Temp øC
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
3
2.5
2
1.5
1
0.5
0
29
28.5
28
27.5
27
26.5
26
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00


WC1: DO & pH v. Date/Time
DO mg/L
pH Units
Dissolved Oxygen (mg/L)
pH
Date/Time
3
2.5
2
1.5
1
0.5
0
6.85
6.8
6.75
6.7
6.65
6.6
6.55
6.5
6.45
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00



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

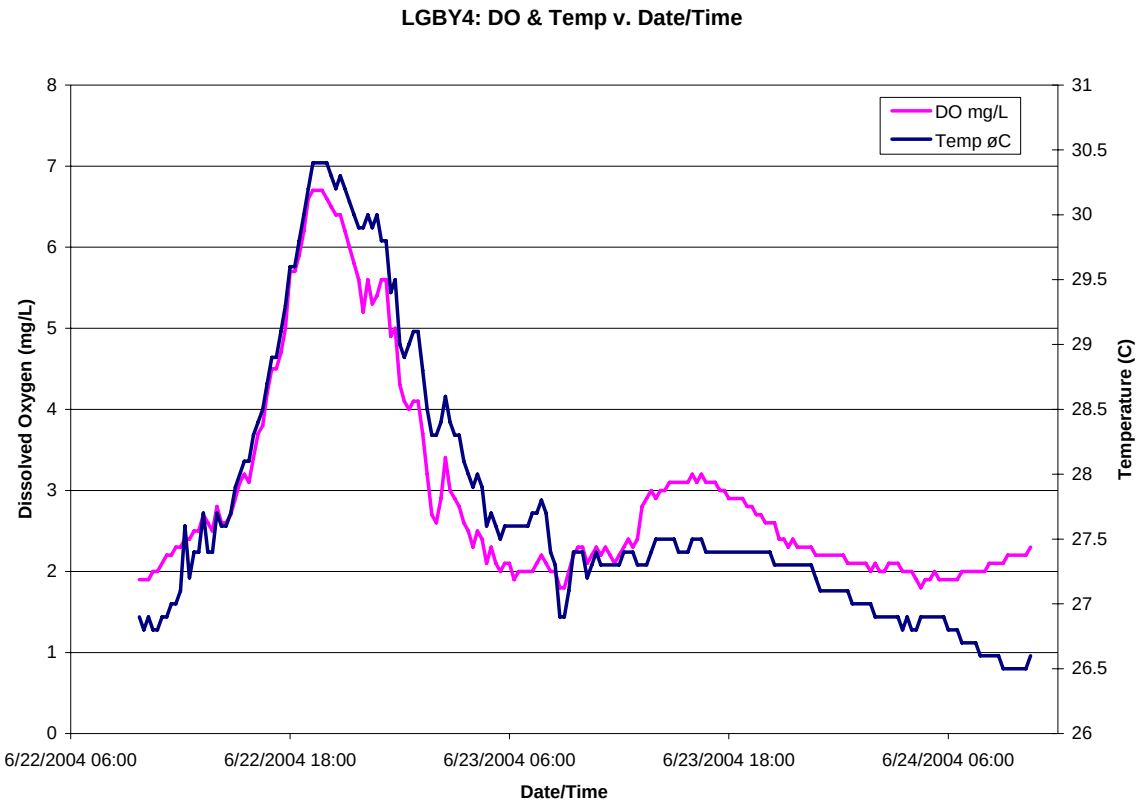
Date	Time			Temp	SpCond	Sal	pH	DO	DO%	Dep10
MMDDYY	HHMMSS			øC	æS/cm	ppt	Units	mg/l	Sat	meters
62204	90000			26.2	190	0.1	6.7	1.2	14.4	0.49
62204	91500			26.3	197	0.1	6.7	1.1	13.8	0.56
62204	93000			26.3	205	0.1	6.8	1.2	14.9	0.56
62204	94500			26.4	207	0.1	6.8	1.2	14.4	0.56
62204	100000			26.5	207	0.1	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

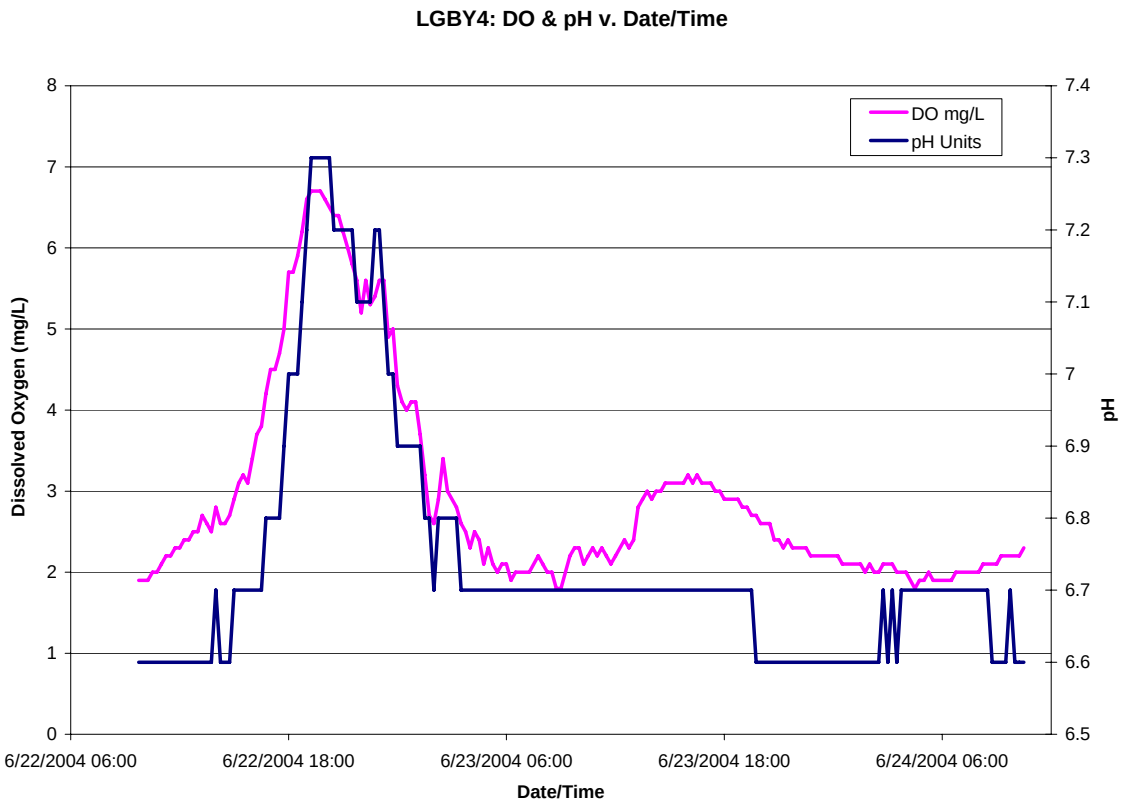
62204	104500			26.8	201	0.1	6.7	0.9	10.9	0.56
62204	110000			26.9	198	0.1	6.7	0.8	10.6	0.56
62204	111500			27.0	193	0.1	6.7	0.9	10.7	0.56
62204	113000			27.1	189	0.1	6.7	0.9	11.6	0.56
62204	114500			27.1	186	0.1	6.7	1.1	14.0	0.56
62204	120000			27.3	185	0.1	6.7	1.2	15.2	0.56
62204	121500			27.3	180	0.1	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

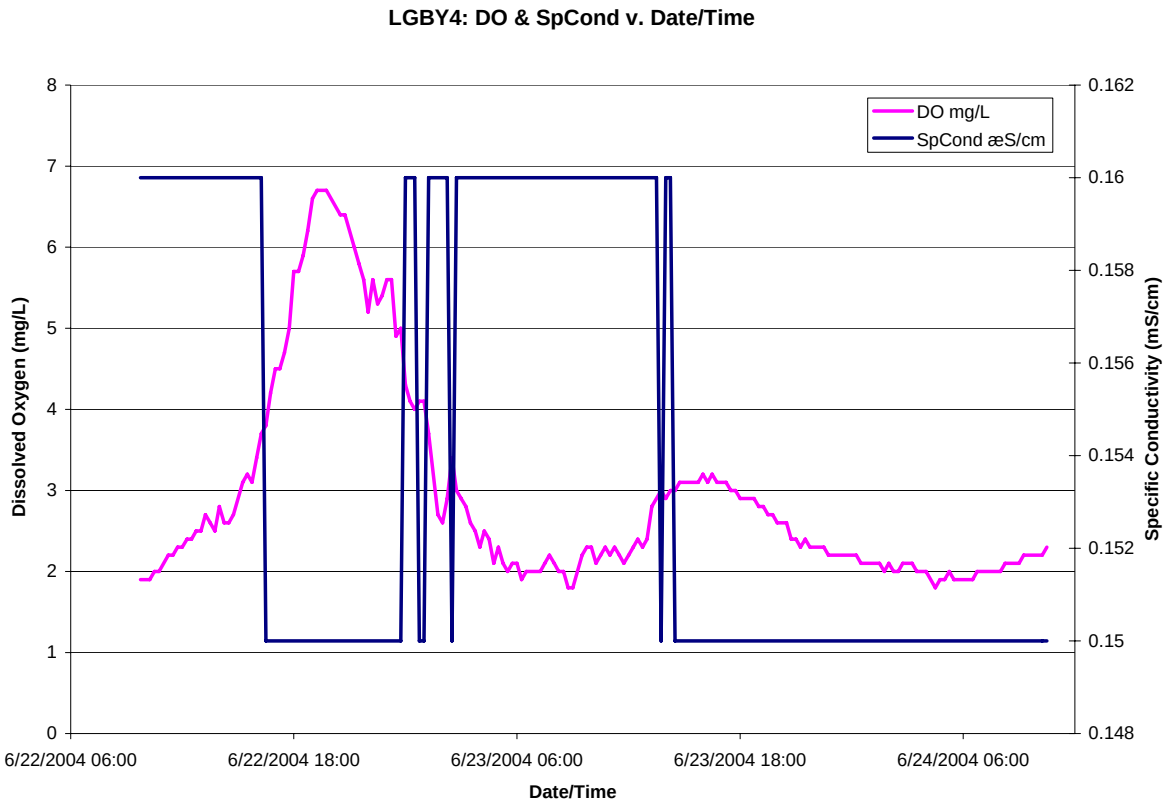
62204	224500			28.0	163	0.1	6.7	1.6	20.2	0.57
62204	230000			28.0	163	0.1	6.7	1.7	21.3	0.57
62204	231500			28.0	163	0.1	6.7	1.4	18.1	0.57
62204	233000			28.0	163	0.1	6.7	1.3	16.8	0.57
62204	234500			27.9	163	0.1	6.7	1.6	20.9	0.57
62304	0			27.9	163	0.1	6.7	1.6	20.1	0.57
62304	1500			27.9	164	0.1	6.7	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
DO mg/L
Temp øC
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00


LGBY4: DO & pH v. Date/Time
DO mg/L
pH Units
Dissolved Oxygen (mg/L)
pH
Date/Time
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00



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

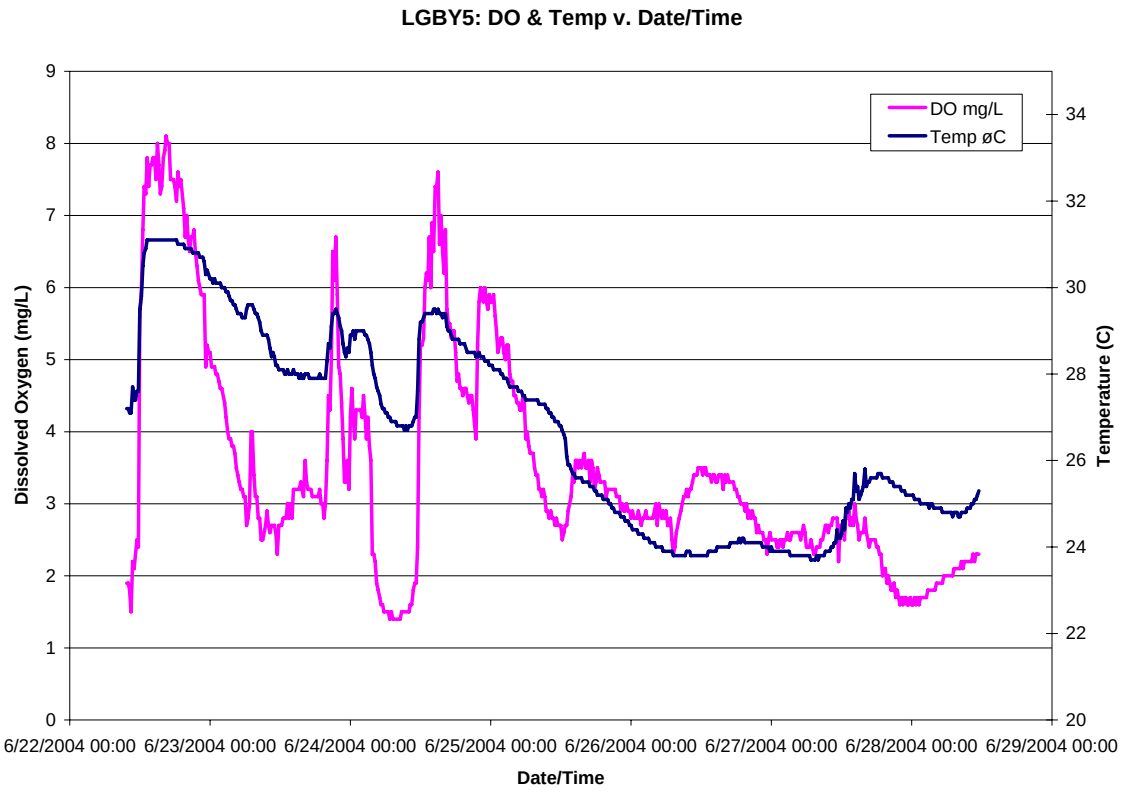
Date	Time			Temp	pH	SpCond	Sal	DO%	DO	Dep10
MMDDYY	HHMMSS			øC	Units	mS/cm	ppt	Sat	mg/l	meters
6/22/2004	9:45:00			26.9	6.6	0.1659	0.1	23.7	1.9	0.57
6/22/2004	10:00:00			26.8	6.6	0.1658	0.1	23.6	1.9	0.57
6/22/2004	10:15:00			26.9	6.6	0.1655	0.1	24.1	1.9	0.56
6/22/2004	10:30:00			26.8	6.6	0.1655	0.1	24.7	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
DO mg/L
Temp øC
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
0
1
2
3
4
5
6
7
8
9
20
22
24
26
28
30
32
34
6/22/2004 00:00
6/23/2004 00:00
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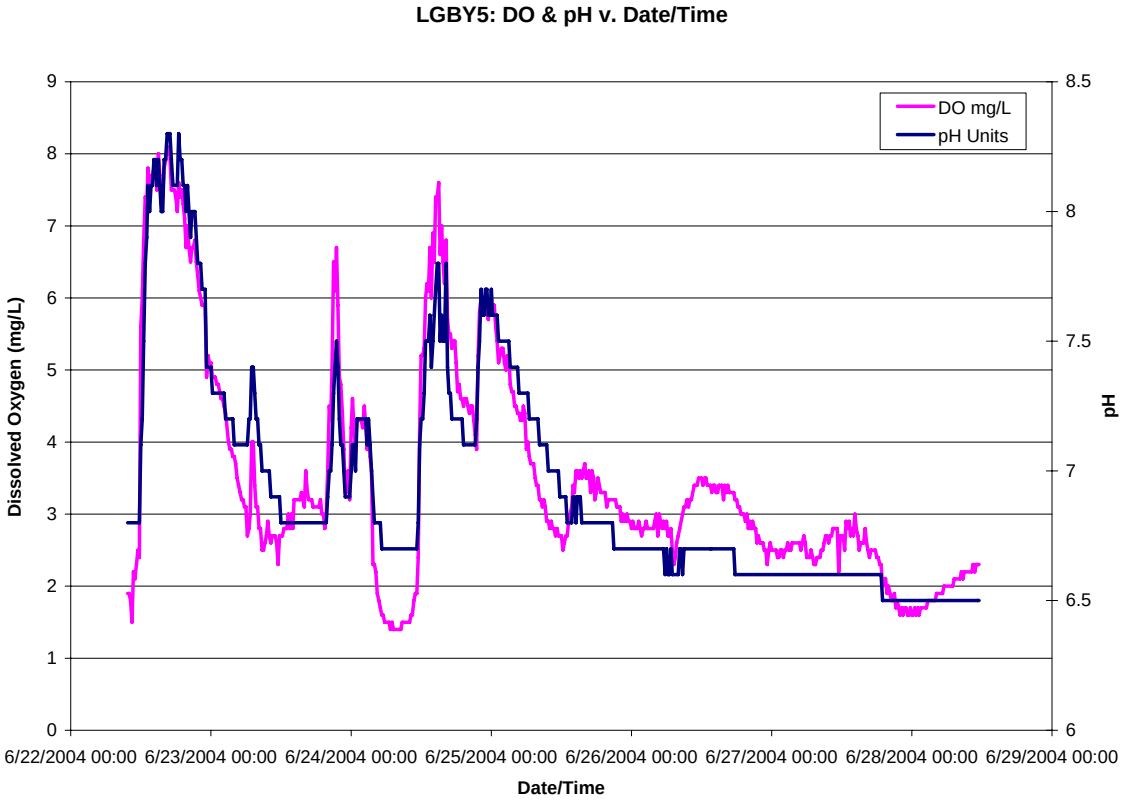
6/28/2004 00:00
6/29/2004 00:00


LGBY5: DO & pH v. Date/Time
DO mg/L
pH Units
Dissolved Oxygen (mg/L)
pH
Date/Time
0
1
2
3
4
5
6
7
8
9
6
6.5
7
7.5
8
8.5
6/22/2004 00:00
6/23/2004 00:00
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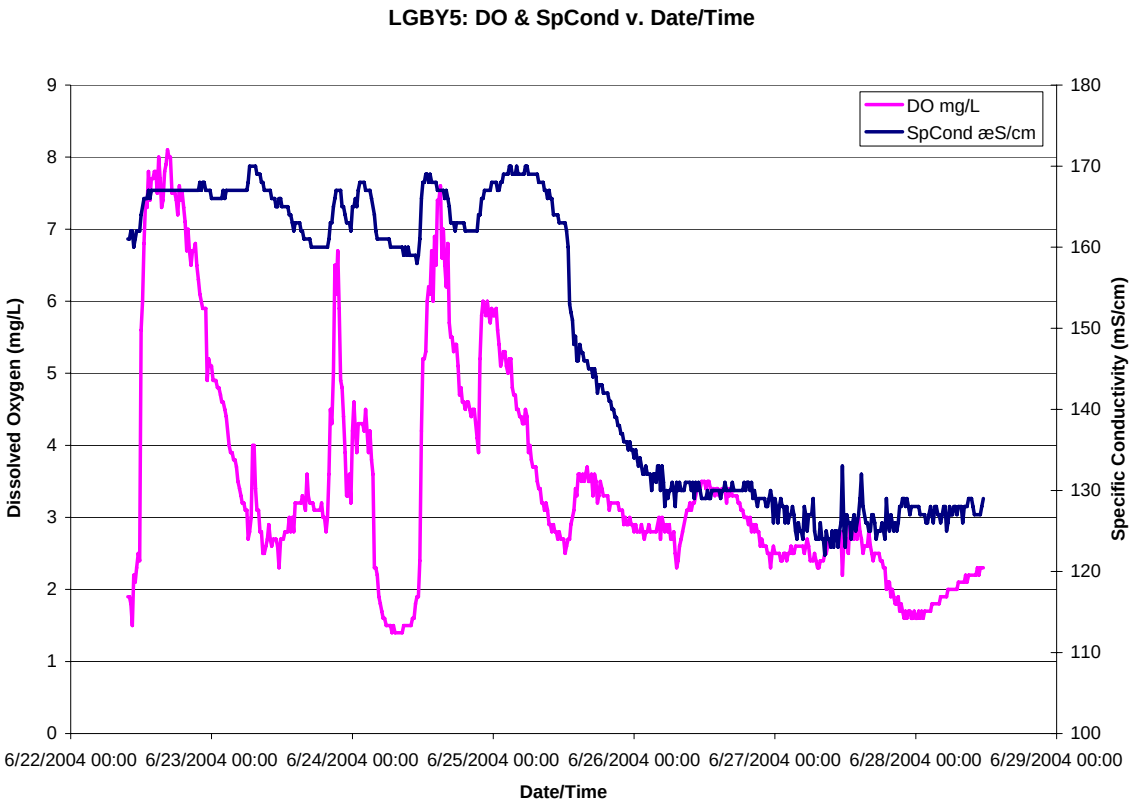
6/28/2004 00:00
6/29/2004 00:00



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

6/25/2004	23:30:00			24.6	135	0.1	6.7	2.9	34.7	0.93
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
6/26/2004	0:15:00			24.5	135	0.1	6.7	2.9	34.7	0.93
6/26/2004	0:30:00			24.4	134	0.1	6.7	2.8	33.4	0.93
6/26/2004	0:45:00			24.4	133	0.1	6.7	2.8	33.2	0.93
6/26/2004	1:00:00			24.4	134	0.1	6.7	2.8	34.0	0.93
6/26/2004	1:15:00			24.3	133	0.1	6.7	2.9	34.1	0.93
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
6/26/2004	5:45:00			23.9	129	0.1	6.6	2.8	33.0	0.93
6/26/2004	6:00:00			23.9	130	0.1	6.7	2.9	34.1	0.93
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
6/26/2004	7:45:00			23.8	131	0.1	6.6	2.6	30.7	0.92
6/26/2004	8:00:00			23.8	130	0.1	6.6	2.7	31.8	0.92
6/26/2004	8:15:00			23.8	130	0.1	6.7	2.8	33.5	0.92
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
6/26/2004	11:00:00			23.8	131	0.1	6.7	3.4	40.5	0.91
6/26/2004	11:15:00			23.8	130	0.1	6.7	3.4	39.9	0.92

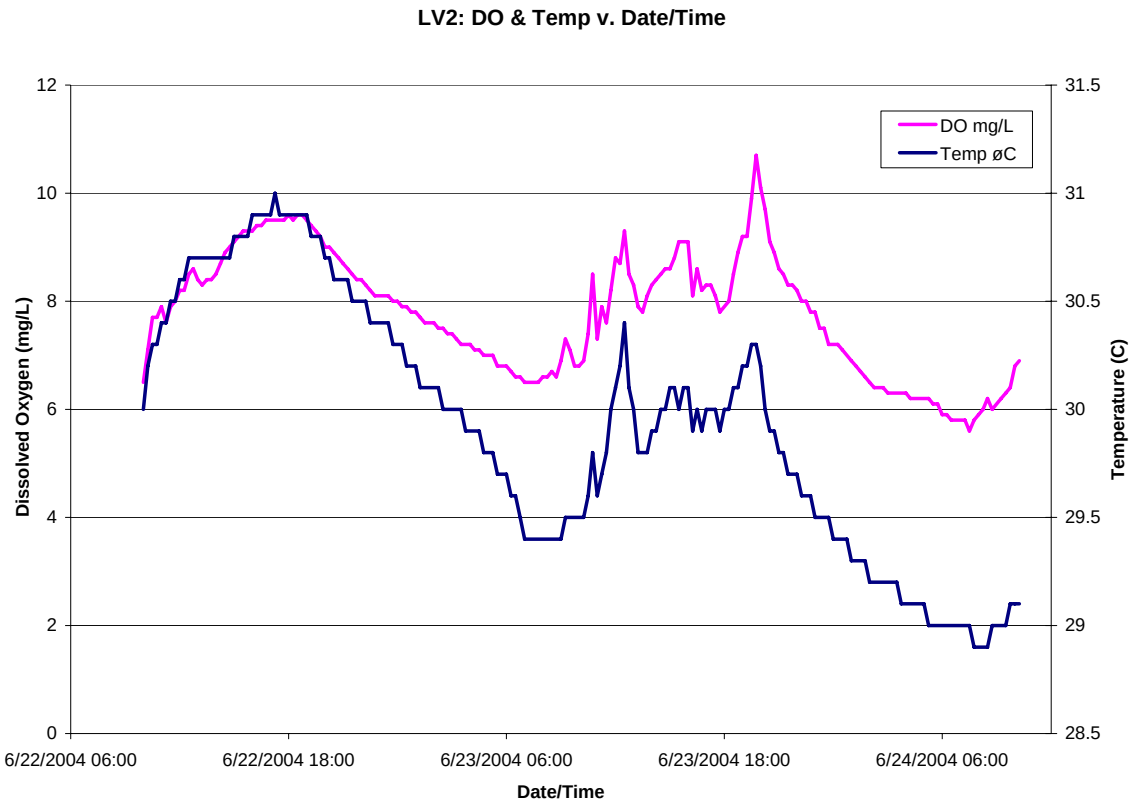
6/26/2004	11:30:00			23.8	129	0.1	6.7	3.5	41.1	0.92
6/26/2004	11:45:00			23.8	129	0.1	6.7	3.5	41.0	0.92
6/26/2004	12:00:00			23.8	129	0.1	6.7	3.5	41.0	0.92
6/26/2004	12:15:00			23.8	129	0.1	6.7	3.4	40.5	0.91
6/26/2004	12:30:00			23.8	130	0.1	6.7	3.5	41.1	0.92
6/26/2004	12:45:00			23.8	129	0.1	6.7	3.5	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

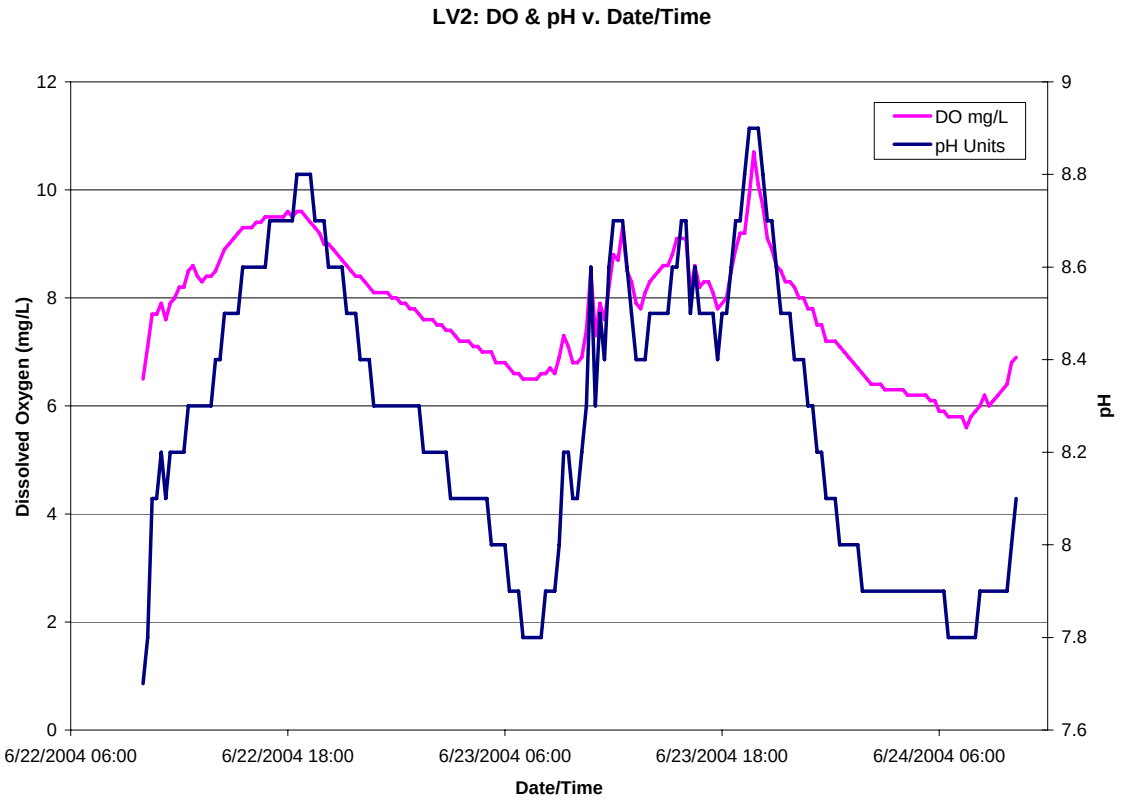
6/26/2004	23:30:00			24.0	129	0.1	6.6	2.5	29.8	0.93
6/26/2004	23:45:00			24.0	126	0.1	6.6	2.6	30.5	0.92
6/27/2004	0:00:00			24.0	129	0.1	6.6	2.5	30.0	0.92
6/27/2004	0:15:00			24.0	128	0.1	6.6	2.5	30.0	0.92
6/27/2004	0:30:00			23.9	126	0.1	6.6	2.5	29.9	0.93
6/27/2004	0:45:00			23.9	128	0.1	6.6	2.5	30.2	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

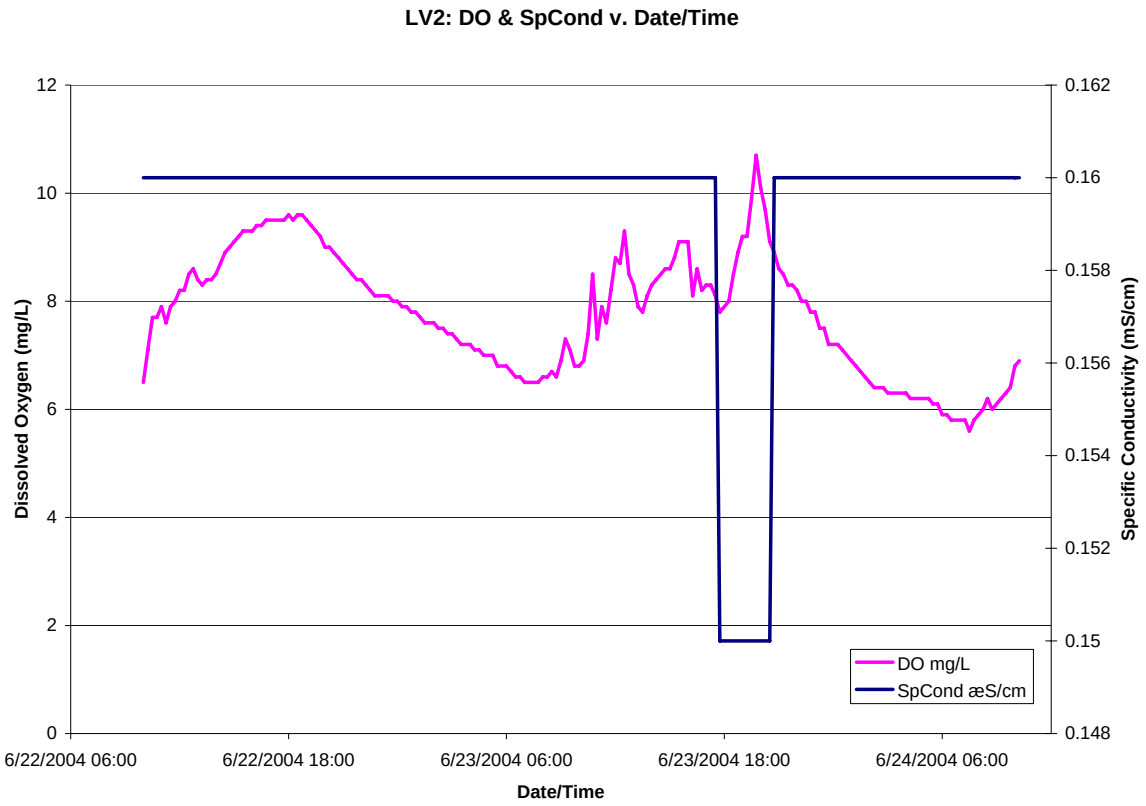
6/27/2004	11:30:00			24.2	133	0.1	6.6	2.2	26.3	0.93
6/27/2004	11:45:00			24.2	125	0.1	6.6	2.7	32.2	0.93
6/27/2004	12:00:00			24.3	123	0.1	6.6	2.7	31.9	0.93
6/27/2004	12:15:00			24.6	127	0.1	6.6	2.7	32.9	0.93
6/27/2004	12:30:00			24.4	126	0.1	6.6	2.5	30.1	0.93
6/27/2004	12:45:00			24.9	126	0.1	6.6	2.9	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


LV2: DO & Temp v. Date/Time
DO mg/L
Temp øC
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
12
10
8
6
4
2
0
31.5
31
30.5
30
29.5
29
28.5
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00


LV2: DO & pH v. Date/Time
DO mg/L
pH Units
Dissolved Oxygen (mg/L)
pH
Date/Time
12
10
8
6
4
2
0
9
8.8
8.6
8.4
8.2
8
7.8
7.6
6/22/2004 06:00
6/22/2004 18:00
6/23/2004 06:00
6/23/2004 18:00
6/24/2004 06:00



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

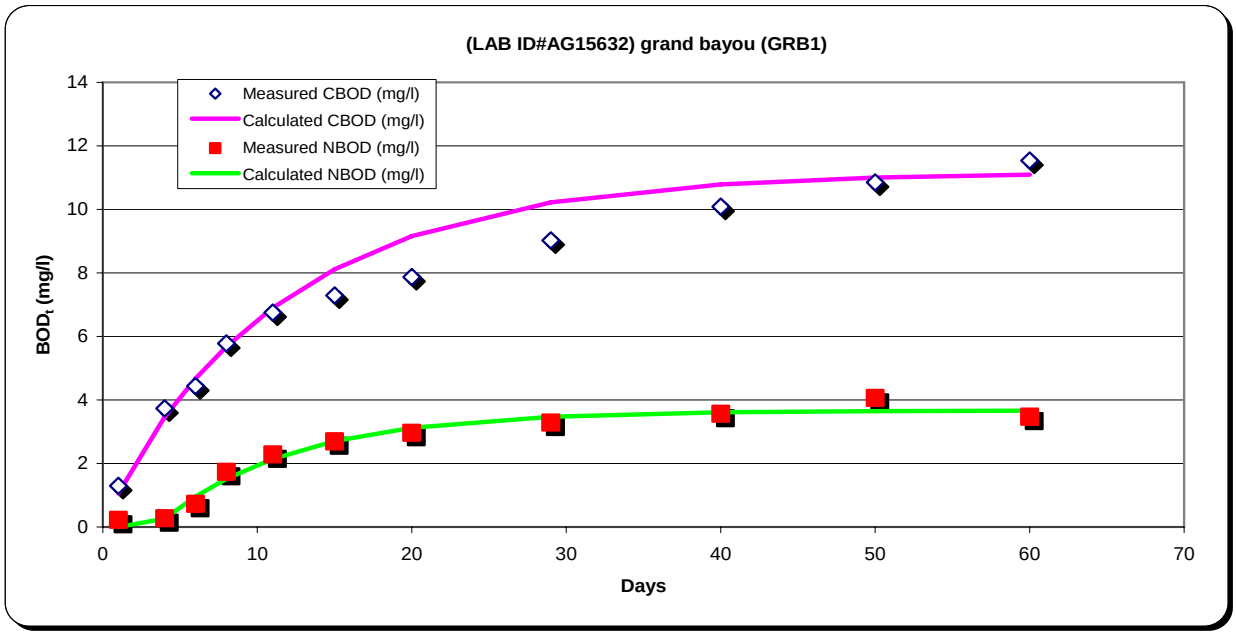
Grand Bayou

Total BOD data																
		Initial	Daily analysis start dates:													
Item No.	Sample No.	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 crouix (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 corne (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 crouix (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			

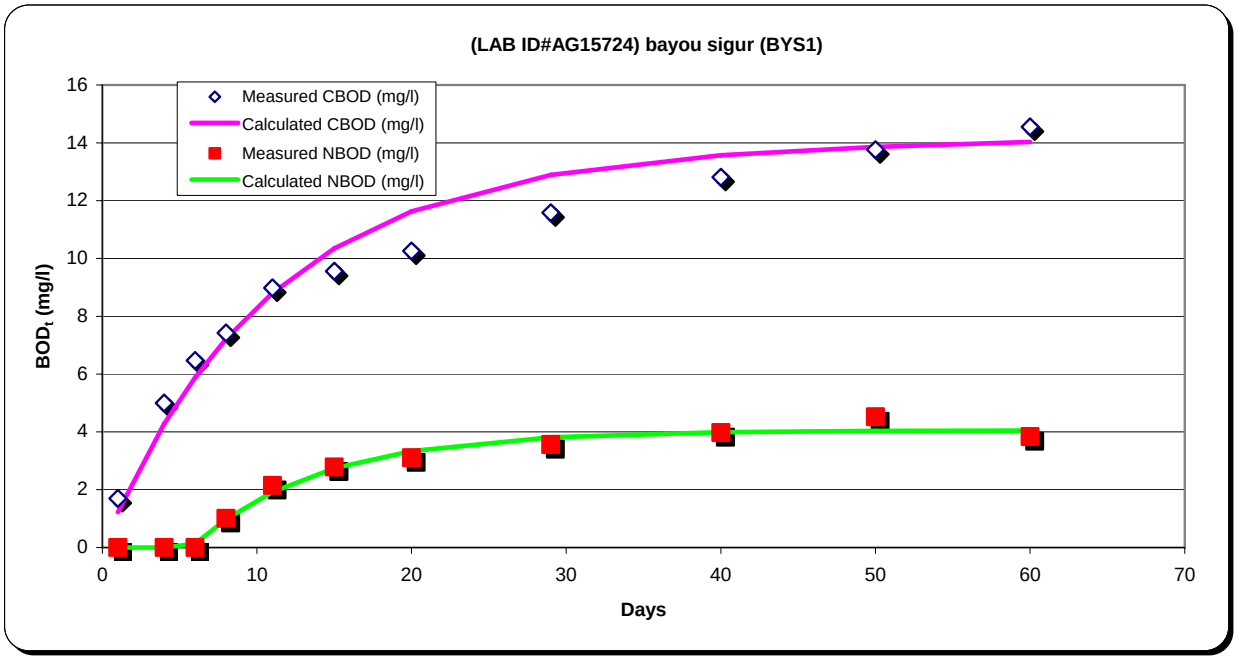
(NO_2+NO_3) as Nitrogen data (mg/l)																
		Initial	Daily analysis start dates:													
Item No.	Sample No.	06/24/04	06/25/04	06/28/04	06/30/04	07/02/04	07/05/04	07/09/04	07/14/04	07/23/04	08/03/04	08/13/04	08/23/04			
1	(LAB ID#AG15783) bayou alcide (BA1)	0.00	0.00	0.00	0.00	0.00	0.09	0.16	0.18	0.23	0.25	0.30	0.25			
2	(LAB ID#AG15754) bayou crouix (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 corne (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 crouix (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			CBOD	
Site ID	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
(LAB ID#AG15754) bayou crouix (BYC1)	1.445	0.060	7.583	6.908	0.068	0.000
(LAB ID#AG15766) bayou corne (BYCO1)	0.000	0.005	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
(LAB ID#AG15664) east grand bayou (EGB1)	1.302	0.092	7.583	6.452	0.071	0.000
(LAB ID#AG15632) grand bayou (GRB1)	3.666	0.115	3.354	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
(LAB ID#AG15690) lake verret (LV1)	0.000	0.005	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
(LAB ID#AG15762) point source (PST1)	2.131	0.091	5.396	10.259	0.076	0.000
(LAB ID#AG15758) bayou crouix (BYC2)	2.514	0.108	6.903	10.311	0.077	0.000
(LAB ID#AG15637) grand bayou (GRB2)	2.487	0.104	4.035	10.158	0.073	0.000
(LAB ID#AG15779) unnamed canal (UNC2)	1.380	0.086	7.826	5.475	0.085	0.000
(LAB ID#AG15641) grand bayou (GRB3)	2.501	0.097	3.889	8.790	0.065	0.000
(LAB ID#AG15646) grand bayou (GRB4)	2.633	0.104	3.549	10.443	0.079	0.000
(LAB ID#AG15651) grand bayou (GRB5)	1.165	0.129	8.021	5.614	0.061	0.000
(LAB ID#AG15659) grand bayou (GRB6)	1.324	0.091	5.736	6.297	0.052	0.000
(LAB ID#AG15668) grand bayou (GRB7)	1.035	0.098	7.632	5.784	0.057	0.000
(LAB ID#AG15673) grand bayou (GRB8)	0.975	0.089	7.632	5.685	0.054	0.000
(LAB ID#AG15677) grand bayou (GRB9)	1.239	0.100	7.438	6.534	0.063	0.000

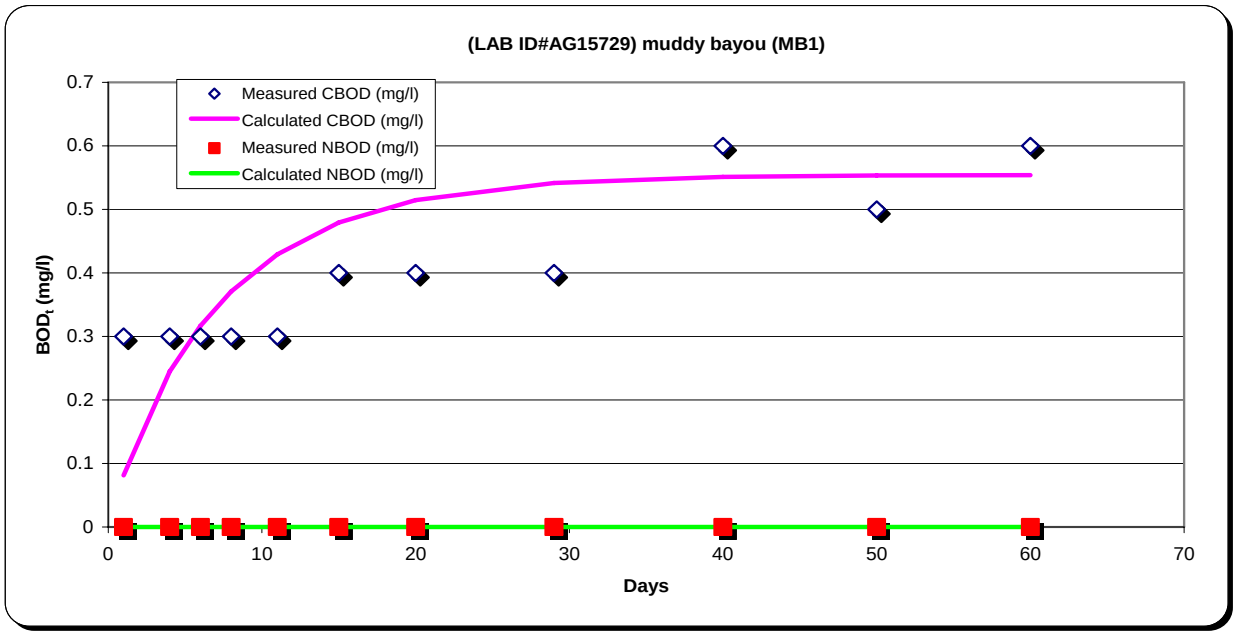
	NBOD	CBOD
UBOD (mg/l)	3.6661556	10.722357
k rate (1/day)	0.115	0.0838715
Lag time (days)	3.3541665	0



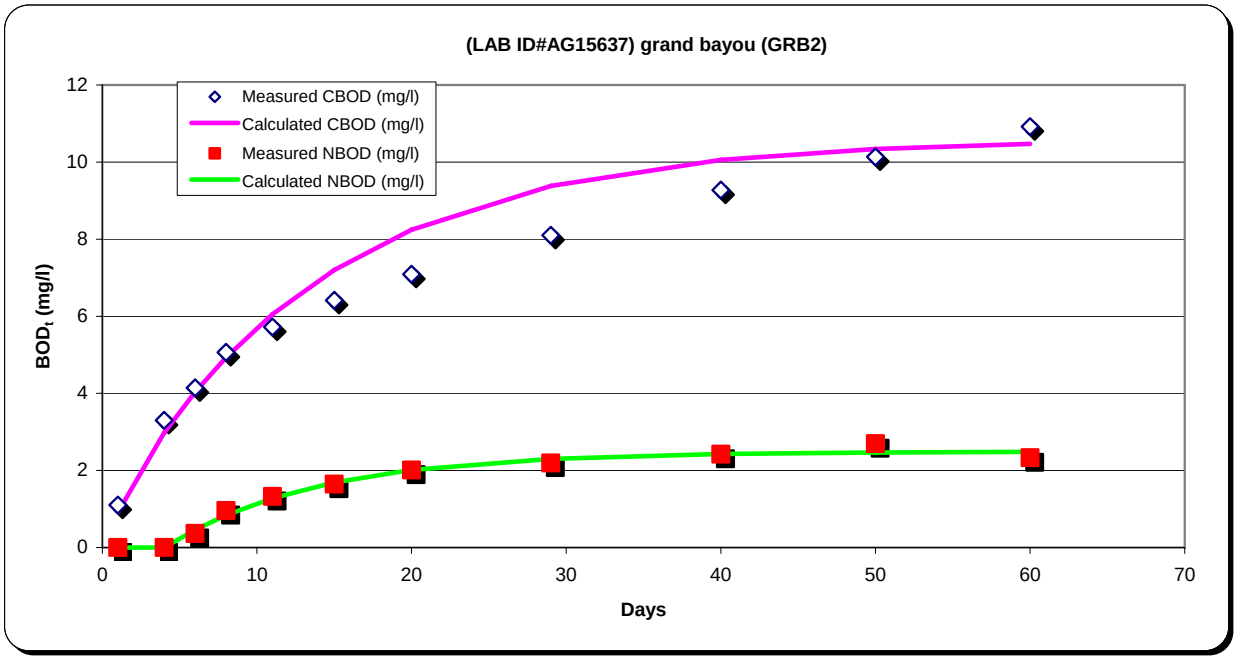
	NBOD	CBOD
UBOD (mg/l)	4.0520668	13.410775
k rate (1/day)	0.121875	0.094566
Lag time (days)	5.7361107	0



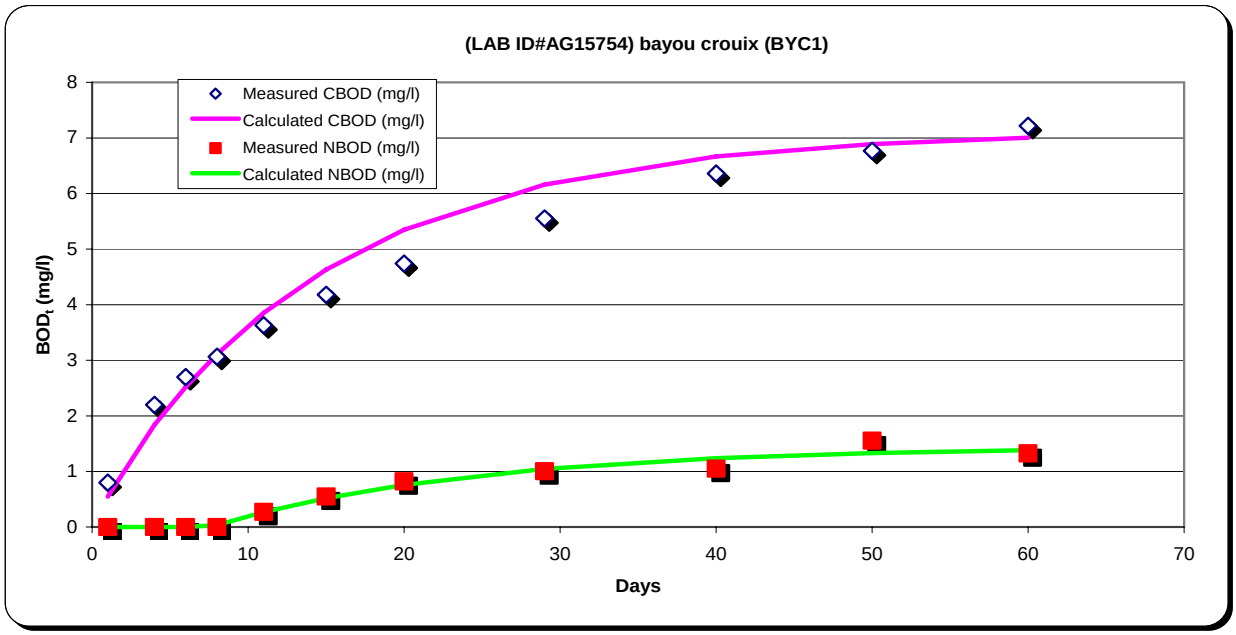
	NBOD	CBOD
UBOD (mg/l)	0	0.5083333
k rate (1/day)	0.005	0.1276042
Lag time (days)	0	0



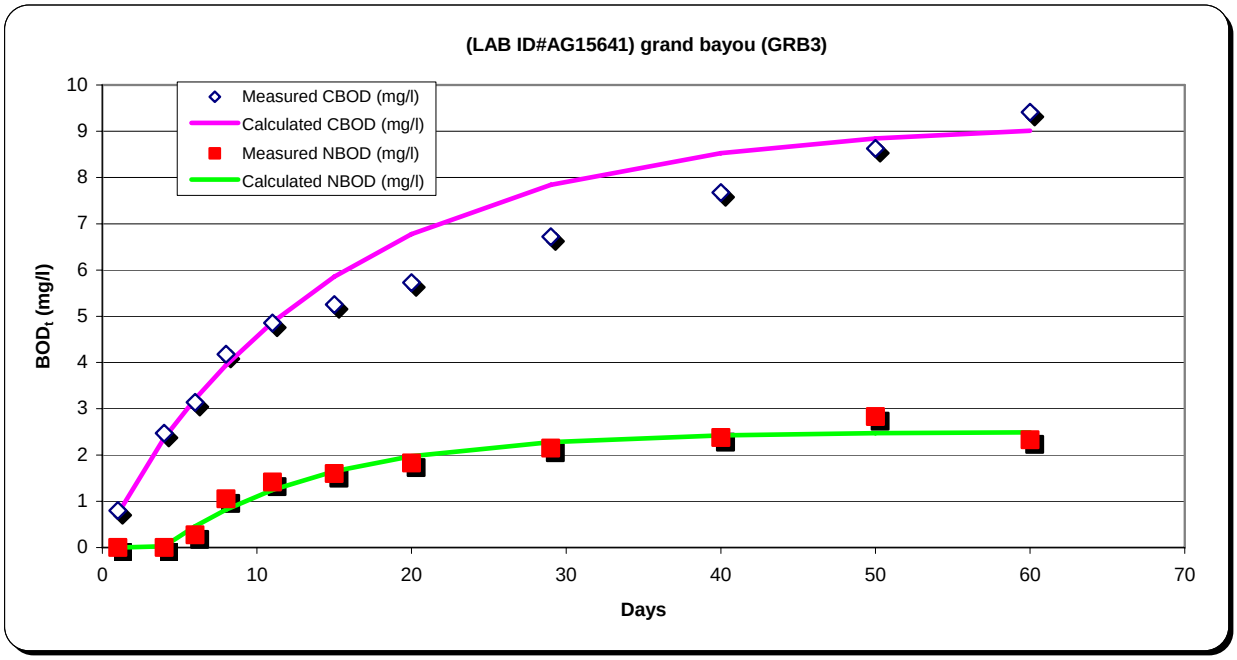
	NBOD	CBOD
UBOD (mg/l)	2.487159	10.157836
k rate (1/day)	0.1035417	0.0729861
Lag time (days)	4.0347219	0



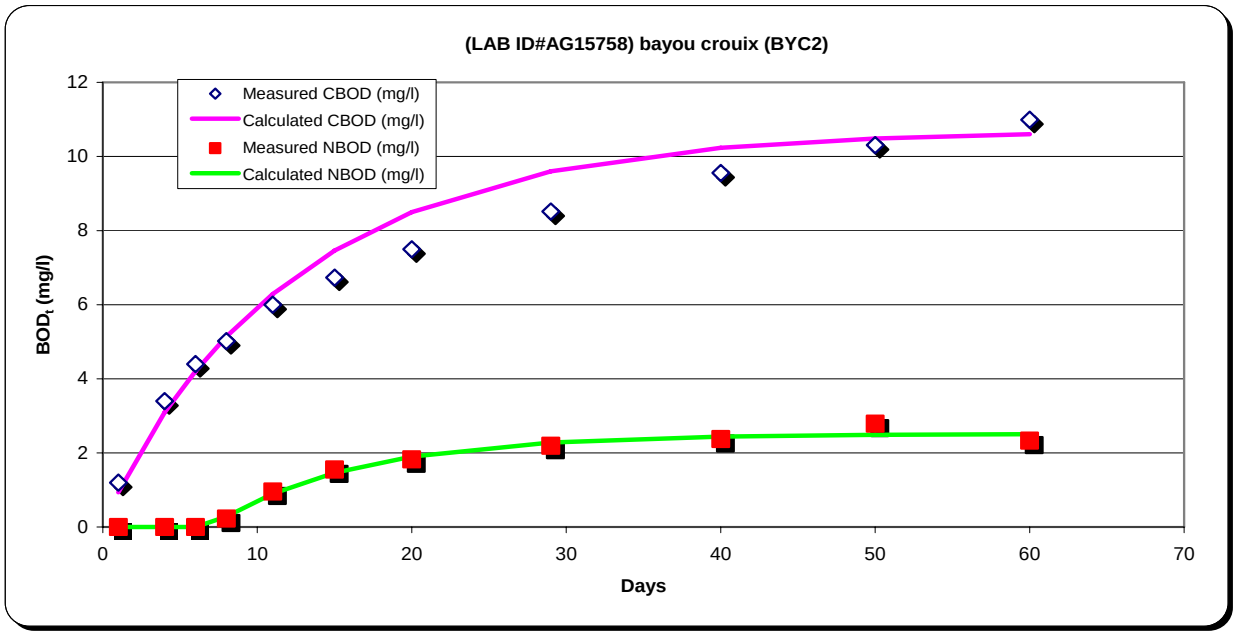
	NBOD	CBOD
UBOD (mg/l)	1.4449451	6.9082108
k rate (1/day)	0.06	0.0680208
Lag time (days)	7.583333	0



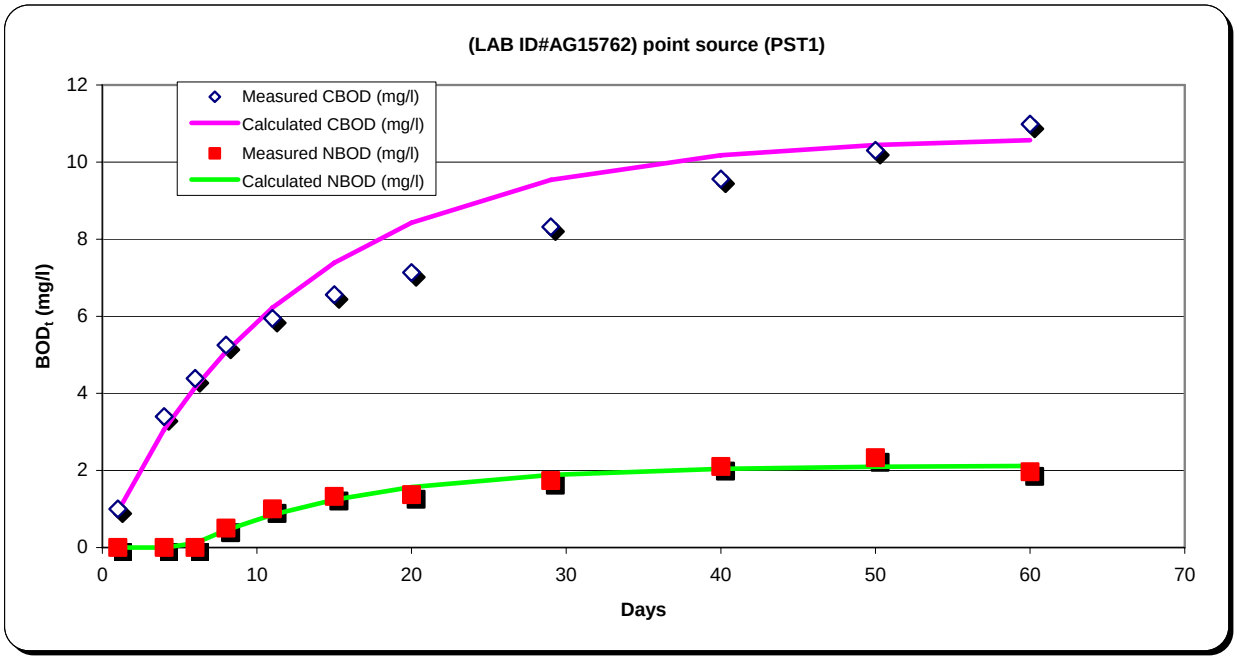
	NBOD	CBOD
UBOD (mg/l)	2.5006471	8.7895546
k rate (1/day)	0.0966667	0.0645833
Lag time (days)	3.8888886	0



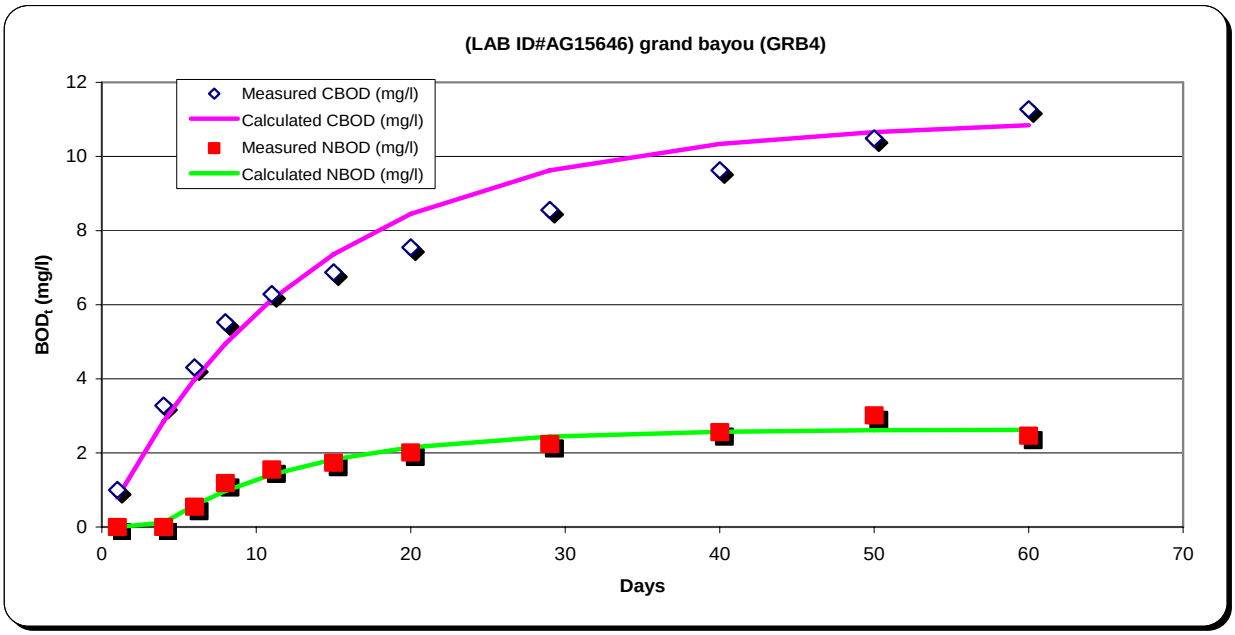
	NBOD	CBOD
UBOD (mg/l)	2.5141349	10.311058
k rate (1/day)	0.108125	0.0771875
Lag time (days)	6.9027772	0



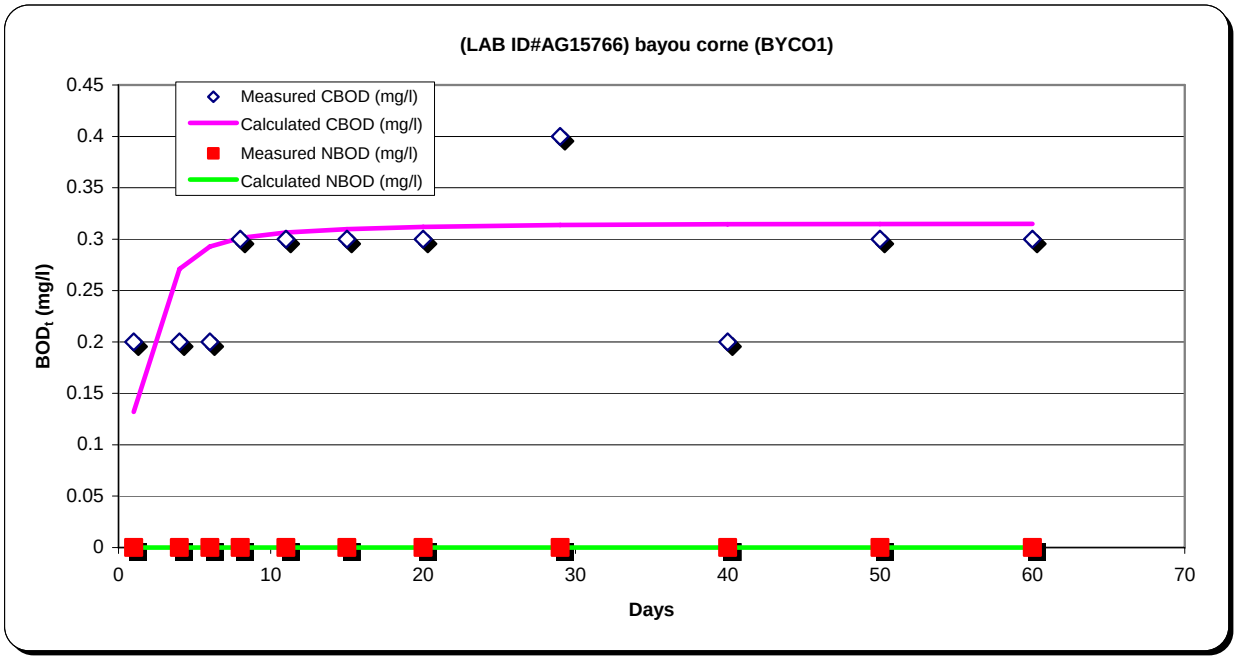
	NBOD	CBOD
UBOD (mg/l)	2.1311328	10.259109
k rate (1/day)	0.0909375	0.0758507
Lag time (days)	5.395833	0



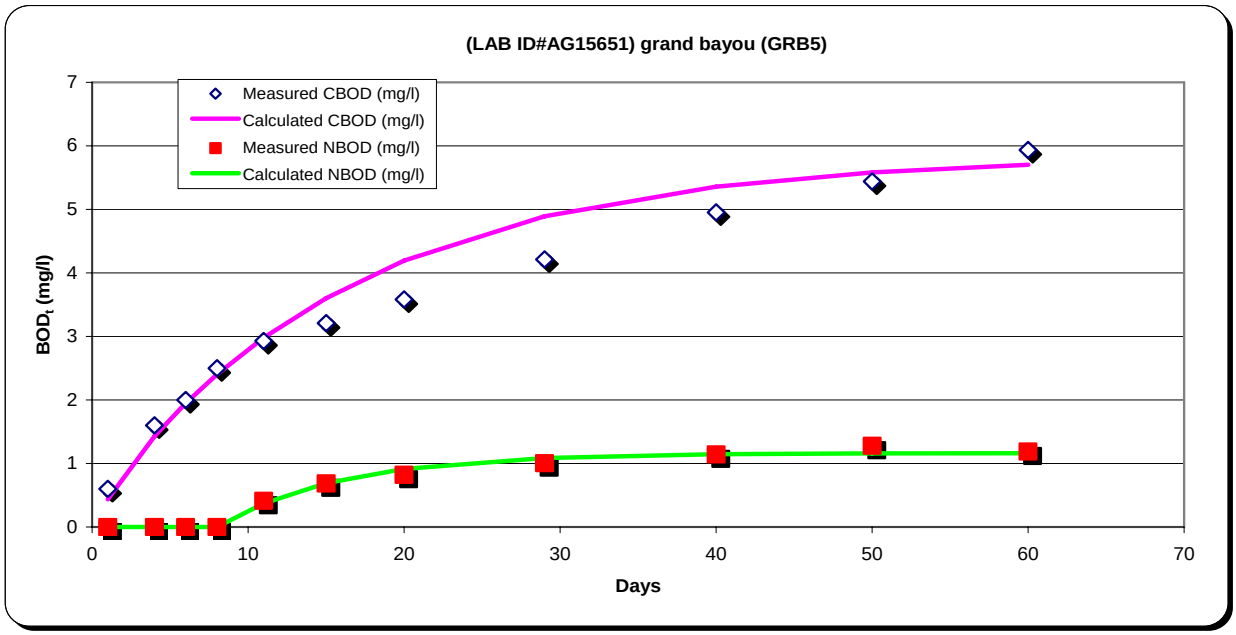
	NBOD	CBOD
UBOD (mg/l)	2.6334627	10.443387
k rate (1/day)	0.1035417	0.0785243
Lag time (days)	3.5486109	0



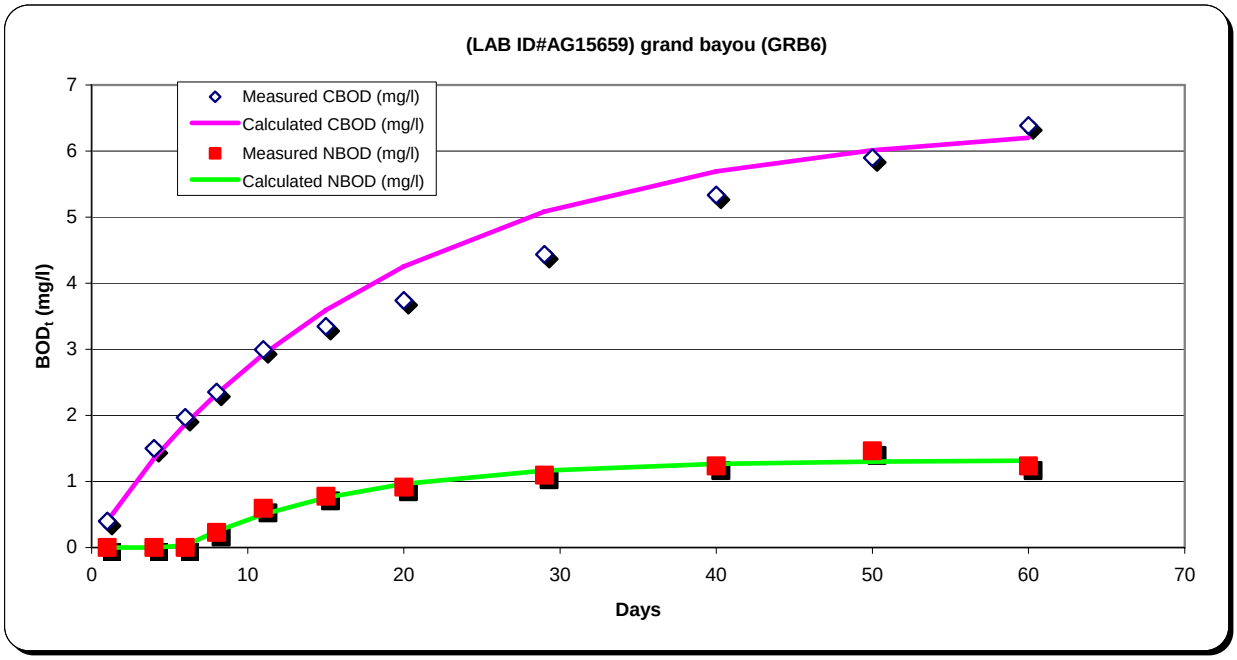
	NBOD	CBOD
UBOD (mg/l)	0	0.2878762
k rate (1/day)	0.005	0.5950994
Lag time (days)	0	0



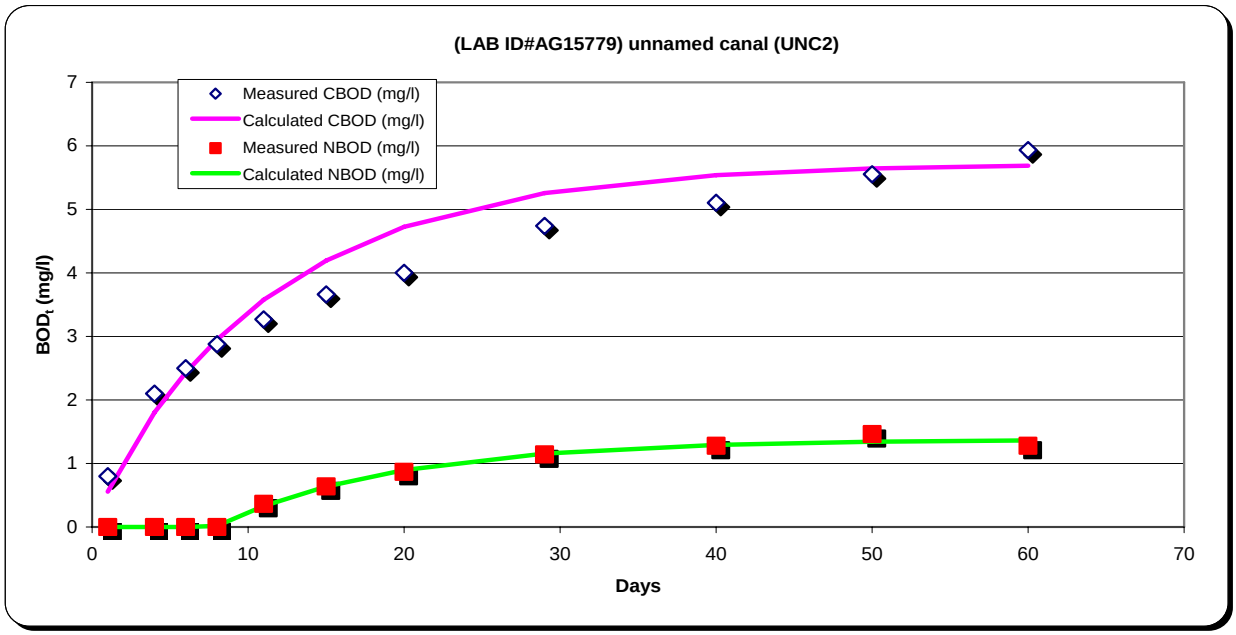
	NBOD	CBOD
UBOD (mg/l)	1.1648211	5.6136823
k rate (1/day)	0.12875	0.0611458
Lag time (days)	8.020834	0



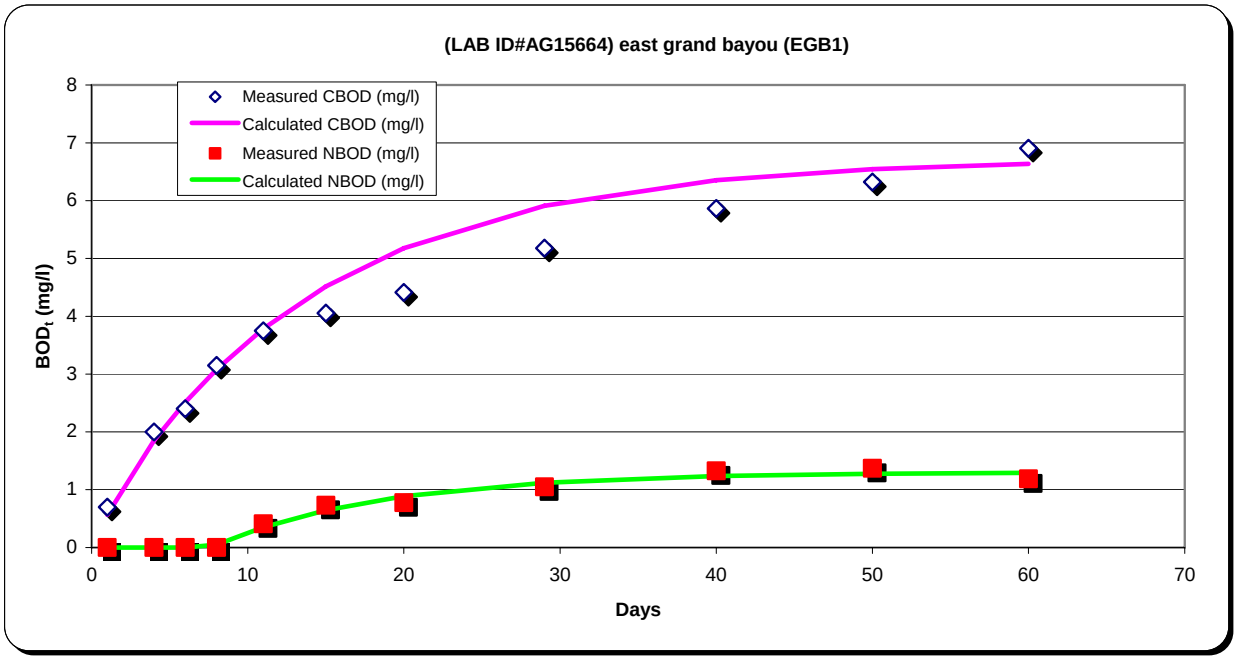
	NBOD	CBOD
UBOD (mg/l)	1.3238719	6.2969613
k rate (1/day)	0.0909375	0.0519792
Lag time (days)	5.7361107	0



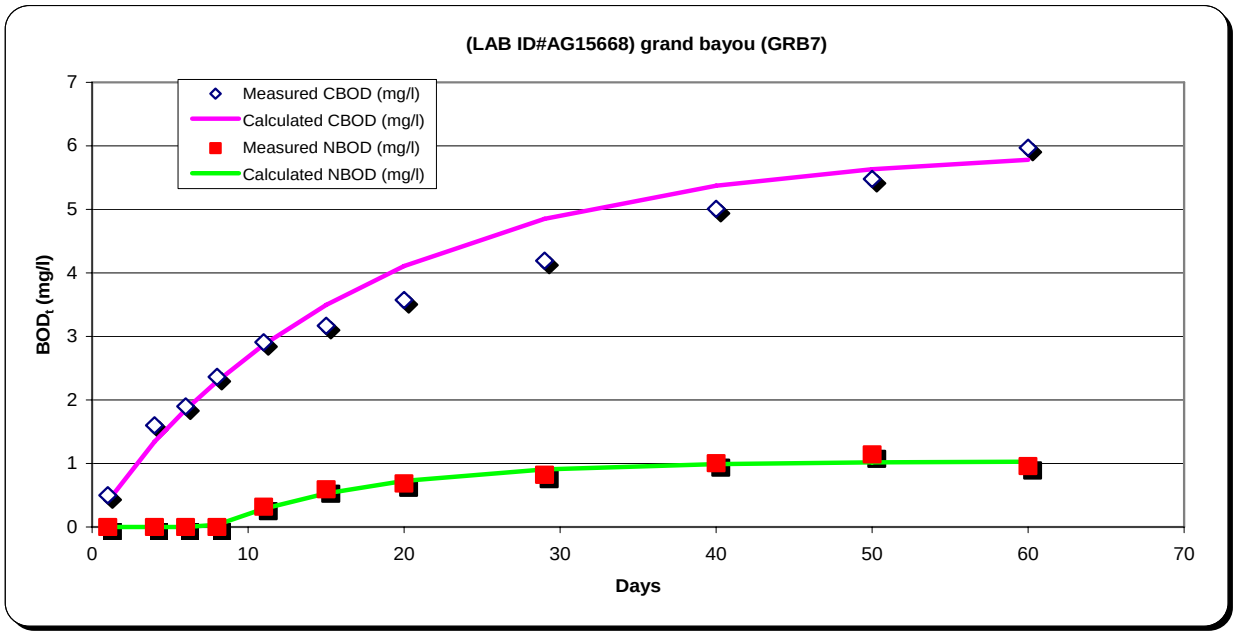
	NBOD	CBOD
UBOD (mg/l)	1.3803092	5.474709
k rate (1/day)	0.0863542	0.0852083
Lag time (days)	7.8263888	0



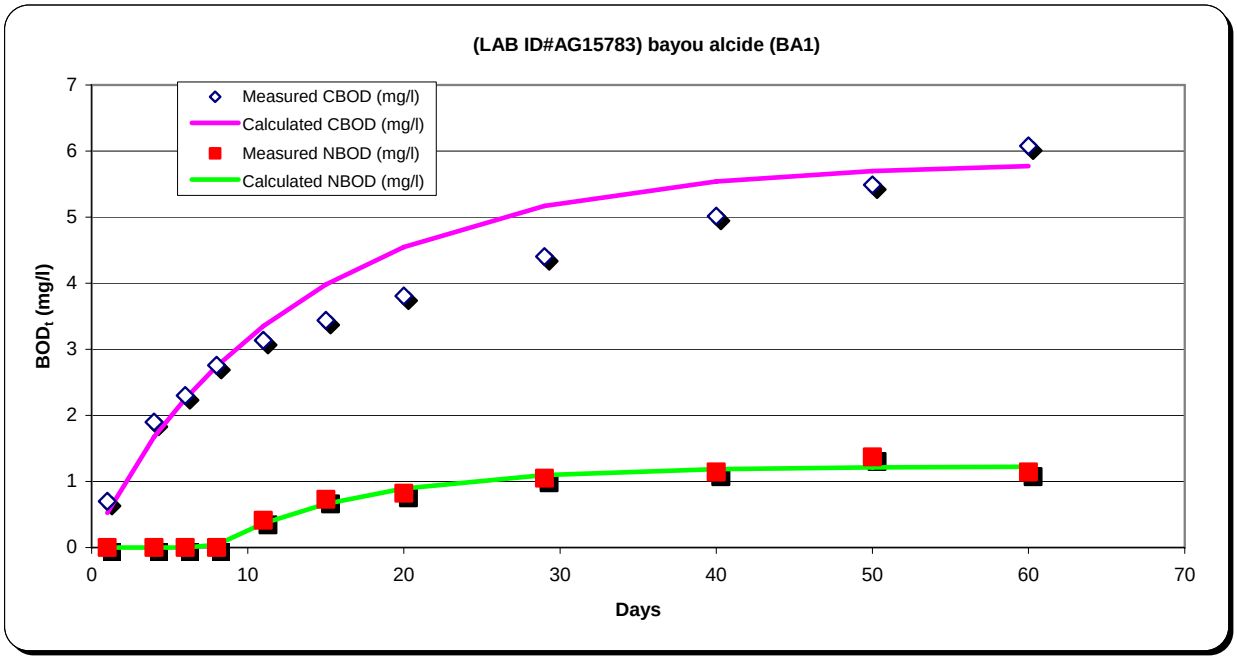
	NBOD	CBOD
UBOD (mg/l)	1.3023442	6.4523492
k rate (1/day)	0.0920833	0.0714583
Lag time (days)	7.583333	0



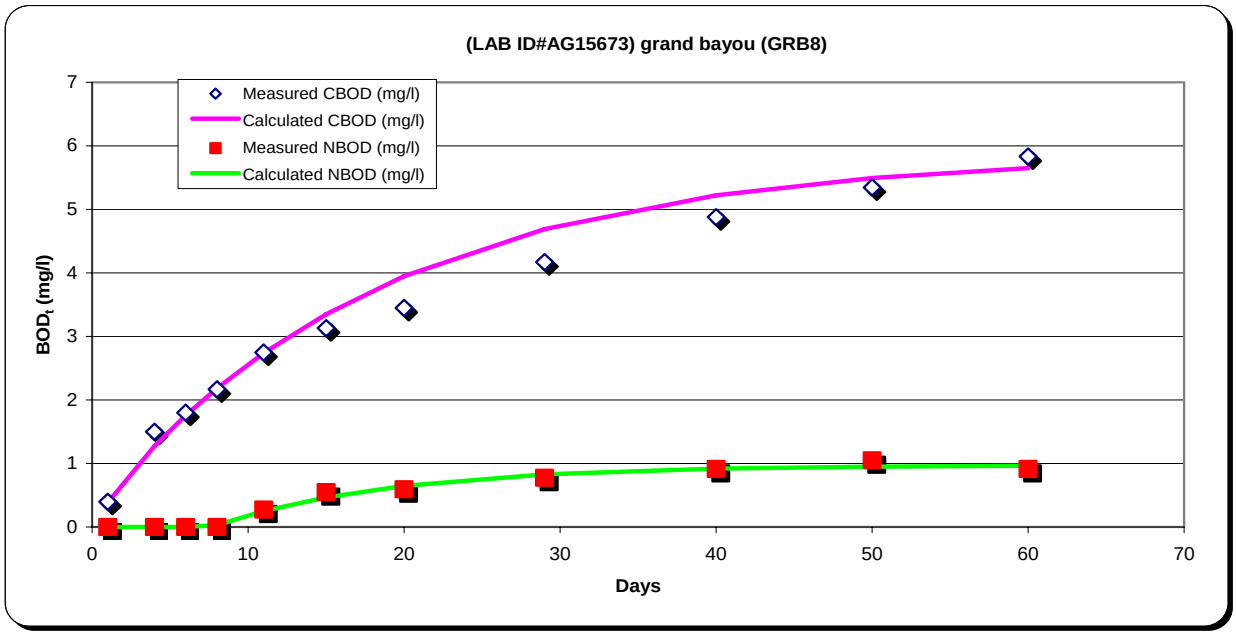
	NBOD	CBOD
UBOD (mg/l)	1.0352318	5.7843494
k rate (1/day)	0.0978125	0.0565625
Lag time (days)	7.6319442	0



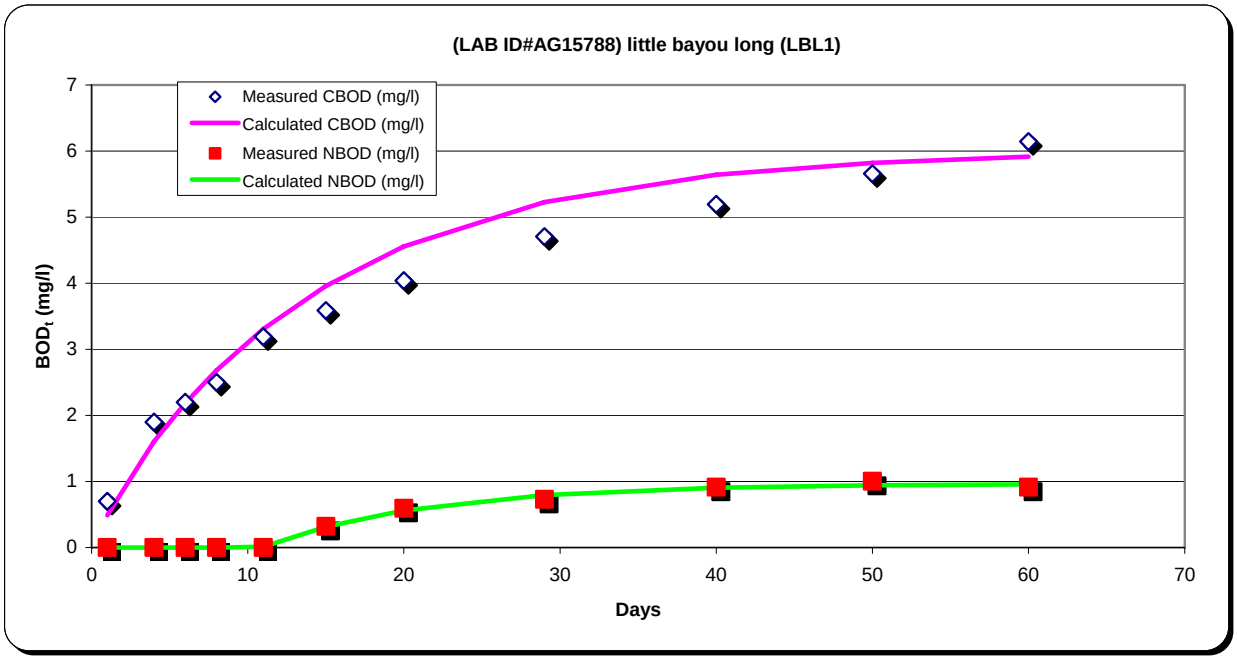
	NBOD	CBOD
UBOD (mg/l)	1.2258072	5.5372548
k rate (1/day)	0.1058333	0.0726042
Lag time (days)	7.6805553	0



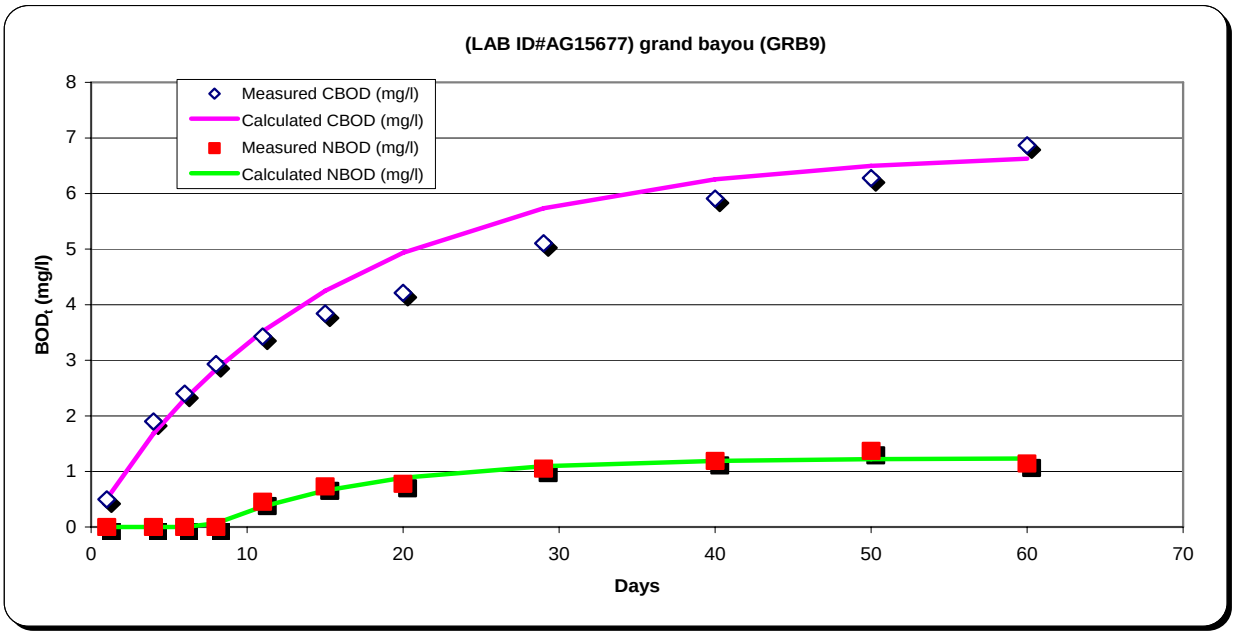
	NBOD	CBOD
UBOD (mg/l)	0.9753565	5.6854906
k rate (1/day)	0.0886458	0.0542708
Lag time (days)	7.6319447	0



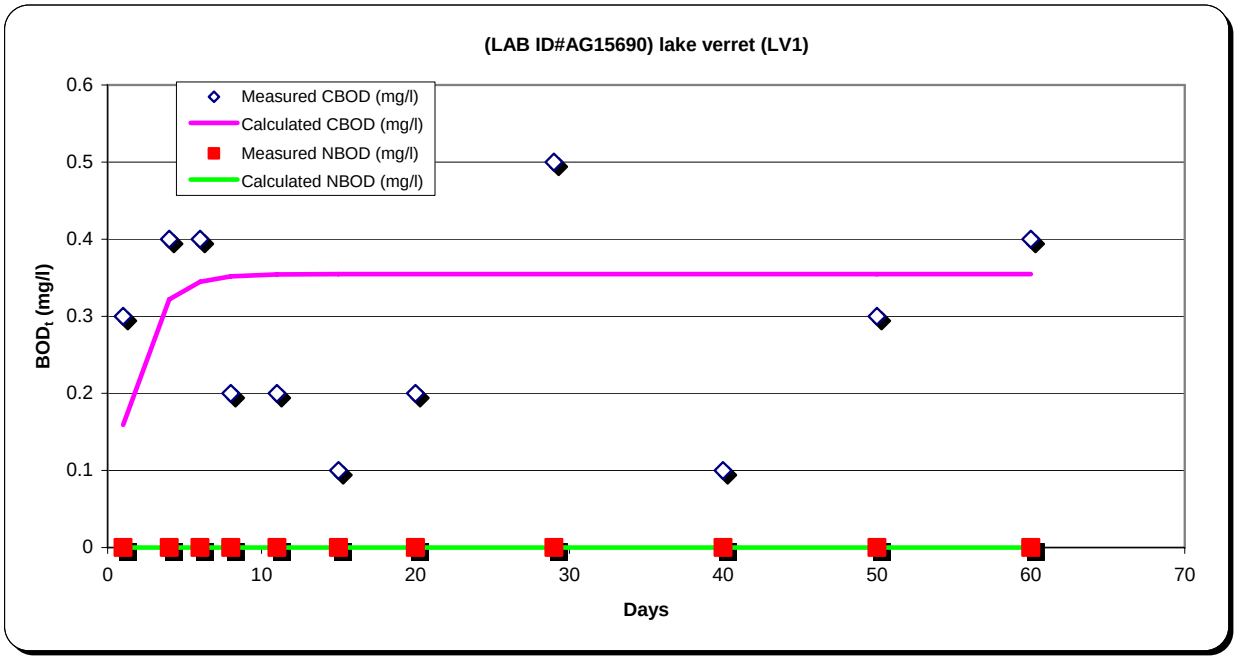
	NBOD	CBOD
UBOD (mg/l)	0.9647778	5.7742925
k rate (1/day)	0.0955208	0.0691667
Lag time (days)	10.888888	0



	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



Little Grand Bayou

Total BOD data																
		Initial	Daily analysis start dates:													
Item No.	Sample No.	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#AG15655) little grand bayou (LGBY1)		0.70	2.10	2.60	3.20	4.20	4.90	5.60	6.60	7.50	8.10	8.70			
2	(LAB ID#AG15792) westfield canal (WC1)		1.20	2.90	3.60	4.40	5.80	7.00	8.00	9.10	10.10	10.80	11.30			
3	(LAB ID#AG15796) whitmel canal (WCL1)		1.20	3.40	4.40	5.40	7.10	8.10	9.10	10.40	11.30	12.00	12.50			
4	(LAB ID#AG15702) little grand bayou (LGBY2)		0.10	1.50	2.00	2.50	3.20	4.60	5.40	6.40	7.20	7.70	8.30			
5	(LAB ID#AG15719) lake verret (LV2)		1.90	6.20	8.30	10.00	13.10	15.10	16.50	18.00	19.50	20.70	21.40			
6	(LAB ID#AG15707) little grand bayou (LGBY3)		0.70	1.80	2.30	2.80	3.70	4.50	5.20	6.10	7.00	7.70	8.20			
7	(LAB ID#AG15711) little grand bayou (LGBY4)		0.60	1.60	2.00	2.50	3.50	4.20	4.80	5.80	6.50	7.10	7.70			
8	(LAB ID#AG15715) little grand bayou (LGBY5)		1.00	3.10	4.00	4.90	6.30	7.30	8.30	9.50	10.50	11.20	11.80			
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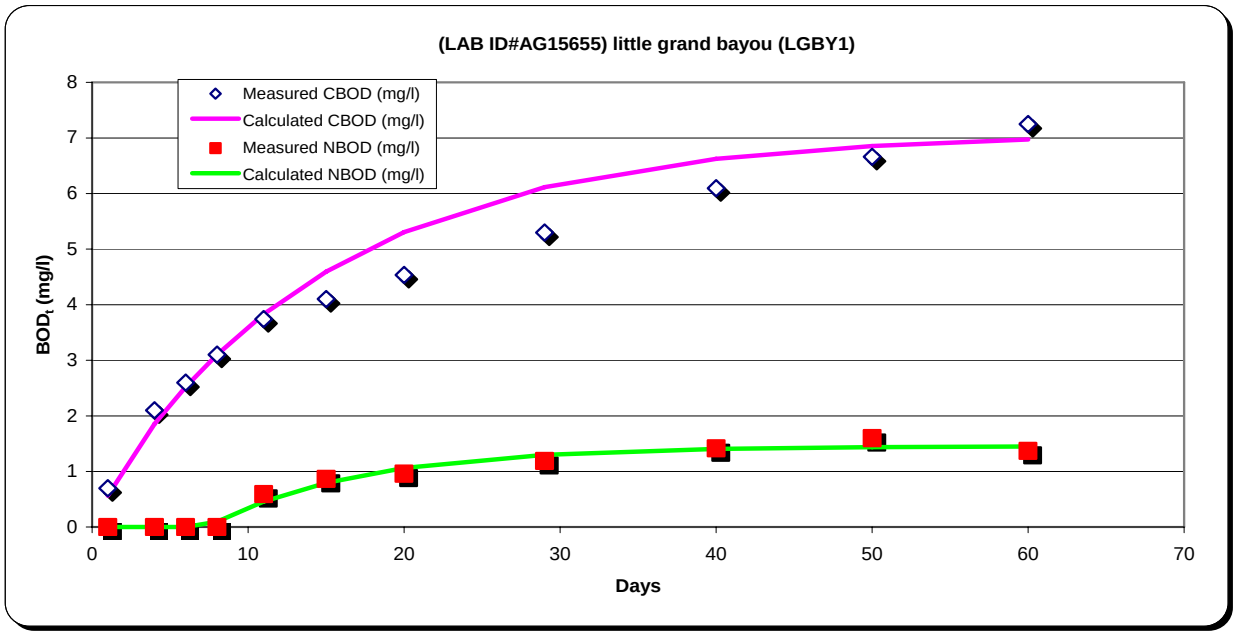
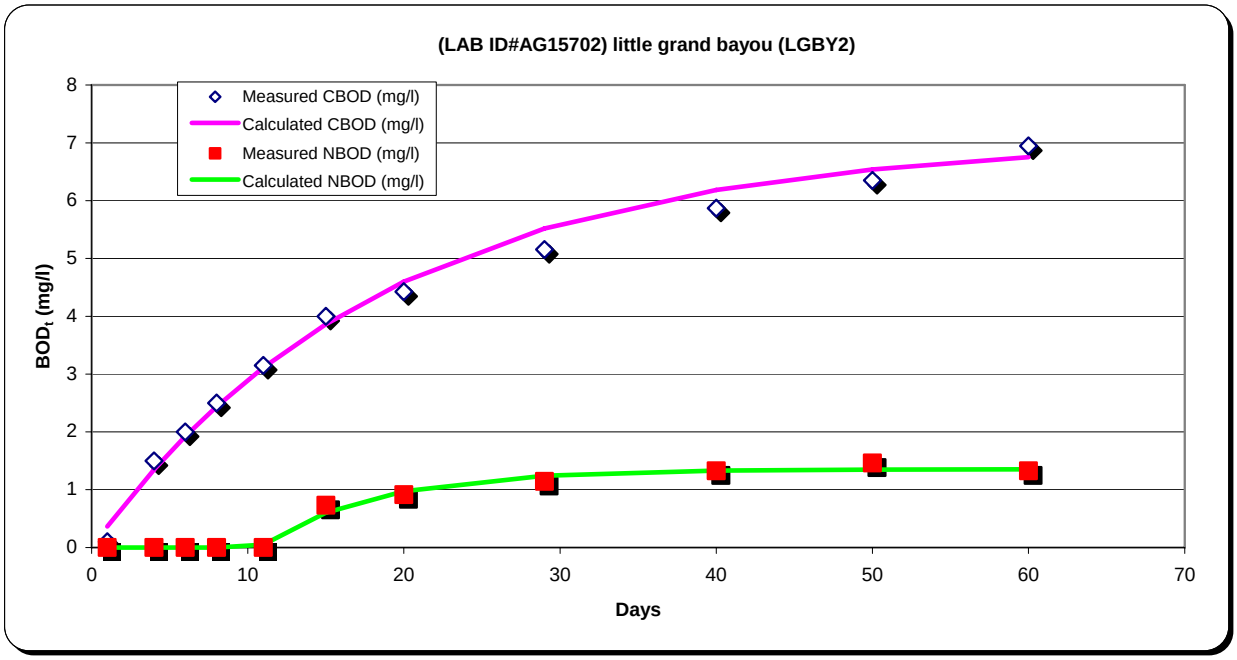
(NO_2+NO_3) as Nitrogen data (mg/l)																
		Initial	Daily analysis start dates:													
Item No.	Sample No.	06/24/04	06/25/04	06/28/04	06/30/04	07/02/04	07/05/04	07/09/04	07/14/04	07/23/04	08/03/04	08/13/04	08/23/04			
1	(LAB ID#AG15655) little grand bayou (LGBY1)	0.00	0.00	0.00	0.00	0.00	0.13	0.19	0.21	0.26	0.31	0.35	0.30			
2	(LAB ID#AG15792) westfield canal (WC1)	0.00	0.00	0.00	0.00	0.07	0.22	0.35	0.40	0.51	0.58	0.66	0.55			
3	(LAB ID#AG15796) whitmel canal (WCL1)	0.00	0.00	0.00	0.00	0.09	0.24	0.36	0.38	0.46	0.52	0.60	0.51			
4	(LAB ID#AG15702) little grand bayou (LGBY2)	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.20	0.25	0.29	0.32	0.29			
5	(LAB ID#AG15719) lake verret (LV2)	0.00	0.00	0.00	0.00	0.08	0.39	0.51	0.62	0.71	0.82	1.01	0.84			
6	(LAB ID#AG15707) little grand bayou (LGBY3)	0.00	0.00	0.00	0.00	0.00	0.13	0.20	0.23	0.30	0.32	0.36	0.32			
7	(LAB ID#AG15711) little grand bayou (LGBY4)	0.00	0.00	0.00	0.00	0.05	0.13	0.20	0.22	0.27	0.32	0.34	0.30			
8	(LAB ID#AG15715) little grand bayou (LGBY5)	0.00	0.00	0.00	0.00	0.07	0.22	0.35	0.38	0.46	0.52	0.58	0.49			
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																

1 Component		NBOD			CBOD	
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

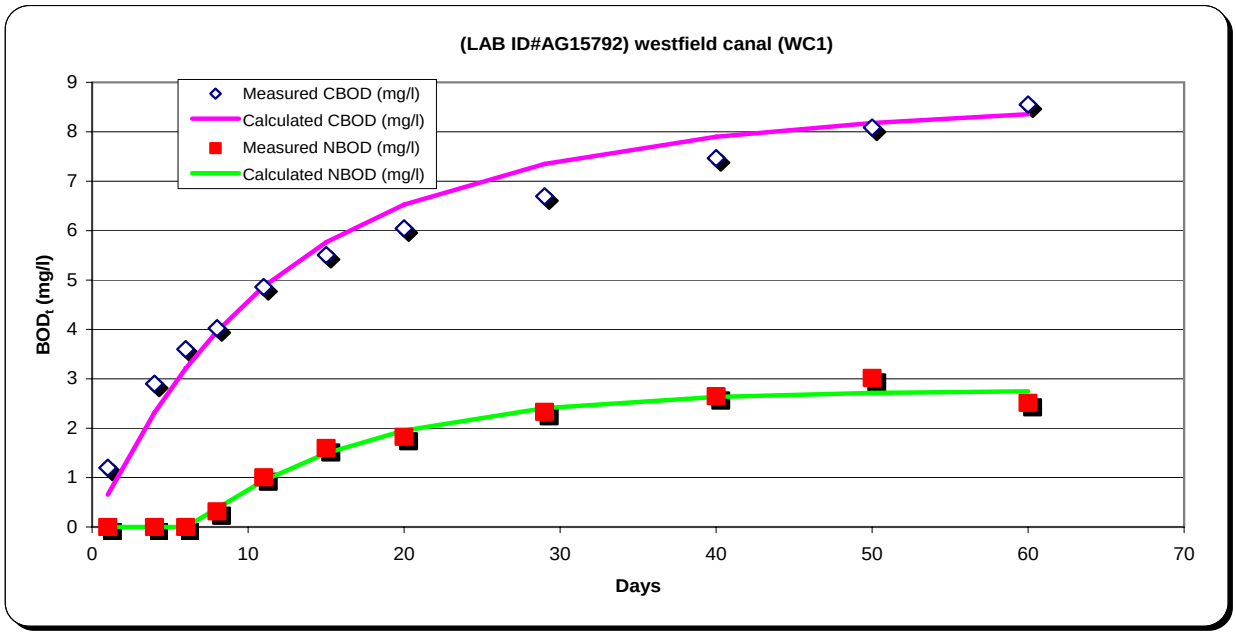
	NBOD	CBOD
UBOD (mg/l)	1.4551008	6.814724
k rate (1/day)	0.1035417	0.066875
Lag time (days)	7.3402777	0



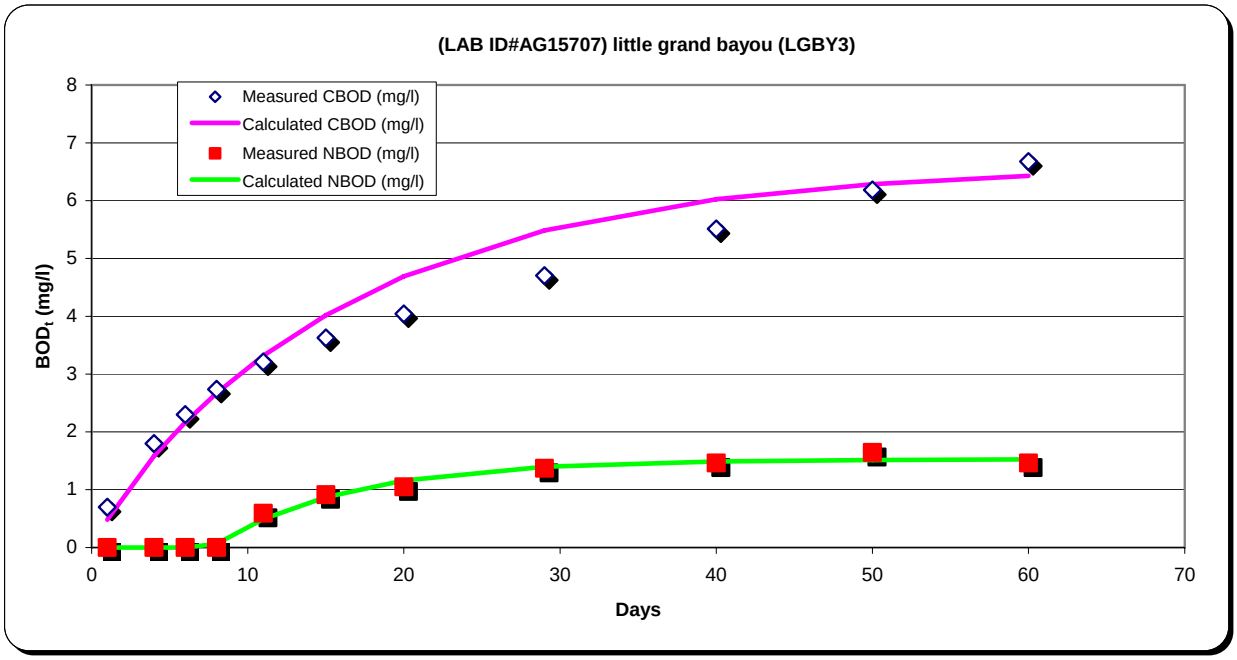
	NBOD	CBOD
UBOD (mg/l)	1.3541887	6.8508821
k rate (1/day)	0.137296	0.0542708
Lag time (days)	10.726851	0



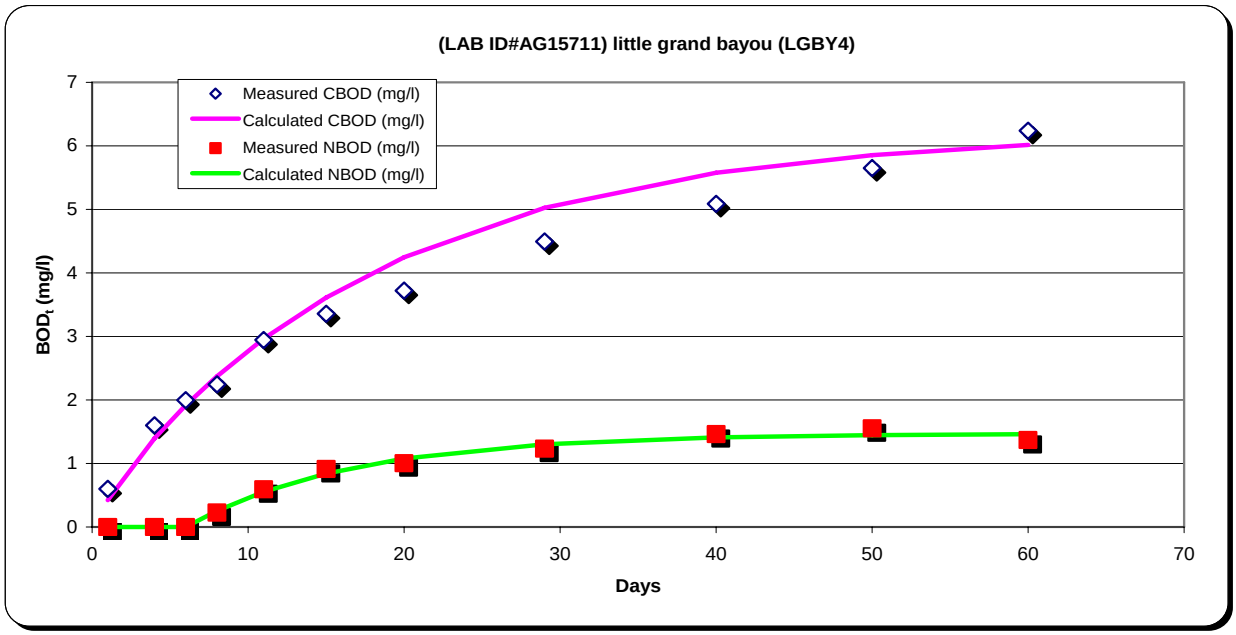
	NBOD	CBOD
UBOD (mg/l)	2.7695045	7.9391804
k rate (1/day)	0.0897917	0.0863542
Lag time (days)	6.3680553	0



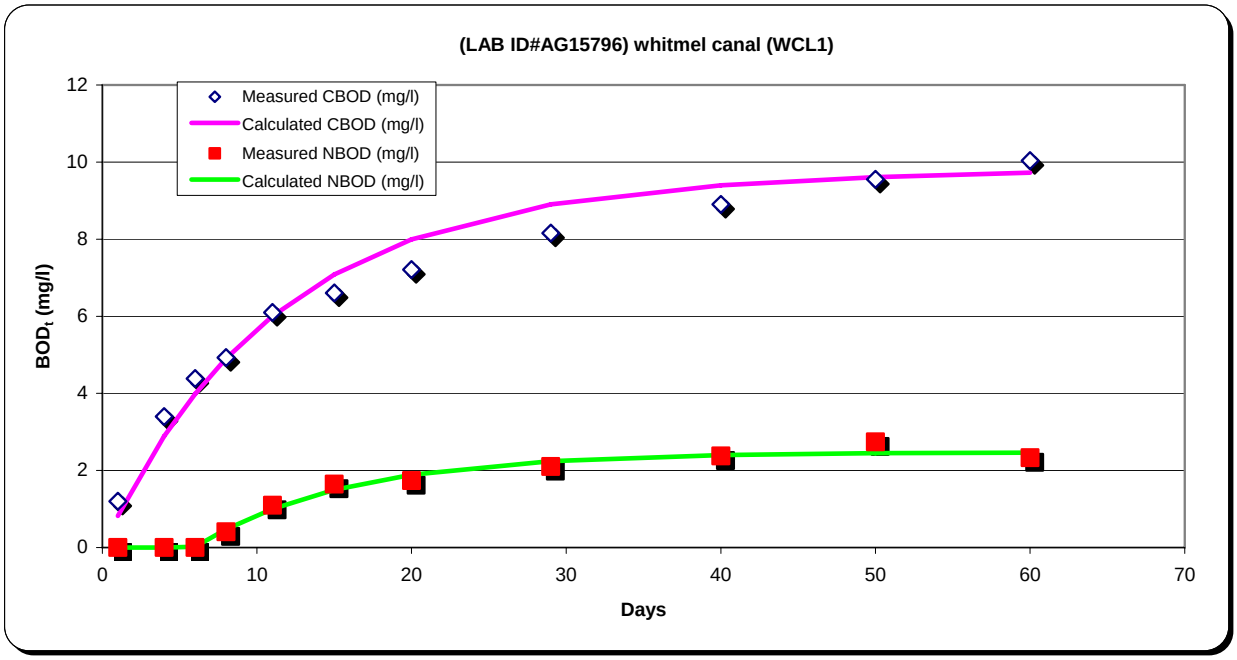
	NBOD	CBOD
UBOD (mg/l)	1.5267185	6.352407
k rate (1/day)	0.115	0.06
Lag time (days)	7.6319442	0



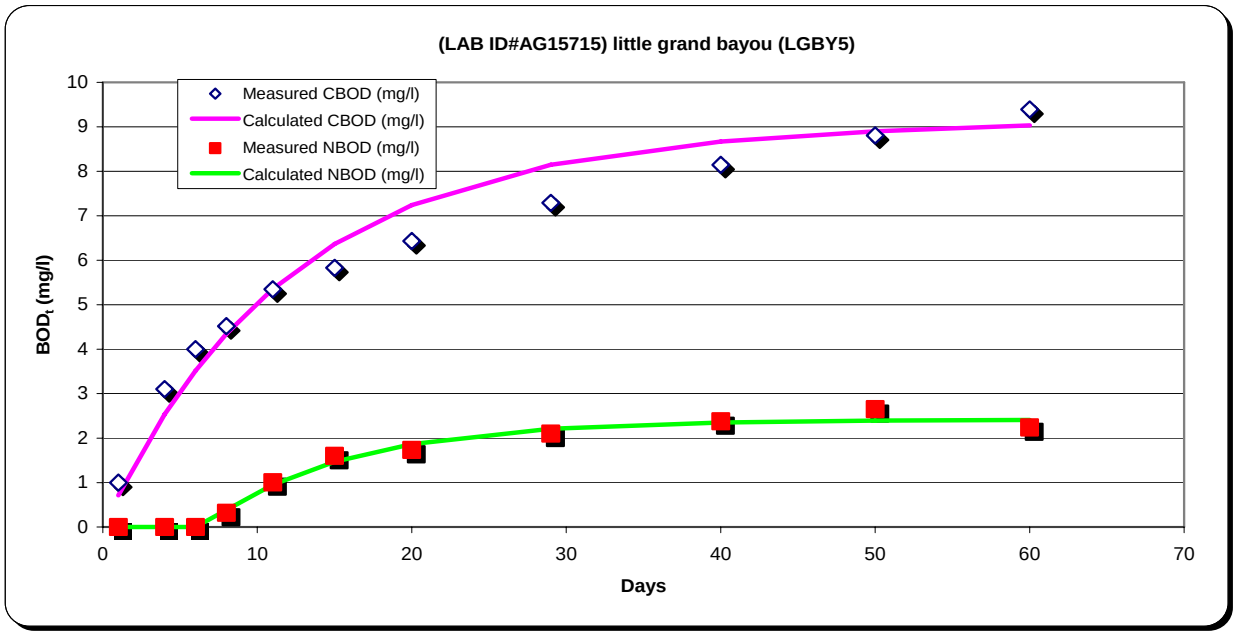
	NBOD	CBOD
UBOD (mg/l)	1.4709687	6.0069776
k rate (1/day)	0.094375	0.0554167
Lag time (days)	5.979167	0



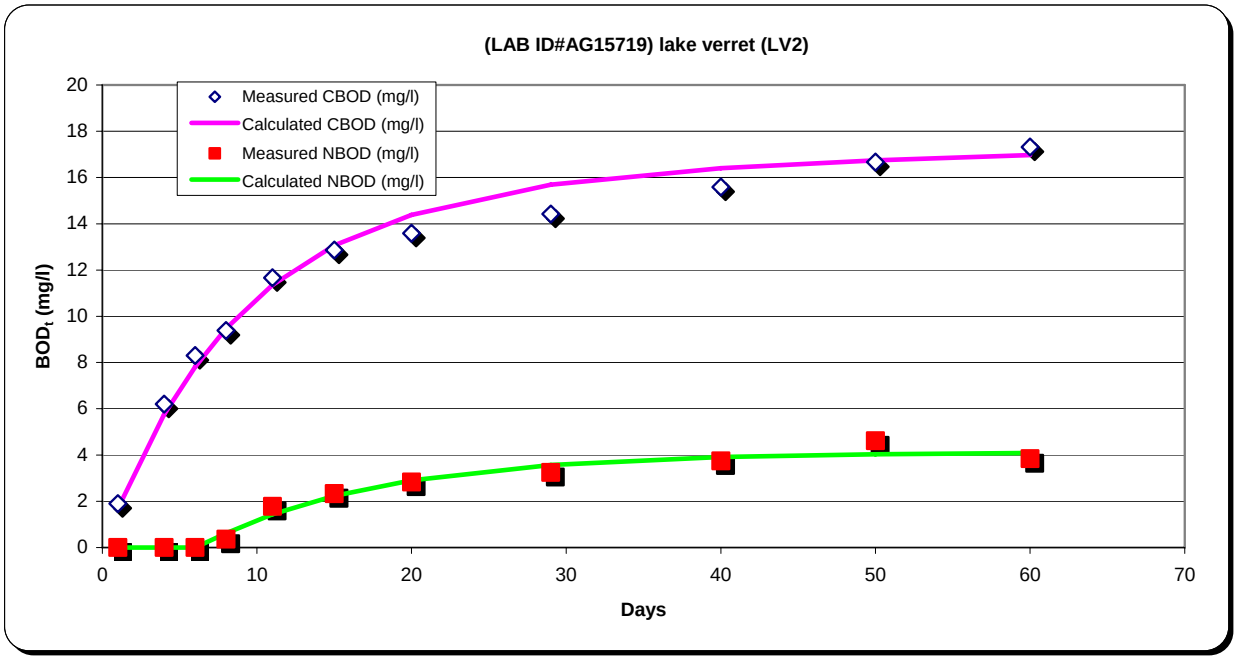
	NBOD	CBOD
UBOD (mg/l)	2.4736712	9.3739738
k rate (1/day)	0.1023958	0.0909375
Lag time (days)	5.9305553	0



	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	Value	Adjusted Value	River 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	Value	Adjusted Value	River 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
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	Value	Adjusted Value	River 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
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**

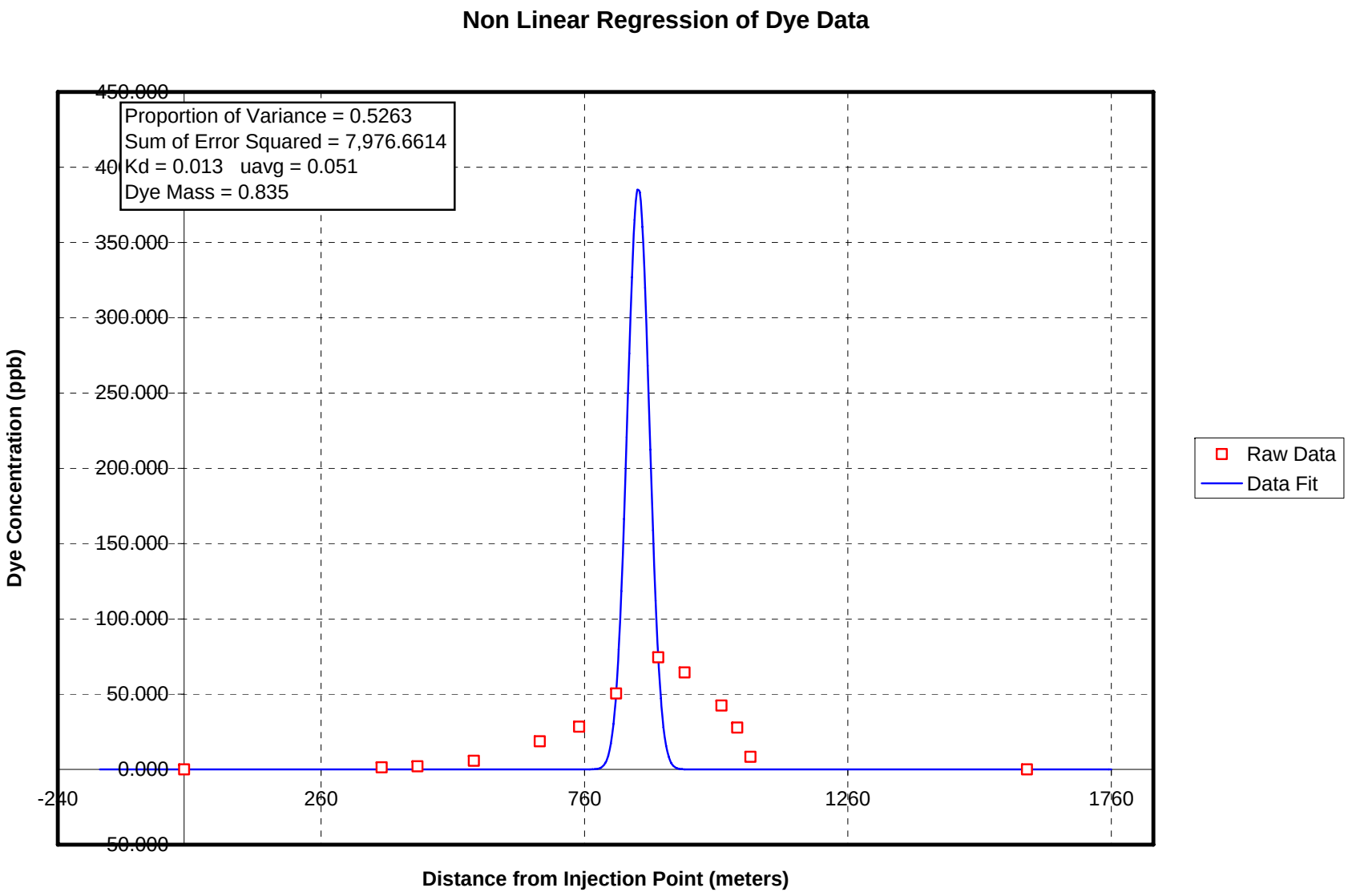
User Inputs	Depth of Stream (meters)	1.670
	Width of Stream (meters)	24.700
	Time Elapsed Since Dye Injection (sec)	16755
	[1]Mass of Solution Injected (kg)	40.000
	Number of Iterations	10
[2]Initial Guess	K_d : Diffusion (m^2/s)	1.0000

Run Dispersion Routine

[1]Mass of solution injected is multiplied by 0.2 since the solution is 20% dye

[2]Initial 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
Proportion of Variance = 0.5263
Sum of Error Squared = 7,976.6614
Kd = 0.013 uavg = 0.051
Dye Mass = 0.835
450.000
400.000
350.000
300.000
250.000
200.000
150.000
100.000
50.000
0.000
-50.000
-240
260
760
1260
1760
Dye Concentration (ppb)
Distance from Injection Point (meters)
Raw Data
Data Fit

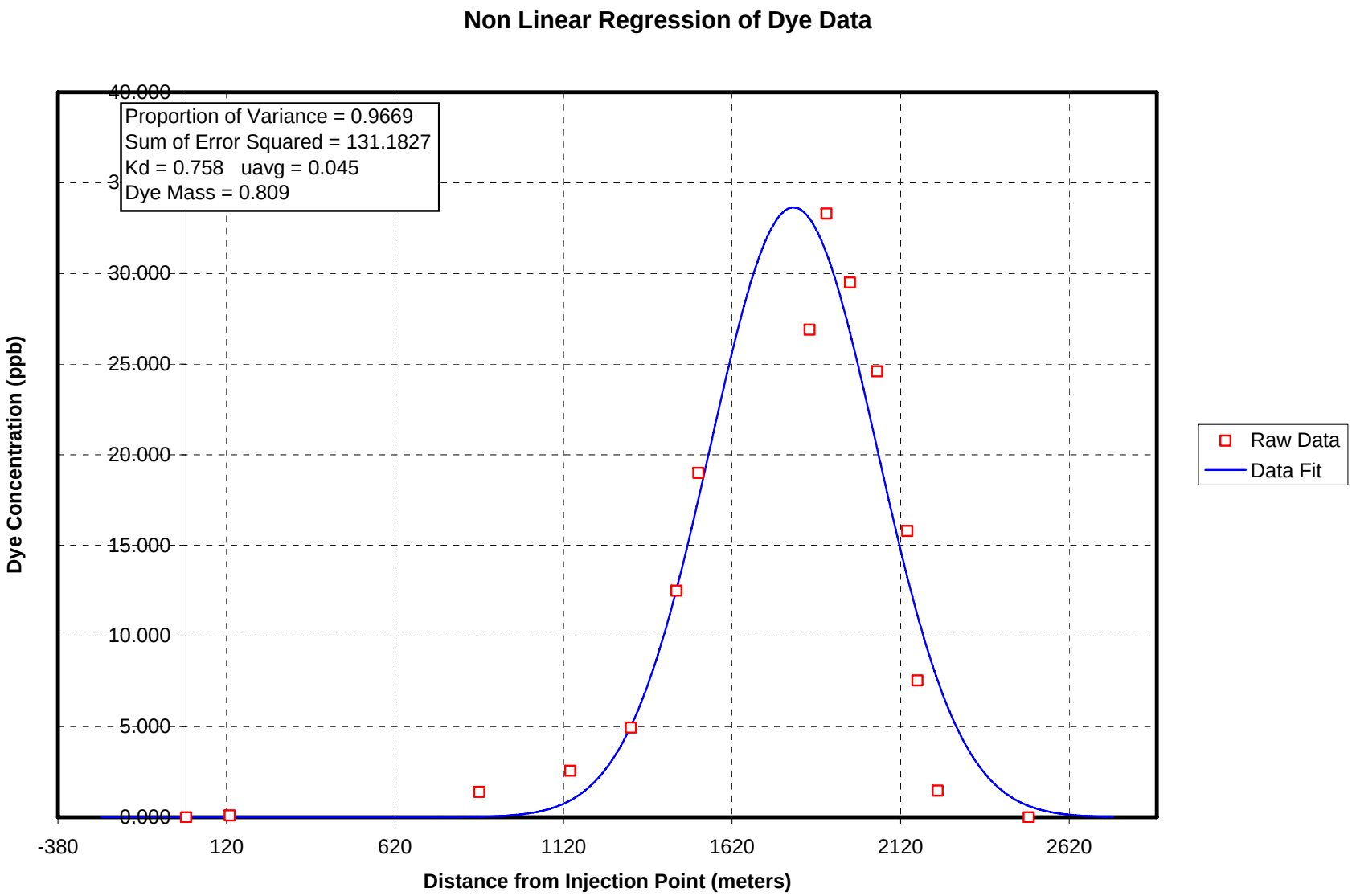
User Inputs	Depth of Stream (meters)	1.630
	Width of Stream (meters)	23.800
	Time Elapsed Since Dye Injection (sec)	40384
	[1]Mass of Solution Injected (kg)	40.000
	Number of Iterations	10
[2]Initial Guess	K_d : Diffusion (m^2/s)	1.0000

Run Dispersion Routine

[1]Mass of solution injected is multiplied by 0.2 since the solution is 20% dye

[2]Initial 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
Proportion of Variance = 0.9669
Sum of Error Squared = 131.1827
Kd = 0.758 uavg = 0.045
Dye Mass = 0.809
40.000
30.000
25.000
20.000
15.000
10.000
5.000
0.000
Dye Concentration (ppb)
-380
120
620
1120
1620
2120
2620
Distance from Injection Point (meters)
Raw Data
Data Fit

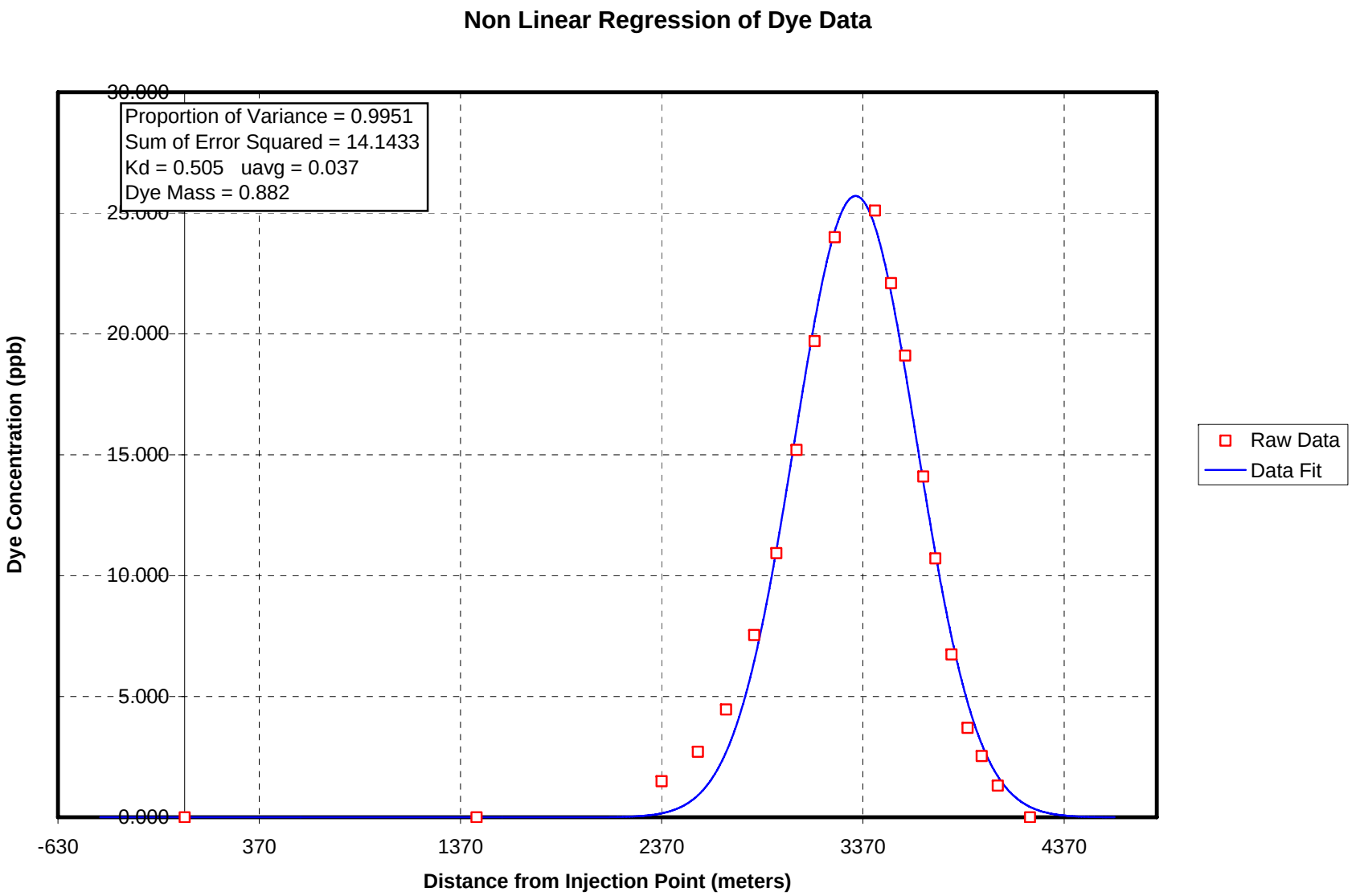
User Inputs	Depth of Stream (meters)	1.590
	Width of Stream (meters)	28.400
	Time Elapsed Since Dye Injection (sec)	90957
	[1]Mass of Solution Injected (kg)	40.000
	Number of Iterations	10
[2]Initial Guess	K_d : Diffusion (m^2/s)	1.0000

Run Dispersion Routine

[1]Mass of solution injected is multiplied by 0.2 since the solution is 20% dye

[2]Initial 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
Proportion of Variance = 0.9951
Sum of Error Squared = 14.1433
Kd = 0.505 uavg = 0.037
Dye Mass = 0.882
30.000
25.000
20.000
15.000
10.000
5.000
0.000
Dye Concentration (ppb)
-630
370
1370
2370
3370
4370
Distance from Injection Point (meters)
Raw Data
Data Fit

Site GRB6

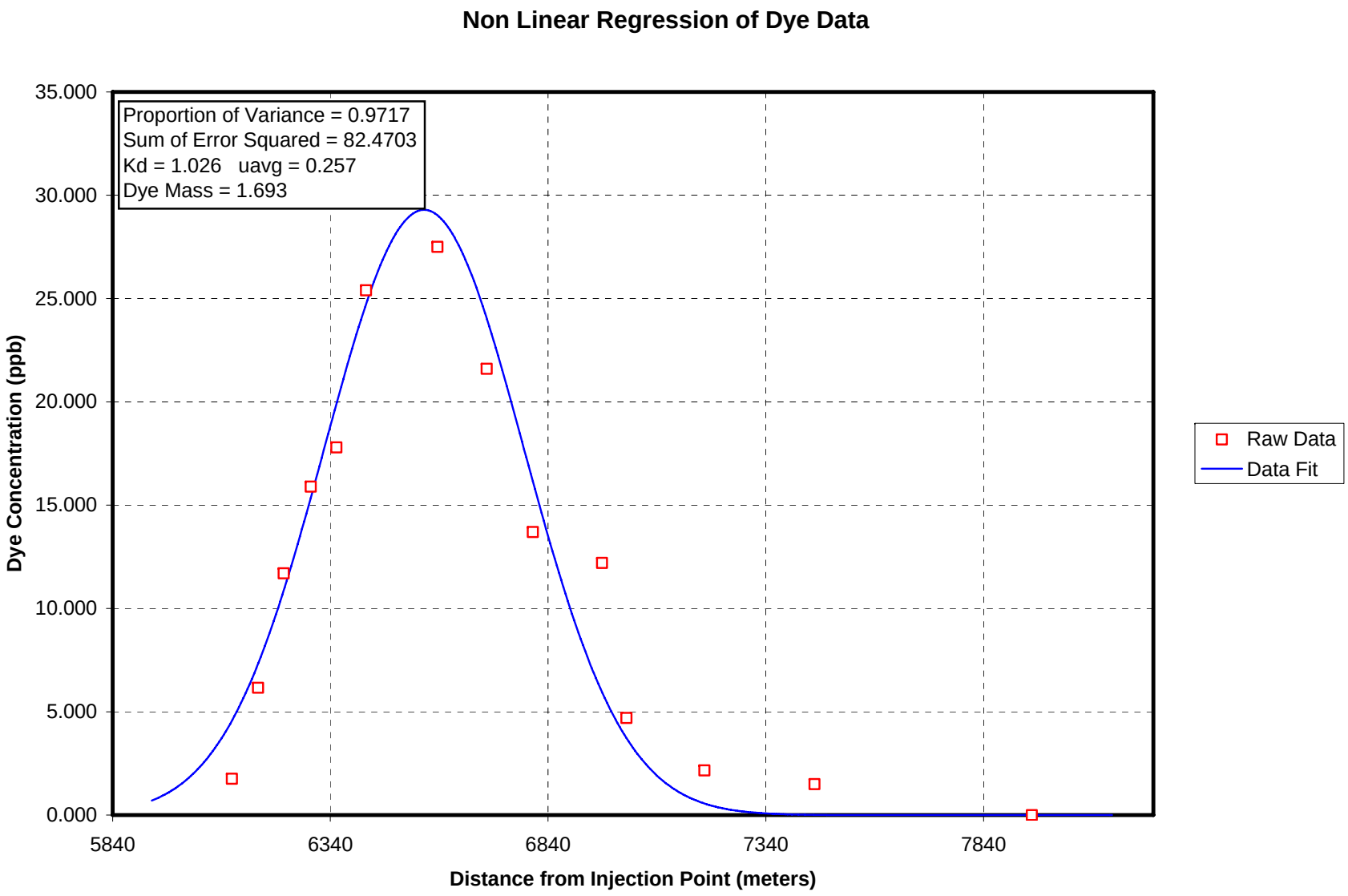
User Inputs	Depth of Stream (meters)	2.195
	Width of Stream (meters)	45.872
	Time Elapsed Since Dye Injection (sec)	25526
	[1]Mass of Solution Injected (kg)	12.500
	Number of Iterations	100
[2]Initial Guess	K_d : Diffusion (m^2/s)	1.0000

Run Dispersion Routine

[1]Mass of solution injected is multiplied by 0.2 since the solution is 20% dye

[2]Initial 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
Proportion of Variance = 0.9717
Sum of Error Squared = 82.4703
Kd = 1.026 uavg = 0.257
Dye Mass = 1.693
35.000
30.000
25.000
20.000
15.000
10.000
5.000
0.000
Dye Concentration (ppb)
5840
6340
6840
7340
7840
Distance from Injection Point (meters)
Raw Data
Data Fit

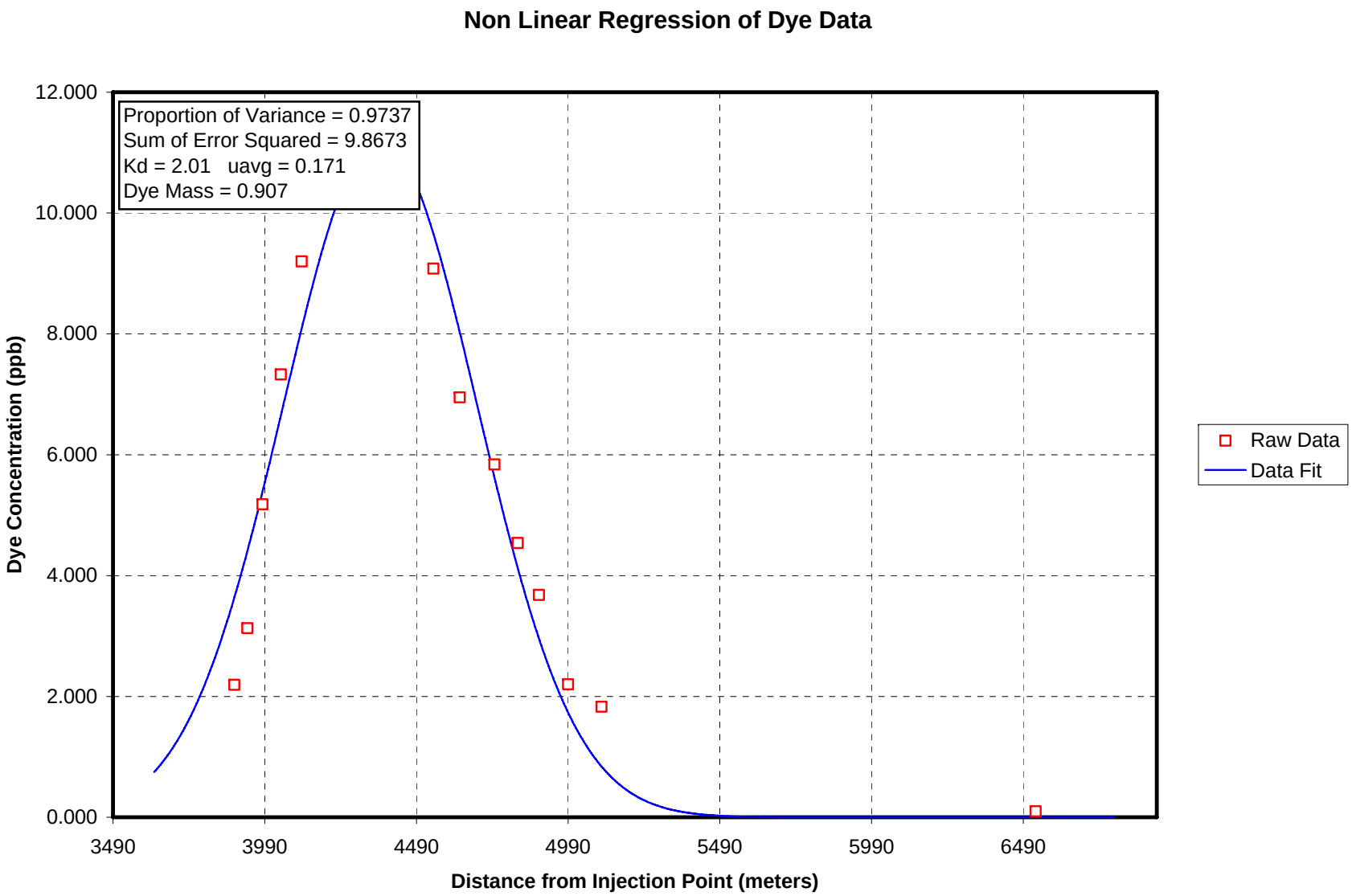
User Inputs	Depth of Stream (meters)	2.195
	Width of Stream (meters)	45.872
	Time Elapsed Since Dye Injection (sec)	25526
	[1]Mass of Solution Injected (kg)	12.500
	Number of Iterations	100
[2]Initial Guess	K_d : Diffusion (m^2/s)	1.0000

Run Dispersion Routine

[1]Mass of solution injected is multiplied by 0.2 since the solution is 20% dye

[2]Initial 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)**
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
Proportion of Variance = 0.9737
Sum of Error Squared = 9.8673
Kd = 2.01 uavg = 0.171
Dye Mass = 0.907
12.000
10.000
8.000
6.000
4.000
2.000
0.000
Dye Concentration (ppb)
3490
3990
4490
4990
5490
5990
6490
Distance from Injection Point (meters)
Raw Data
Data Fit

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

	Summer Season	*Winter Season*
90th Percentile Temperature(°C):	28.13	18.50
90 % DO Sat (mg/L):	7.03	8.43
Months:	May To Oct	Nov To Apr

Date	*Water Temp. (°C)*	*DO (mg/L)*
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

Wednesday, October 26, 2005 *Page 1 of 1*

Little Grand Bayou

Critical Temperature and DO Determinations:

SITE NUMBER: 980

SITE DESCRIPTION: Grand Bayou, Louisiana

	Summer Season	*Winter Season*
90th Percentile Temperature(°C):	28.81	19.55
90 % DO Sat (mg/L):	6.95	8.26
Months:	May To Oct	Nov To Apr

Date	*Water Temp. (°C)*	*DO (mg/L)*
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

Wednesday, October 26, 2005 *Page 1 of 1*

Appendix G2 – Land Use

Land Use Summary

Subsegment: 120206

Data Source Name: LA-GAP June 2000

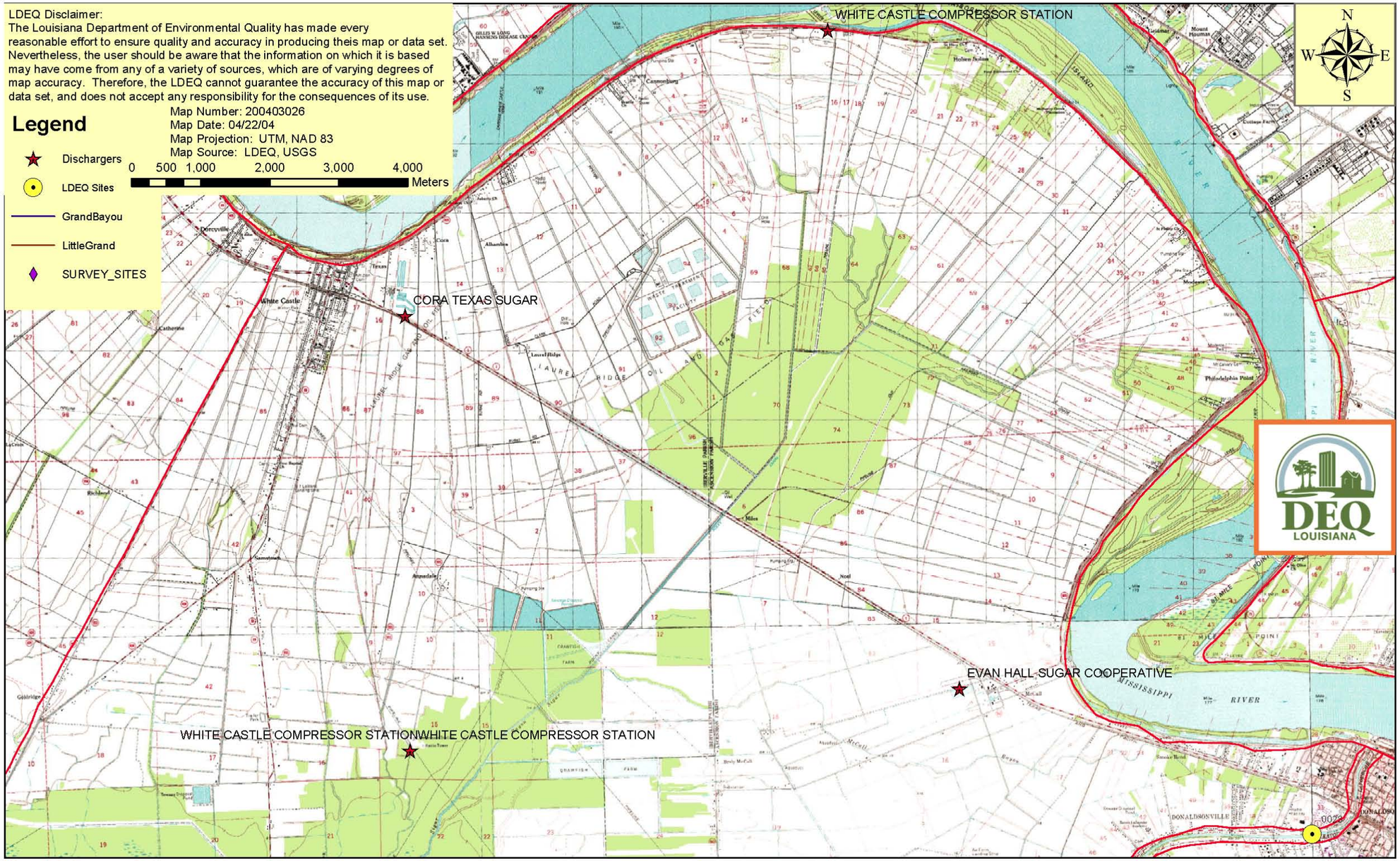
Grid Name	Area (Acres)	% Land Use
Agriculture/Cropland/Grassland	48175.10	47.98
Wetland Forest Deciduous	40085.05	39.92
Water	6139.20	6.11
Vegetated Urban	3493.15	3.48
Fresh Marsh	948.73	0.94
Upland Forest Mixed	768.37	0.77
Wetland S/S Deciduous	565.99	0.56
Non-Vegetated Urban	137.22	0.14
Upland S/S 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

Wednesday, October 31, 2007 *Page 1 of 1*

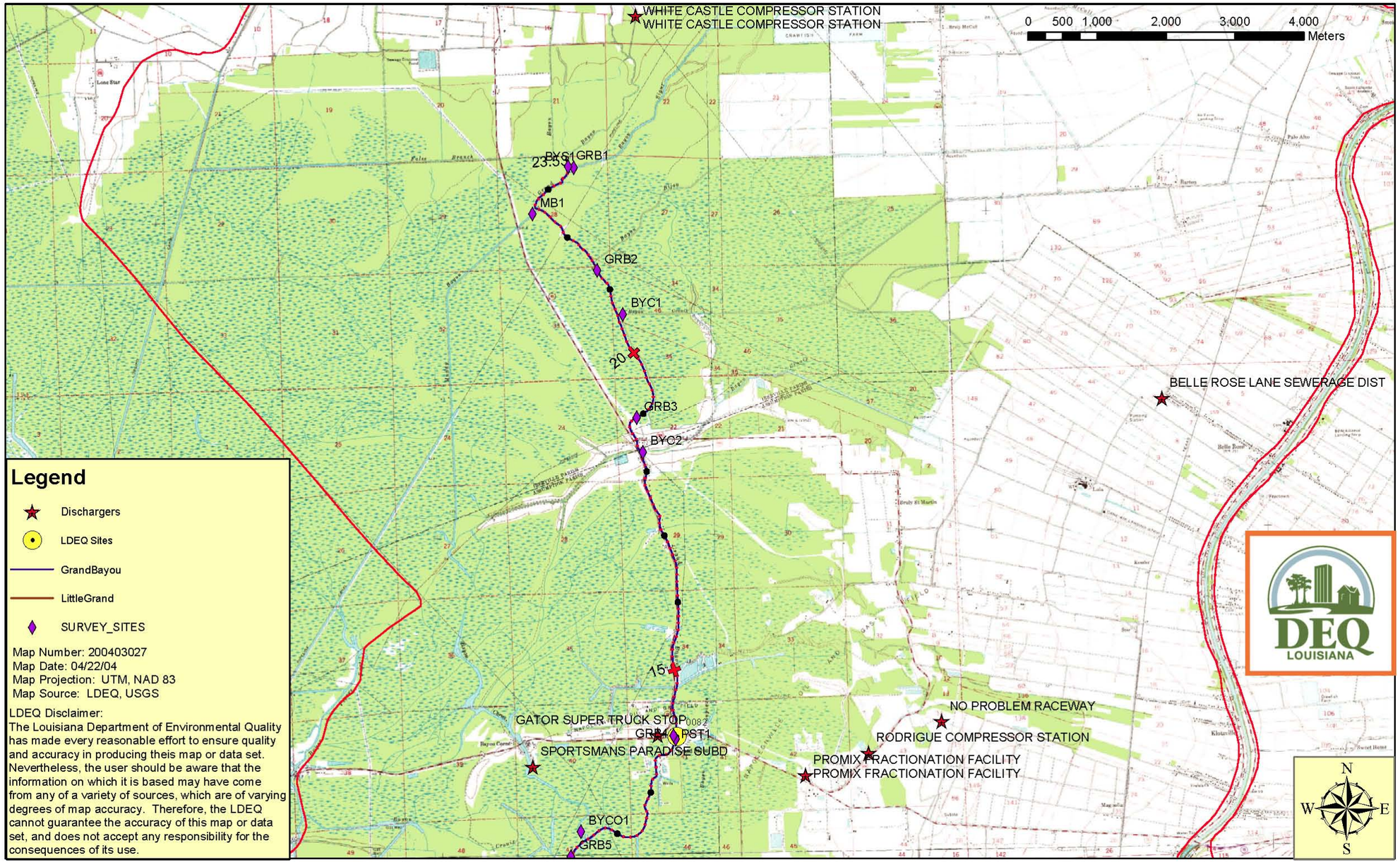
Appendix H – Maps and Diagrams

Appendix H1 – Overview Maps

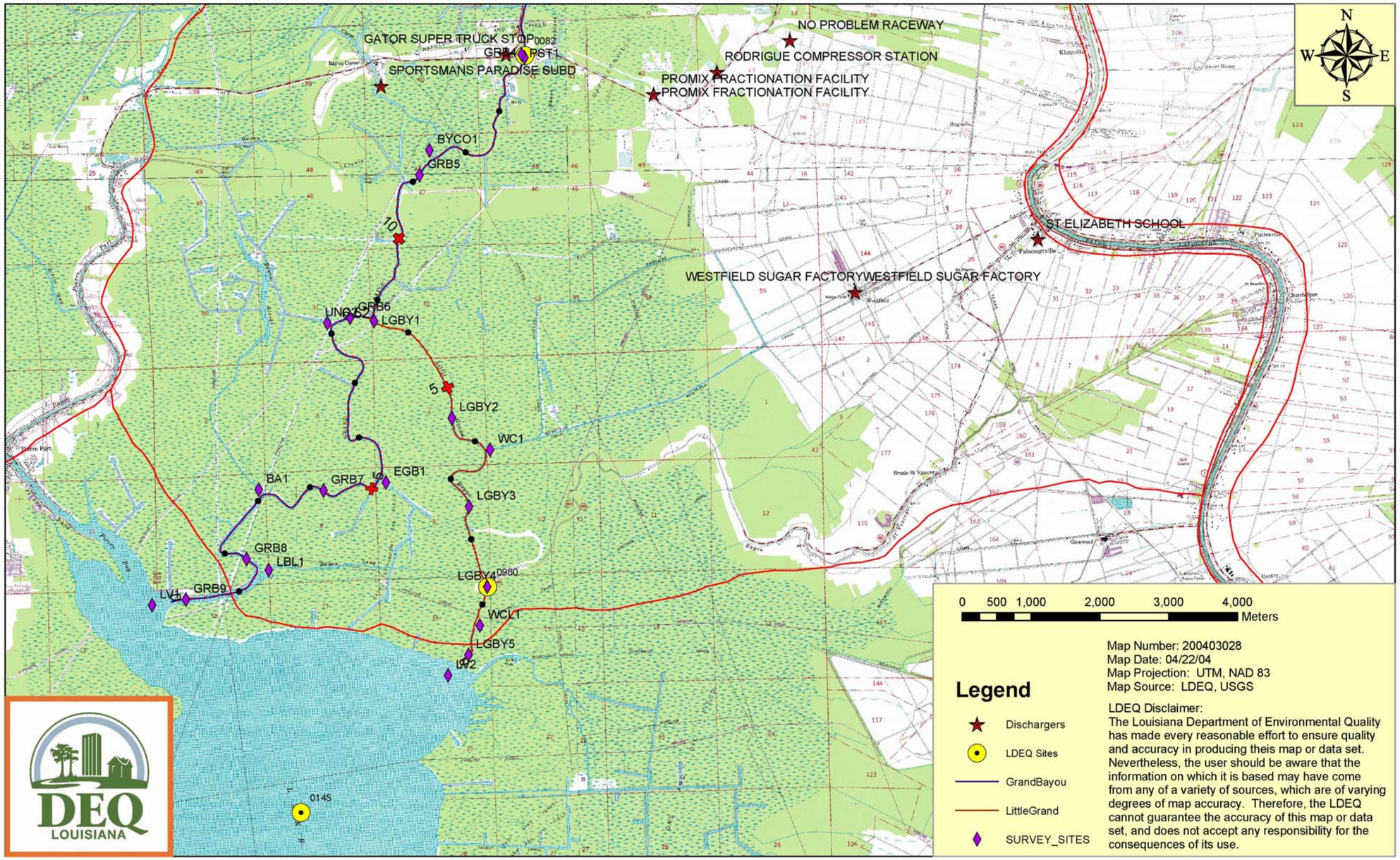
Upper Grand Bayou (120206)



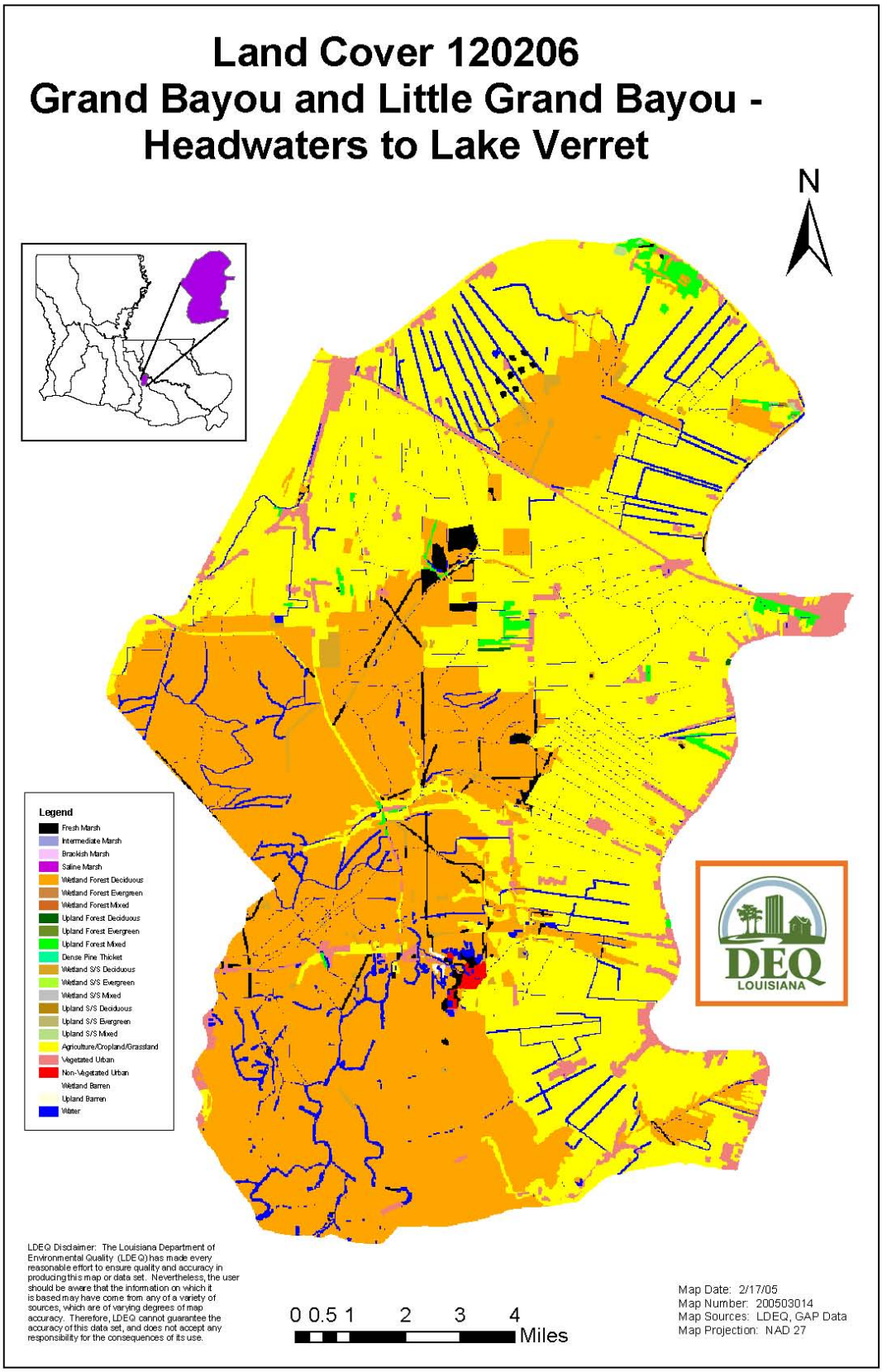
Middle Grand Bayou (120206)



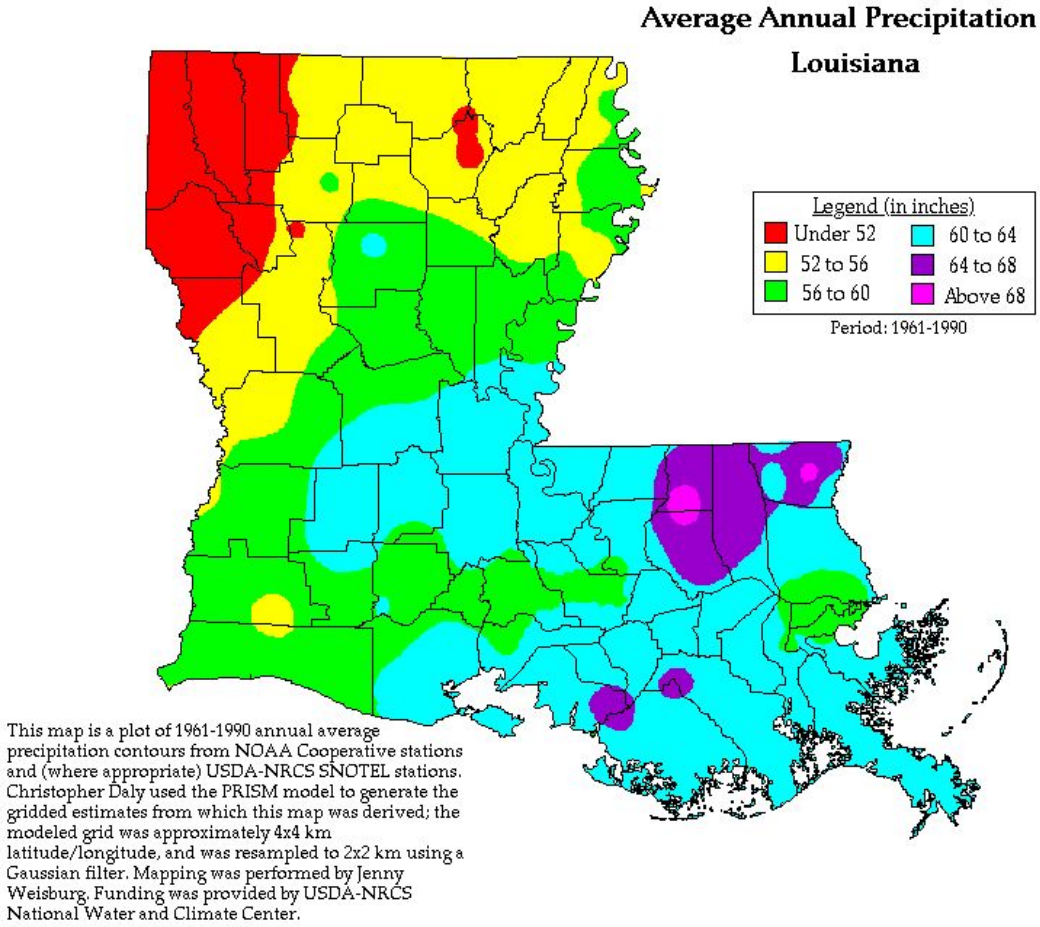
Lower Grand Bayou (120206)



Appendix H2 – Land Use Map


Land Cover 120206
Grand Bayou and Little Grand Bayou -
Headwaters to Lake Verret
N
Legend
Fresh Marsh
Intermediate Marsh
Brackish Marsh
Saline Marsh
Wetland Forest Deciduous
Wetland Forest Evergreen
Wetland Forest Mixed
Upland Forest Deciduous
Upland Forest Evergreen
Upland Forest Mixed
Dense Pine Thicket
Wetland S/S Deciduous
Wetland S/S Evergreen
Wetland S/S Mixed
Upland S/S Deciduous
Upland S/S Evergreen
Upland S/S Mixed
Agriculture/Cropland/Grassland
Vegetated Urban
Non-Vegetated Urban
Wetland Barren
Upland Barren
Water
DEQ
LOUISIANA
LDEQ Disclaimer: The Louisiana Department of Environmental Quality (LDEQ) has made every reasonable effort to ensure quality and accuracy in producing this map or data set. Nevertheless, the user should be aware that the information on which it is based may have come from any of a variety of sources, which are of varying degrees of map accuracy. Therefore, LDEQ cannot guarantee the accuracy of this data set, and does not accept any responsibility for the consequences of its use.
0 0.5 1 2 3 4
Miles
Map Date: 2/17/05
Map Number: 200503014
Map Sources: LDEQ, GAP Data
Map Projection: NAD 27

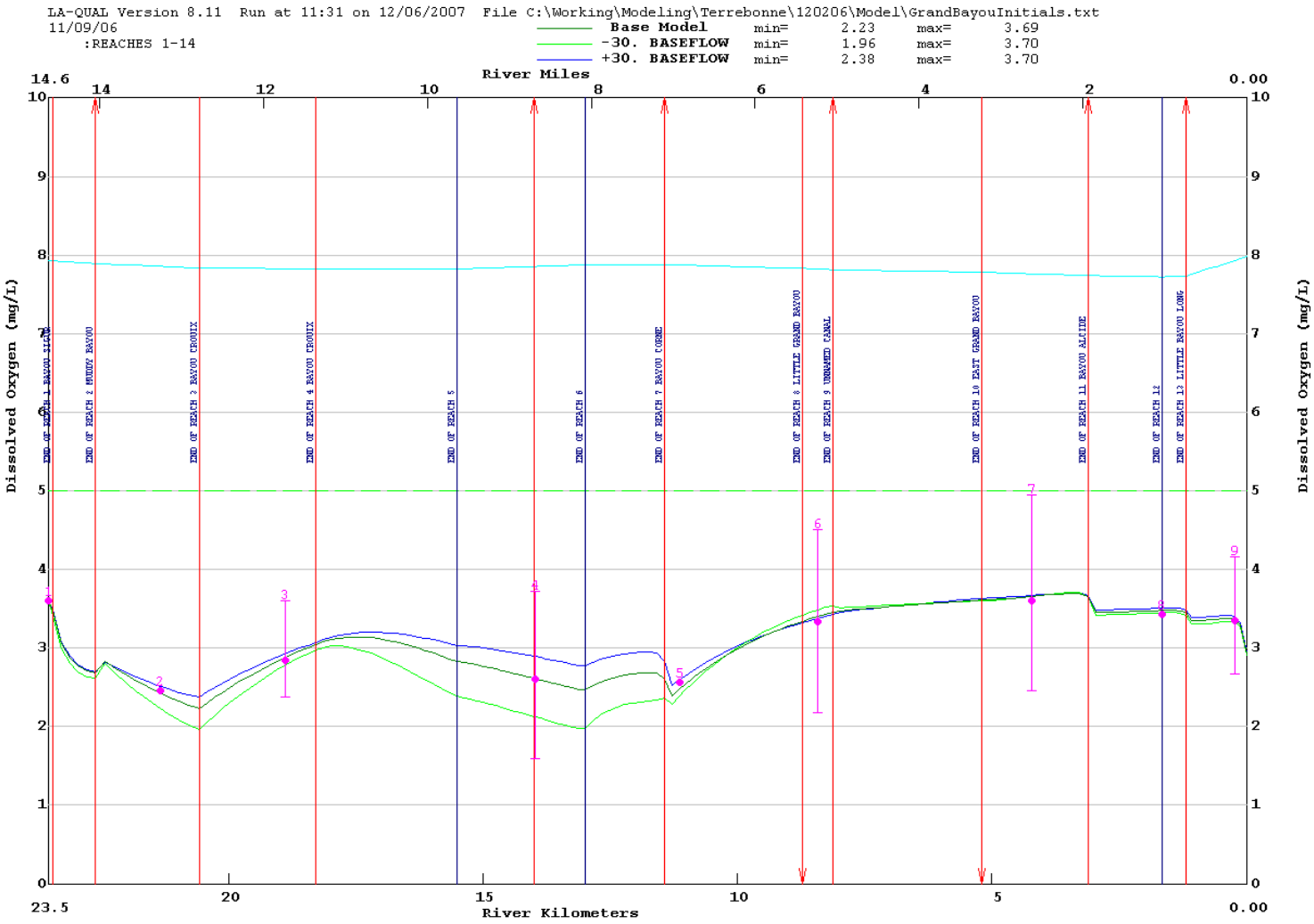
Appendix H3 – LA Precipitation Map

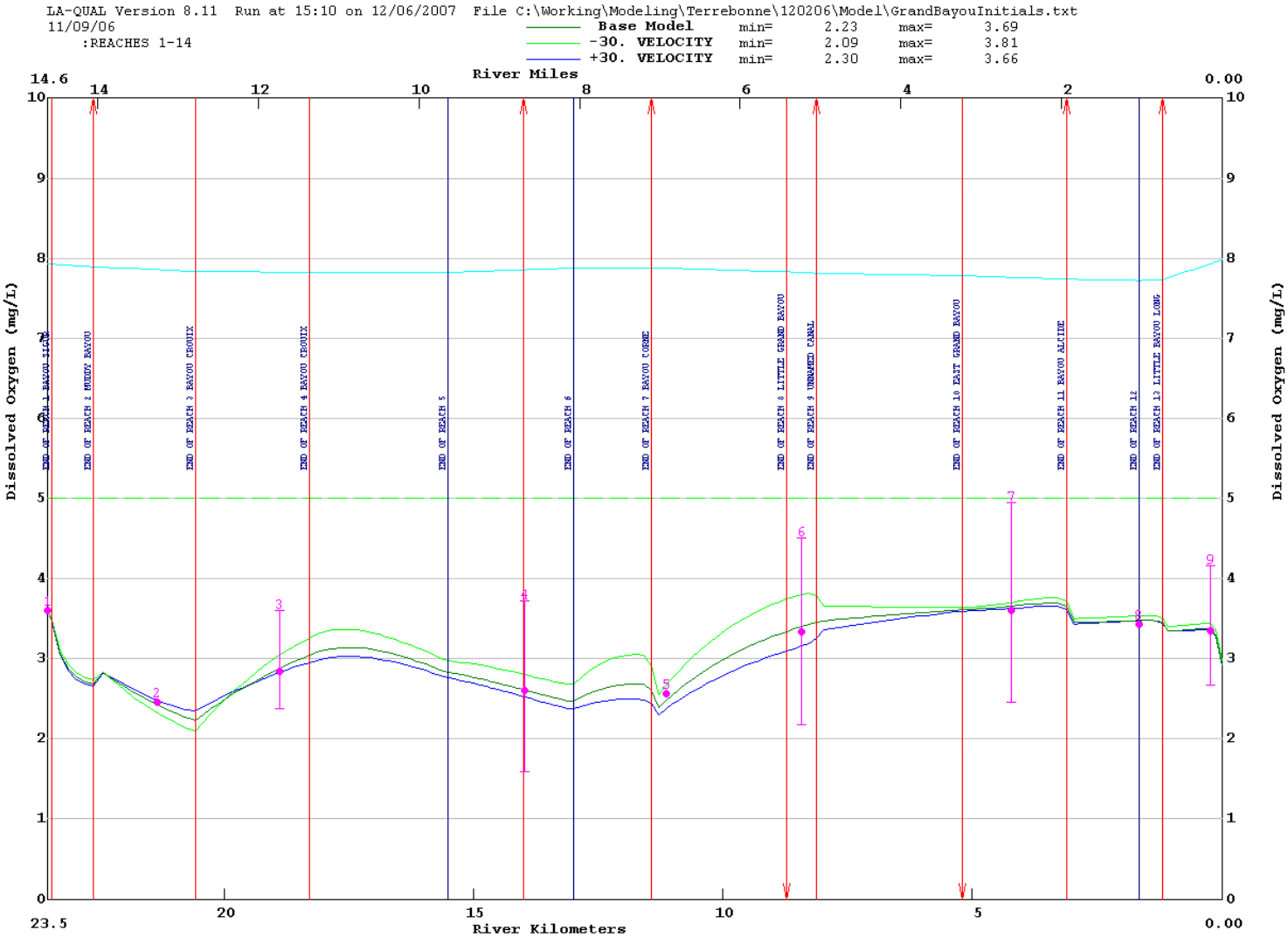


Appendix I – Sensitivity Analysis

Appendix I1 – Grand Bayou

Sensitivity Output Graphs

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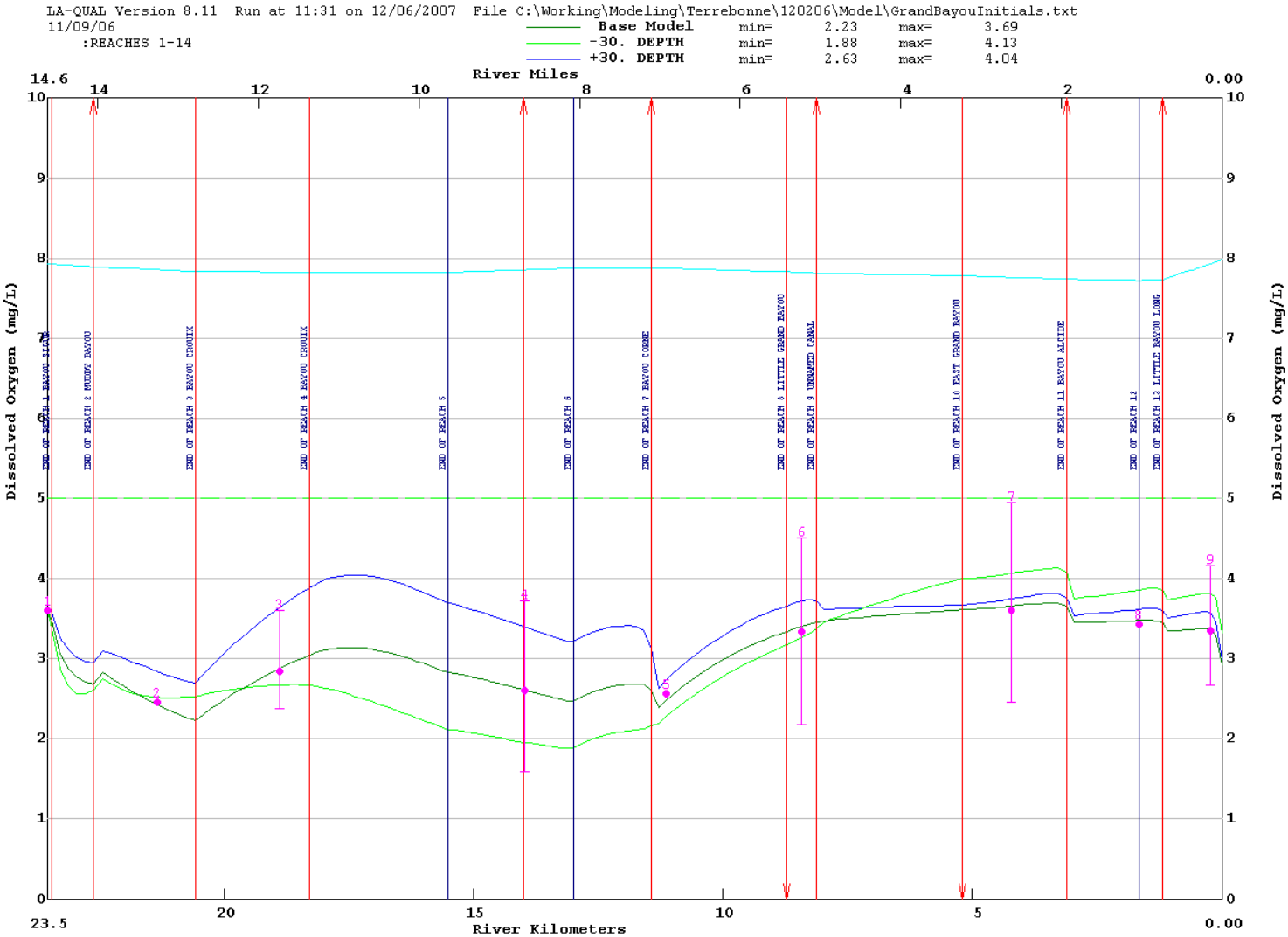
11/09/06
:REACHES 1-14
Base Model min= 2.23 max= 3.69
-30. VELOCITY min= 2.09 max= 3.81
+30. VELOCITY min= 2.30 max= 3.66
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU COBRE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers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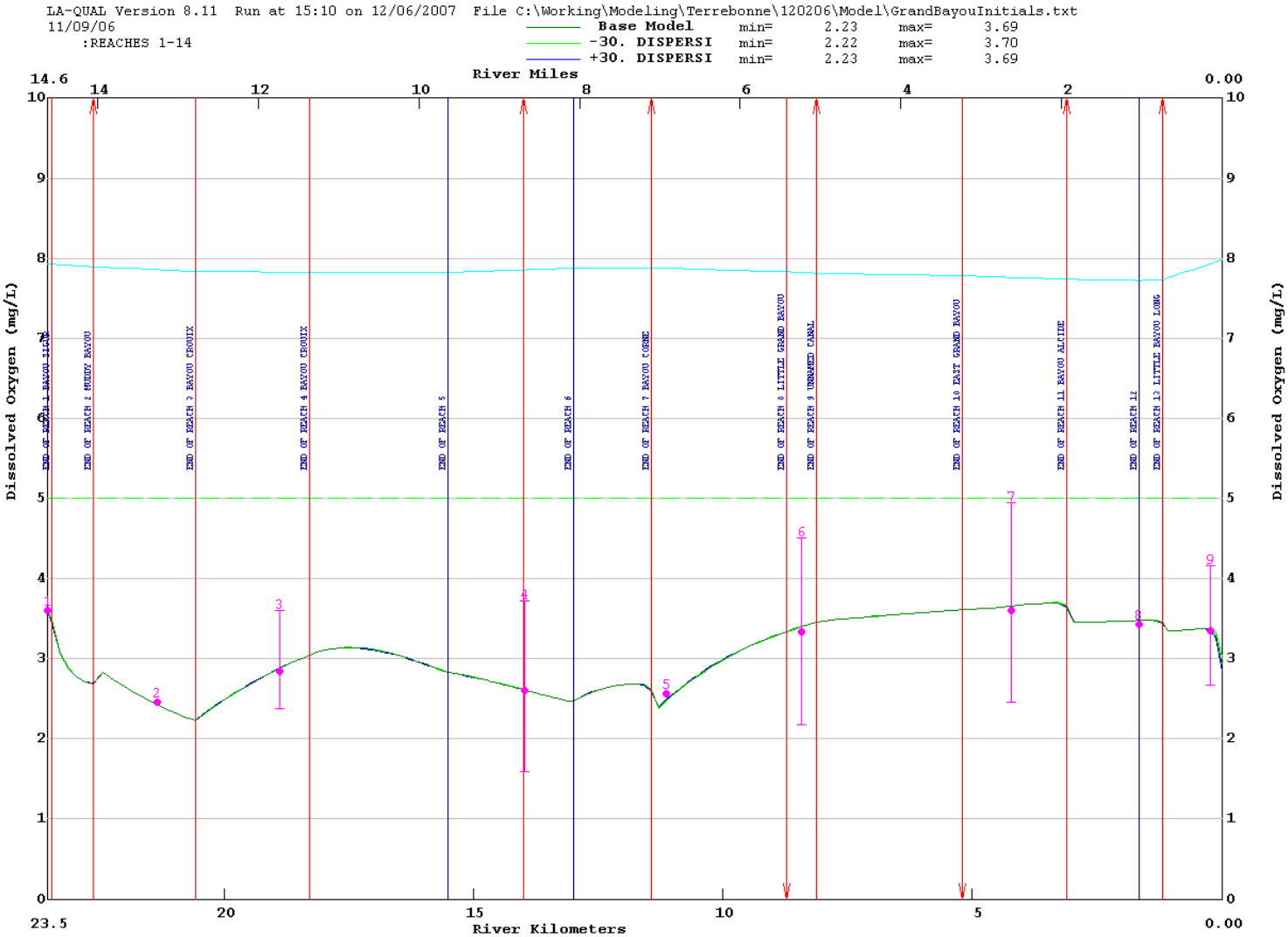
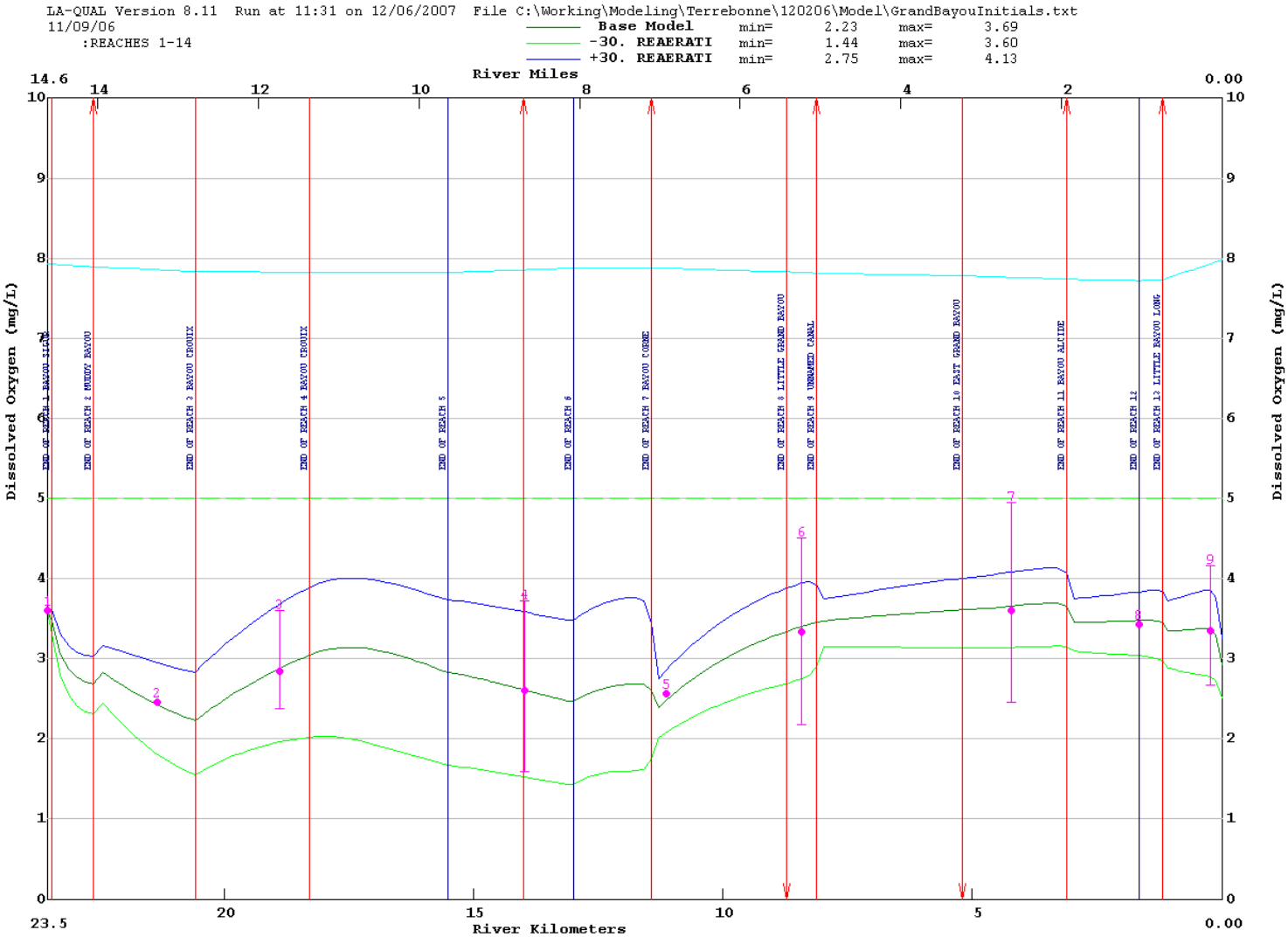
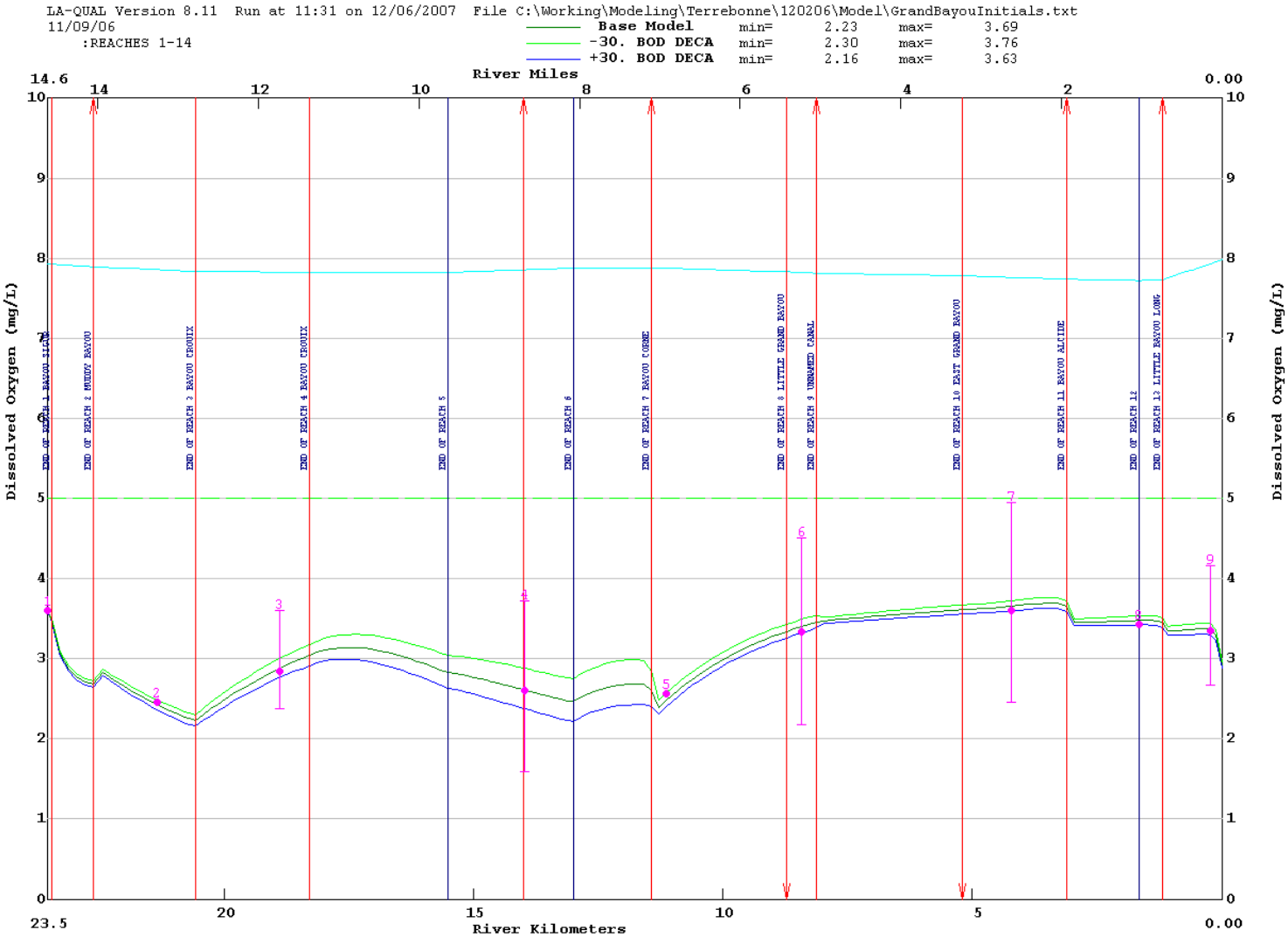
11/09/06
:REACHES 1-14
Base Model min= 2.23 max= 3.69
-30. DEPTH min= 1.88 max= 4.13
+30. DEPTH min= 2.63 max= 4.04
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers


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. DISPERSI min= 2.22 max= 3.70
+30. DISPERSI min= 2.23 max= 3.69
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers


LA-QUAL Version 8.11 Run at 11:31 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. REAERATI min= 1.44 max= 3.60
+30. REAERATI min= 2.75 max= 4.13
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers


LA-QUAL Version 8.11 Run at 11:31 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
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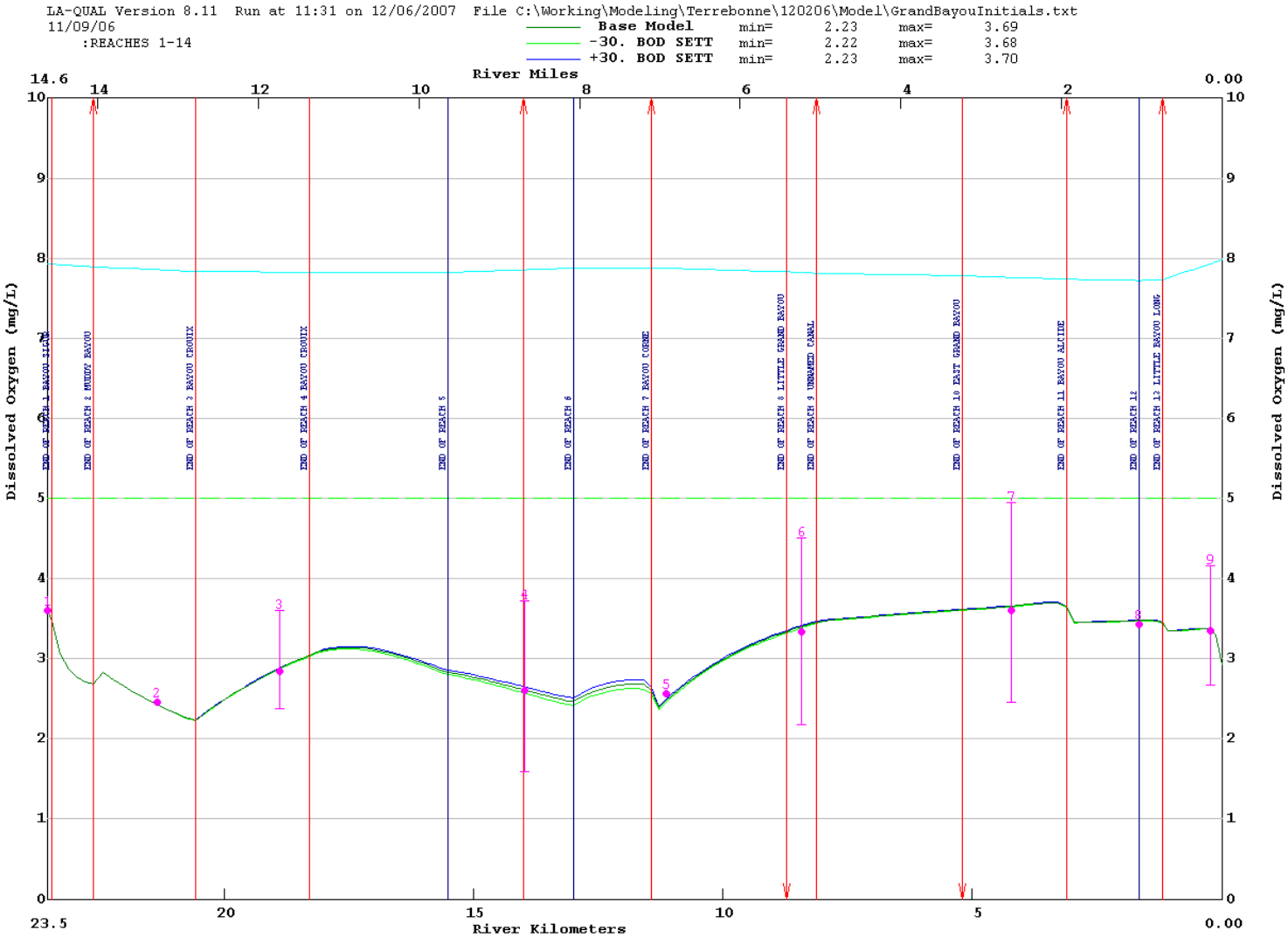
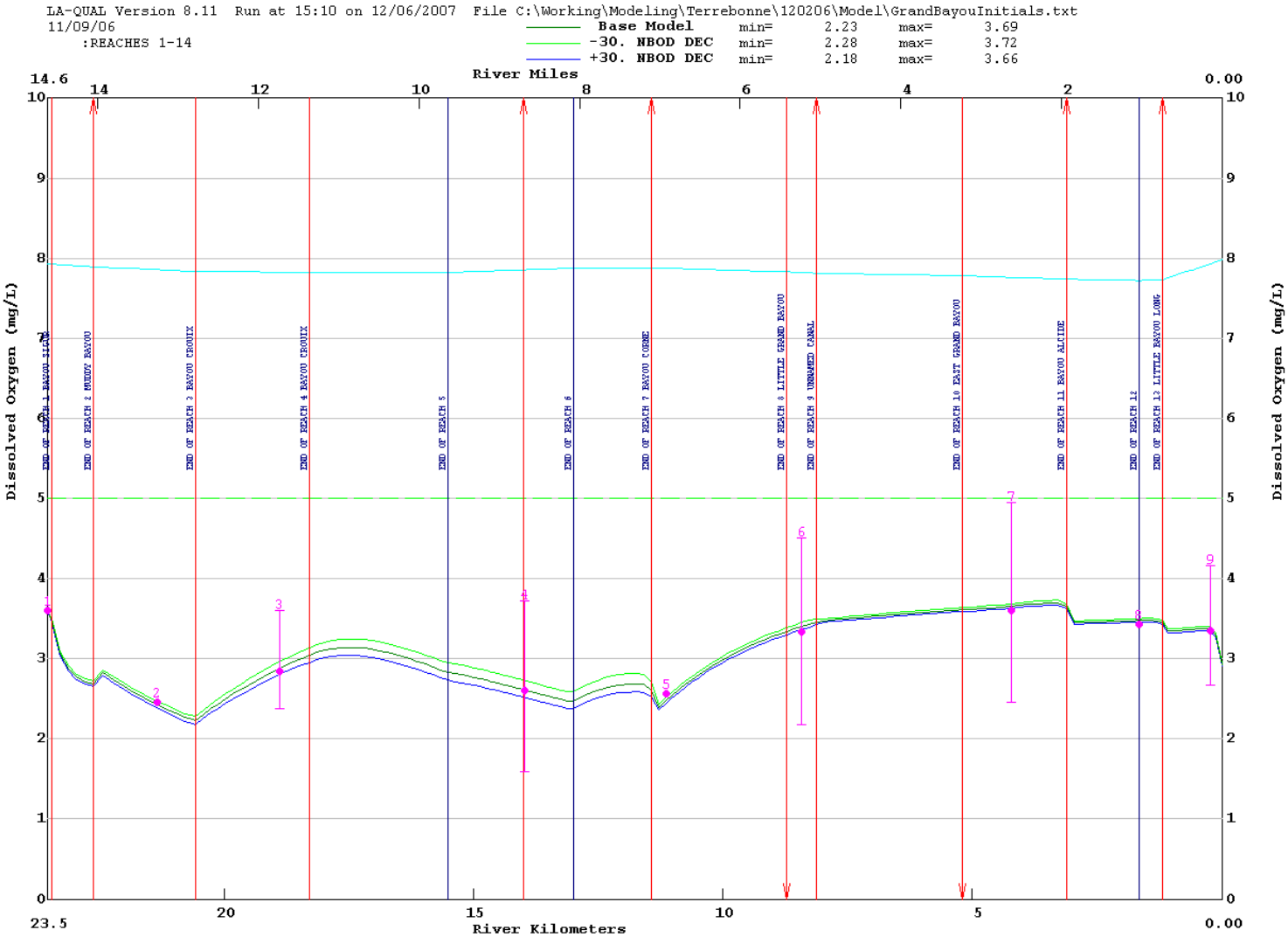
Base Model min= 2.23 max= 3.69
-30. BOD DECA min= 2.30 max= 3.76
+30. BOD DECA min= 2.16 max= 3.63
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers


LA-QUAL Version 8.11 Run at 11:31 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. BOD SETT min= 2.22 max= 3.68
+30. BOD SETT min= 2.23 max= 3.70
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers


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
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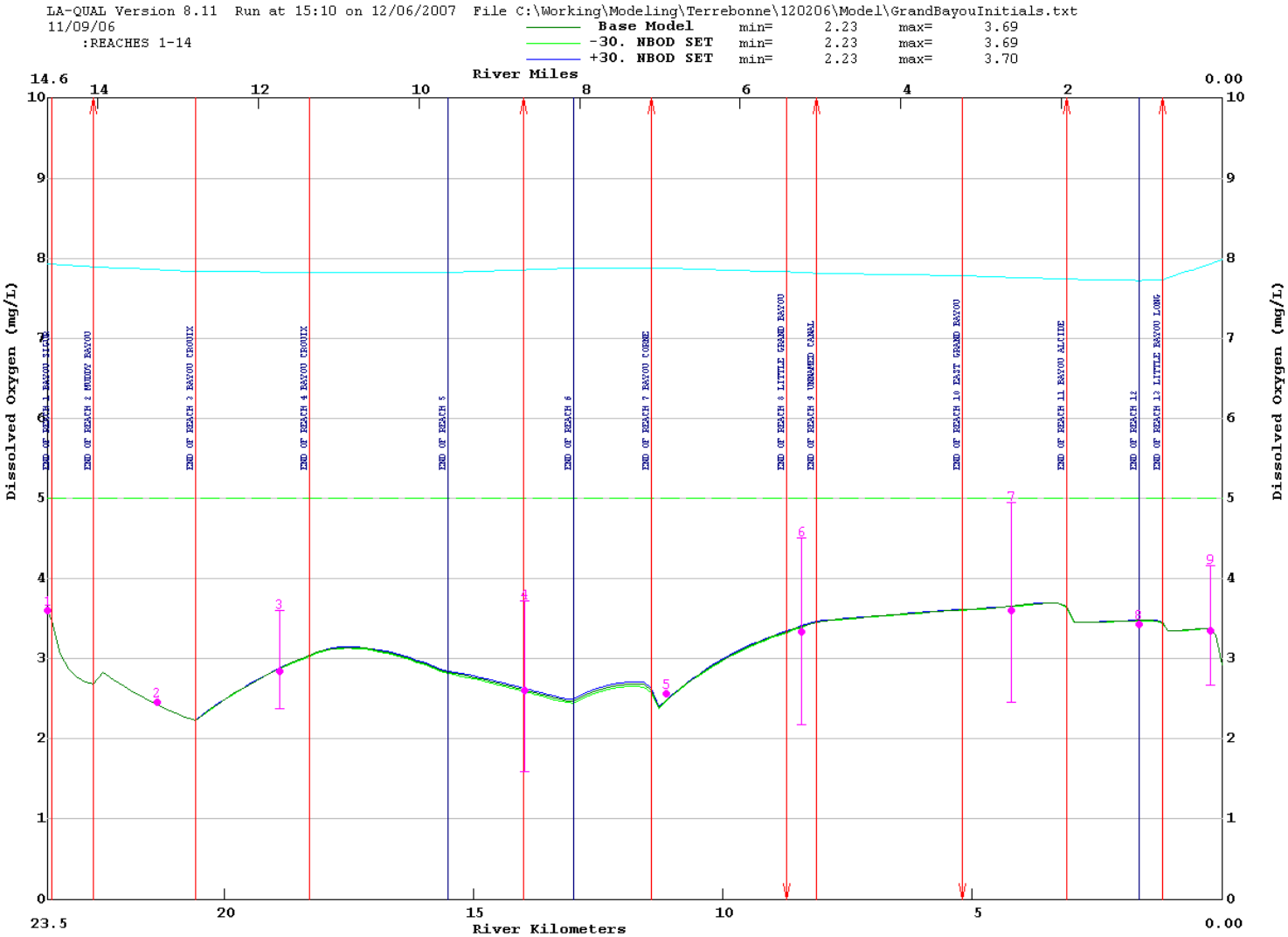
Base Model min= 2.23 max= 3.69
-30. NBOD DEC min= 2.28 max= 3.72
+30. NBOD DEC min= 2.18 max= 3.66
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers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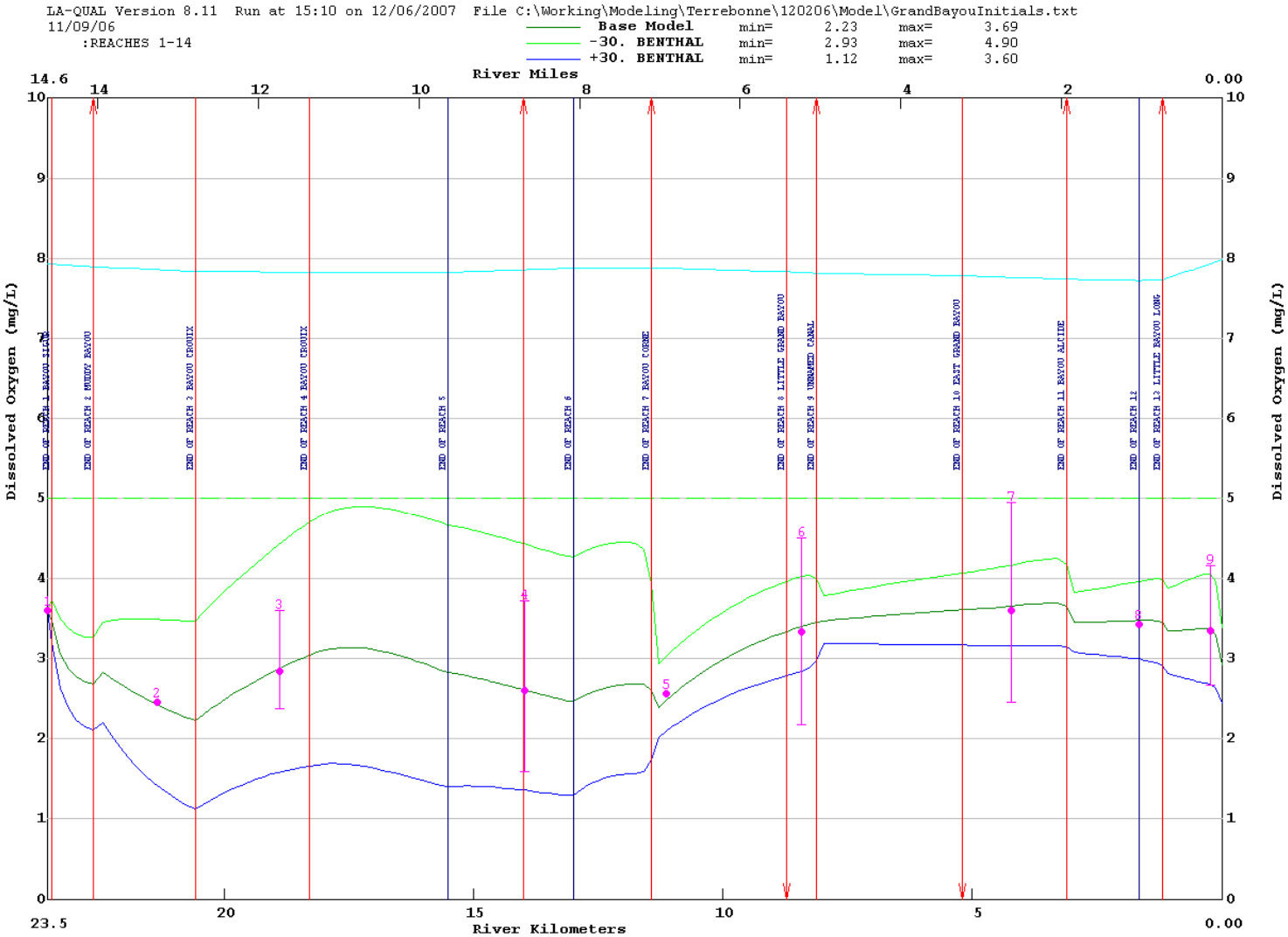
11/09/06
:REACHES 1-14
Base Model min= 2.23 max= 3.69
-30. NBOD SET min= 2.23 max= 3.69
+30. NBOD SET min= 2.23 max= 3.70
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers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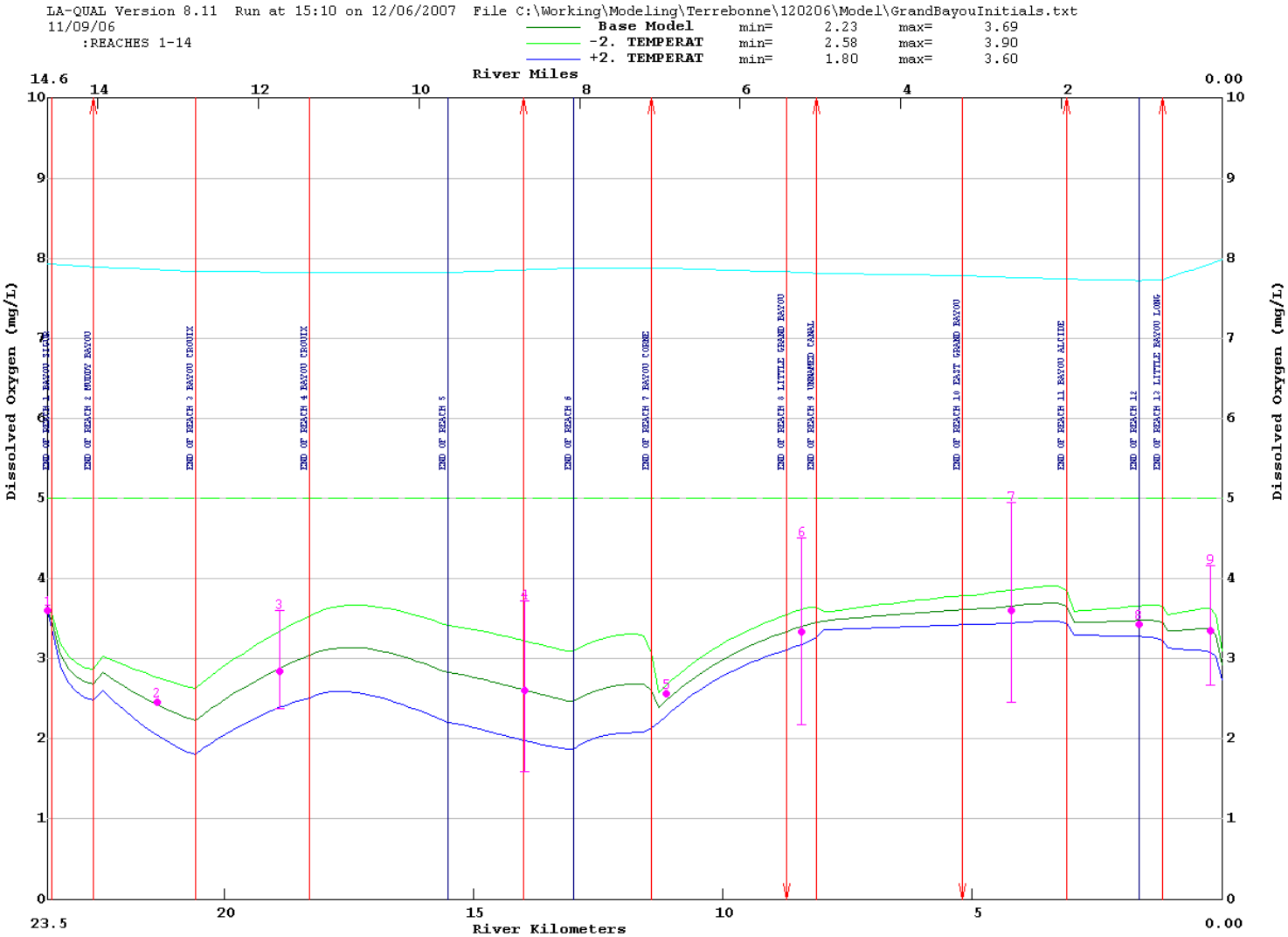
11/09/06
:REACHES 1-14
Base Model min= 2.23 max= 3.69
-30. BENTHAL min= 2.93 max= 4.90
+30. BENTHAL min= 1.12 max= 3.60
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers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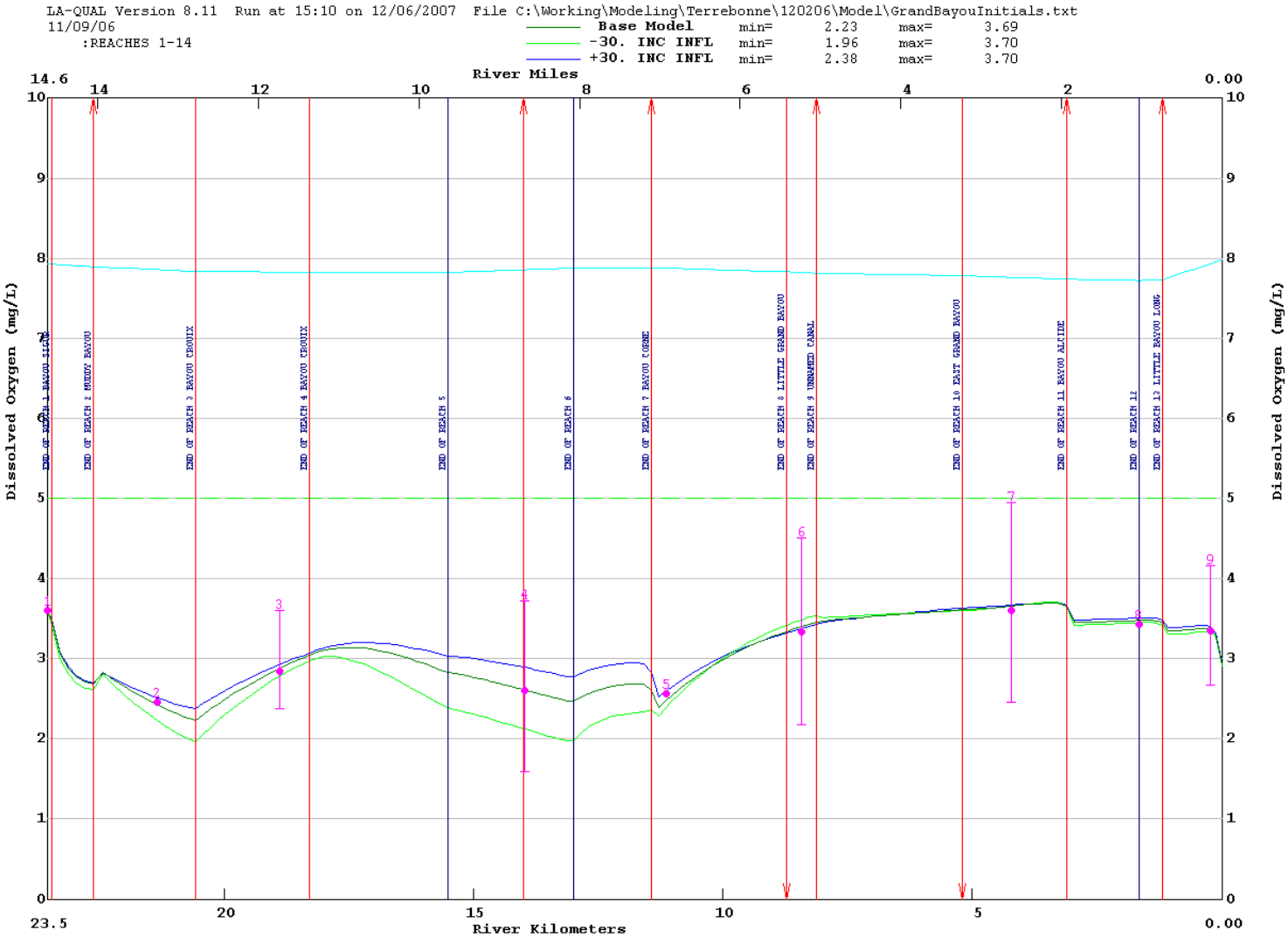
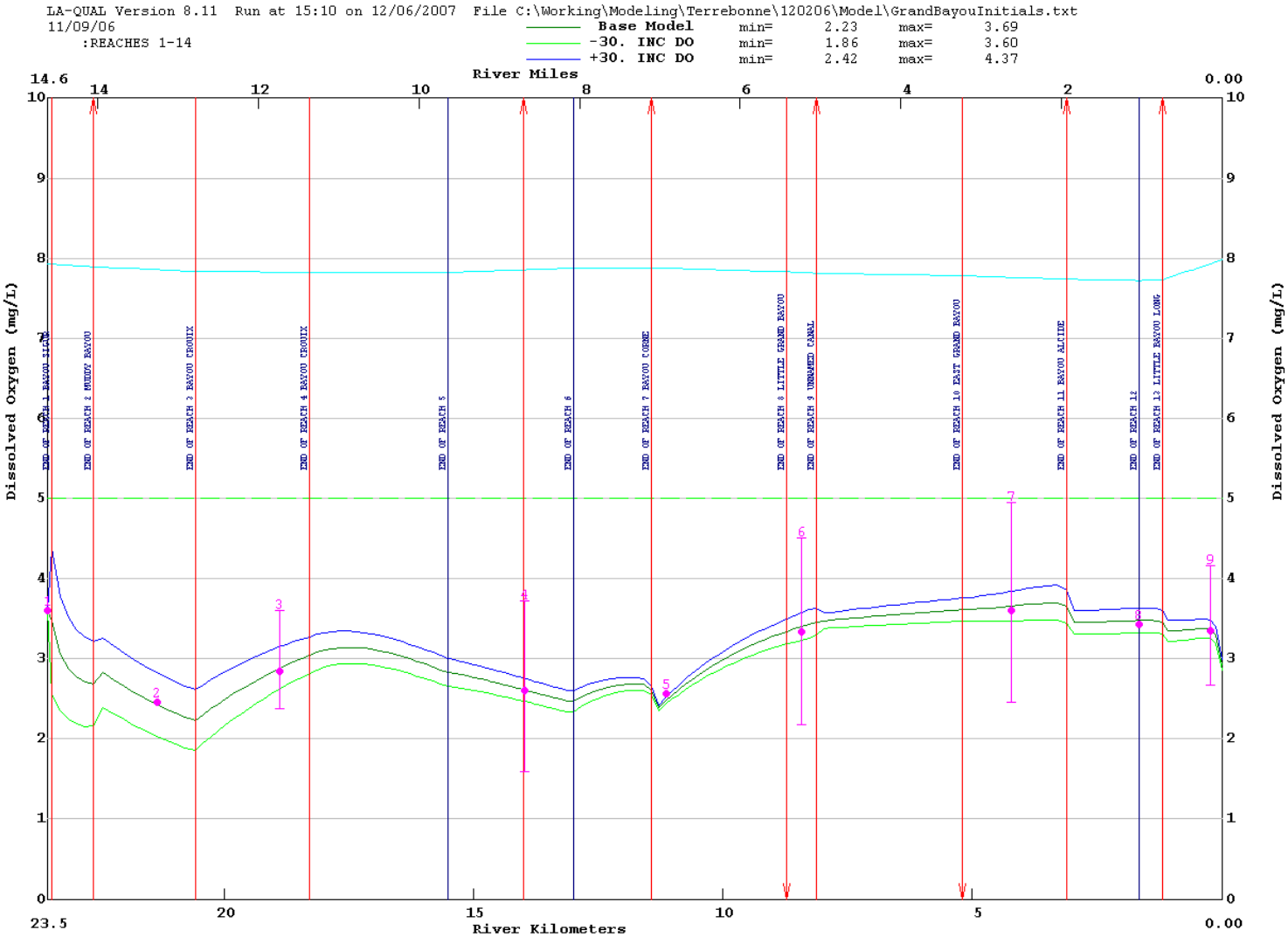
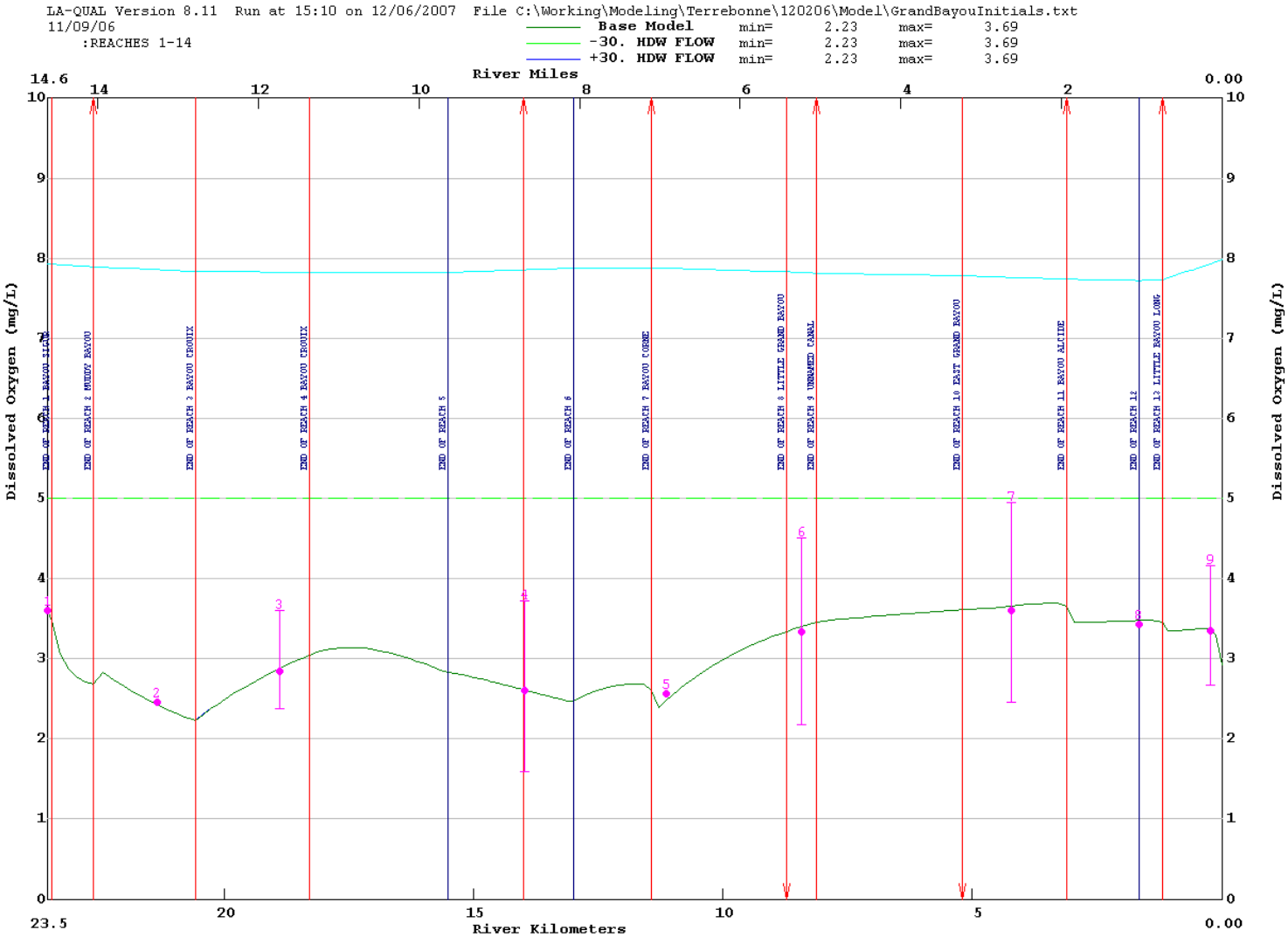
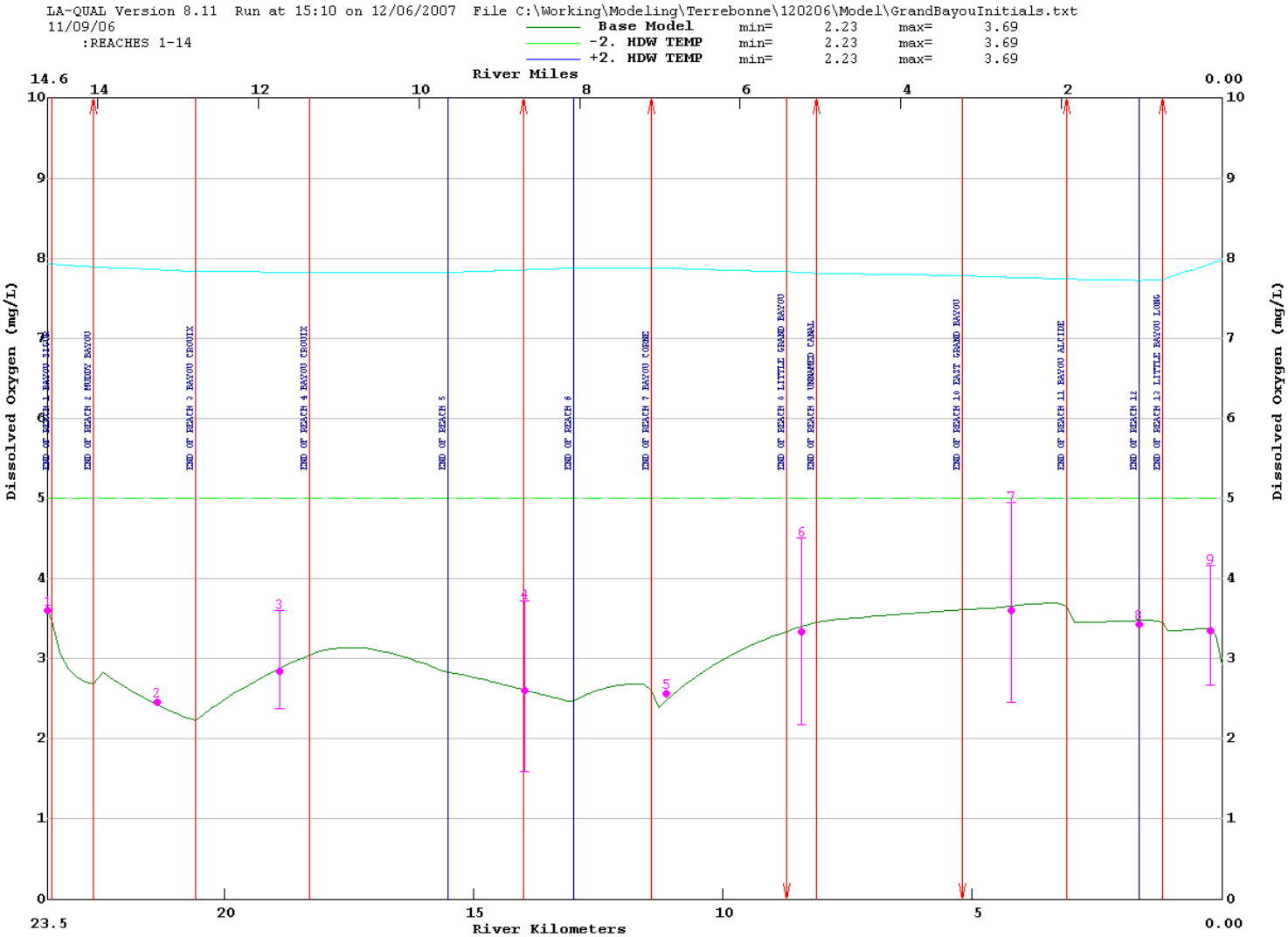
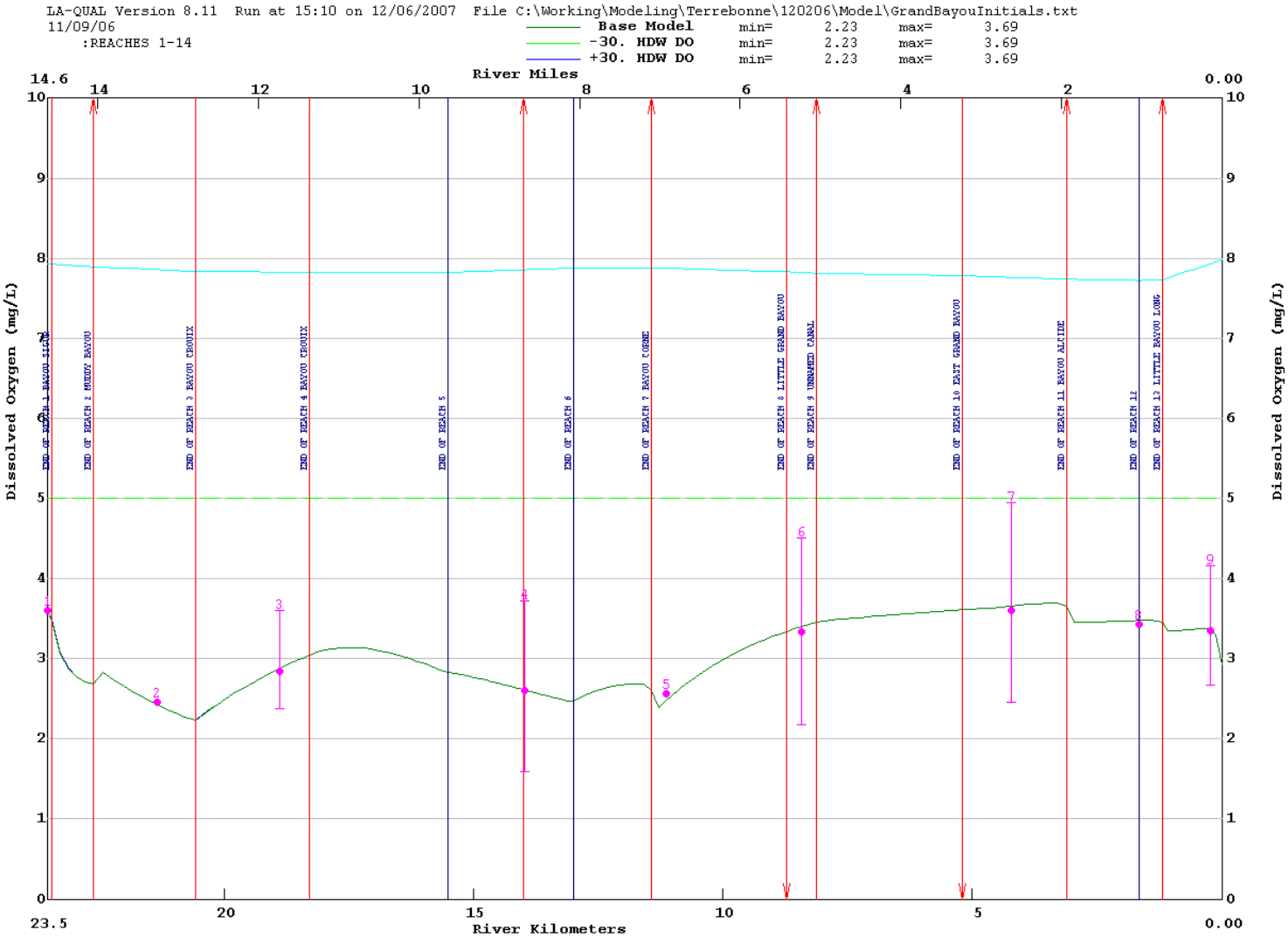
11/09/06
:REACHES 1-14
Base Model min= 2.23 max= 3.69
-2. TEMPERAT min= 2.58 max= 3.90
+2. TEMPERAT min= 1.80 max= 3.60
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

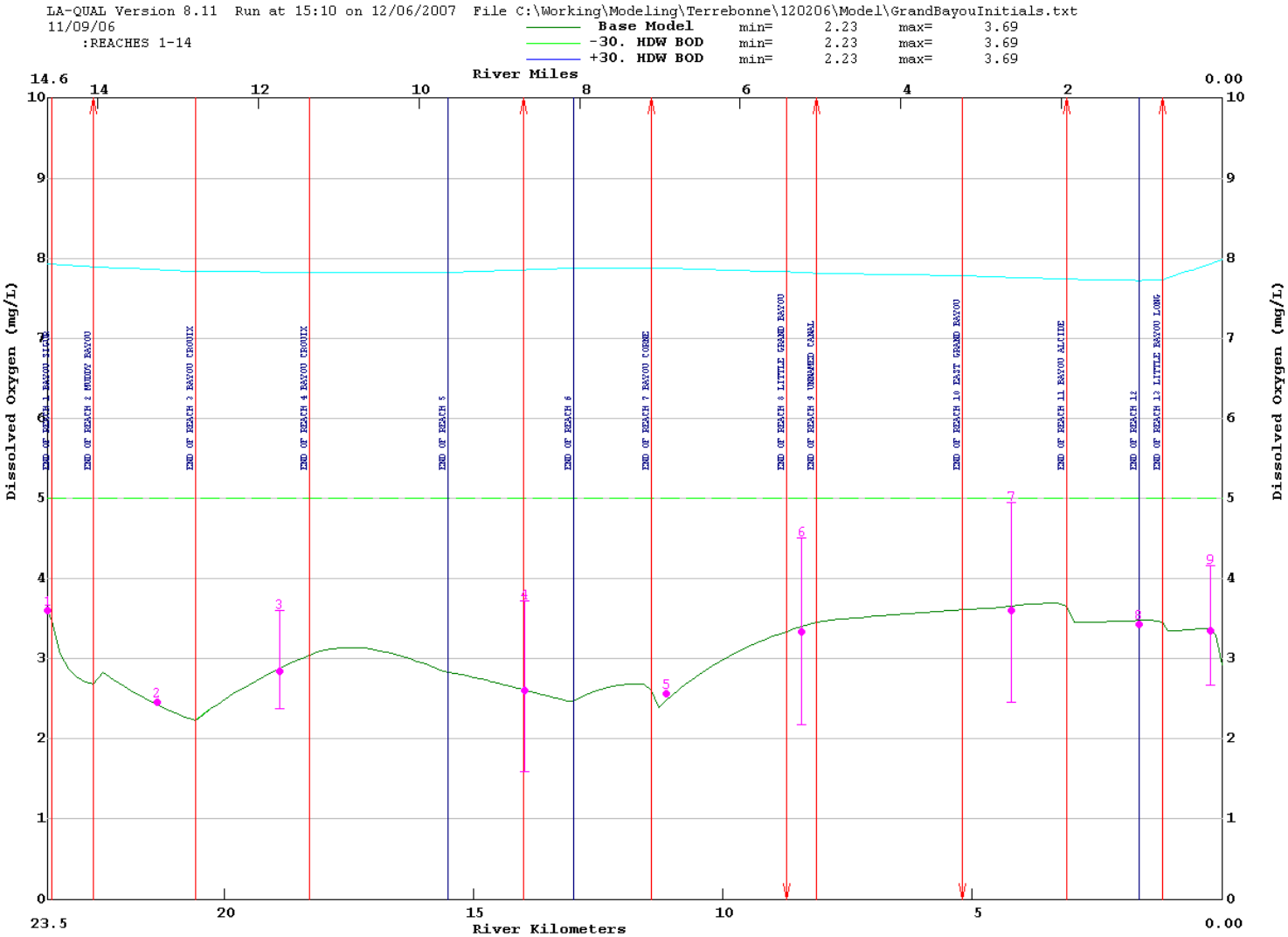

LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
:REACHES 1-14
Base Model min= 2.23 max= 3.69
-30. INC INFL min= 1.96 max= 3.70
+30. INC INFL min= 2.38 max= 3.70
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

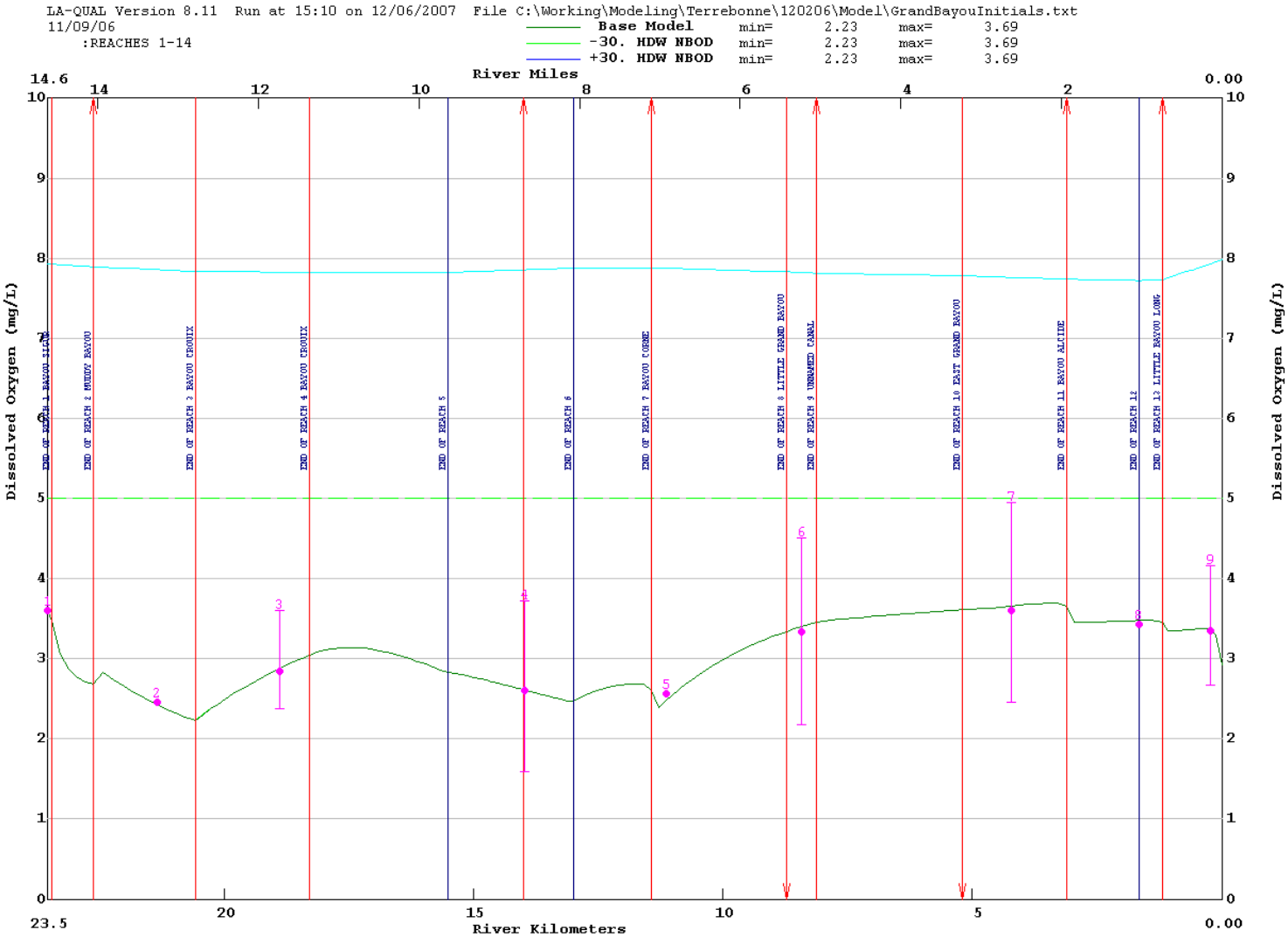

LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
:REACHES 1-14
Base Model min= 2.23 max= 3.69
-30. INC DO min= 1.86 max= 3.60
+30. INC DO min= 2.42 max= 4.37
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU COBRE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

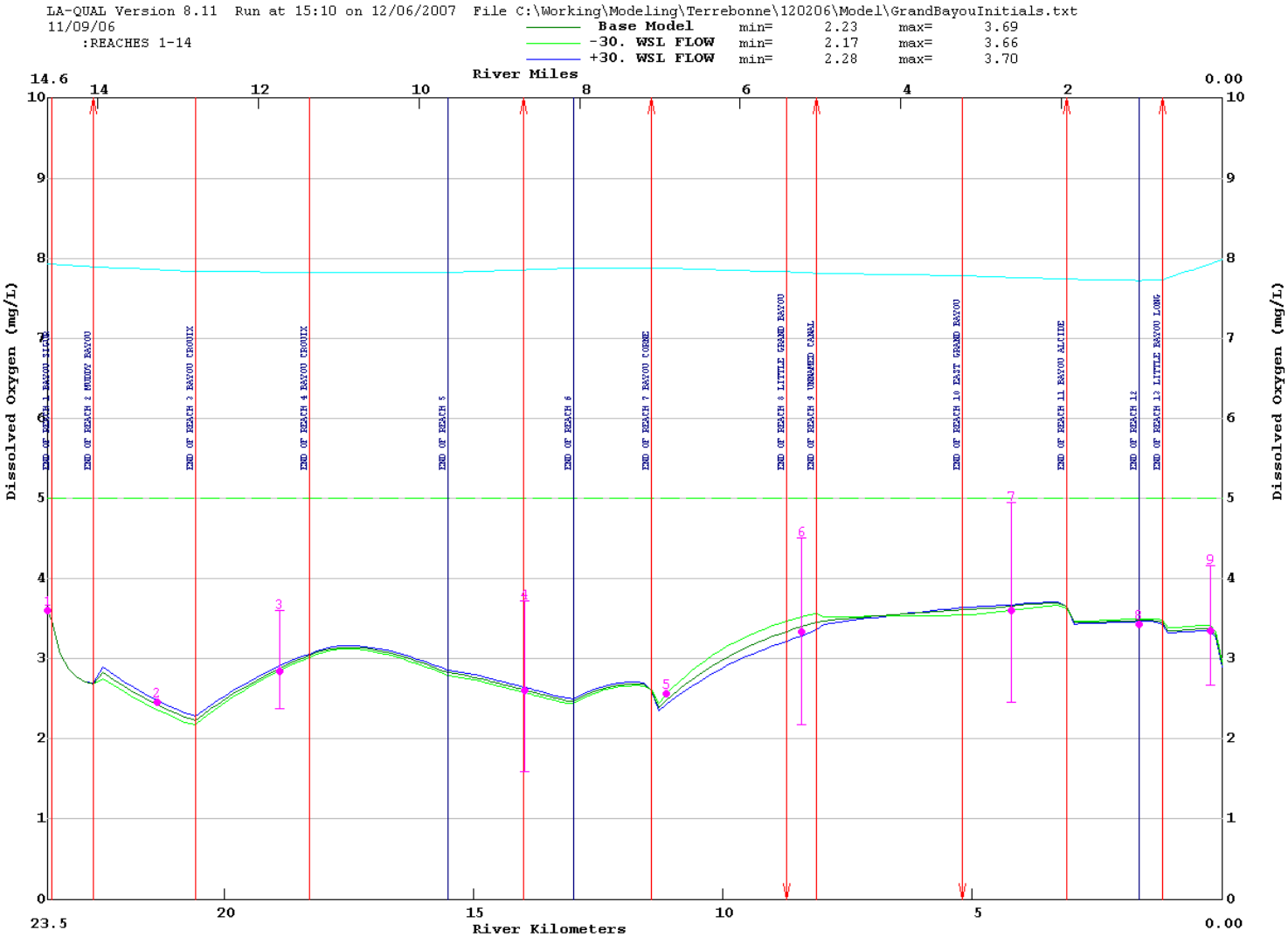

LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
:REACHES 1-14
Base Model min= 2.23 max= 3.69
-30. HDW FLOW min= 2.23 max= 3.69
+30. HDW FLOW min= 2.23 max= 3.69
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

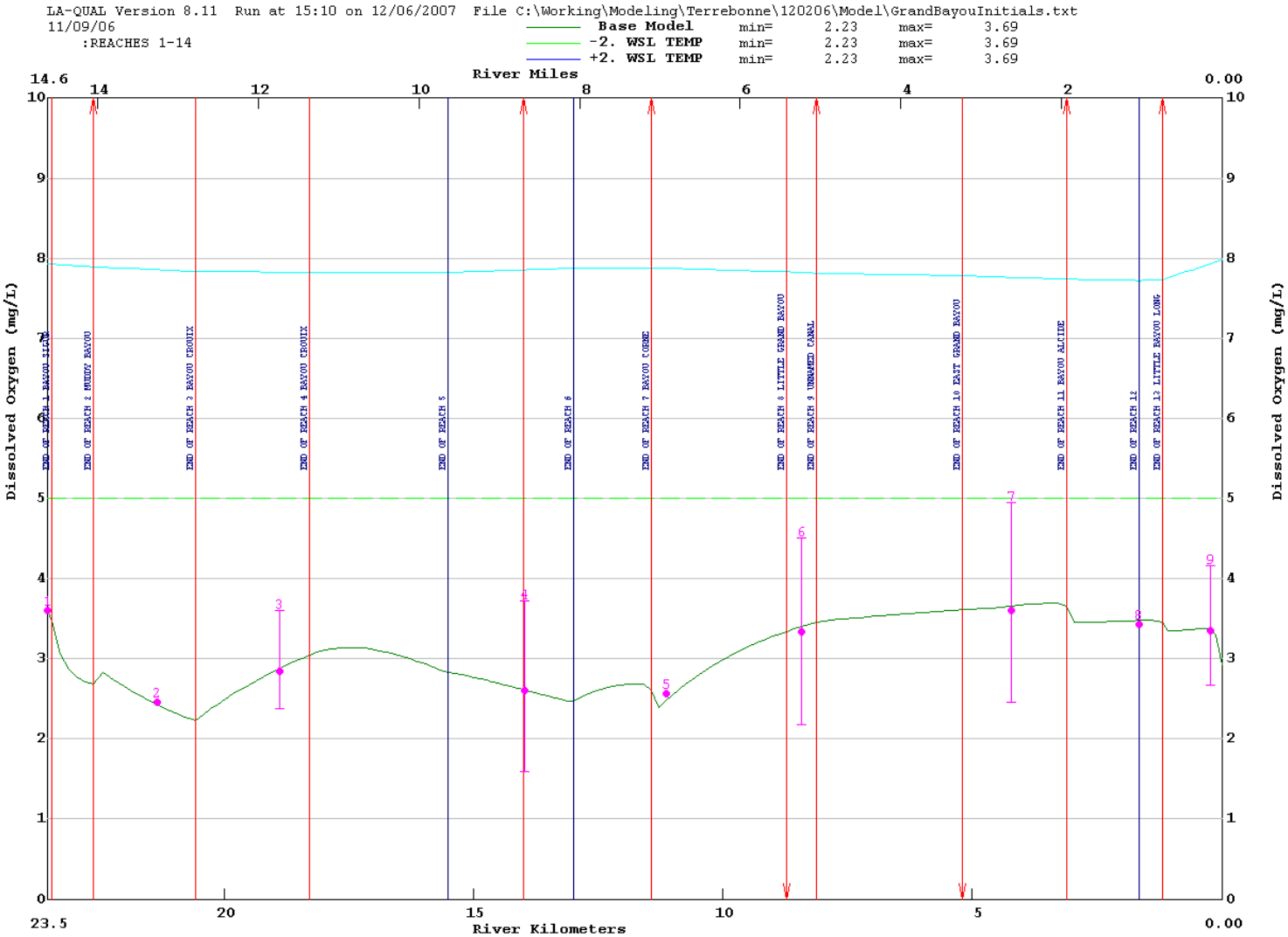

LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
:REACHES 1-14
Base Model min= 2.23 max= 3.69
-2. HDW TEMP min= 2.23 max= 3.69
+2. HDW TEMP min= 2.23 max= 3.69
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU COBRE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

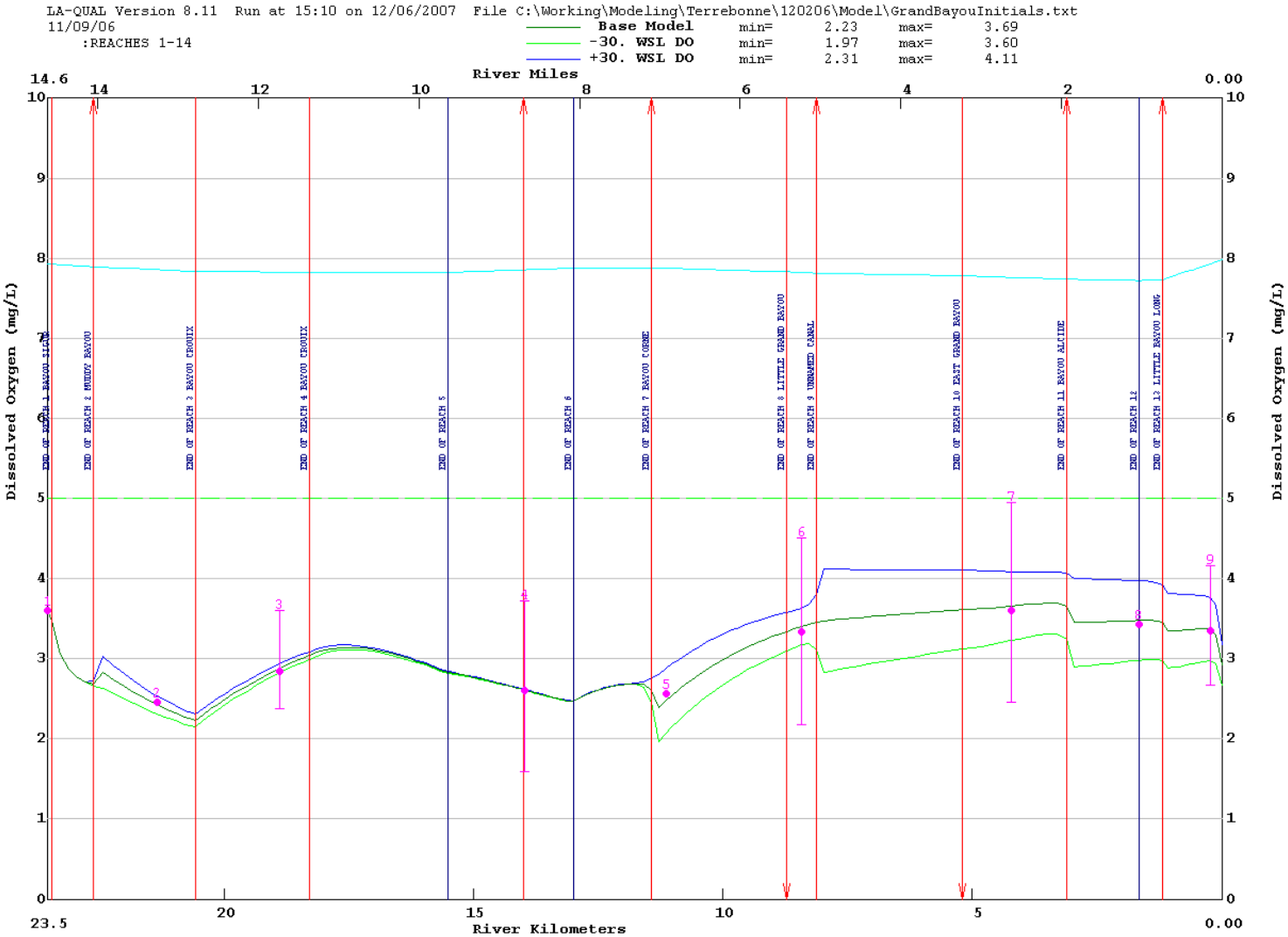

LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
:REACHES 1-14
Base Model min= 2.23 max= 3.69
-30. HDW DO min= 2.23 max= 3.69
+30. HDW DO min= 2.23 max= 3.69
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

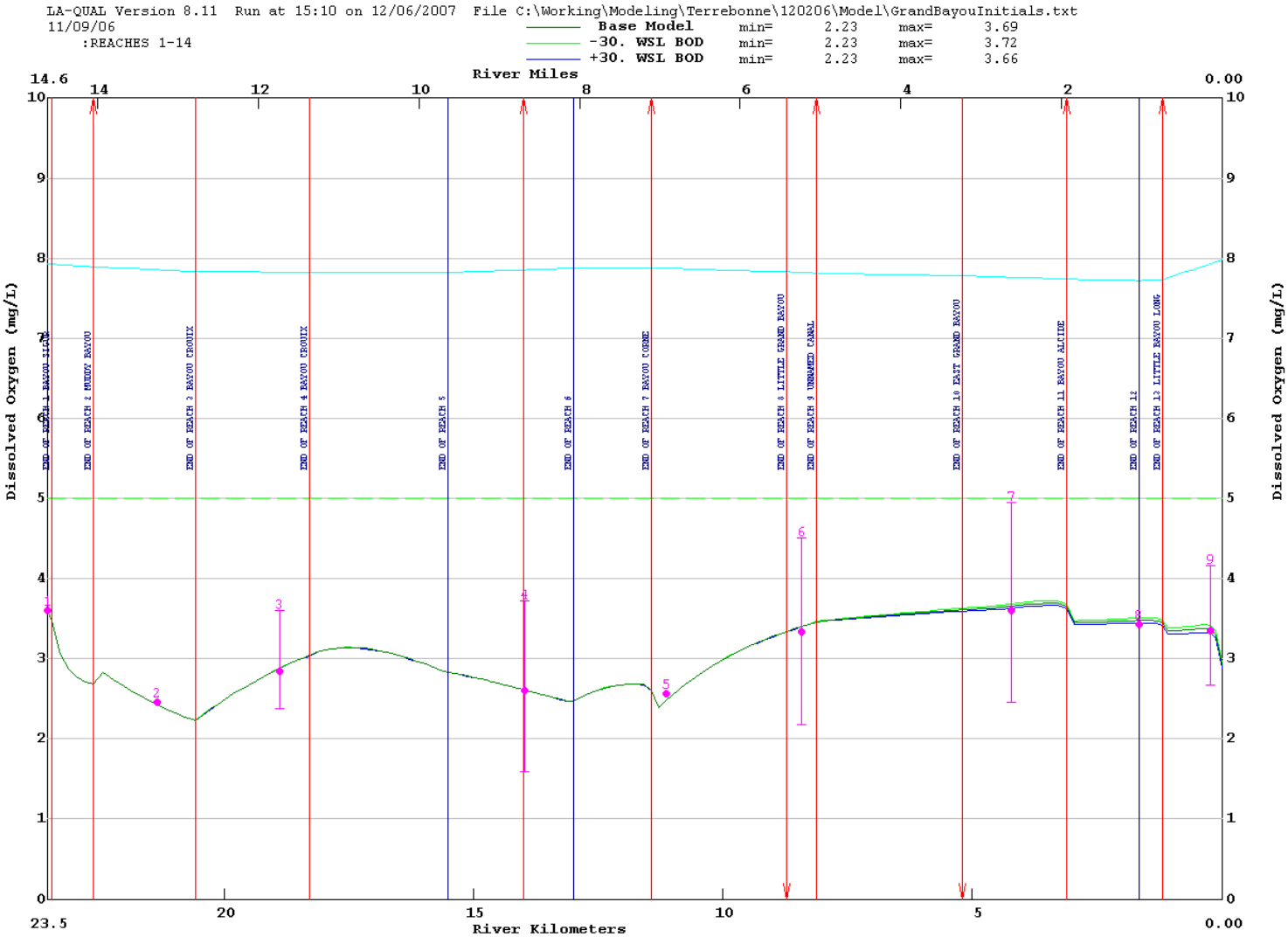

LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
:REACHES 1-14
Base Model min= 2.23 max= 3.69
-30. HDW BOD min= 2.23 max= 3.69
+30. HDW BOD min= 2.23 max= 3.69
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

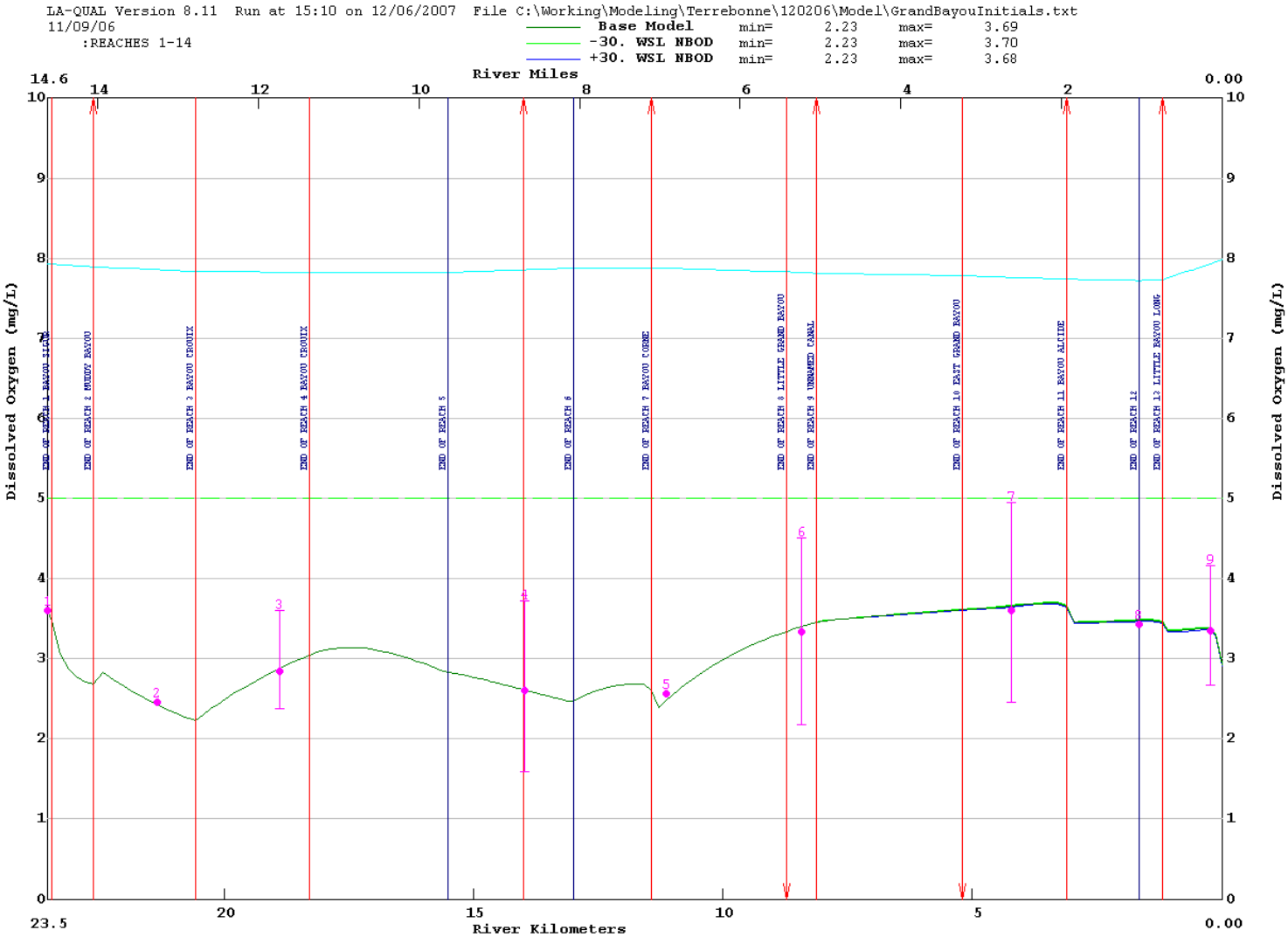

LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
:REACHES 1-14
Base Model min= 2.23 max= 3.69
-30. HDW NBOD min= 2.23 max= 3.69
+30. HDW NBOD min= 2.23 max= 3.69
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

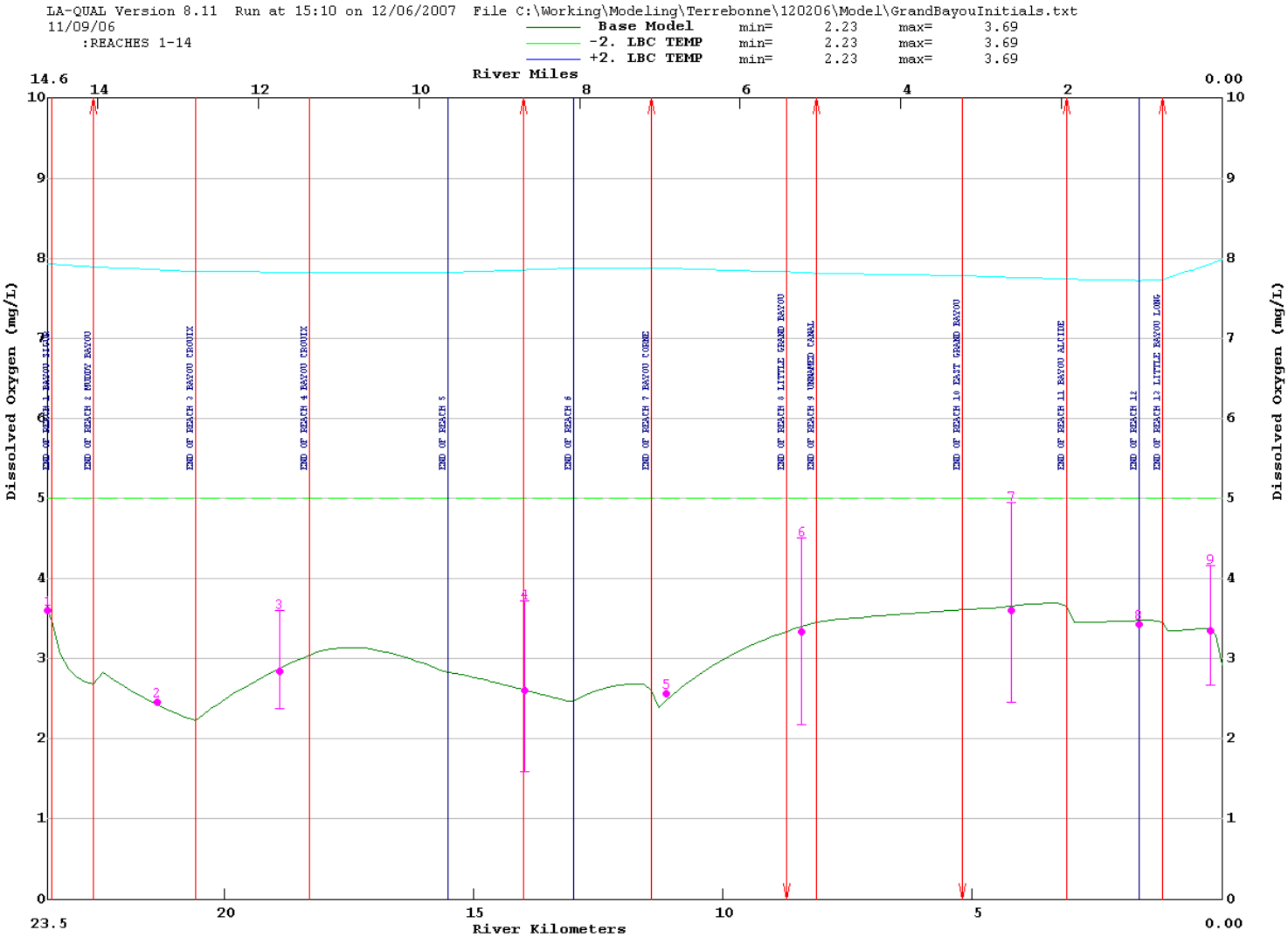

LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
:REACHES 1-14
Base Model min= 2.23 max= 3.69
-30. WSL FLOW min= 2.17 max= 3.66
+30. WSL FLOW min= 2.28 max= 3.70
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU COBRE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

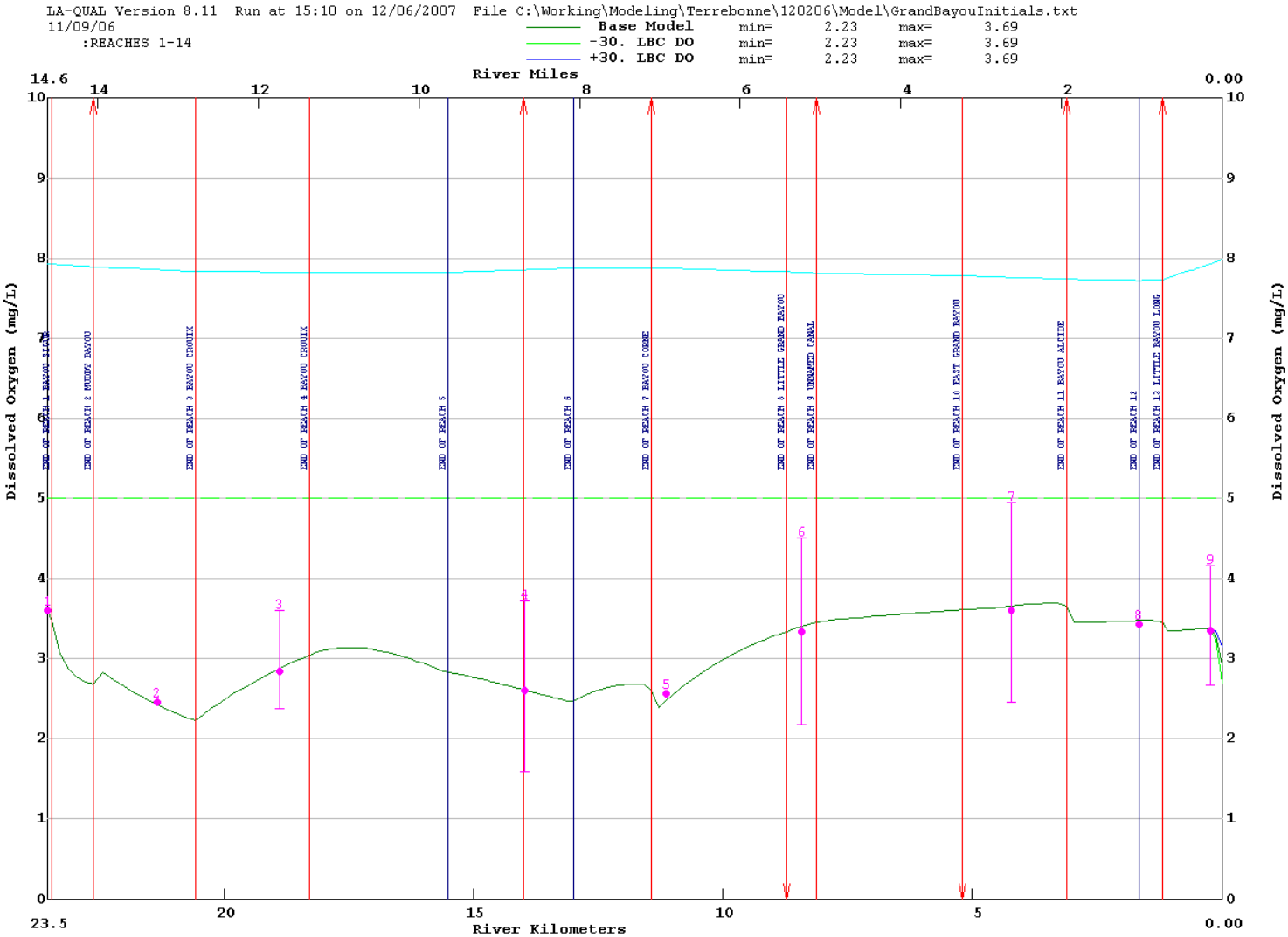

LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
:REACHES 1-14
Base Model min= 2.23 max= 3.69
-2. WSL TEMP min= 2.23 max= 3.69
+2. WSL TEMP min= 2.23 max= 3.69
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

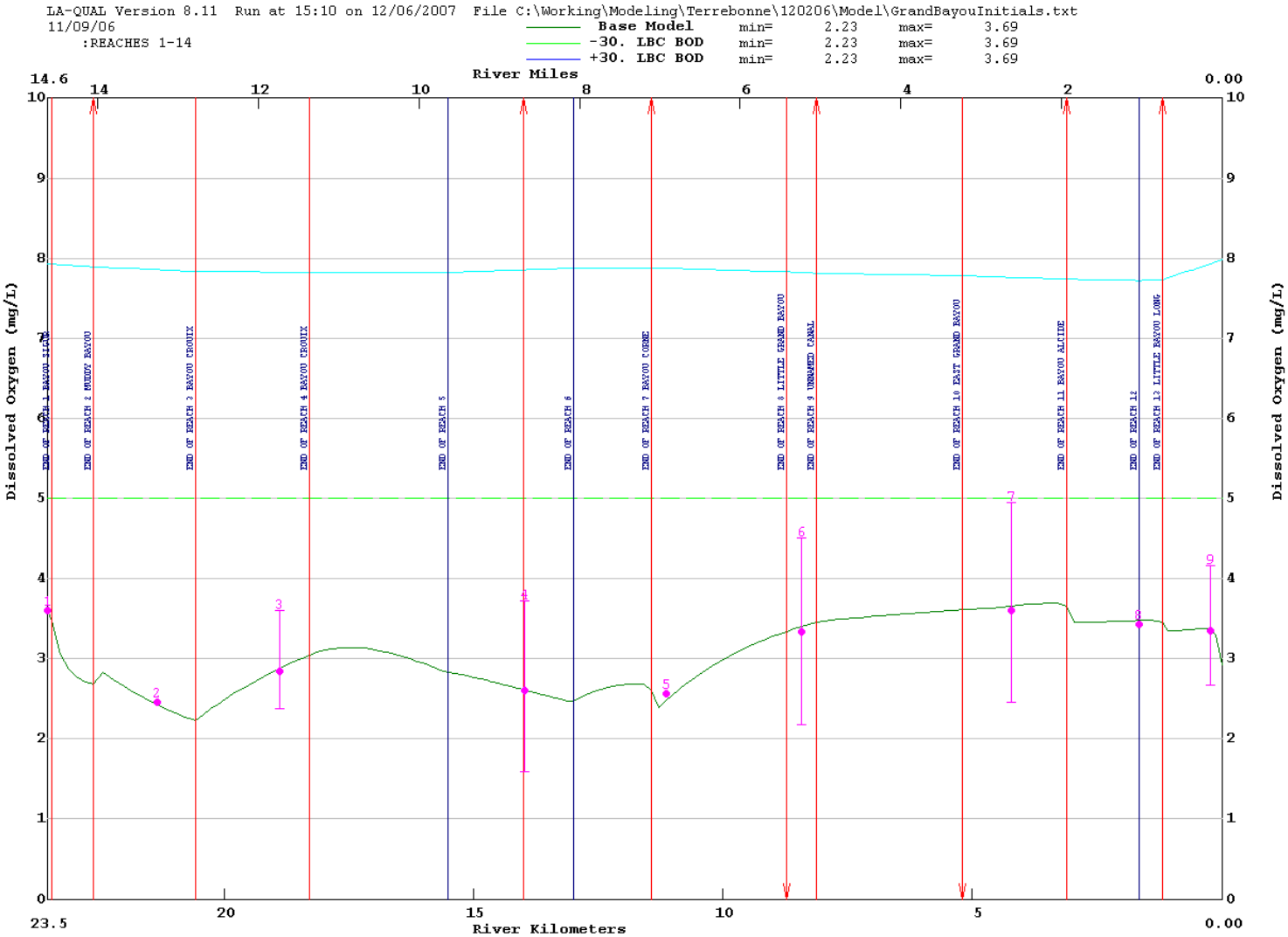

LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
:REACHES 1-14
Base Model min= 2.23 max= 3.69
-30. WSL DO min= 1.97 max= 3.60
+30. WSL DO min= 2.31 max= 4.11
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

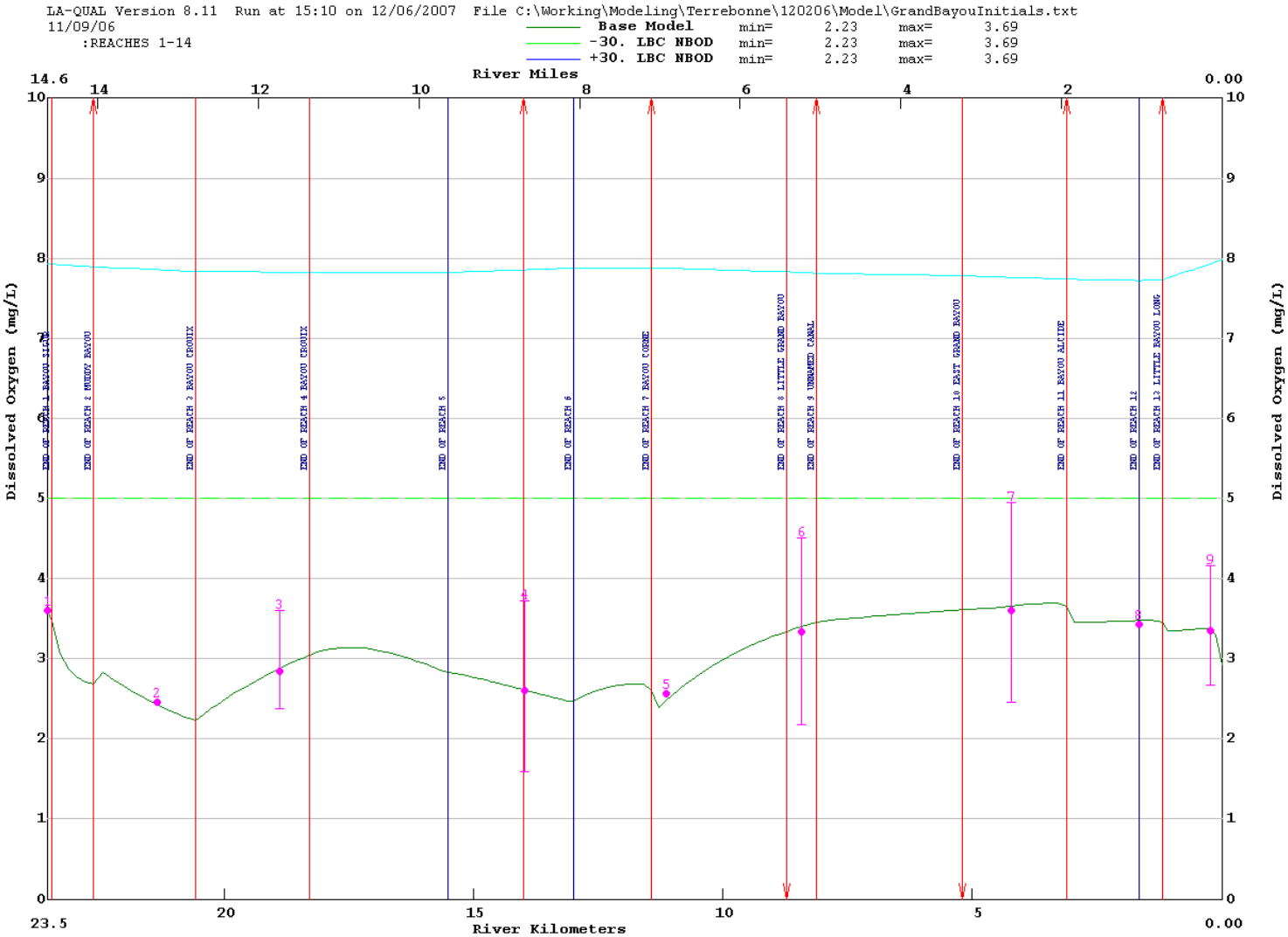

LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
:REACHES 1-14
Base Model min= 2.23 max= 3.69
-30. WSL BOD min= 2.23 max= 3.72
+30. WSL BOD min= 2.23 max= 3.66
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

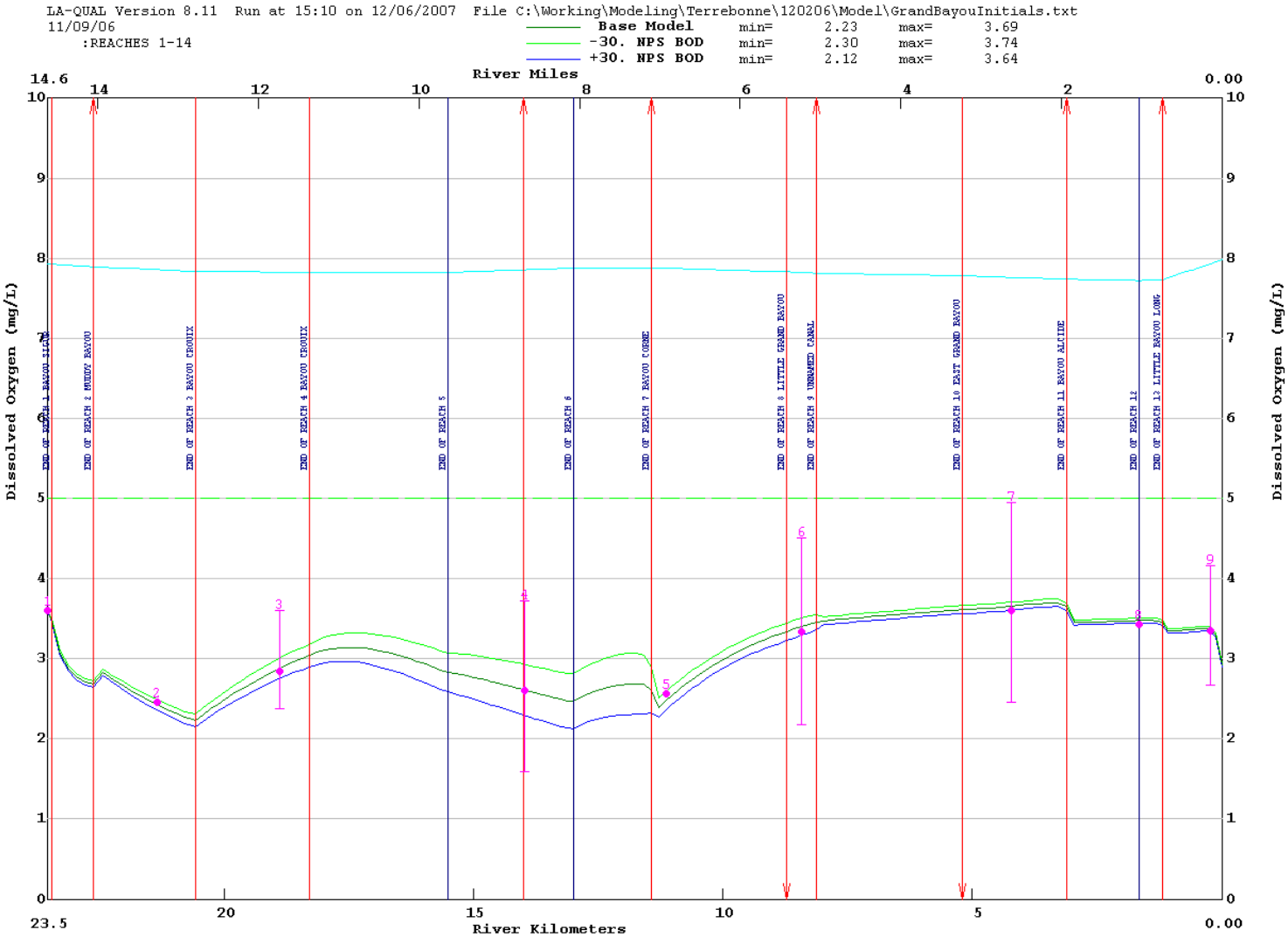

LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
:REACHES 1-14
Base Model min= 2.23 max= 3.69
-30. WSL NBOD min= 2.23 max= 3.70
+30. WSL NBOD min= 2.23 max= 3.68
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

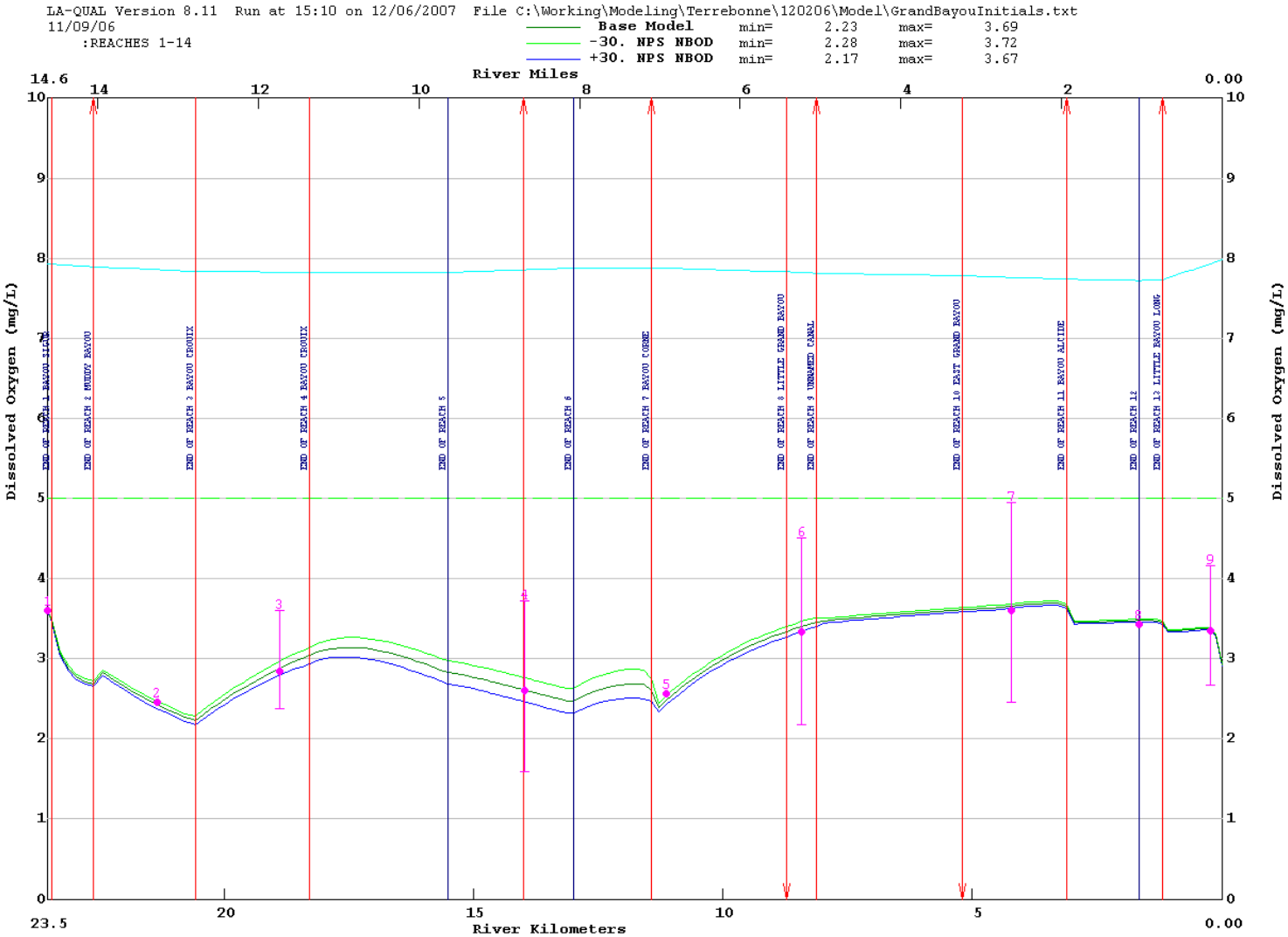

LA-QUAL Version 8.11 Run at 15:10 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\GrandBayouInitials.txt
11/09/06
:REACHES 1-14
Base Model min= 2.23 max= 3.69
-2. LBC TEMP min= 2.23 max= 3.69
+2. LBC TEMP min= 2.23 max= 3.69
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers


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
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers


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 BOD min= 2.23 max= 3.69
+30. LBC BOD min= 2.23 max= 3.69
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU COBRE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers


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
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers


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
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers


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
River Miles
14.6
14
12
10
8
6
4
2
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1 BAYOU LITTLE
END OF REACH 2 MUDDY BAYOU
END OF REACH 3 BAYOU CROUIX
END OF REACH 4 BAYOU CROUIX
END OF REACH 5
END OF REACH 6
END OF REACH 7 BAYOU CORNE
END OF REACH 8 LITTLE GRAND BAYOU
END OF REACH 9 UNNAMED CANAL
END OF REACH 10 EAST GRAND BAYOU
END OF REACH 11 BAYOU ALCINE
END OF REACH 12
END OF REACH 13 LITTLE BAYOU LONG
23.5
20
15
10
5
0.00
River Kilometers

Sensitivity Output Data Set

```
LA-QUAL Version 8.11
Louisiana Department of Environmental Quality

Input file is C:\Documents and Settings\shanec\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

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)
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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

$$$ DATA TYPE 8 (REACH IDENTIFICATION DATA) $$$
                                                      BEGIN         END     ELEM    REACH     ELEMS   BEGIN    END
CARD TYPE  REACH  ID  NAME                            REACH        REACH   LENGTH   LENGTH    PER RCH   ELEM   ELEM
                                                         km           km       km       km               NUM    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
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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       WIDTH       WIDTH       DEPTH       DEPTH       DEPTH      SLOPE    MANNINGS
                            "A"         "B"         "C"         "D"         "E"         "F"                   "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     DISPERSION     DISPERSION     DISPERSION     DISPERSION
                        RANGE        "A"            "B"            "C"            "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
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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

$$$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) $$$
                                                                                                  BOD     ANAER                          BOD2     ANAER
CARD     RCH  RCH  K2                    K2        K2        K2    BKGRND       BOD       BOD     CONV      BOD2      BOD2      BOD2     CONV      BOD2
TYPE     NUM   ID  OPT                   "A"       "B"       "C"      SOD     DECAY      SETT   TO SOD     DECAY     DECAY      SETT   TO SOD     DECAY
                                                                   g/m²/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
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$$$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) $$$

CARD TYPE      REACH  ID        NBOD      NBOD   ORGN CONV       NH3       NH3      PHOS     DENIT
                                DECA      SETT  TO NH3 SRCE     DECA      SRCE      SRCE      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    ALGAE:     ALGAE    ALG CONV     ALGAE     ALGAE     MACRO     MACRO
                                DEPTH     CHL A      SETT     TO SOD       GROW      RESP      GROW      RESP   SHADING

ENDATA14

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

CARD TYPE      REACH  ID    COLIFORM       NCM       NCM    NCM CONV
                             DIE-OFF     DECAY      SETT     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
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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
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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     FLOW    TEMP    SALIN      CM-I     CM-II
                                                      m³/s      cfs   deg C      ppt      MG/L      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     BOD#1     NBOD                          BOD#2
                                                   mg/L      mg/L      mg/L      mg/L      mg/L      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   UPSTRM     RIVER     NAME
             ELEMENT  ELEMENT     KILOM

ENDATA23

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

CARD TYPE  ELEMENT    RKILO  NAME                    FLOW       FLOW     FLOW    TEMP    SALIN      CM-I     CM-II
                                                     m³/s        cfs      MGD   deg C      ppt      MG/L      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

$$$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) $$$
                                                                  % BOD                          %
CARD TYPE     ELEMENT   NAME                          DO       BOD      RMVL     NBOD                NITRIF                BOD#2
                                                    mg/L      mg/L                mg/L      mg/L                mg/L      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
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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     CHL A      COLI       NCM
                                                    mg/L      mg/L      mg/L      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 CROUIX (BYC1)         0.00     78.10      0.00      0.00
WSTLD-3          32     BAYOU CROUIX (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 21


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

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

 ELEM  TYPE        FLOW     TEMP     SALN     CM-I    CM-II     DO  BOD#1  BOD#2 EBOD#1 EBOD#2   ORGN    NH3  NO3+2   PHOS  CHL A     COLI     NCM
 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

    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   BEGIN  ENDING       FLOW   PCT   ADVCTV    TRAVEL   DEPTH   WIDTH    VOLUME    SURFACE  X-SECT     TIDAL   TIDAL   DISPRSN    MEAN
  NO.    DIST    DIST               EFF     VELO      TIME                                 AREA    AREA     PRISM    VELO              VELO
          km      km        m³/s            m/s      days       m       m        m³         m²      m²        m³     m/s      m²/s     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  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
 NO.     DIST  D.O.    RATE  DECAY  SETT  DECAY  DECAY  SETT  DECAY   SOD   SOD   SOD  DECAY  SETT  DECAY  SRCE   RATE  SRCE  PROD  PROD  DECAY  DECAY  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
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1	23.440	7.92	0.94	0.12	0.06	0.00	0.00	0.00	0.00	6.32	6.32	6.32	0.15	0.06	0.00	0.00	0.00	0.00	4.38	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.82	0.08	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/m³	COLI #/100mL	NCM
1	23.440	27.26	0.15	14.12	290.07	3.47	4.55	0.00	10.83	0.00	3.34	0.00	0.00	0.00	0.00	62.75	0.00	0.	0.00

FINAL REPORT Grand Bayou Upstream GRAND BAYOU
REACH NO. 2 BAYOU SIGUR-MUDDY 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
2	UPR RCH	0.10100	27.26	0.15	14.12	290.07	3.47	4.55	0.00	10.83	0.00	3.34	0.00	0.00	0.00	62.75	0.00	0.00
EACH	INCR	0.07000	0.00	0.14	18.08	214.22	2.18	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
2	23.44	23.28	0.17100	0.0	0.01152	0.16	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.316	0.012
3	23.28	23.11	0.24100	0.0	0.01623	0.12	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.446	0.016
4	23.11	22.95	0.31100	0.0	0.02094	0.09	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.575	0.021
5	22.95	22.78	0.38100	0.0	0.02566	0.07	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.705	0.026
6	22.78	22.62	0.45100	0.0	0.03037	0.06	0.90	16.50	2435.40	2706.00	14.85	0.00	0.000	0.835	0.030
TOT						0.51			12177.00	13530.00					
AVG					0.0186		0.90	16.50			14.85				
CUM						0.62									

********** 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/m³	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 CROUIX(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 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
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. 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
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	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

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	
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 CROUIX(BYC1)-B CROUIX(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

* $g/m^2/d$ ** 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 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/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

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 GRAND BAYOU
REACH NO. 6 km 15.5-km 13.0 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	
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 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
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/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
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

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 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
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 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
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/m³	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 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
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/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
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

********** 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
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. 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
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/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
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 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			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 GRAND BAYOU
REACH NO. 11 E GRAND BAYOU-BAYOU ALCIDE 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/m³	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 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
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

		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
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/m³	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 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
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. 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
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
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
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
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
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

* 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
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 GRAND BAYOU
REACH NO. 14 L BAYOU LONG-LAKE VERRET 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 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
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

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/m³	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
Grand Bayou Upstream 11/09/06

TRAVEL TIME = 10.36 DAYS

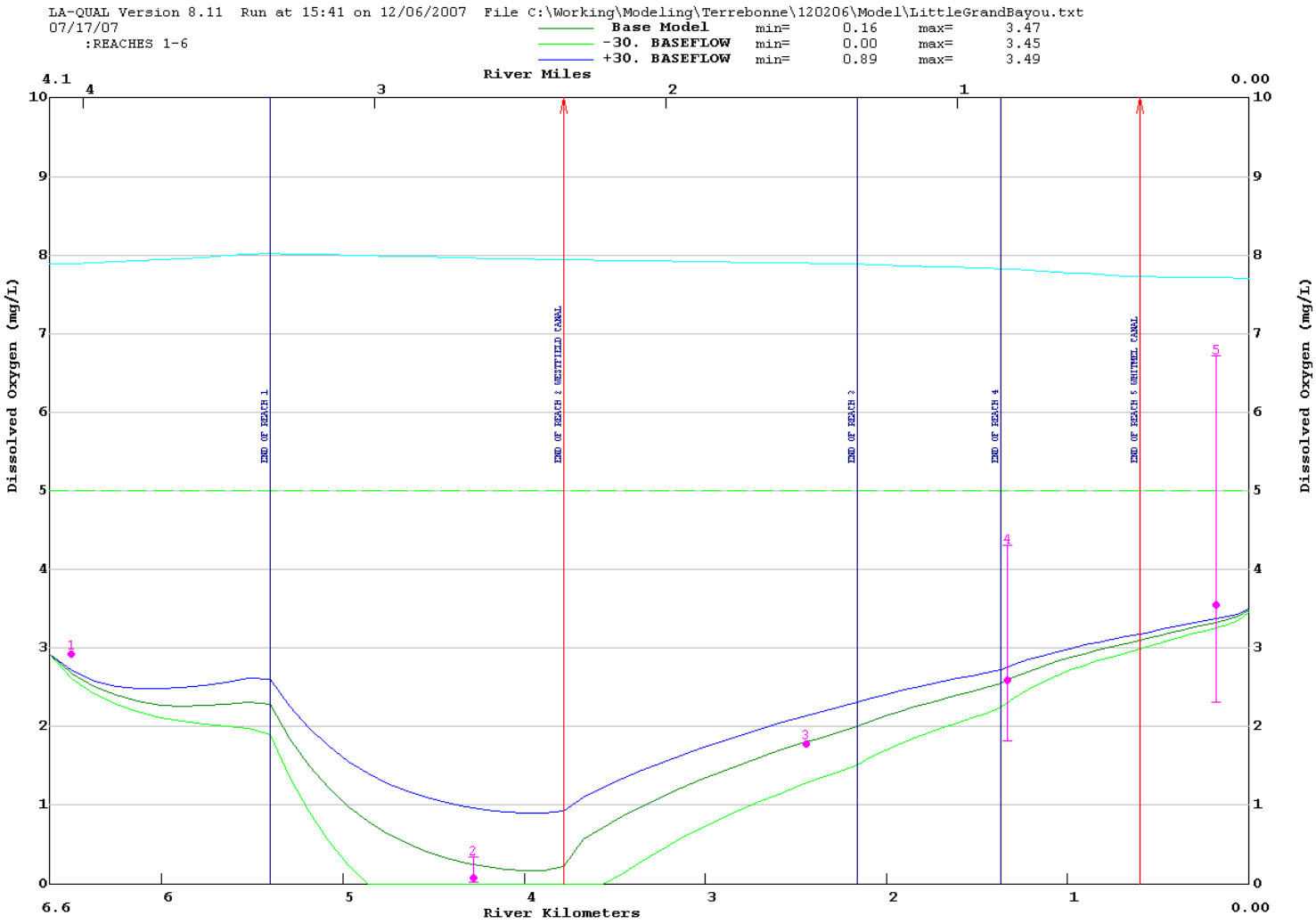
MAXIMUM EFFLUENT = 78.51 PERCENT

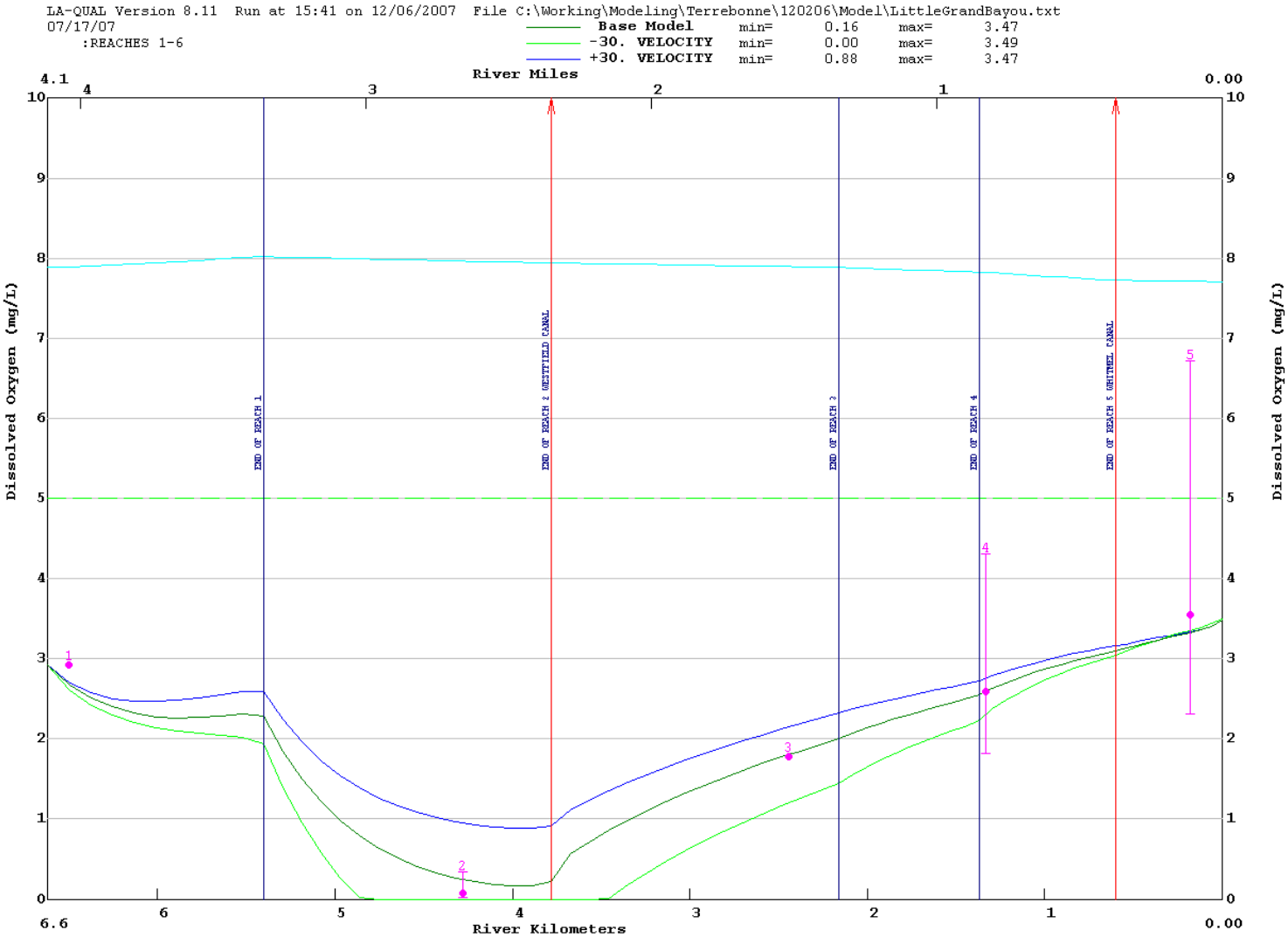
FLOW	=	0.10100	TO	8.24934	m³/s
DISPERSION	=	0.2552	TO	5.0631	m²/s
VELOCITY	=	0.00971	TO	0.11715	m/s
DEPTH	=	0.85	TO	1.73	m
WIDTH	=	12.19	TO	152.40	m
BOD DECAY	=	0.08	TO	0.12	per day

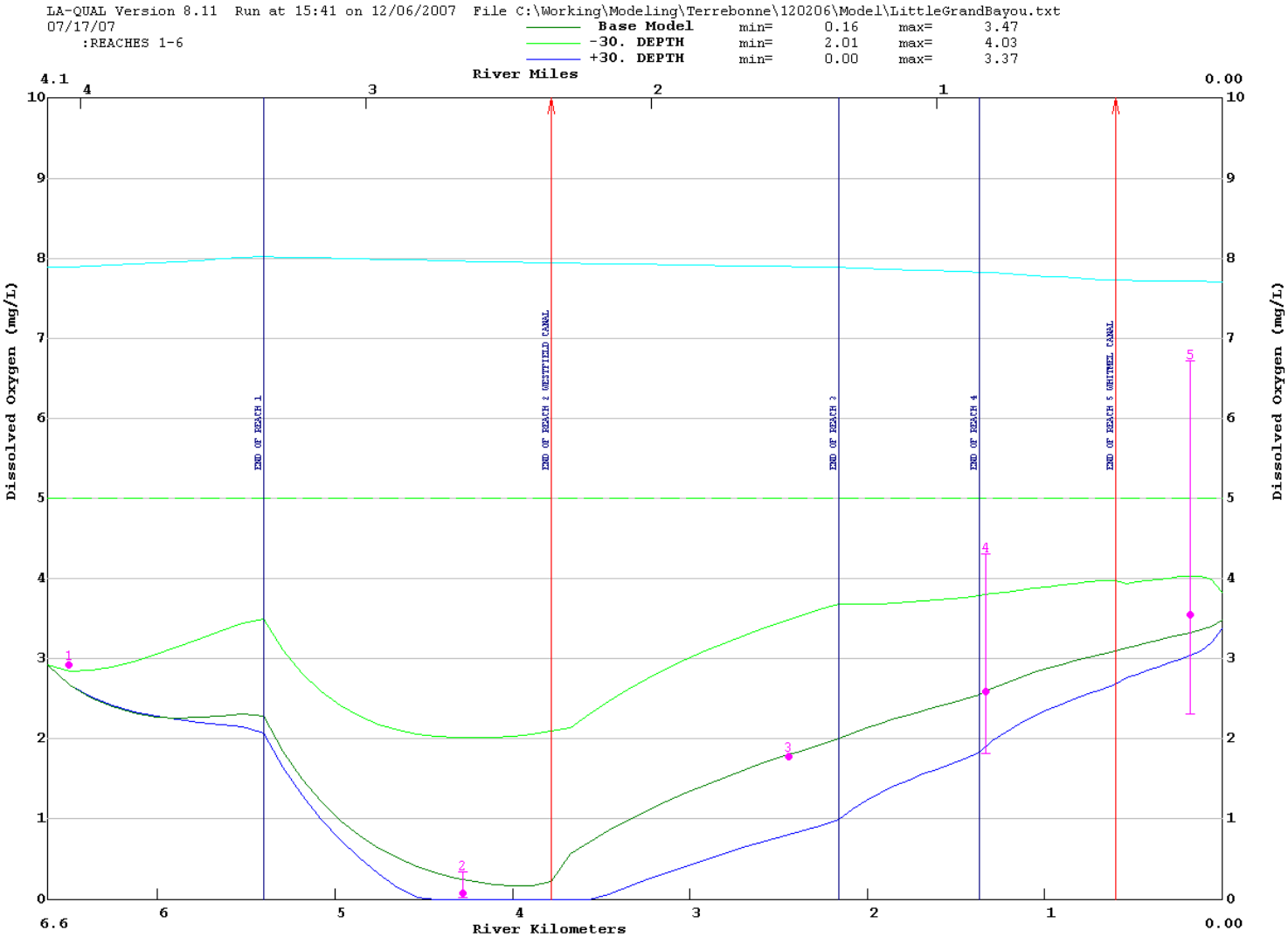
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	3.23	TO	8.46	$g/m^2/d$
NH3 SOURCE	=	0.00	TO	0.00	$g/m^2/d$
REAERATION	=	0.47	TO	0.94	per day
BOD SETTLING	=	0.06	TO	0.06	per day
NBOD DECAY	=	0.12	TO	0.19	per day
NBOD SETTLING	=	0.06	TO	0.06	per day
TEMPERATURE	=	26.84	TO	28.73	deg C
DISSOLVED OXYGEN	=	2.23	TO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

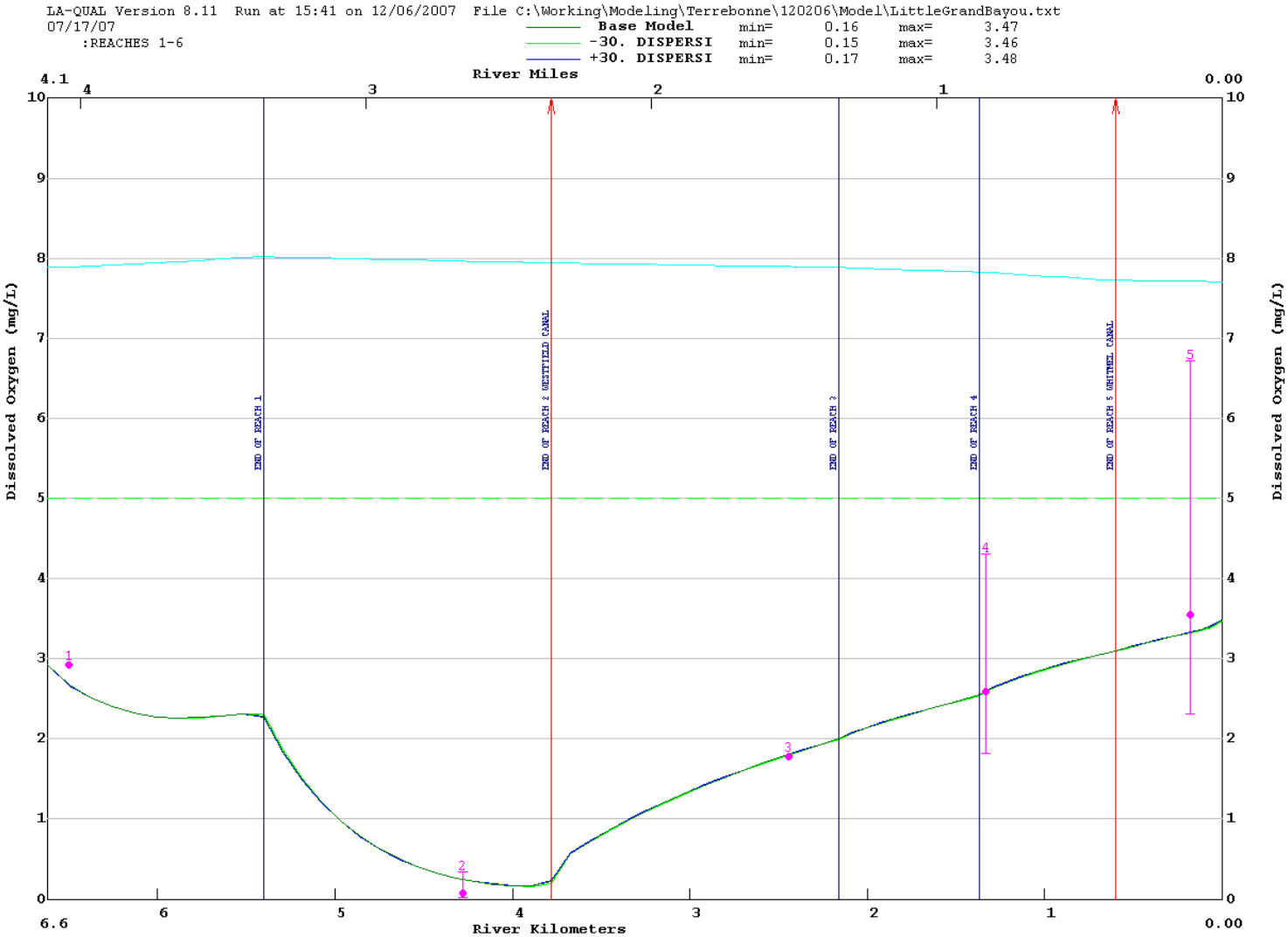
Appendix I2 – Little Grand Bayou

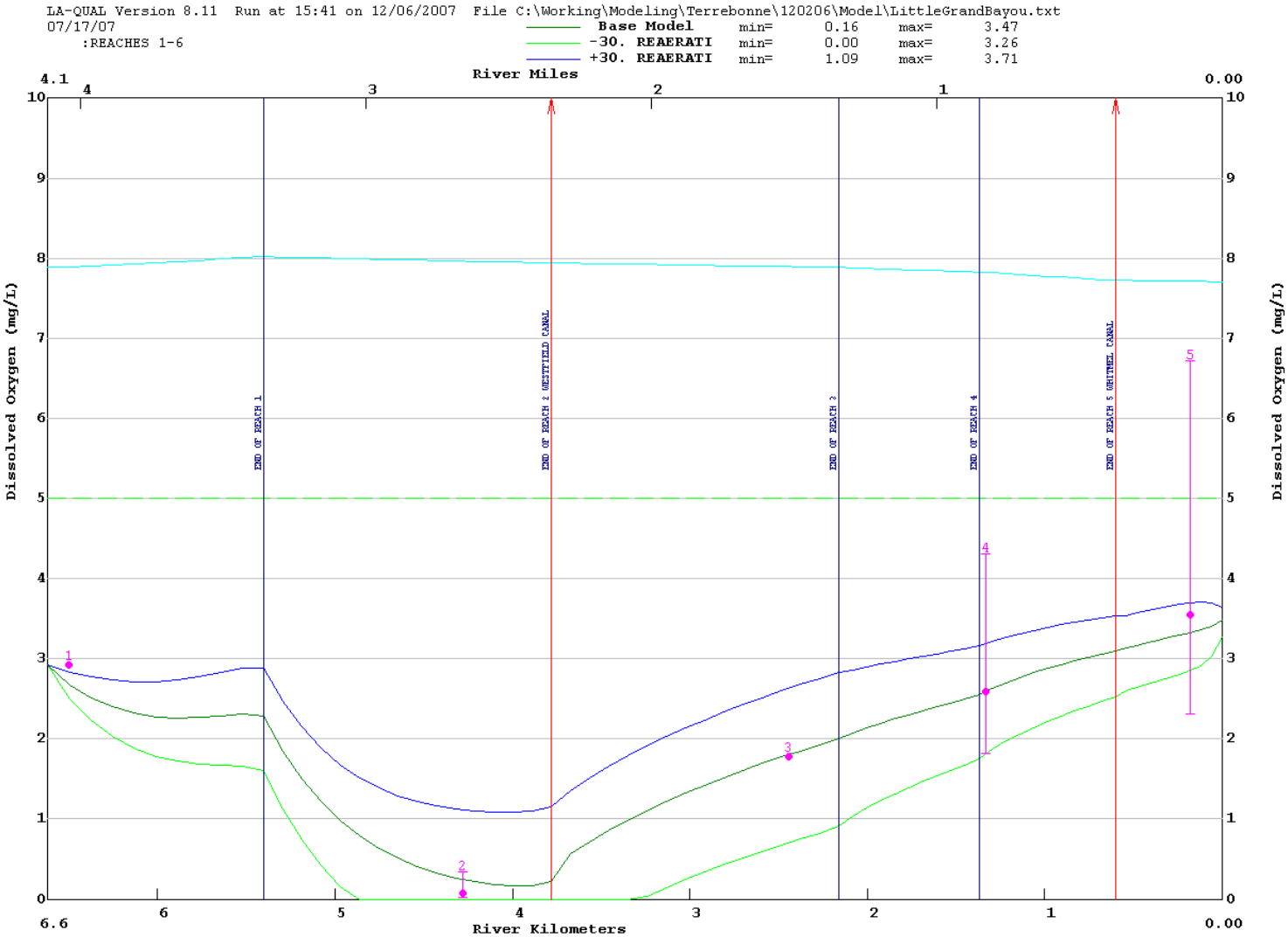
Sensitivity Output Graphs

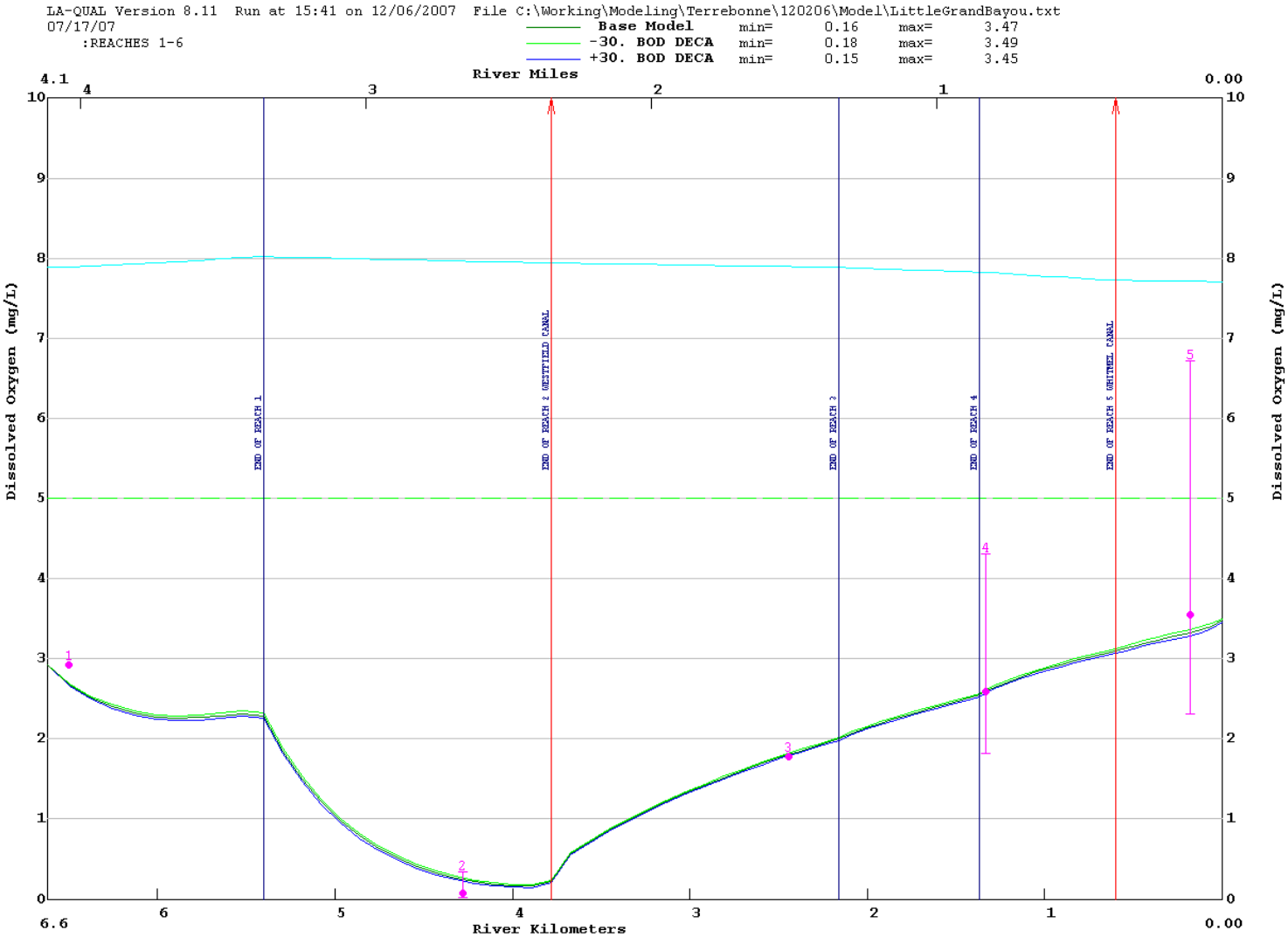


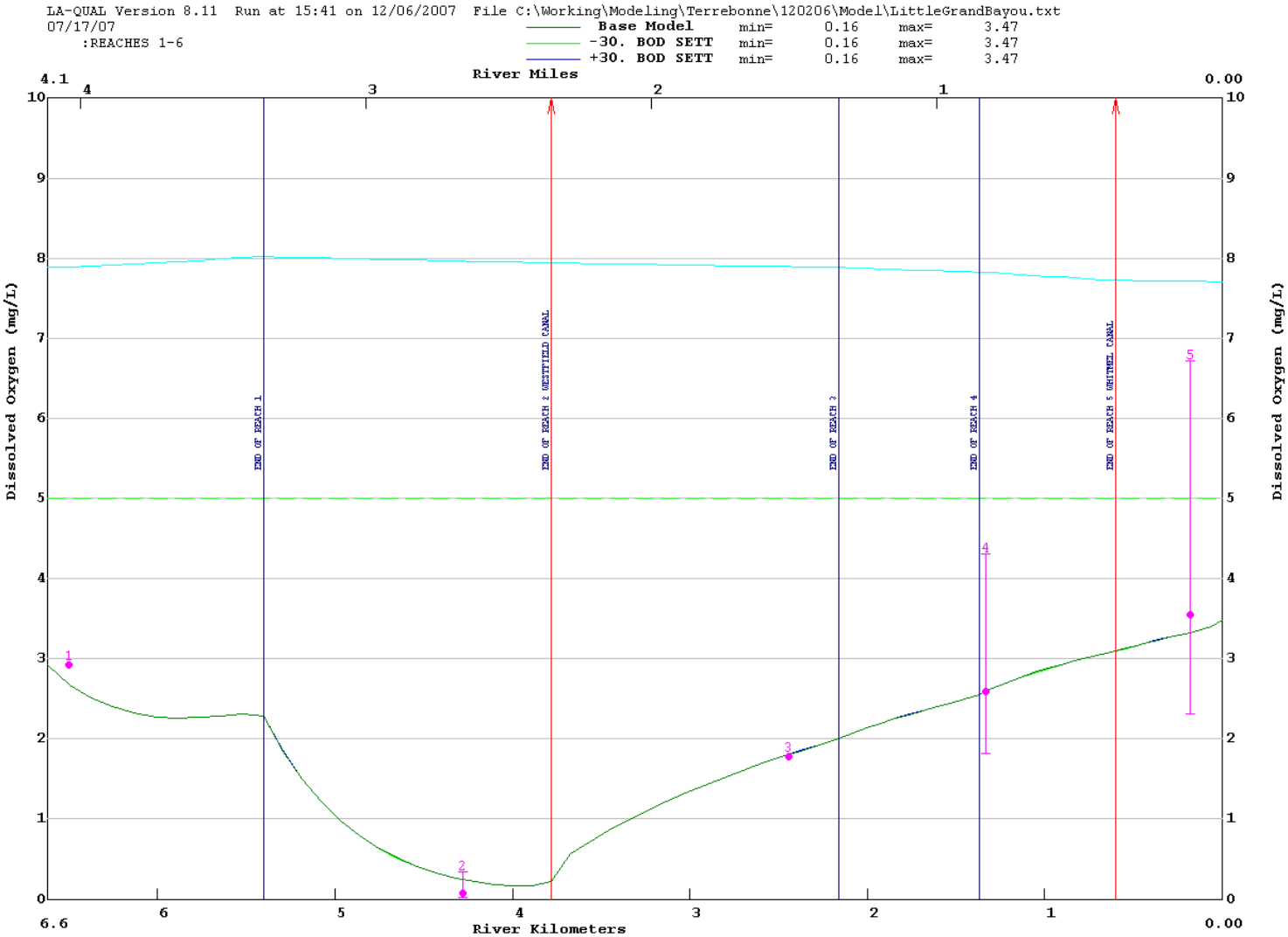

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. VELOCITY min= 0.00 max= 3.49
+30. VELOCITY min= 0.88 max= 3.47
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
River Kilometers

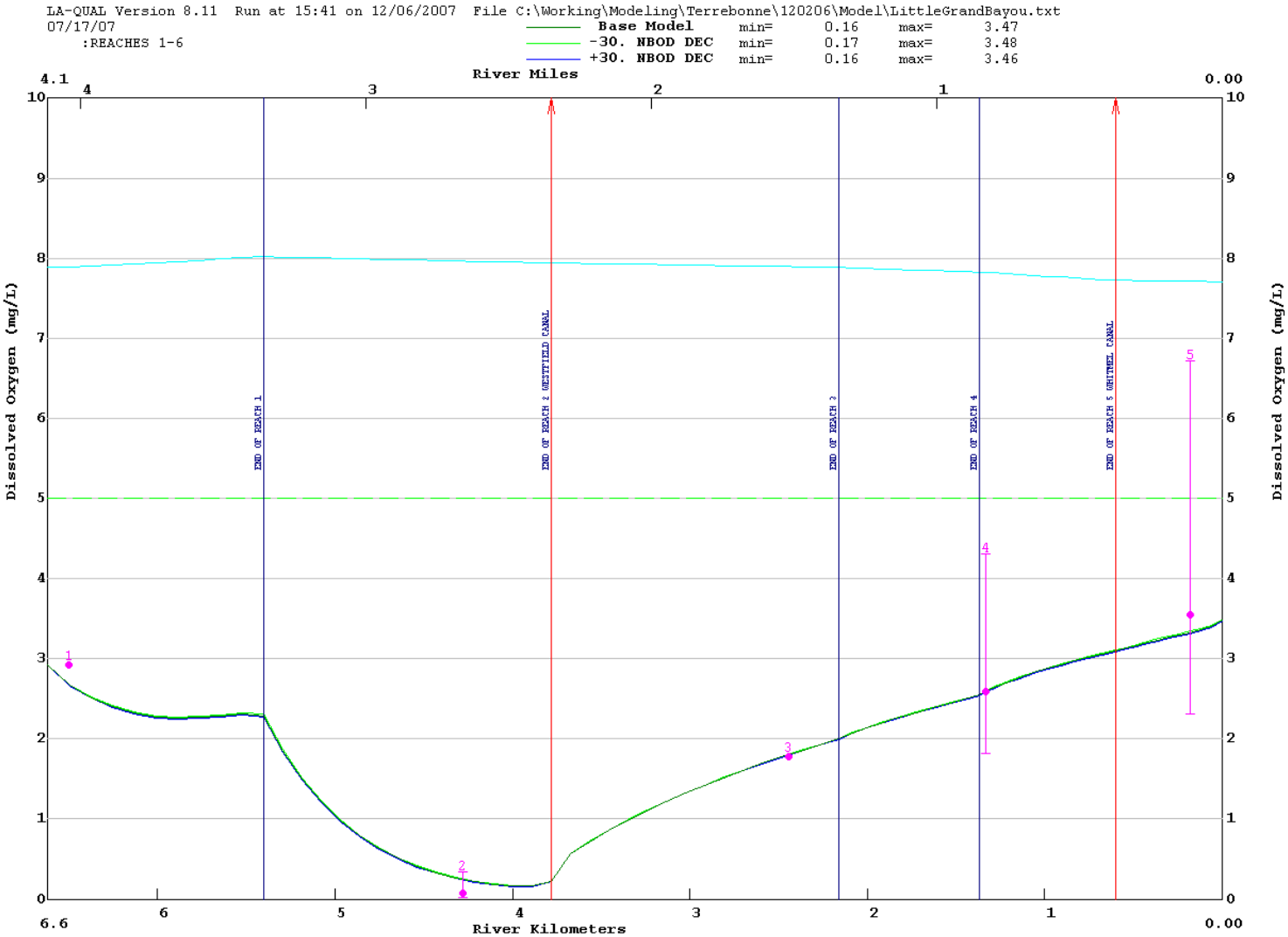

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. DEPTH min= 2.01 max= 4.03
+30. DEPTH min= 0.00 max= 3.37
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
River Kilometers

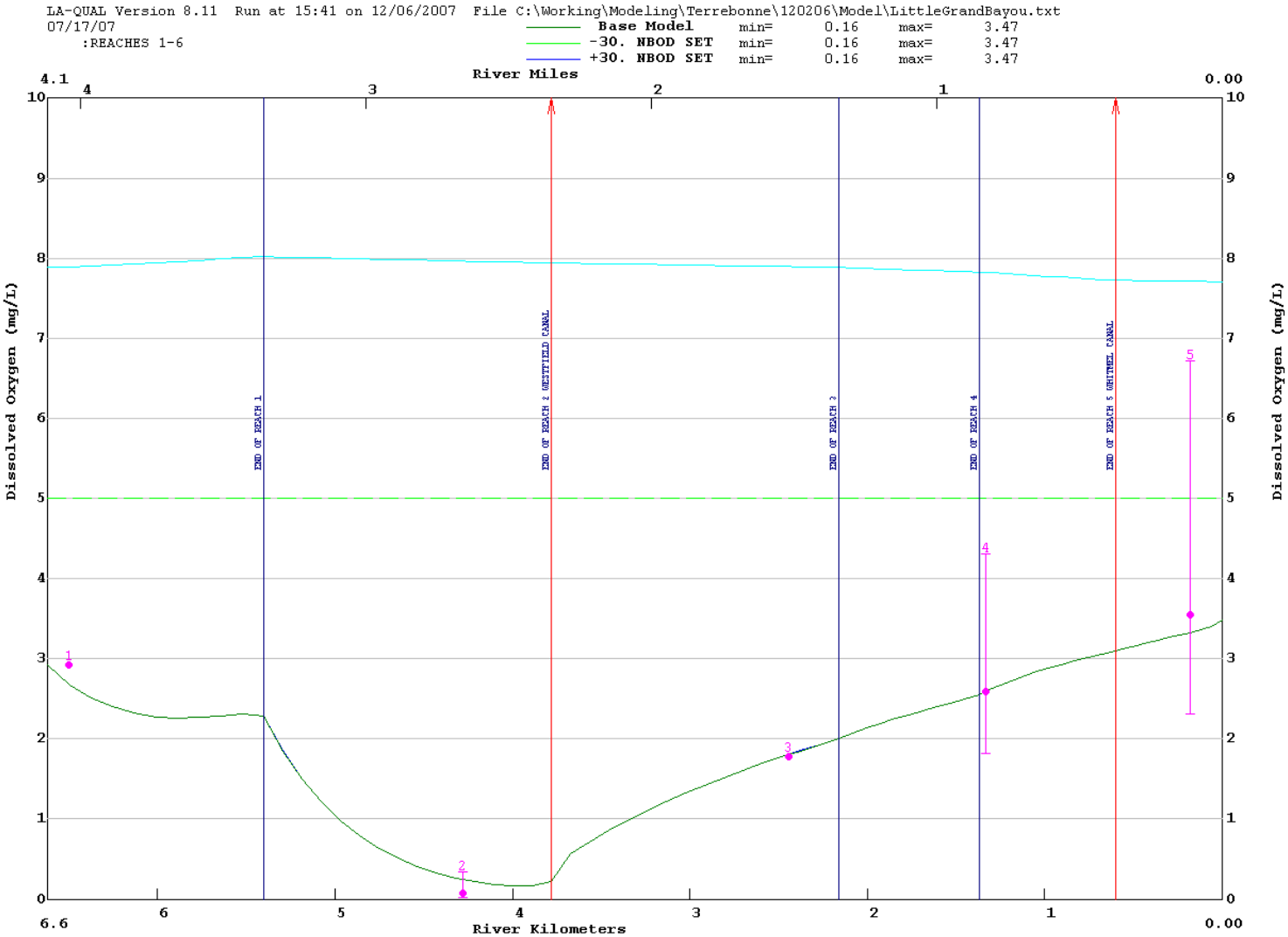

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. DISPERSI min= 0.15 max= 3.46
+30. DISPERSI min= 0.17 max= 3.48
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
River Kilometers

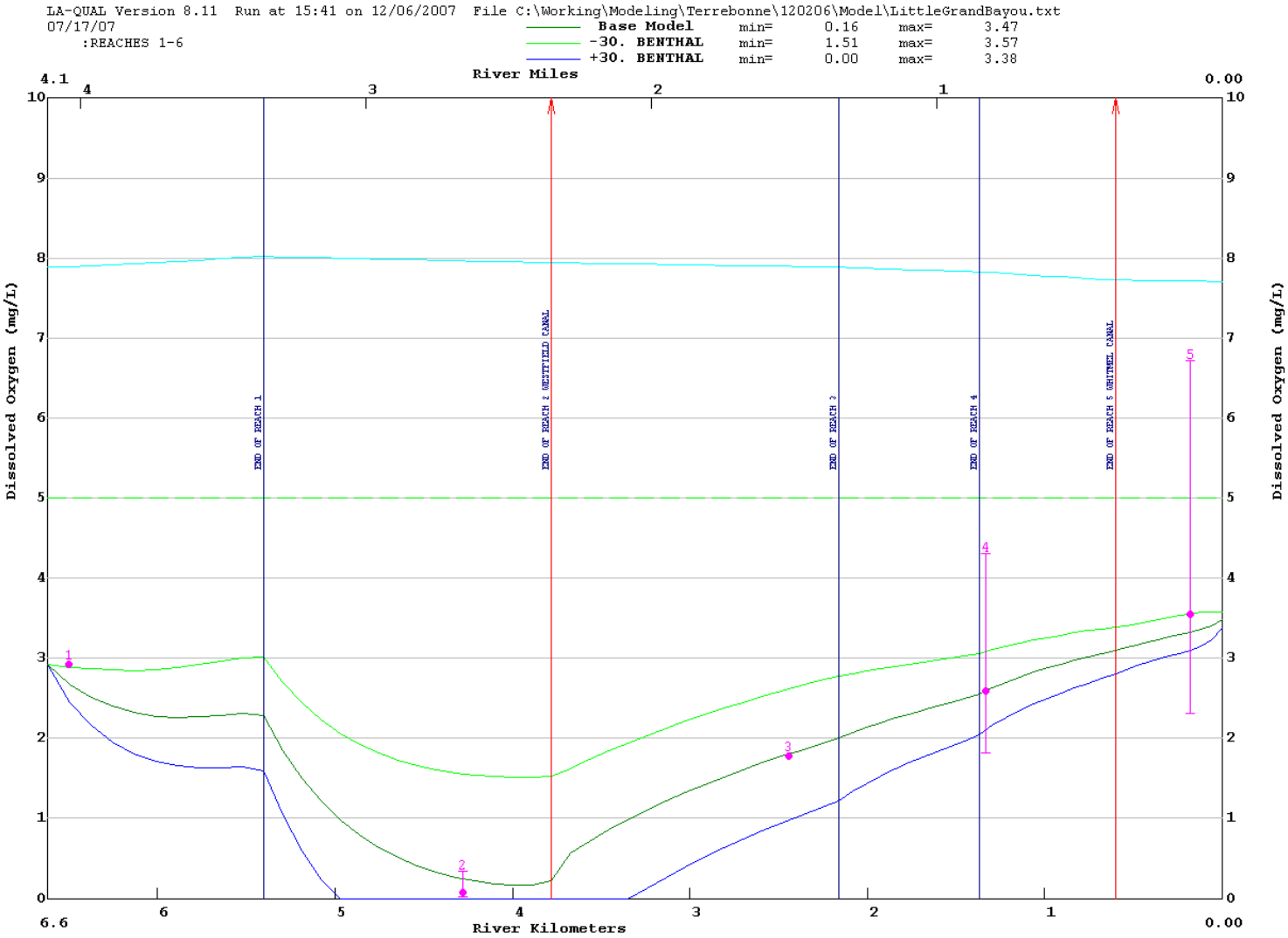

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. REAERATI min= 0.00 max= 3.26
+30. REAERATI min= 1.09 max= 3.71
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
River Kilometers
6.6
0.00

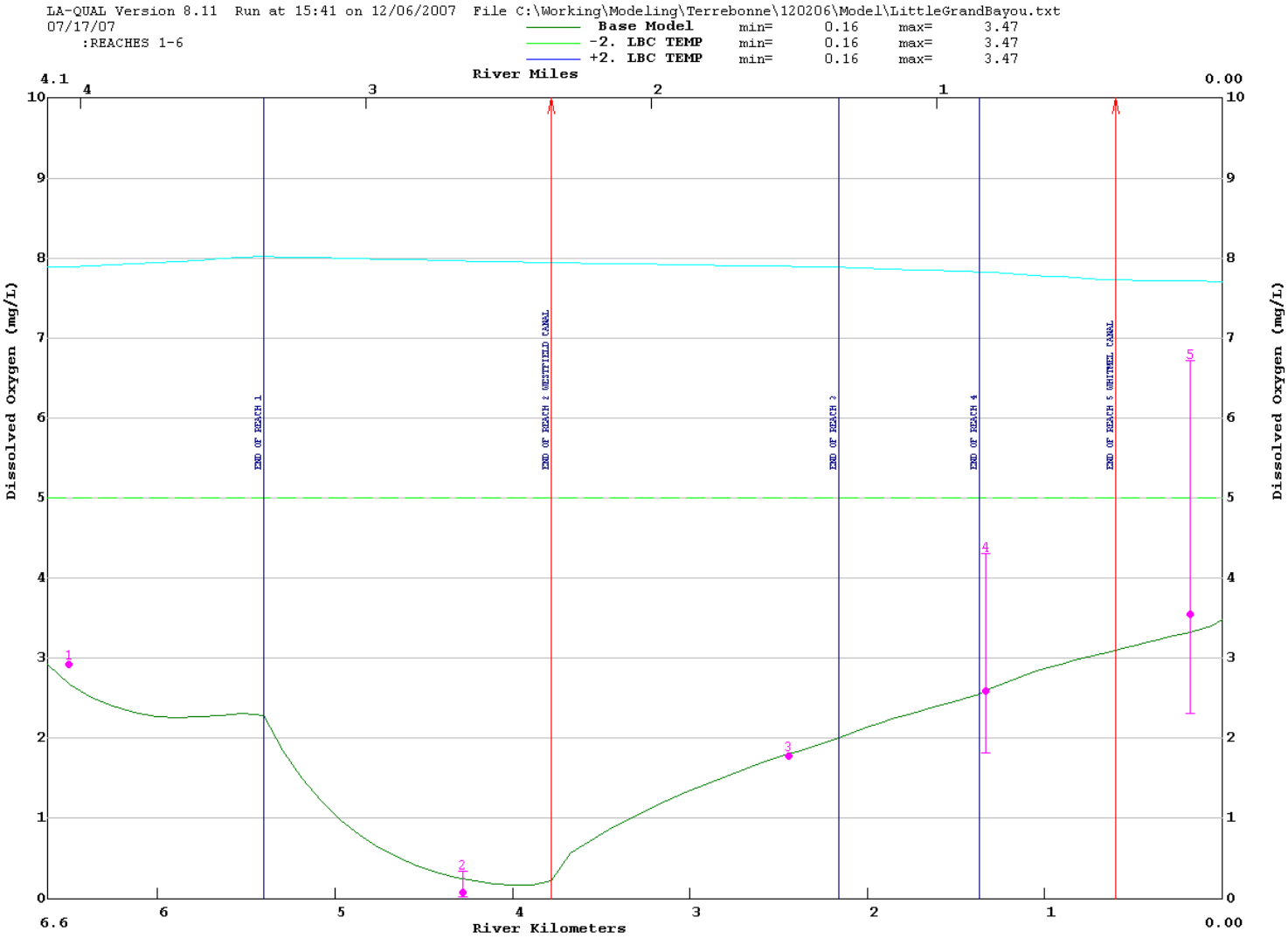

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. BOD DECA min= 0.18 max= 3.49
+30. BOD DECA min= 0.15 max= 3.45
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
River Kilometers

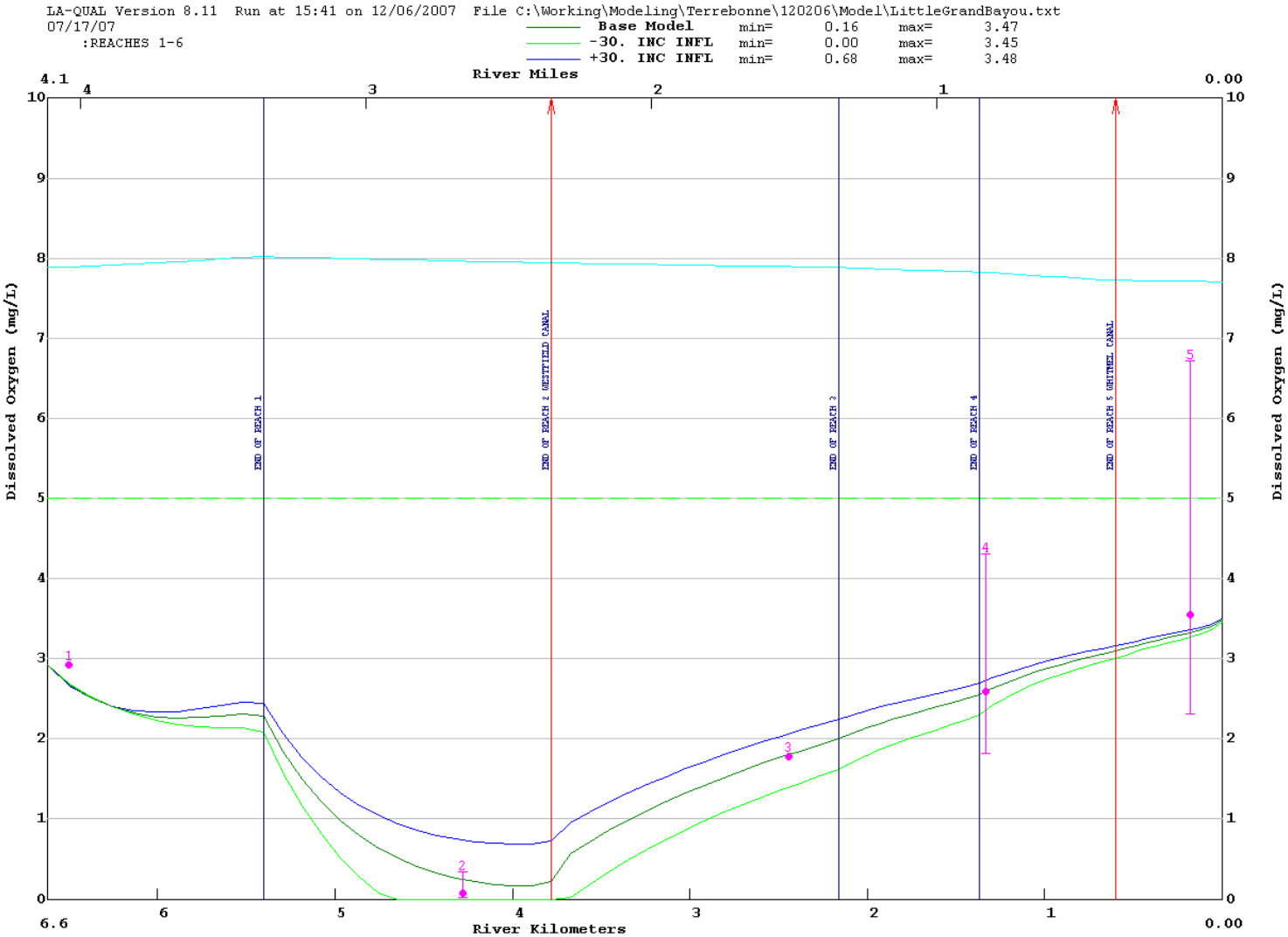

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. BOD SETT min= 0.16 max= 3.47
+30. BOD SETT min= 0.16 max= 3.47
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
River Kilometers
6.6
0.00

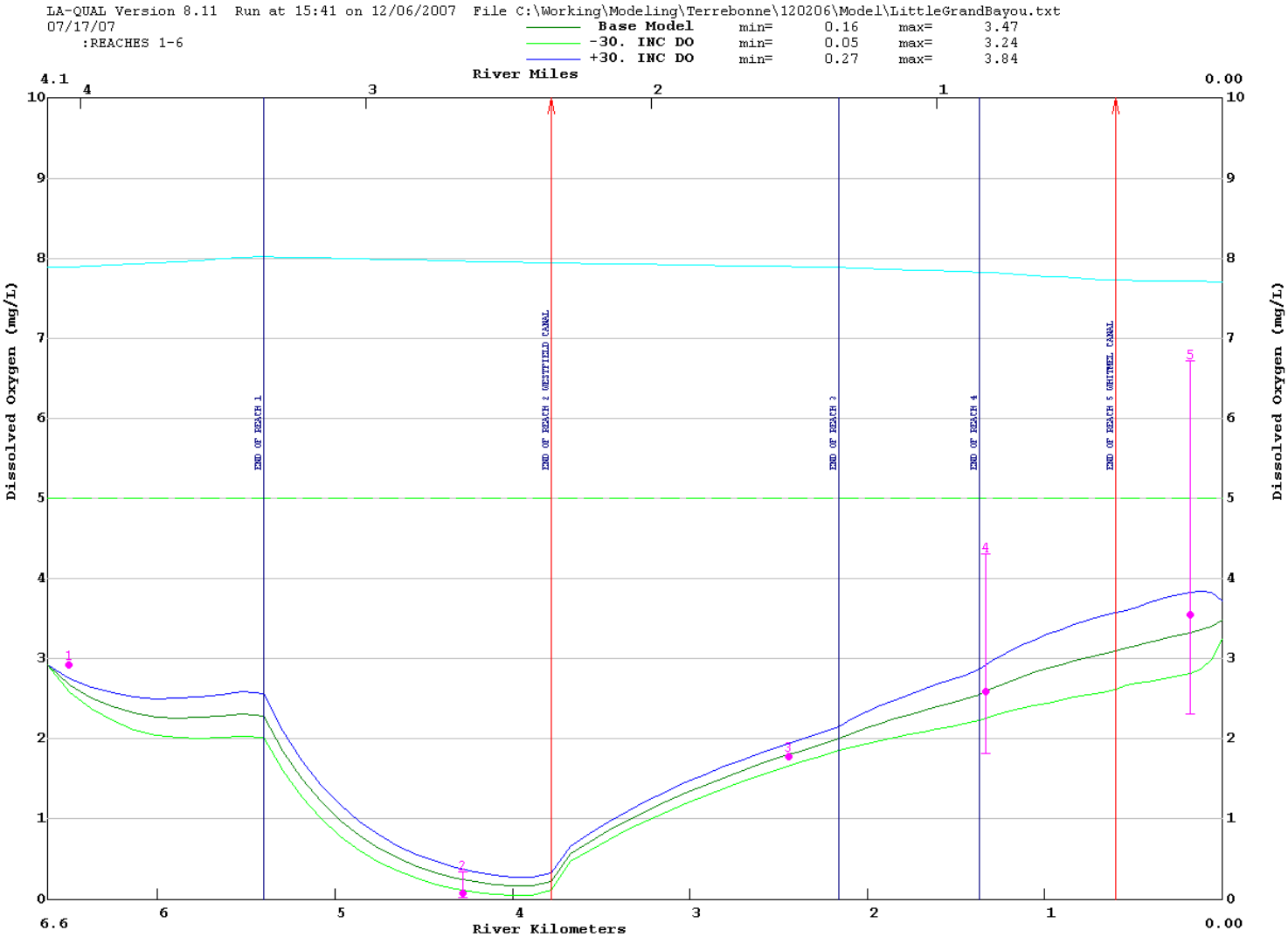

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. NBOD DEC min= 0.17 max= 3.48
+30. NBOD DEC min= 0.16 max= 3.46
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
River Kilometers

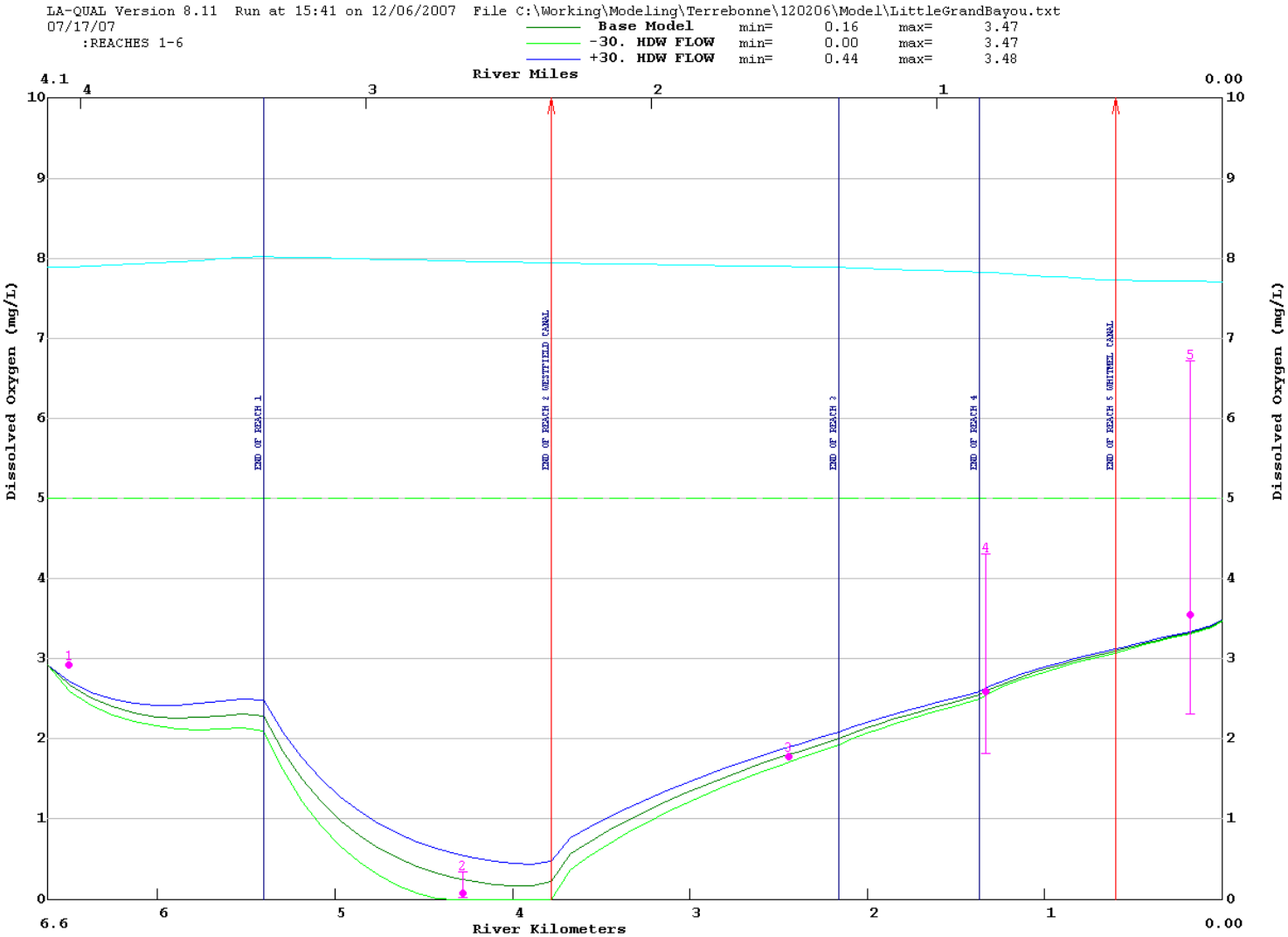

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. NBOD SET min= 0.16 max= 3.47
+30. NBOD SET min= 0.16 max= 3.47
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
River Kilometers

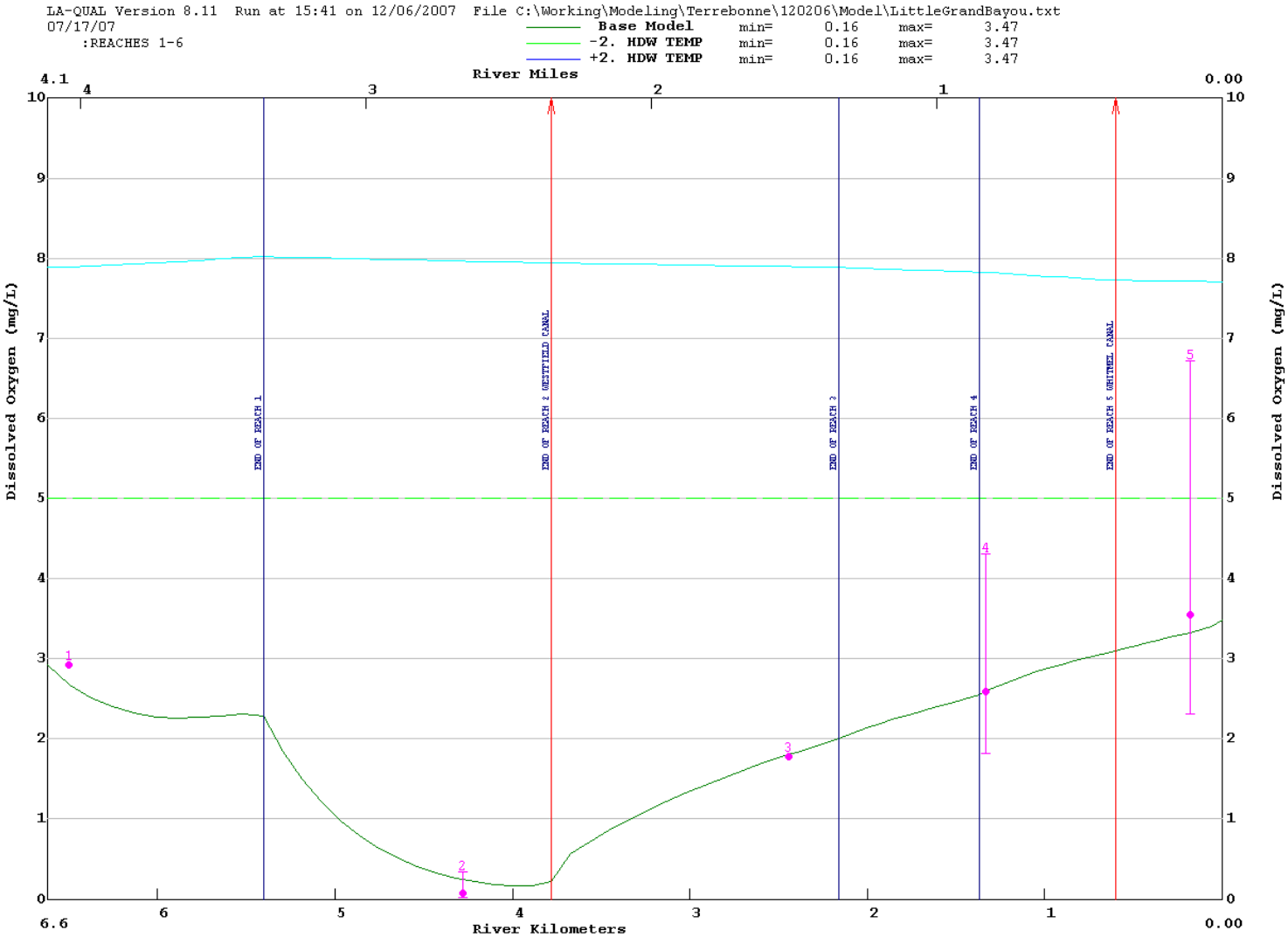

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. BENTHAL min= 1.51 max= 3.57
+30. BENTHAL min= 0.00 max= 3.38
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
River Kilometers

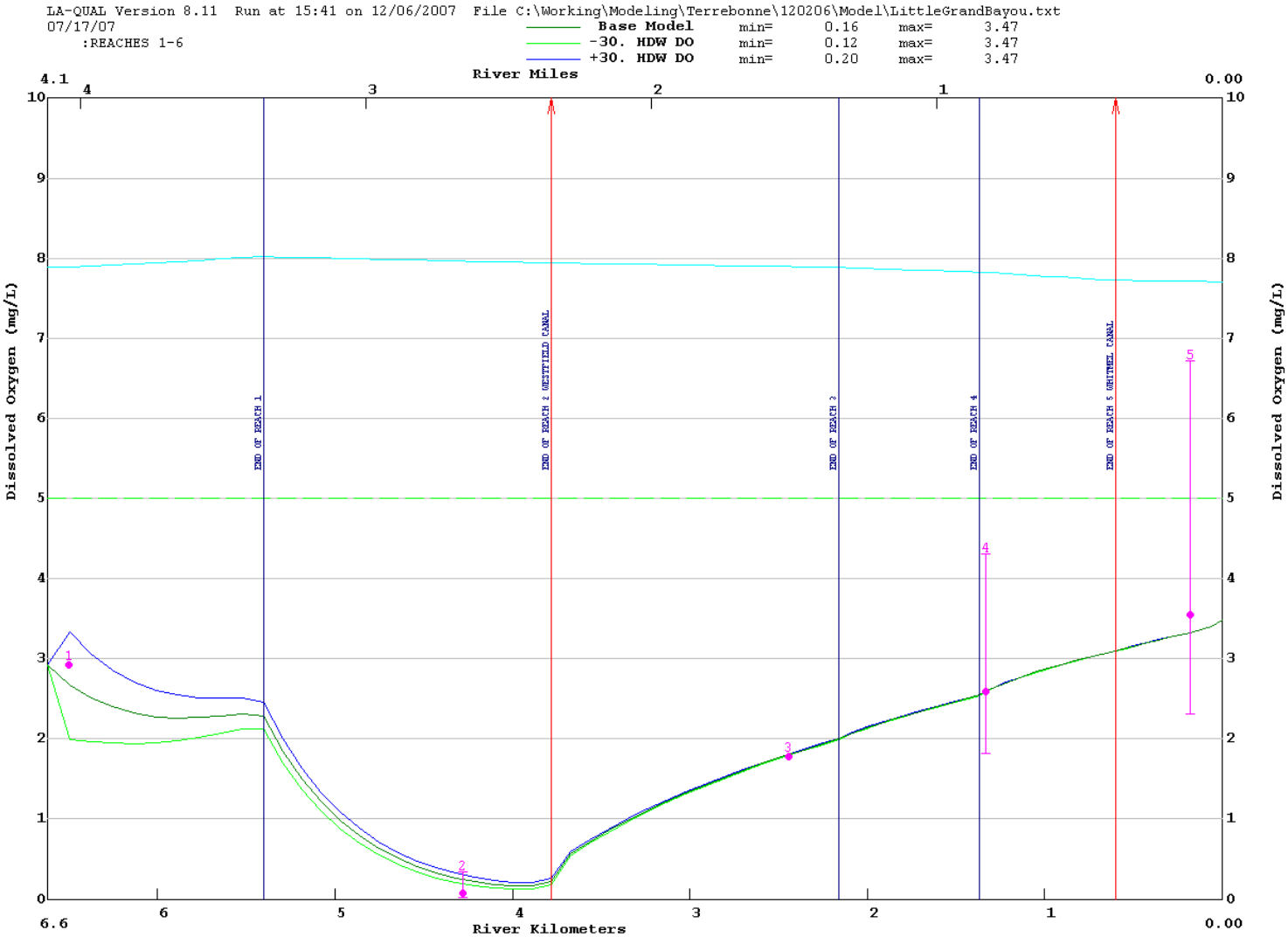

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-2. LBC TEMP min= 0.16 max= 3.47
+2. LBC TEMP min= 0.16 max= 3.47
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
0.00
River Kilometers

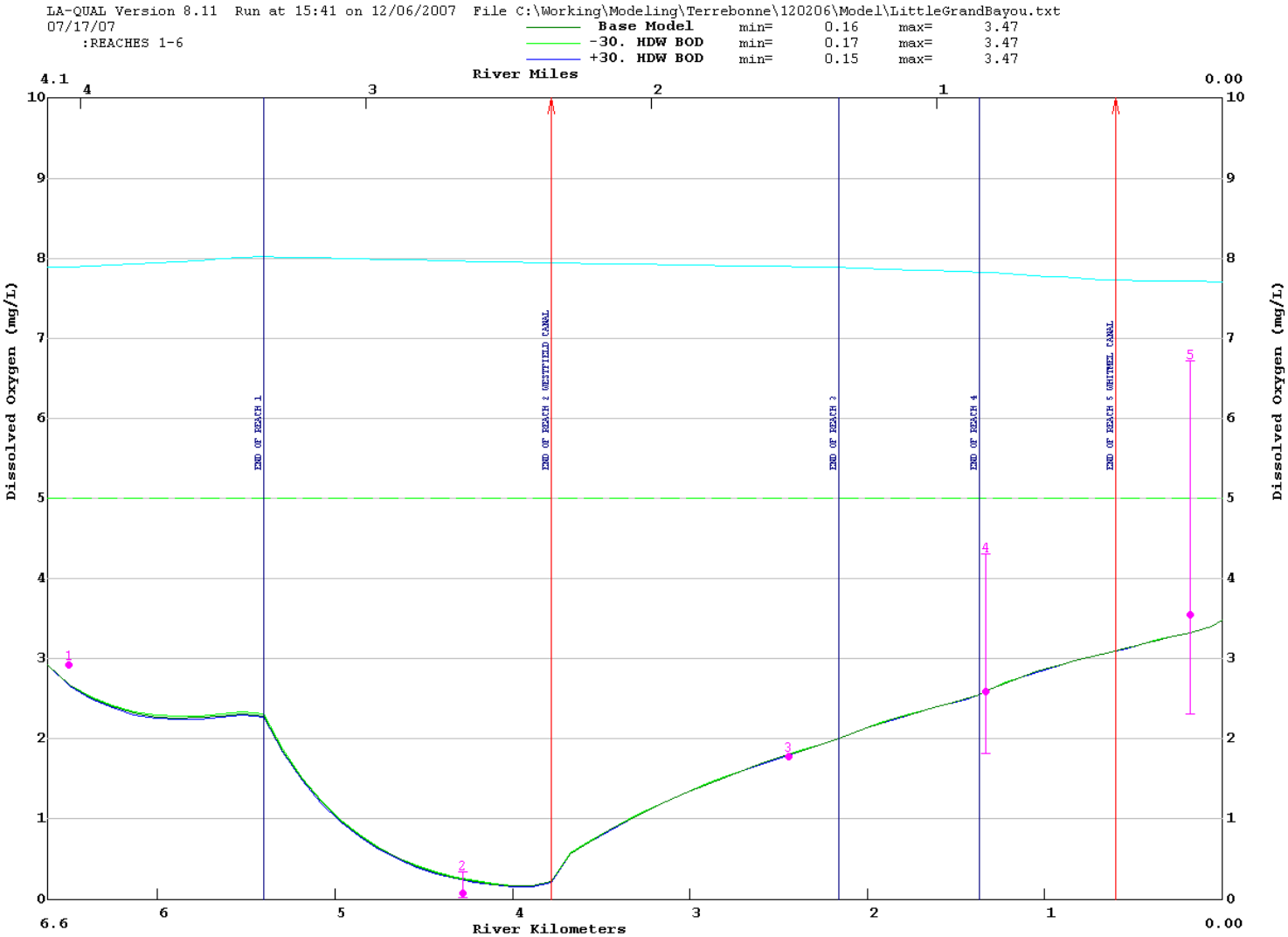

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. INC INFL min= 0.00 max= 3.45
+30. INC INFL min= 0.68 max= 3.48
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
River Kilometers
6.6
0.00

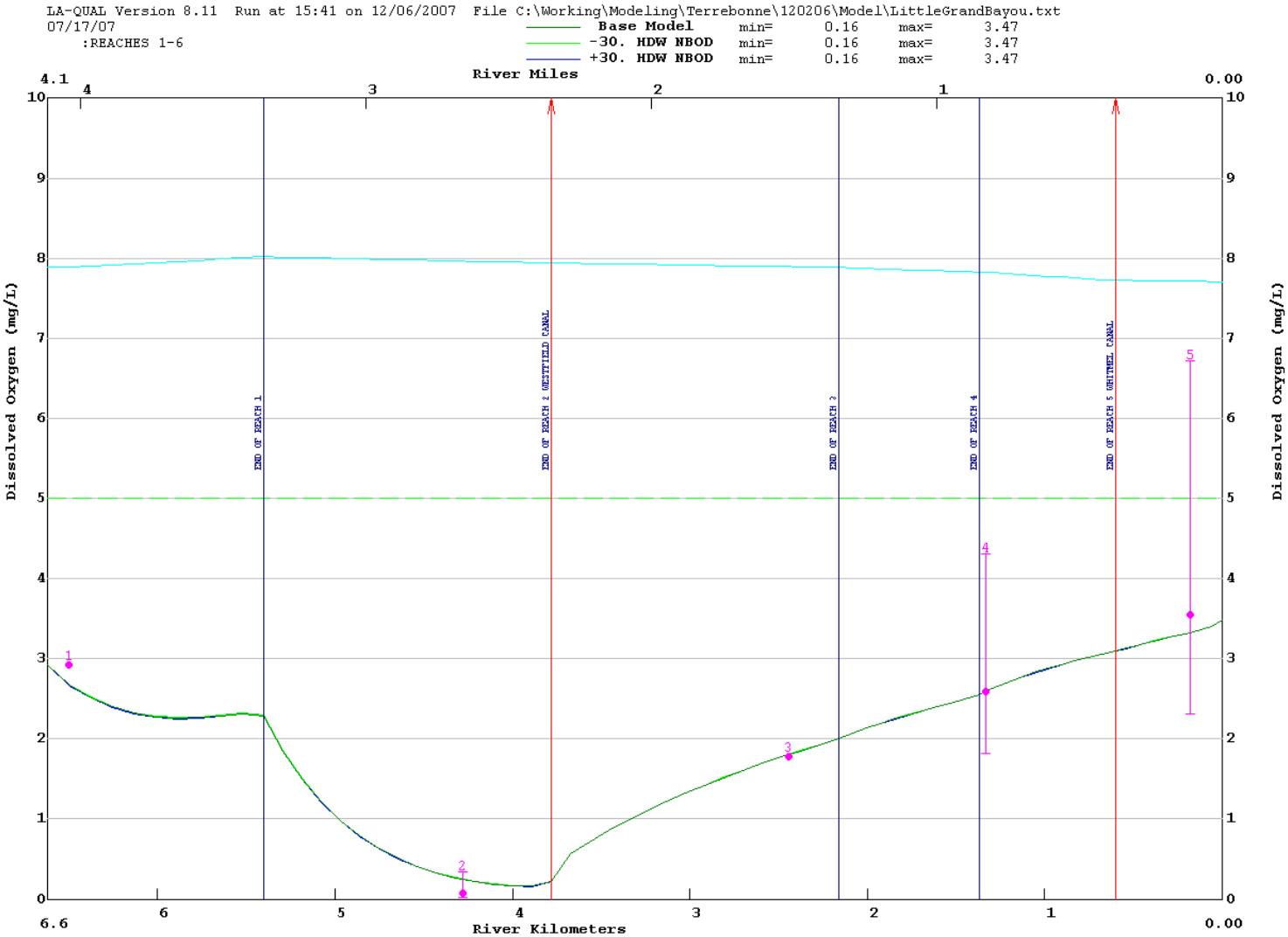

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. INC DO min= 0.05 max= 3.24
+30. INC DO min= 0.27 max= 3.84
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
River Kilometers

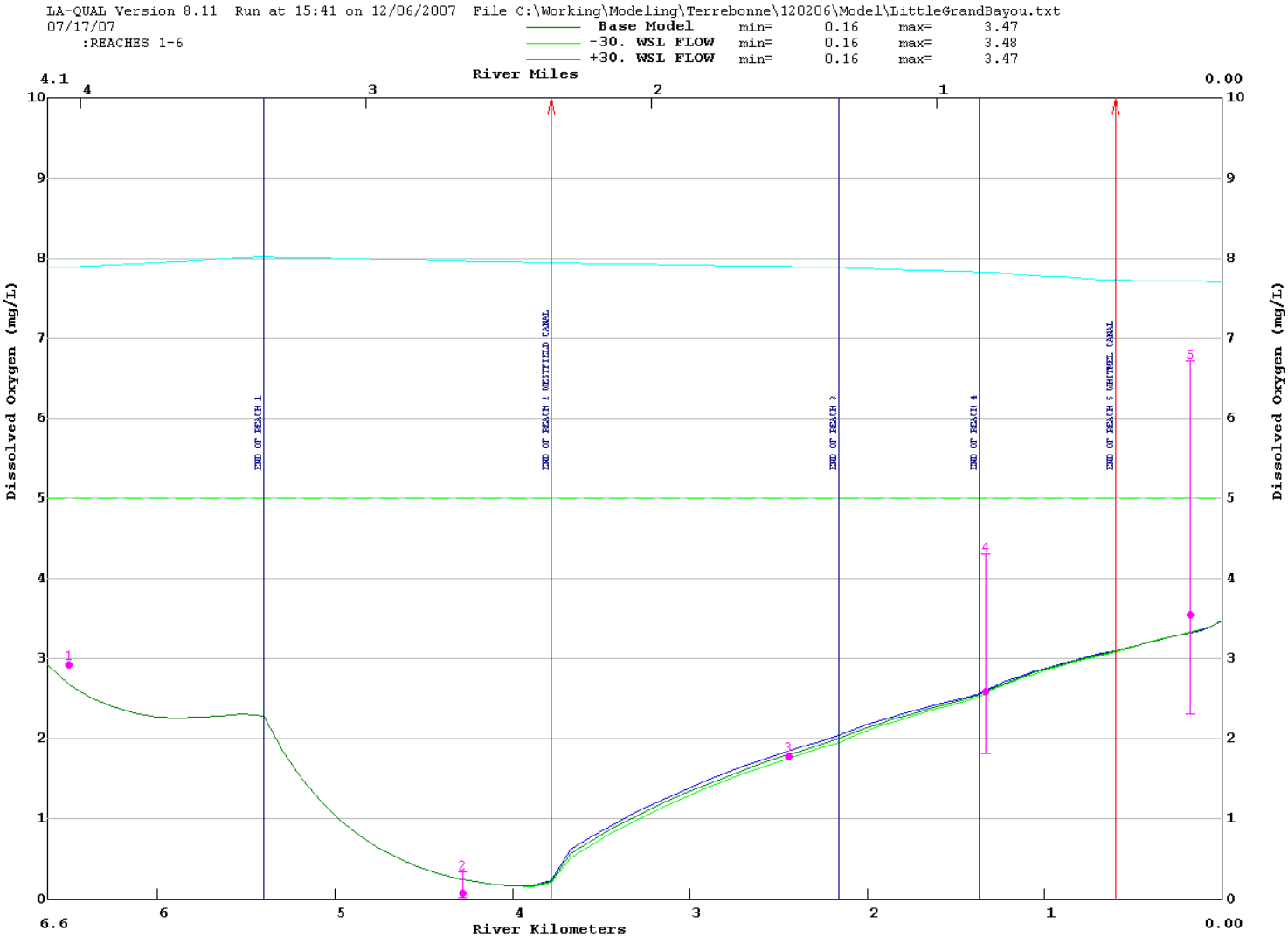

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. HDW FLOW min= 0.00 max= 3.47
+30. HDW FLOW min= 0.44 max= 3.48
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
River Kilometers

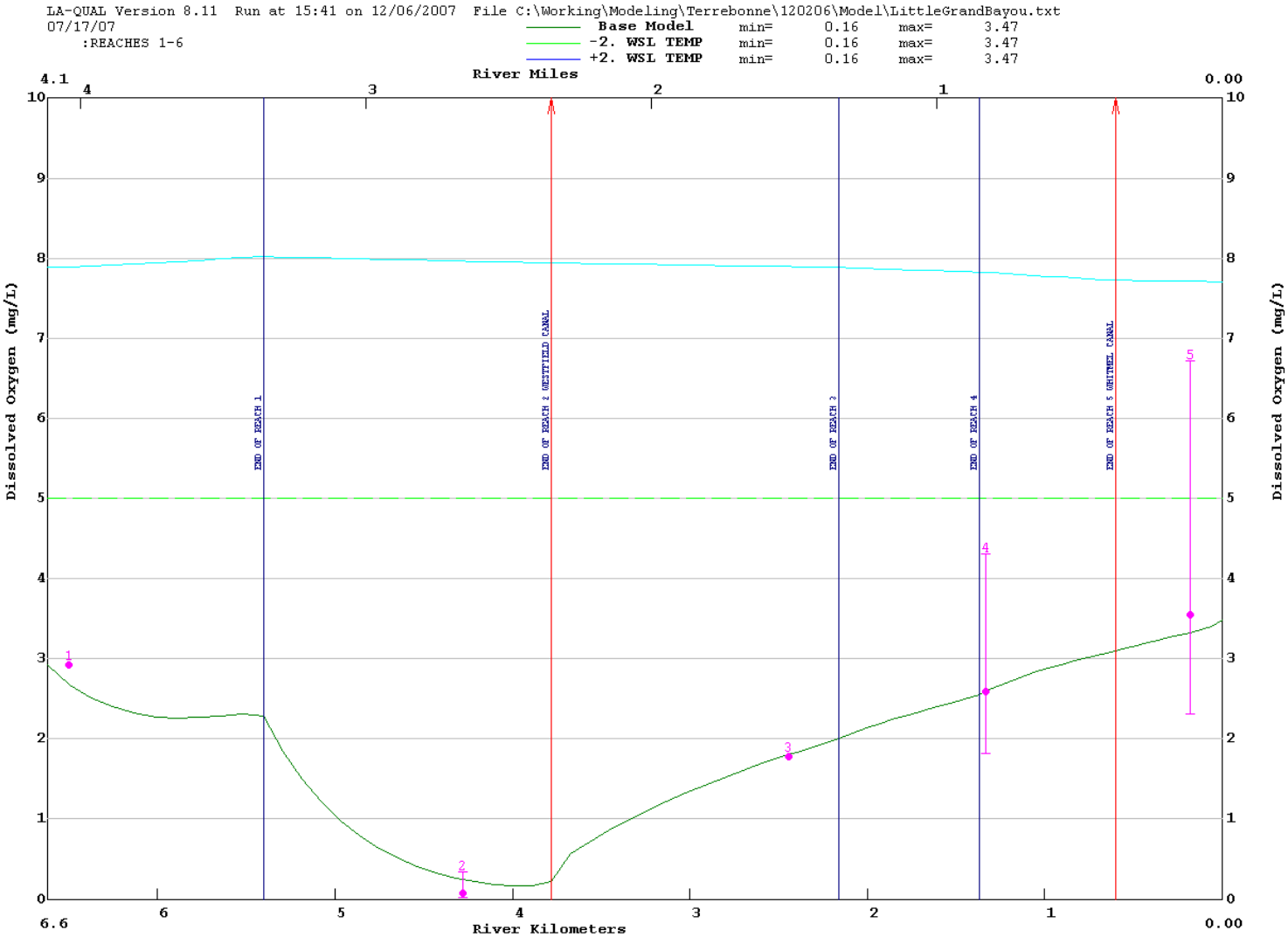

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-2. HDW TEMP min= 0.16 max= 3.47
+2. HDW TEMP min= 0.16 max= 3.47
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
0.00
River Kilometers

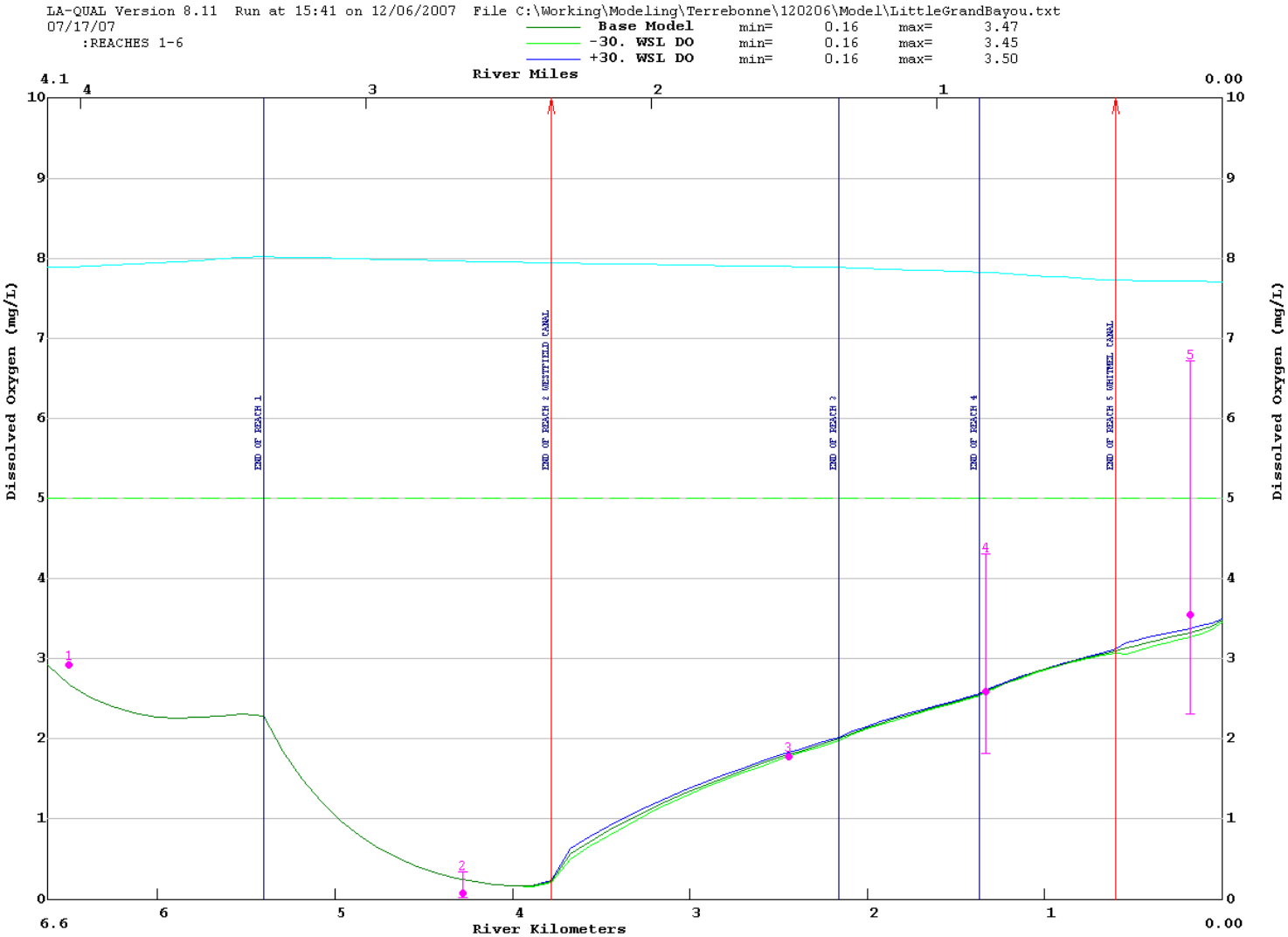

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. HDW DO min= 0.12 max= 3.47
+30. HDW DO min= 0.20 max= 3.47
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
River Kilometers
6.6
0.00

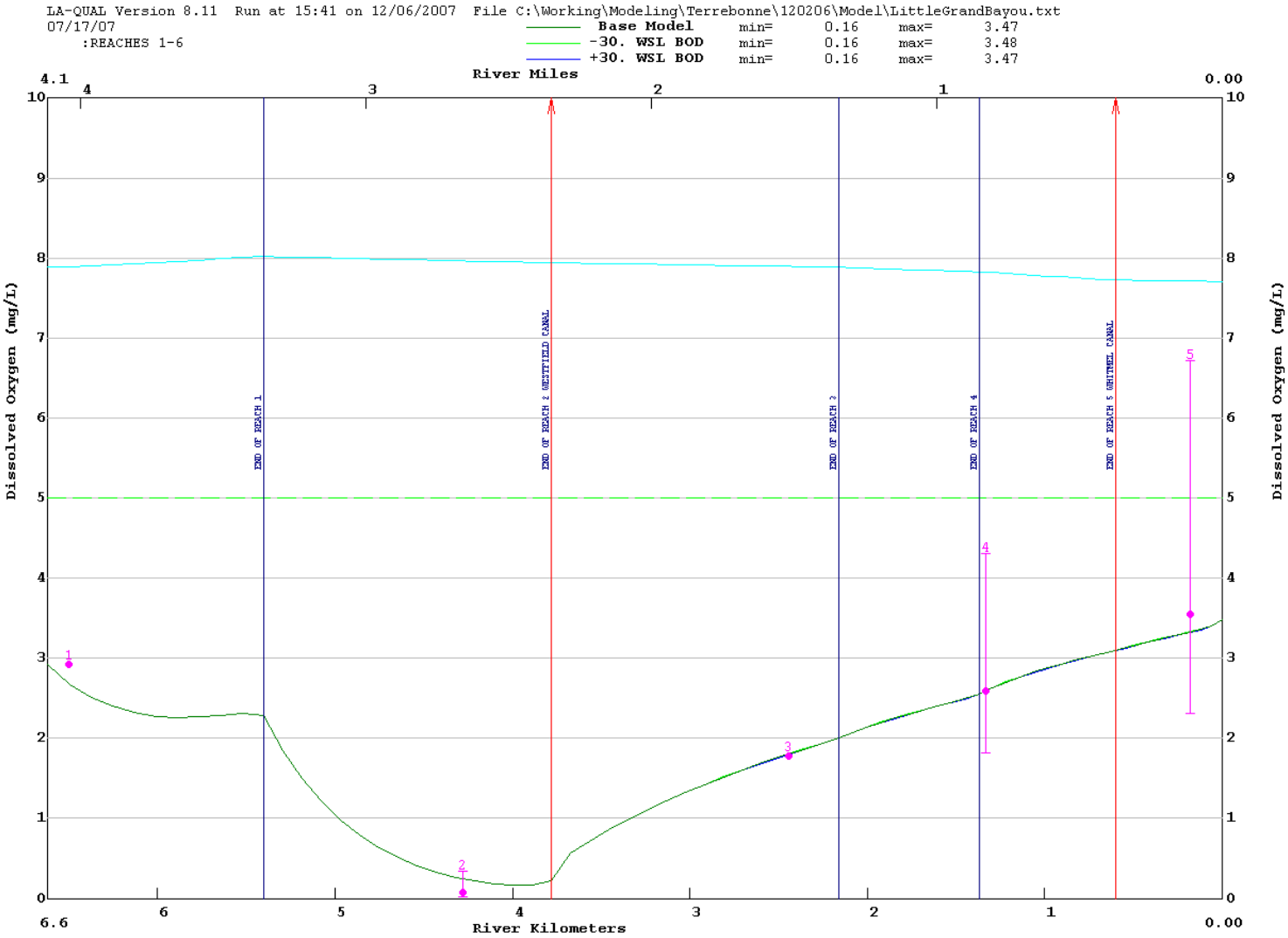

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. HDW BOD min= 0.17 max= 3.47
+30. HDW BOD min= 0.15 max= 3.47
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
0.00
River Kilometers

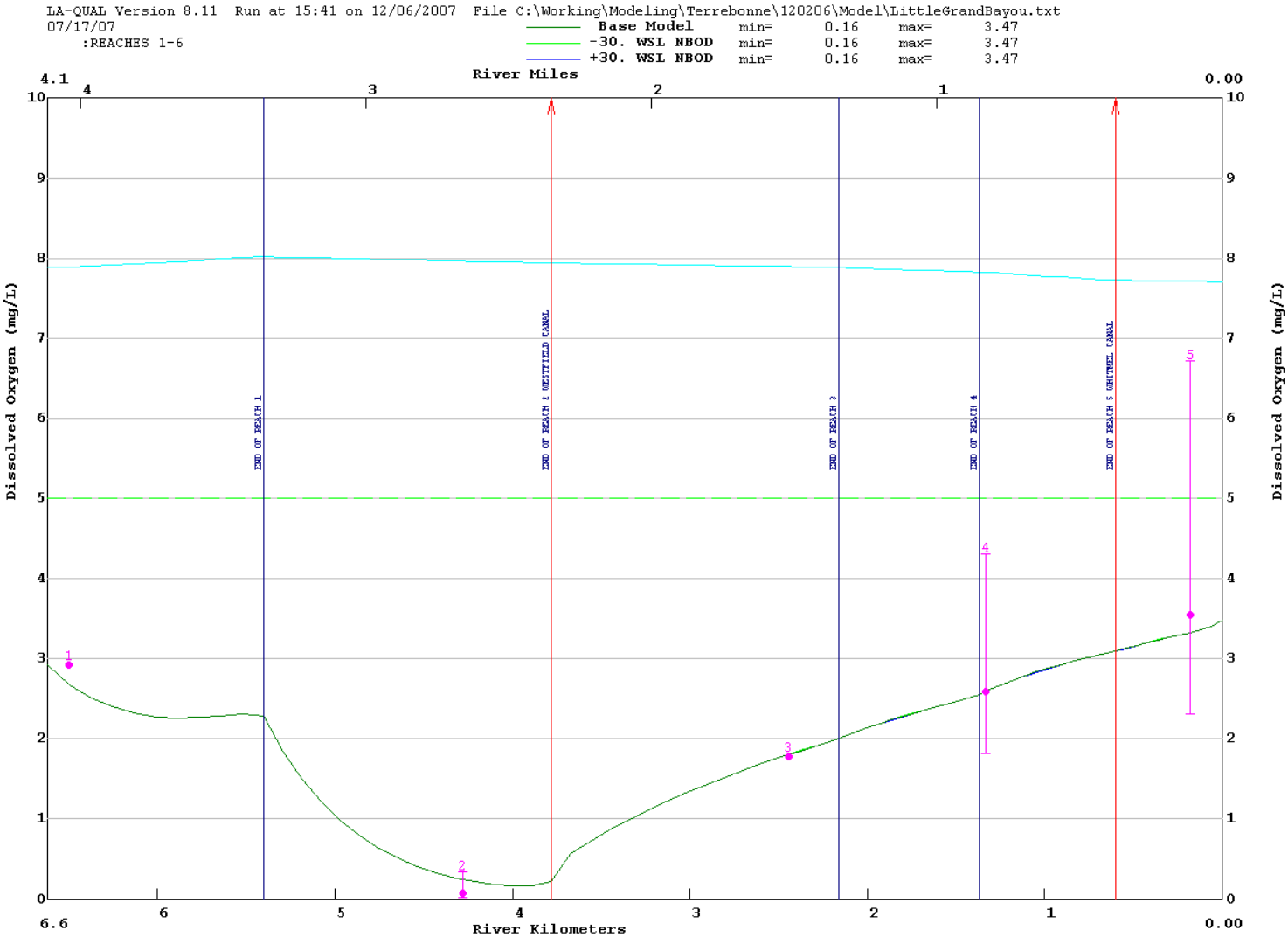

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. HDW NBOD min= 0.16 max= 3.47
+30. HDW NBOD min= 0.16 max= 3.47
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
0.00
River Kilometers

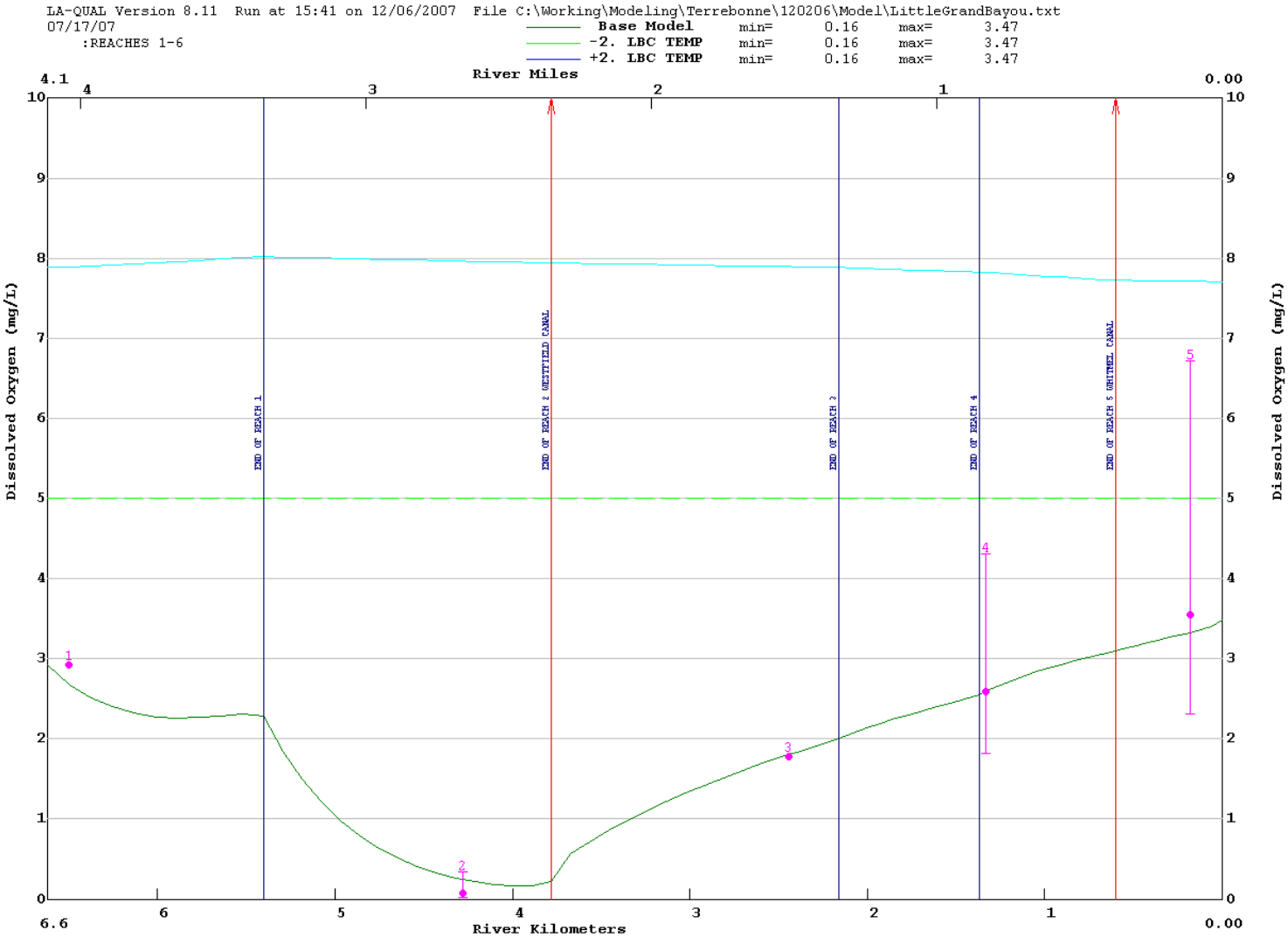

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. WSL FLOW min= 0.16 max= 3.48
+30. WSL FLOW min= 0.16 max= 3.47
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
0.00
River Kilometers

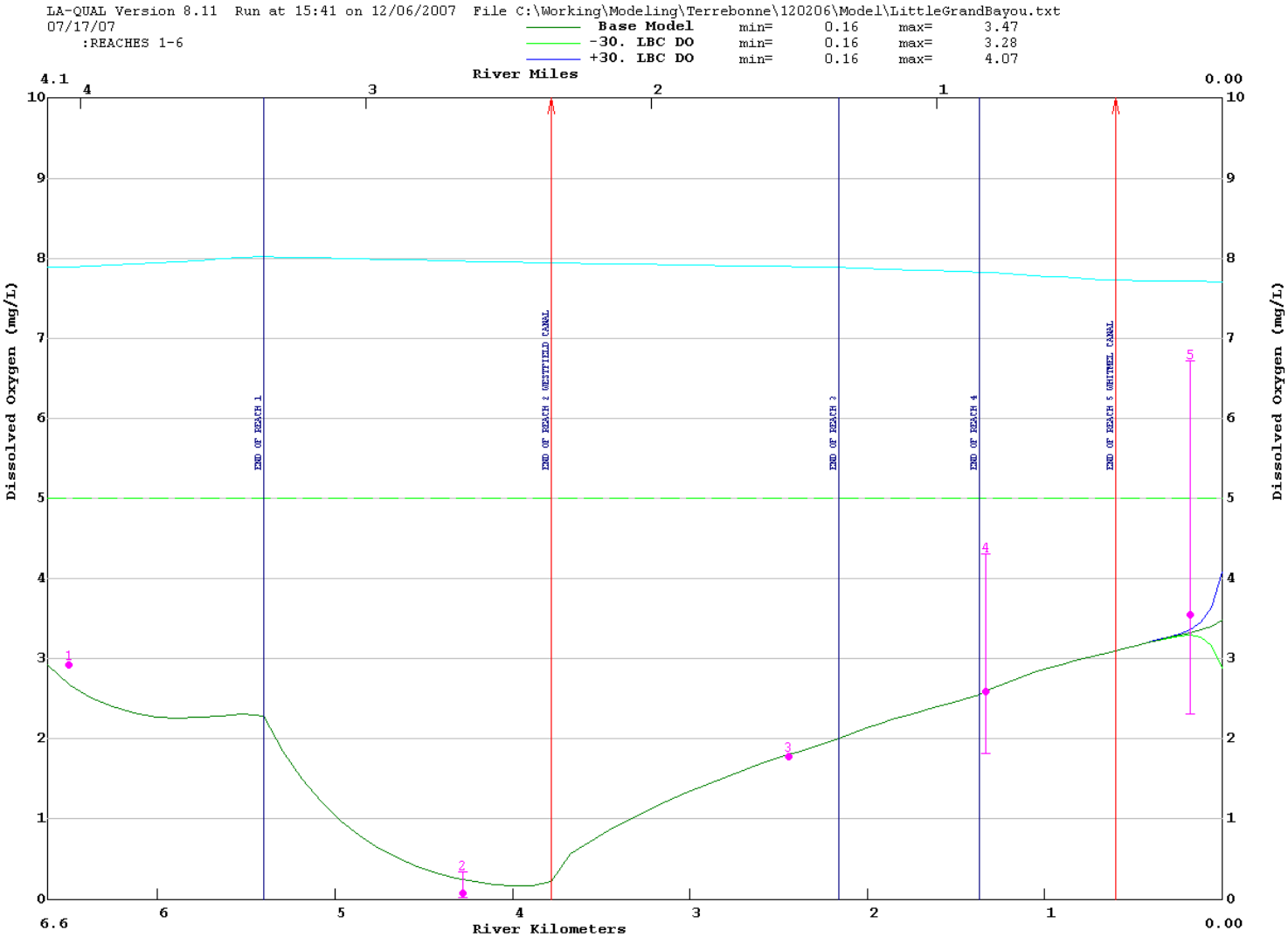

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-2. WSL TEMP min= 0.16 max= 3.47
+2. WSL TEMP min= 0.16 max= 3.47
River Miles
4.1
4
3
2
1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
6
5
4
3
2
1
0.00
River Kilometers

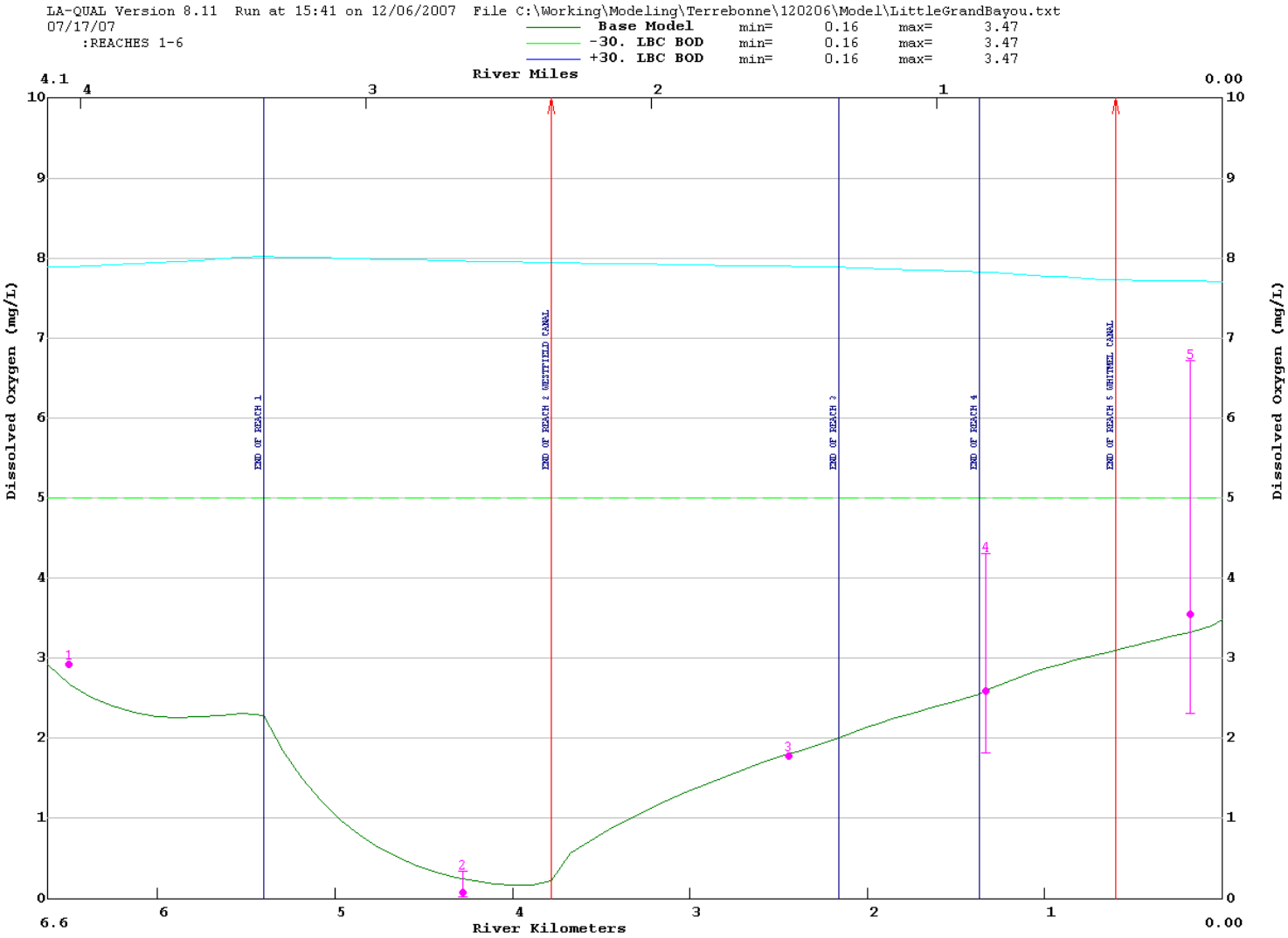

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. WSL DO min= 0.16 max= 3.45
+30. WSL DO min= 0.16 max= 3.50
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
0.00
River Kilometers

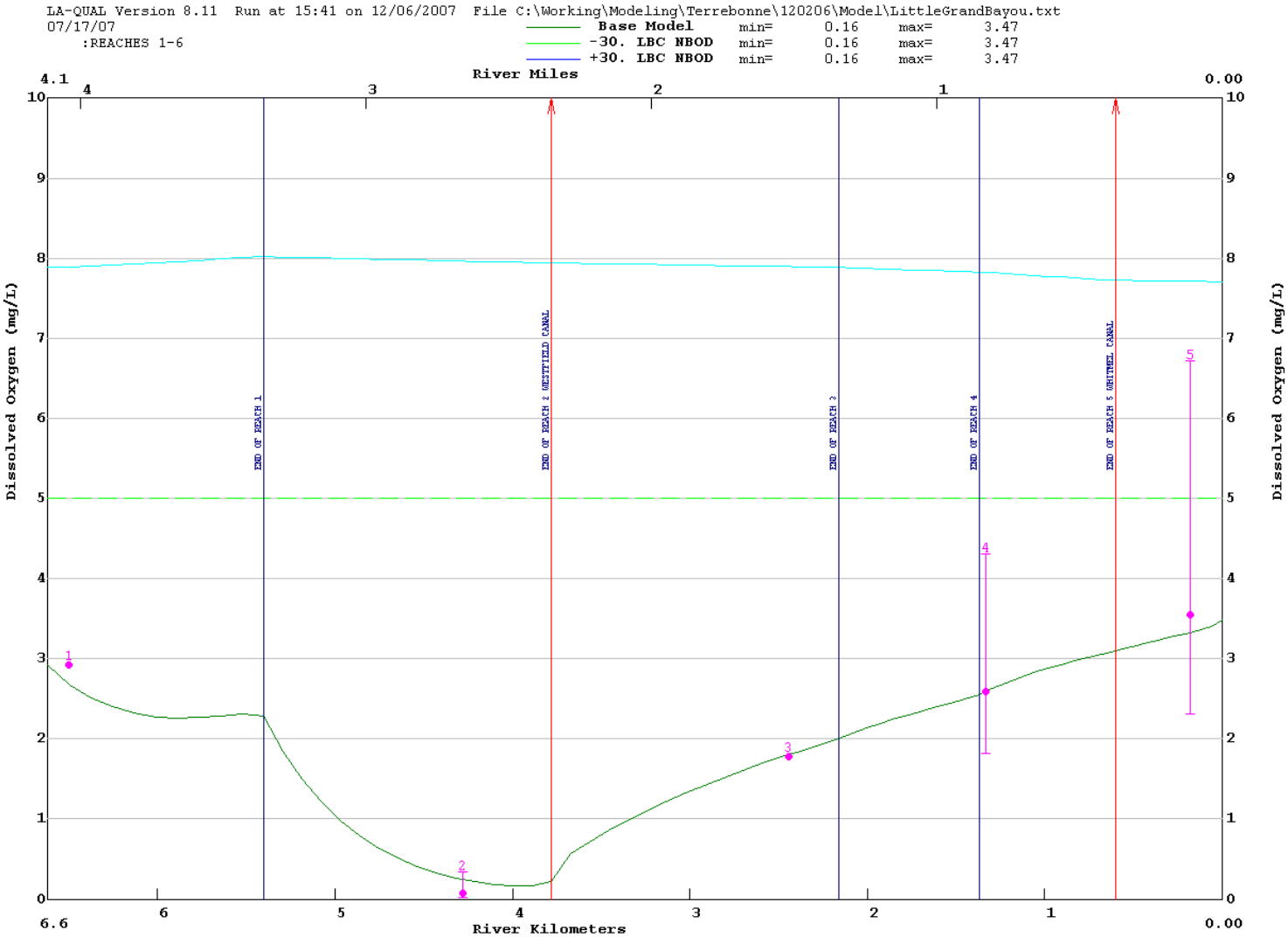

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. WSL BOD min= 0.16 max= 3.48
+30. WSL BOD min= 0.16 max= 3.47
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
0.00
River Kilometers

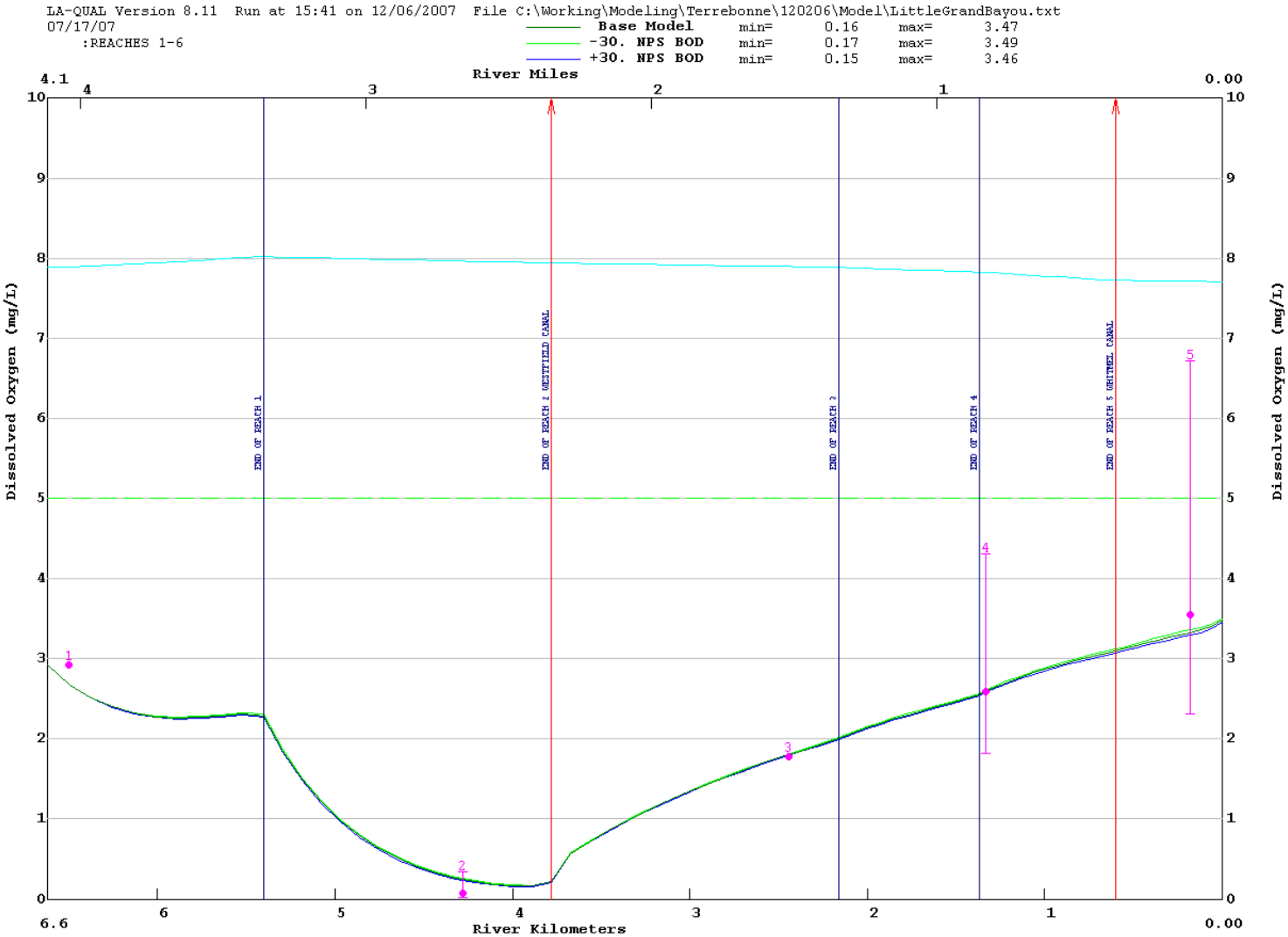

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. WSL NBOD min= 0.16 max= 3.47
+30. WSL NBOD min= 0.16 max= 3.47
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
River Kilometers
6.6
0.00

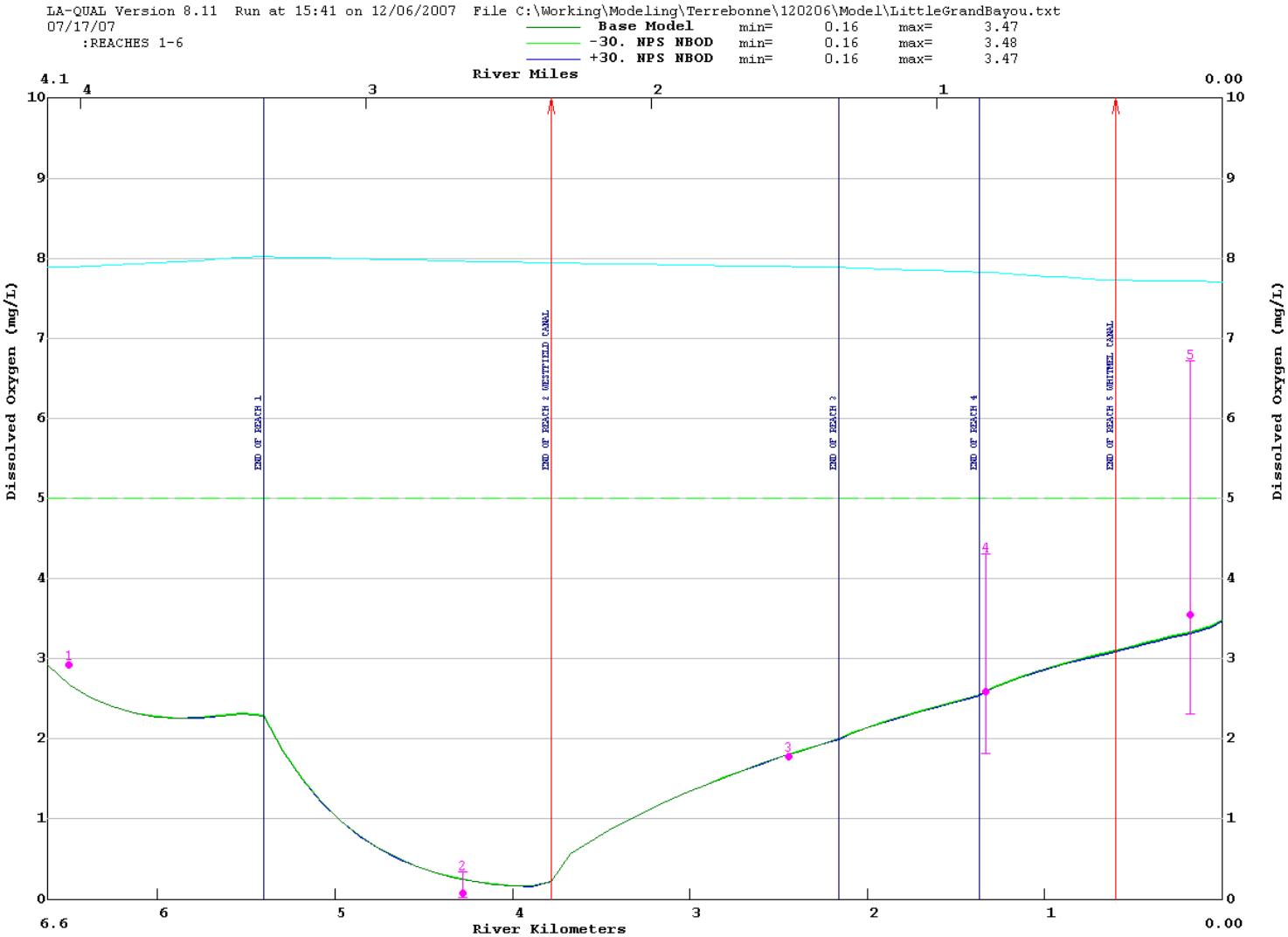

LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-2. LBC TEMP min= 0.16 max= 3.47
+2. LBC TEMP min= 0.16 max= 3.47
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
0.00
River Kilometers


LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. LBC DO min= 0.16 max= 3.28
+30. LBC DO min= 0.16 max= 4.07
River Miles
4.1
4
3
2
1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
6
5
4
3
2
1
0.00
River Kilometers


LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. LBC BOD min= 0.16 max= 3.47
+30. LBC BOD min= 0.16 max= 3.47
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
River Kilometers
6.6
0.00


LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. LBC NBOD min= 0.16 max= 3.47
+30. LBC NBOD min= 0.16 max= 3.47
River Miles
4.1
4
3
2
1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (BESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
6
5
4
3
2
1
0.00
River Kilometers


LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. NPS BOD min= 0.17 max= 3.49
+30. NPS BOD min= 0.15 max= 3.46
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
River Kilometers


LA-QUAL Version 8.11 Run at 15:41 on 12/06/2007 File C:\Working\Modeling\Terrebonne\120206\Model\LittleGrandBayou.txt
07/17/07
:REACHES 1-6
Base Model min= 0.16 max= 3.47
-30. NPS NBOD min= 0.16 max= 3.48
+30. NPS NBOD min= 0.16 max= 3.47
River Miles
4.1
0.00
Dissolved Oxygen (mg/L)
END OF REACH 1
END OF REACH 2 (WESTFIELD CANAL)
END OF REACH 3
END OF REACH 4
END OF REACH 5 (BRITMEL CANAL)
6.6
River Kilometers

Sensitivity Output Data Set

```
LA-QUAL Version 8.11
Louisiana Department of Environmental Quality

Input file is C:\Documents and Settings\shanec\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

$$$ DATA TYPE 8 (REACH IDENTIFICATION DATA) $$$
                                                        BEGIN         END     ELEM    REACH     ELEMS   BEGIN    END
CARD TYPE  REACH  ID  NAME                              REACH       REACH   LENGTH   LENGTH    PER RCH   ELEM   ELEM
                                                           km          km       km       km               NUM    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
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/m²/d	BOD DECAY per day	BOD SETT m/d	BOD CONV TO SOD	ANAER BOD2 DECAY per day	BOD2 DECAY per day	BOD2 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      NBOD   ORGN CONV       NH3       NH3      PHOS     DENIT
                                DECA      SETT  TO NH3 SRCE     DECA      SRCE      SRCE      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    ALGAE:     ALGAE    ALG CONV     ALGAE     ALGAE     MACRO     MACRO
                                DEPTH     CHL A      SETT     TO SOD       GROW      RESP      GROW      RESP   SHADING

ENDATA14

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

CARD TYPE      REACH  ID    COLIFORM       NCM       NCM    NCM CONV
                            DIE-OFF     DECAY      SETT     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     FLOW    TEMP    SALIN      CM-I     CM-II
                                                      m³/s      cfs   deg C      ppt      MG/L      MG/L

HDWTR-1          1     Grand Bayou            0   0.14000    4.944   27.98     0.07    11.700   186.000   0.00
ENDATA20

$$$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) $$$
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```
CARD TYPE     ELEMENT   NAME                        DO     BOD#1     NBOD                          BOD#2
                                                   mg/L     mg/L      mg/L      mg/L      mg/L      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     CHL A      COLI       NCM
                                                   mg/L      mg/L      mg/L      mg/L

HDWTR-3           1     Grand Bayou                0.00     19.41      0.00      0.00
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       FLOW     FLOW    TEMP    SALIN      CM-I     CM-II
                                                     m³/s        cfs      MGD   deg C      ppt      MG/L      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

$$$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) $$$
                                                                   % BOD                          %
CARD TYPE     ELEMENT   NAME                        DO       BOD      RMVL     NBOD                NITRIF                BOD#2
                                                   mg/L      mg/L                mg/L      mg/L                mg/L      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     CHL A      COLI       NCM
                                                   mg/L      mg/L      mg/L      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

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"

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 =   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                                     LITTLE GRAND BAYOU
REACH NO.  1     GRAND BAYOU-RKM 5.40                           07/17/07
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********** 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	

********** 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/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
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 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/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 LITTLE GRAND BAYOU
REACH NO. 3 WESTFIELD CANAL-RKM 2.16 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						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 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

* $g/m^2/d$ ** 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
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	

********** 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
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	

********** 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/m³	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 LITTLE GRAND BAYOU
REACH NO. 6 WHITMEL CANAL-LAKE VERRET 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/m³	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 LITTLE GRAND BAYOU
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