APPENDIX J

Printout of Calibration Model Output

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1
        TEXAS WATER COMMISSION WATER QUALITY STREAM MODEL                                   01/23/04
        QUAL-TX     VERSION 3.3     UPDATED DECEMBER 3, 1990                                11:33:12


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

        CARD TYPE       CONTROL TITLES

        CNTROL01        QUAL-TX simulation for Upper Bayou Des Allemands, LA
        CNTROL02        Calibrated Model
        CNTROL03  YES   ECHO
        CNTROL04   NO   CAPS
        CNTROL05  YES   INTE
        CNTROL06  YES   FINA
        CNTROL07  YES   LOAD
        CNTROL08  YES   METR
        CNTROL09  YES   OXYG
        CNTROL10  YES   OVER
        ENDATA01


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

        CARD TYPE       MODEL OPTION

        MODOPT01   NO   TEMP
        MODOPT02   NO   SALI
        MODOPT04  YES   CONSERVATIVE MATERIAL I  = cond                        IN umhos
        MODOPT04   NO   CONS
        MODOPT05  YES   DISS
        MODOPT06  YES   BIOC
        MODOPT07  YES   NITR
        MODOPT08  YES   PHOS
        MODOPT09  YES   CHLO
        MODOPT10   NO   MACR
        MODOPT11   NO   COLI
        MODOPT12   NO   NONC
        ENDATA02


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

        CARD TYPE       DESCRIPTION OF CONSTANT                        VALUE

        PROGRAM         MAXIMUM ITERATION LIMIT            =      1500.00000
        PROGRAM         KL MININUM                         =         0.84000
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PROGRAM         TOTAL DAILY RADIATION              =       416.00000
ENDATA03


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

CARD TYPE     RATE CODE     THETA VALUE

BSOD         BENTHAL        1.06500
THETA        NH3 DECA       1.07000
ENDATA04


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

CARD TYPE       DESCRIPTION OF CONSTANT                        VALUE

ENDATA05


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

CARD TYPE       DESCRIPTION OF CONSTANT                        VALUE

LIGHT           LIGHT SATURATION CONSTANT          =        10.00000
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   DA  Bayou Des Allemands            33.00  TO  31.75  0.1250   1.25    10    1    10
REACH ID     2   DA  Bayou Des Allemands            31.75  TO  31.25  0.1000   0.50     5   11    15
REACH ID     3   DA  Bayou Des Allemands            31.25  TO  28.75  0.1000   2.50    25   16    40
REACH ID     4   DA  Bayou Des Allemands            28.75  TO  28.25  0.1000   0.50     5   41    45
REACH ID     5   DA  Bayou Des Allemands            28.25  TO  27.25  0.1000   1.00    10   46    55
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REACH ID	6	DA	Bayou Des Allemands	27.25	TO	26.25	0.1000	1.00	10	56	65
REACH ID	7	DA	Bayou Des Allemands	26.25	TO	25.25	0.1000	1.00	10	66	75
REACH ID	8	DA	Bayou Des Allemands	25.25	TO	24.25	0.1000	1.00	10	76	85
REACH ID	9	DA	Bayou Des Allemands	24.25	TO	23.25	0.1000	1.00	10	86	95
REACH ID	10	DA	Bayou Des Allemands	23.25	TO	22.25	0.1000	1.00	10	96	105
REACH ID	11	DA	Bayou Des Allemands	22.25	TO	21.55	0.1000	0.70	7	106	112

ENDATA08

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

CARD TYPE	REACH	ID	VELOCITY "A"	VELOCITY "B"	DEPTH "C"	DEPTH "D"	DEPTH "E"	MANNINGS "N"
HYDR-1	1	DA	0.00045500	1.000	1.520	0.000	0.000	0.000
HYDR-1	2	DA	0.00055300	1.000	1.520	0.000	0.000	0.000
HYDR-1	3	DA	0.00065000	1.000	1.840	0.000	0.000	0.000
HYDR-1	4	DA	0.00098500	1.000	2.160	0.000	0.000	0.000
HYDR-1	5	DA	0.00178000	1.000	2.160	0.000	0.000	0.000
HYDR-1	6	DA	0.00147000	1.000	2.620	0.000	0.000	0.000
HYDR-1	7	DA	0.00125000	1.000	3.080	0.000	0.000	0.000
HYDR-1	8	DA	0.00125000	1.000	3.080	0.000	0.000	0.000
HYDR-1	9	DA	0.00138000	1.000	2.790	0.000	0.000	0.000
HYDR-1	10	DA	0.00154000	1.000	2.500	0.000	0.000	0.000
HYDR-1	11	DA	0.00368000	1.000	2.500	0.000	0.000	0.000

ENDATA09

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

CARD TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"
HYDR-2	1	DA	0.00	4.500	0.000	0.000	0.000
HYDR-2	2	DA	0.00	4.500	0.000	0.000	0.000
HYDR-2	3	DA	0.00	4.500	0.000	0.000	0.000
HYDR-2	4	DA	0.00	4.500	0.000	0.000	0.000
HYDR-2	5	DA	0.00	4.500	0.000	0.000	0.000
HYDR-2	6	DA	0.00	4.500	0.000	0.000	0.000
HYDR-2	7	DA	0.00	4.500	0.000	0.000	0.000
HYDR-2	8	DA	0.00	4.500	0.000	0.000	0.000
HYDR-2	9	DA	0.00	4.500	0.000	0.000	0.000
HYDR-2	10	DA	0.00	4.500	0.000	0.000	0.000
HYDR-2	11	DA	0.00	4.500	0.000	0.000	0.000

ENDATA10

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

CARD TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL	1	DA	33.10	0.29	10.76	0.14	0.05	0.17	35.00	0.00
INITIAL	2	DA	33.10	0.29	10.76	0.14	0.05	0.17	35.00	0.00
INITIAL	3	DA	31.70	0.29	8.17	0.14	0.05	0.17	35.00	0.00
INITIAL	4	DA	30.30	0.28	5.58	0.14	0.05	0.17	35.00	0.00
INITIAL	5	DA	30.70	0.28	5.66	0.14	0.05	0.17	35.00	0.00
INITIAL	6	DA	31.10	0.28	5.73	0.23	0.05	0.17	34.00	0.00
INITIAL	7	DA	30.70	0.27	5.58	0.32	0.05	0.17	33.00	0.00
INITIAL	8	DA	30.70	0.27	5.37	0.38	0.05	0.15	32.00	0.00
INITIAL	9	DA	30.70	0.27	5.15	0.43	0.05	0.12	31.00	0.00
INITIAL	10	DA	30.70	0.27	5.15	0.43	0.05	0.12	31.00	0.00
INITIAL	11	DA	30.80	0.28	3.86	0.43	0.05	0.12	31.00	0.00

ENDATA11

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

CARD TYPE	REACH	ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD	AEROB BOD DECAY	BOD SETT	BOD CONV TO SOD	ANAER BOD DECAY
COEF-1	1	DA	3.	0.000	0.000	0.000	0.875	0.090	0.000	0.000	0.000
COEF-1	2	DA	3.	0.000	0.000	0.000	1.000	0.090	0.000	0.000	0.000
COEF-1	3	DA	3.	0.000	0.000	0.000	1.000	0.090	0.000	0.000	0.000
COEF-1	4	DA	3.	0.000	0.000	0.000	1.000	0.090	0.000	0.000	0.000
COEF-1	5	DA	3.	0.000	0.000	0.000	1.000	0.090	0.000	0.000	0.000
COEF-1	6	DA	3.	0.000	0.000	0.000	1.000	0.090	0.000	0.000	0.000
COEF-1	7	DA	3.	0.000	0.000	0.000	1.000	0.090	0.000	0.000	0.000
COEF-1	8	DA	3.	0.000	0.000	0.000	1.110	0.090	0.000	0.000	0.000
COEF-1	9	DA	3.	0.000	0.000	0.000	1.000	0.090	0.000	0.000	0.000
COEF-1	10	DA	3.	0.000	0.000	0.000	0.875	0.090	0.000	0.000	0.000
COEF-1	11	DA	3.	0.000	0.000	0.000	0.750	0.090	0.000	0.000	0.000

ENDATA12

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

CARD TYPE	REACH	ID	ORG-N DECA	ORG-N SETT	ORGN CONV TO NH3 SRCE	NH3 DECA	NH3 SRCE	PHOS SRCE	DENIT RATE
COEF-2	1	DA	0.02	0.00	1.00	0.10	0.04	0.04	0.00
COEF-2	2	DA	0.02	0.00	1.00	0.10	0.04	0.04	0.00
COEF-2	3	DA	0.02	0.00	1.00	0.10	0.08	0.03	0.00
COEF-2	4	DA	0.02	0.00	1.00	0.10	0.12	0.02	0.00
COEF-2	5	DA	0.02	0.00	1.00	0.10	0.18	0.02	0.00
COEF-2	6	DA	0.02	0.00	1.00	0.10	0.20	0.02	0.00

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COEF-2          7  DA      0.02     0.00     1.00      0.10     0.20     0.02     0.00
COEF-2          8  DA      0.02     0.00     1.00      0.10     0.20     0.01     0.00
COEF-2          9  DA      0.02     0.00     1.00      0.10     0.22     0.00     0.00
COEF-2         10  DA      0.02     0.00     1.00      0.10     0.24     0.00     0.00
COEF-2         11  DA      0.02     0.00     1.00      0.10     0.26     0.00     0.00
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

COEF-3          1  DA      1.00     0.060    0.50      0.08      0.81     0.10     0.00     0.00
COEF-3          2  DA      1.00     0.060    0.50      0.08      0.81     0.10     0.00     0.00
COEF-3          3  DA      1.00     0.060    0.50      0.08      0.81     0.10     0.00     0.00
COEF-3          4  DA      1.00     0.060    0.50      0.08      0.81     0.10     0.00     0.00
COEF-3          5  DA      1.00     0.060    0.50      0.08      0.81     0.10     0.00     0.00
COEF-3          6  DA      1.00     0.060    0.50      0.08      0.81     0.10     0.00     0.00
COEF-3          7  DA      1.00     0.060    0.50      0.08      0.81     0.10     0.00     0.00
COEF-3          8  DA      1.00     0.060    0.50      0.08      0.81     0.10     0.00     0.00
COEF-3          9  DA      1.00     0.060    0.50      0.08      0.81     0.10     0.00     0.00
COEF-3         10  DA      1.00     0.060    0.50      0.08      0.81     0.10     0.00     0.00
COEF-3         11  DA      1.00     0.060    0.50      0.08      0.81     0.10     0.00     0.00
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    INFLOW/DIST

ENDATA16


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

CARD TYPE      REACH  ID        DO       BOD     ORG-N      NH3     NO3+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	ORG-N	COLI	NCM	DO
NONPOINT	1	DA	3840.00	0.00	0.00	0.00	0.00
NONPOINT	2	DA	2880.00	0.00	0.00	0.00	0.00
NONPOINT	3	DA	1920.00	0.00	0.00	0.00	0.00
NONPOINT	4	DA	480.00	0.00	0.00	0.00	0.00
NONPOINT	5	DA	96.00	0.00	0.00	0.00	0.00
NONPOINT	6	DA	96.00	0.00	0.00	0.00	0.00
NONPOINT	7	DA	96.00	0.00	0.00	0.00	0.00
NONPOINT	8	DA	240.00	0.00	0.00	0.00	0.00
NONPOINT	9	DA	240.00	0.00	0.00	0.00	0.00
NONPOINT	10	DA	240.00	0.00	0.00	0.00	0.00
NONPOINT	11	DA	96.00	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	TEMP	SALIN	CM-I	CM-II
HDWTR-1	1	Lake Des Allemands	0	84.29000	30.600	0.000	427.000	0.000

ENDATA20

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

CARD TYPE	ELEMENT	NAME	DO	BOD	ORG-N	NH3	NO3+2
HDWTR-2	1	Lake Des Allemands	7.32	3.79	1.58	0.12	0.05

ENDATA21

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

CARD TYPE	ELEMENT	NAME	PHOS	CHL A	COLI	NCM
HDWTR-3	1	Lake Des Allemands	0.12	51.00	0.00	0.00

ENDATA22

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

CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	NAME

ENDATA23

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

CARD TYPE	ELEMENT	NAME	FLOW	TEMP	SAL	CM-I	CM-II
WSTLD-1	8	Providence Canal	4.39000	30.200	0.000	614.000	0.000
WSTLD-1	112	Collier Fisheries	0.00044	30.800	0.000	503.000	0.000

ENDATA24

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

CARD TYPE	ELEMENT	NAME	DO	BOD	% BOD RMVL	ORG-N	NH3	% NITRIF	NO3+2
WSTLD-2	8	Providence Canal	4.19	3.79	0.00	1.58	0.12	0.00	0.05
WSTLD-2	112	Collier Fisheries	2.00	60.00	0.00	5.00	10.00	0.00	10.00

ENDATA25

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

CARD TYPE	ELEMENT	NAME	PHOS	CHL A	COLI	NCM
WSTLD-3	8	Providence Canal	0.12	51.00	0.00	0.00
WSTLD-3	112	Collier Fisheries	5.00	0.00	0.00	0.00

ENDATA26

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

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CARD TYPE          CONSTITUENT                        CONCENTRATION

LOWER BC     TEMPERATURE                        =     31.500 DEG C
LOWER BC     SALINITY                           =      0.275 PPT
LOWER BC     CONSERVATIVE MATERIAL I            =    493.000 umhos
LOWER BC     CONSERVATIVE MATERIAL II           =      0.000
LOWER BC     DISSOLVED OXYGEN                   =      5.160 MG/L
LOWER BC     BIOCHEMICAL OXYGEN DEMAND          =      3.790 MG/L
LOWER BC     ORGANIC NITROGEN                   =      1.270 MG/L
LOWER BC     AMMONIA NITROGEN                   =      0.430 MG/L
LOWER BC     NITRATE + NITRITE                  =      0.050 MG/L
LOWER BC     PHOSPHOROUS                        =      0.120 MG/L
LOWER BC     CHLOROPYHLL A                      =     31.000 UG/L
LOWER BC     COLIFORM                           =      0.000 #/100 ML
LOWER BC     NONCONSERVATIVE MATERIAL           =      0.000
ENDATA27


$$$ DATA TYPE 28 (FLOW AUGMENTATION DATA) $$$

CARD TYPE        REACH       AVAIL HDWS       TARGET            ORDER OF AVAIL SOURCES

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

SENSITIV         NH3 SRCE     -50.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         PO4 SRCE     -50.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0
ENDATA29


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


ENDATA30


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.....NO ERRORS DETECTED IN INPUT DATA

.....HYDRAULIC CALCULATIONS COMPLETED
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     .....TRIDIAGONAL MATRIX TERMS INITIALIZED

     .....PHOTOSYNTHETIC RATES CONVERGENT IN   6 ITERATIONS

     .....OXYGEN DEPENDENT RATES CONVERGENT IN   1 ITERATIONS

     .....CONSTITUENT CALCULATIONS COMPLETED
1INTERMEDIATE REPORT
 DISSOLVED OXYGEN                                          QUAL-TX simulation for Upper Bayou Des Allemands, LA
 MG/L                                                      Calibrated Model
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ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
DA	1	1	7.05	6.92	6.79	6.66	6.53	6.40	6.27	6.11	6.02	5.94
DA	2	11	5.87	5.81	5.75	5.70	5.65					
DA	3	16	5.61	5.56	5.52	5.48	5.44	5.40	5.36	5.33	5.29	5.25
DA	3	26	5.22	5.18	5.15	5.12	5.08	5.05	5.02	4.99	4.96	4.93
DA	3	36	4.90	4.88	4.85	4.83	4.81					
DA	4	41	4.79	4.77	4.76	4.74	4.73					
DA	5	46	4.72	4.71	4.71	4.70	4.69	4.68	4.68	4.67	4.66	4.65
DA	6	56	4.64	4.63	4.62	4.61	4.60	4.59	4.58	4.57	4.56	4.54
DA	7	66	4.53	4.52	4.50	4.49	4.48	4.47	4.45	4.44	4.43	4.42
DA	8	76	4.40	4.39	4.38	4.36	4.35	4.34	4.32	4.31	4.30	4.29
DA	9	86	4.28	4.27	4.26	4.25	4.24	4.23	4.22	4.21	4.20	4.19
DA	10	96	4.18	4.18	4.17	4.16	4.16	4.15	4.14	4.14	4.13	4.13
DA	11	106	4.13	4.13	4.13	4.13	4.13	4.16	4.35			

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1INTERMEDIATE REPORT
 BIOCHEMICAL OXYGEN DEMAND                                 QUAL-TX simulation for Upper Bayou Des Allemands, LA
 MG/L                                                      Calibrated Model
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ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
DA	1	1	3.8	3.9	3.9	3.9	4.0	4.0	4.0	4.0	4.1	4.1
DA	2	11	4.2	4.2	4.3	4.3	4.4					
DA	3	16	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
DA	3	26	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
DA	3	36	4.3	4.3	4.3	4.3	4.3					
DA	4	41	4.3	4.3	4.3	4.3	4.3					
DA	5	46	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
DA	6	56	4.3	4.3	4.3	4.2	4.2	4.2	4.2	4.2	4.2	4.2
DA	7	66	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
DA	8	76	4.2	4.2	4.2	4.2	4.2	4.2	4.1	4.1	4.1	4.1
DA	9	86	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
DA	10	96	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
DA	11	106	4.1	4.1	4.1	4.1	4.1	4.1	4.0			

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1INTERMEDIATE REPORT
 ORGANIC NITROGEN                                          QUAL-TX simulation for Upper Bayou Des Allemands, LA
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MG/L

Calibrated Model

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
DA	1	1	1.58	1.57	1.57	1.57	1.57	1.57	1.56	1.56	1.56	1.56
DA	2	11	1.56	1.56	1.55	1.55	1.55					
DA	3	16	1.55	1.55	1.55	1.55	1.55	1.55	1.54	1.54	1.54	1.54
DA	3	26	1.54	1.54	1.54	1.54	1.54	1.54	1.53	1.53	1.53	1.53
DA	3	36	1.53	1.53	1.53	1.53	1.53					
DA	4	41	1.53	1.53	1.53	1.52	1.52					
DA	5	46	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52
DA	6	56	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52
DA	7	66	1.52	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51
DA	8	76	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51
DA	9	86	1.51	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
DA	10	96	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
DA	11	106	1.50	1.50	1.50	1.50	1.50	1.49	1.45			

1INTERMEDIATE REPORT
AMMONIA NITROGEN
MG/L

QUAL-TX simulation for Upper Bayou Des Allemands, LA
Calibrated Model

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
DA	1	1	0.13	0.13	0.13	0.14	0.14	0.14	0.15	0.15	0.15	0.16
DA	2	11	0.16	0.16	0.16	0.16	0.17					
DA	3	16	0.17	0.17	0.17	0.17	0.18	0.18	0.18	0.18	0.19	0.19
DA	3	26	0.19	0.19	0.20	0.20	0.20	0.20	0.20	0.21	0.21	0.21
DA	3	36	0.21	0.21	0.22	0.22	0.22					
DA	4	41	0.22	0.22	0.22	0.23	0.23					
DA	5	46	0.23	0.23	0.23	0.23	0.23	0.24	0.24	0.24	0.24	0.24
DA	6	56	0.24	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.26	0.26
DA	7	66	0.26	0.26	0.26	0.26	0.27	0.27	0.27	0.27	0.27	0.27
DA	8	76	0.27	0.28	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29
DA	9	86	0.29	0.29	0.29	0.29	0.30	0.30	0.30	0.30	0.30	0.30
DA	10	96	0.31	0.31	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32
DA	11	106	0.32	0.32	0.32	0.32	0.33	0.33	0.35			

1INTERMEDIATE REPORT
NITRATE+NITRITE NITROGEN
MG/L

QUAL-TX simulation for Upper Bayou Des Allemands, LA
Calibrated Model

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
DA	1	1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06
DA	2	11	0.06	0.06	0.06	0.06	0.06					
DA	3	16	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
DA	3	26	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
DA	3	36	0.07	0.07	0.07	0.07	0.07					

DA	4	41	0.07	0.07	0.07	0.07	0.07					
DA	5	46	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
DA	6	56	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
DA	7	66	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09
DA	8	76	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
DA	9	86	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
DA	10	96	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
DA	11	106	0.10	0.10	0.10	0.10	0.10	0.10	0.09			

1INTERMEDIATE REPORT
TOTAL NITROGEN
MG/L

QUAL-TX simulation for Upper Bayou Des Allemands, LA
Calibrated Model

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
DA	1	1	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
DA	2	11	1.8	1.8	1.8	1.8	1.8					
DA	3	16	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
DA	3	26	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
DA	3	36	1.8	1.8	1.8	1.8	1.8					
DA	4	41	1.8	1.8	1.8	1.8	1.8					
DA	5	46	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
DA	6	56	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9
DA	7	66	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
DA	8	76	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
DA	9	86	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
DA	10	96	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
DA	11	106	1.9	1.9	1.9	1.9	1.9	1.9	1.9			

1INTERMEDIATE REPORT
PHOSPHORUS
MG/L

QUAL-TX simulation for Upper Bayou Des Allemands, LA
Calibrated Model

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
DA	1	1	0.12	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
DA	2	11	0.13	0.13	0.13	0.14	0.14					
DA	3	16	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
DA	3	26	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
DA	3	36	0.14	0.15	0.15	0.15	0.15					
DA	4	41	0.15	0.15	0.15	0.15	0.15					
DA	5	46	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
DA	6	56	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
DA	7	66	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
DA	8	76	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
DA	9	86	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
DA	10	96	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
DA	11	106	0.15	0.15	0.15	0.15	0.15	0.15	0.14			

1INTERMEDIATE REPORT
CHLOROPHYLL A

QUAL-TX simulation for Upper Bayou Des Allemands, LA

UG/L

Calibrated Model

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
DA	1	1	49.6	48.8	48.1	47.4	46.8	46.1	45.6	45.1	44.6	44.1
DA	2	11	43.7	43.3	42.9	42.6	42.3					
DA	3	16	42.0	41.8	41.5	41.2	41.0	40.7	40.4	40.2	39.9	39.7
DA	3	26	39.5	39.2	39.0	38.7	38.5	38.3	38.0	37.8	37.6	37.4
DA	3	36	37.1	36.9	36.7	36.5	36.4					
DA	4	41	36.2	36.1	36.0	35.9	35.8					
DA	5	46	35.7	35.6	35.6	35.5	35.4	35.4	35.3	35.2	35.1	35.1
DA	6	56	35.0	34.9	34.8	34.8	34.7	34.6	34.5	34.5	34.4	34.3
DA	7	66	34.2	34.2	34.1	34.0	33.9	33.8	33.8	33.7	33.6	33.5
DA	8	76	33.4	33.4	33.3	33.2	33.1	33.1	33.0	32.9	32.8	32.8
DA	9	86	32.7	32.6	32.6	32.5	32.4	32.3	32.3	32.2	32.1	32.1
DA	10	96	32.0	32.0	31.9	31.8	31.8	31.7	31.6	31.6	31.5	31.5
DA	11	106	31.4	31.4	31.4	31.4	31.3	31.3	31.2			

1INTERMEDIATE REPORT

TEMPERATURE

DEG C

QUAL-TX simulation for Upper Bayou Des Allemands, LA
Calibrated Model

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
DA	1	1	33.10	33.10	33.10	33.10	33.10	33.10	33.10	33.10	33.10	33.10
DA	2	11	32.82	32.54	32.26	31.98	31.70					
DA	3	16	31.64	31.59	31.53	31.48	31.42	31.36	31.31	31.25	31.20	31.14
DA	3	26	31.08	31.03	30.97	30.92	30.86	30.80	30.75	30.69	30.64	30.58
DA	3	36	30.52	30.47	30.41	30.36	30.30					
DA	4	41	30.38	30.46	30.54	30.62	30.70					
DA	5	46	30.74	30.78	30.82	30.86	30.90	30.94	30.98	31.02	31.06	31.10
DA	6	56	31.06	31.02	30.98	30.94	30.90	30.86	30.82	30.78	30.74	30.70
DA	7	66	30.70	30.70	30.70	30.70	30.70	30.70	30.70	30.70	30.70	30.70
DA	8	76	30.70	30.70	30.70	30.70	30.70	30.70	30.70	30.70	30.70	30.70
DA	9	86	30.70	30.70	30.70	30.70	30.70	30.70	30.70	30.70	30.70	30.70
DA	10	96	30.71	30.72	30.73	30.74	30.75	30.76	30.77	30.78	30.79	30.80
DA	11	106	30.90	31.00	31.10	31.20	31.30	31.40	31.50			

1INTERMEDIATE REPORT

SALINITY

PPT

QUAL-TX simulation for Upper Bayou Des Allemands, LA
Calibrated Model

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
DA	1	1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
DA	2	11	0.3	0.3	0.3	0.3	0.3					
DA	3	16	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
DA	3	26	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
DA	3	36	0.3	0.3	0.3	0.3	0.3					

DA	4	41	0.3	0.3	0.3	0.3	0.3					
DA	5	46	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
DA	6	56	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
DA	7	66	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
DA	8	76	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
DA	9	86	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
DA	10	96	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
DA	11	106	0.3	0.3	0.3	0.3	0.3	0.3	0.3			

1INTERMEDIATE REPORT
cond QUAL-TX simulation for Upper Bayou Des Allemands, LA
umhos Calibrated Model

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
DA	1	1	427.1	427.1	427.2	427.5	428.1	429.2	431.5	436.3	436.3	436.3
DA	2	11	436.3	436.3	436.3	436.3	436.3					
DA	3	16	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3
DA	3	26	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3
DA	3	36	436.3	436.3	436.3	436.3	436.3					
DA	4	41	436.3	436.3	436.3	436.3	436.3					
DA	5	46	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3
DA	6	56	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3
DA	7	66	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3
DA	8	76	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3
DA	9	86	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3
DA	10	96	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3	436.3
DA	11	106	436.3	436.3	436.3	436.3	436.4	437.7	448.5			

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FINAL REPORT Lake Des Allemands QUAL-TX simulation for Upper Bayou Des Allemands, LA
REACH NO. 1 Bayou Des Allemands Calibrated Model

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

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A UG/L	COLI #/100ML	NCM *
1	HDWTR	84.2900	30.60	0.00	427.0	0.0	7.32	3.79	3.79	1.58	0.12	0.05	0.12	51.0	0.	0.00
8	WSTLD	4.3900	30.20	0.00	614.0	0.0	4.19	3.79	3.79	1.58	0.12	0.05	0.12	51.0	0.	0.00

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

ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S
1	33.00	32.88	84.2900	0.0	0.038	0.04	1.52	1445.9	274725.	180740.3	2197.8	0.	0.000	4.500	0.038
2	32.88	32.75	84.2900	0.0	0.038	0.04	1.52	1445.9	274725.	180740.3	2197.8	0.	0.000	4.500	0.038

3	32.75	32.63	84.2900	0.0	0.038	0.04	1.52	1445.9	274725.	180740.3	2197.8	0.	0.000	4.500	0.038
4	32.63	32.50	84.2900	0.0	0.038	0.04	1.52	1445.9	274725.	180740.3	2197.8	0.	0.000	4.500	0.038
5	32.50	32.38	84.2900	0.0	0.038	0.04	1.52	1445.9	274725.	180740.3	2197.8	0.	0.000	4.500	0.038
6	32.38	32.25	84.2900	0.0	0.038	0.04	1.52	1445.9	274725.	180740.3	2197.8	0.	0.000	4.500	0.038
7	32.25	32.13	84.2900	0.0	0.038	0.04	1.52	1445.9	274725.	180740.3	2197.8	0.	0.000	4.500	0.038
8	32.13	32.00	88.6800	5.0	0.040	0.04	1.52	1445.9	274725.	180740.3	2197.8	0.	0.000	4.500	0.040
9	32.00	31.88	88.6800	5.0	0.040	0.04	1.52	1445.9	274725.	180740.3	2197.8	0.	0.000	4.500	0.040
10	31.88	31.75	88.6800	5.0	0.040	0.04	1.52	1445.9	274725.	180740.3	2197.8	0.	0.000	4.500	0.040
TOT						0.37			2747253.	1807403.1					
AVG					0.039		1.52	1445.9			2197.8				
CUM						0.37									

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

ELEM NO.	ENDING DIST	SAT D.O. MG/L	REAER RATE 1/DA	CBOD DECAY 1/DA	CBOD SETT 1/DA	ANBOD DECAY 1/DA	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	32.875	7.16	0.70	0.16	0.00	0.00	4.70	4.70	0.04	0.00	0.24	0.10	0.00	0.05	-0.02	0.00	0.00	0.00	0.00
2	32.750	7.16	0.70	0.16	0.00	0.00	4.66	4.66	0.04	0.00	0.24	0.10	0.00	0.05	0.00	0.00	0.00	0.00	0.00
3	32.625	7.16	0.70	0.16	0.00	0.00	4.62	4.62	0.04	0.00	0.24	0.10	0.00	0.05	0.01	0.00	0.00	0.00	0.00
4	32.500	7.16	0.70	0.16	0.00	0.00	4.59	4.59	0.04	0.00	0.24	0.10	0.00	0.05	0.02	0.00	0.00	0.00	0.00
5	32.375	7.16	0.70	0.16	0.00	0.00	4.55	4.55	0.04	0.00	0.24	0.10	0.00	0.05	0.03	0.00	0.00	0.00	0.00
6	32.250	7.16	0.70	0.16	0.00	0.00	4.52	4.52	0.04	0.00	0.23	0.10	0.00	0.05	0.04	0.00	0.00	0.00	0.00
7	32.125	7.16	0.70	0.16	0.00	0.00	4.48	4.48	0.04	0.00	0.23	0.10	0.00	0.05	0.05	0.00	0.00	0.00	0.00
8	32.000	7.16	0.70	0.16	0.00	0.00	4.46	4.46	0.04	0.00	0.23	0.10	0.00	0.05	0.06	0.00	0.00	0.00	0.00
9	31.875	7.16	0.70	0.16	0.00	0.00	4.43	4.43	0.04	0.00	0.23	0.10	0.00	0.05	0.07	0.00	0.00	0.00	0.00
10	31.750	7.16	0.70	0.16	0.00	0.00	4.40	4.40	0.04	0.00	0.23	0.10	0.00	0.05	0.08	0.00	0.00	0.00	0.00
20 DEG C RATE				0.09		0.00		0.88	0.02		0.10	0.04	0.00	0.04			0.00	0.00	
AVG 20 DEG C RATE			0.55		0.00					0.00									0.00

* G/SQ M/D ** MG/L/DAY

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A UG/L	MACRO **	COLI #/100ML	NCM *
1	32.875	33.10	0.3	427.1	0.0	7.05	3.85	3.85	1.58	0.13	0.05	1.75	0.12	49.6	0.0	0.	0.00
2	32.750	33.10	0.3	427.1	0.0	6.92	3.87	3.87	1.57	0.13	0.05	1.76	0.12	48.8	0.0	0.	0.00
3	32.625	33.10	0.3	427.2	0.0	6.79	3.90	3.90	1.57	0.13	0.05	1.76	0.13	48.1	0.0	0.	0.00
4	32.500	33.10	0.3	427.5	0.0	6.66	3.93	3.93	1.57	0.14	0.05	1.76	0.13	47.4	0.0	0.	0.00
5	32.375	33.10	0.3	428.1	0.0	6.53	3.96	3.96	1.57	0.14	0.05	1.76	0.13	46.8	0.0	0.	0.00
6	32.250	33.10	0.3	429.2	0.0	6.40	3.99	3.99	1.57	0.14	0.05	1.76	0.13	46.1	0.0	0.	0.00
7	32.125	33.10	0.3	431.5	0.0	6.27	4.01	4.01	1.56	0.15	0.05	1.77	0.13	45.6	0.0	0.	0.00
8	32.000	33.10	0.3	436.3	0.0	6.11	4.03	4.03	1.56	0.15	0.06	1.77	0.13	45.1	0.0	0.	0.00

9	31.875	33.10	0.3	436.3	0.0	6.02	4.07	4.07	1.56	0.15	0.06	1.77	0.13	44.6	0.0	0.	0.00
10	31.750	33.10	0.3	436.3	0.0	5.94	4.11	4.11	1.56	0.16	0.06	1.77	0.13	44.1	0.0	0.	0.00

* CM-I = cond umhos CM-II = NCM =
** G/CU M

********** ALGAE AND MACROPHYTE DATA **********

ELEM NO.	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG SETT 1/DA	ALG LIT LIM	ALG N LIM	ALG P LIM	ALG N&P LIM	ALG TOT LIM	ALG GROW 1/DA	ALG RESP 1/DA	A P/R RATIO	MAC LIT LIM	MAC N LIM	MAC P LIM	MAC N&P LIM	MAC TOT LIM	MAC GROW 1/DA	MAC RESP 1/DA	M P/R RATIO
1	32.875	0.59	0.29	0.45	.30	.37	.75	.50	.15	0.22	0.18	0.99	.00	.00	.00	.00	.00	0.00	0.00	0.00
2	32.750	0.60	0.28	0.45	.30	.38	.76	.50	.15	0.23	0.18	1.00	.00	.00	.00	.00	.00	0.00	0.00	0.00
3	32.625	0.60	0.28	0.45	.30	.38	.76	.51	.15	0.23	0.18	1.01	.00	.00	.00	.00	.00	0.00	0.00	0.00
4	32.500	0.60	0.28	0.45	.30	.39	.76	.51	.16	0.23	0.18	1.02	.00	.00	.00	.00	.00	0.00	0.00	0.00
5	32.375	0.60	0.28	0.45	.30	.39	.76	.52	.16	0.24	0.18	1.03	.00	.00	.00	.00	.00	0.00	0.00	0.00
6	32.250	0.61	0.27	0.45	.31	.40	.76	.52	.16	0.24	0.18	1.04	.00	.00	.00	.00	.00	0.00	0.00	0.00
7	32.125	0.61	0.27	0.45	.31	.40	.76	.53	.16	0.24	0.18	1.05	.00	.00	.00	.00	.00	0.00	0.00	0.00
8	32.000	0.61	0.27	0.45	.31	.41	.77	.53	.16	0.24	0.18	1.06	.00	.00	.00	.00	.00	0.00	0.00	0.00
9	31.875	0.61	0.27	0.45	.31	.41	.77	.53	.16	0.24	0.18	1.07	.00	.00	.00	.00	.00	0.00	0.00	0.00
10	31.750	0.62	0.27	0.45	.31	.41	.77	.54	.17	0.25	0.18	1.08	.00	.00	.00	.00	.00	0.00	0.00	0.00
20 DEG C RATE				0.50						0.81	0.10							0.00	0.00	

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

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FINAL REPORT Lake Des Allemands QUAL-TX simulation for Upper Bayou Des Allemands, LA
REACH NO. 2 Bayou Des Allemands Calibrated Model

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

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A UG/L	COLI #/100ML	NCM *
11	UPR RCH	88.6800	33.10	0.29	436.3	0.0	5.94	4.11	4.11	1.56	0.16	0.06	0.13	44.1	0.	0.00

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

ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S
11	31.75	31.65	88.6800	5.0	0.049	0.02	1.52	1189.7	180832.	118968.3	1808.3	0.	0.000	4.500	0.049
12	31.65	31.55	88.6800	5.0	0.049	0.02	1.52	1189.7	180832.	118968.3	1808.3	0.	0.000	4.500	0.049
13	31.55	31.45	88.6800	5.0	0.049	0.02	1.52	1189.7	180832.	118968.3	1808.3	0.	0.000	4.500	0.049

14	31.45	31.35	88.6800	5.0	0.049	0.02	1.52	1189.7	180832.	118968.3	1808.3	0.	0.000	4.500	0.049
15	31.35	31.25	88.6800	5.0	0.049	0.02	1.52	1189.7	180832.	118968.3	1808.3	0.	0.000	4.500	0.049
TOT						0.12			904159.	594841.5					
AVG					0.049		1.52	1189.7			1808.3				
CUM						0.49									

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

ELEM NO.	ENDING DIST	SAT D.O. MG/L	REAER RATE 1/DA	CBOD DECAY 1/DA	CBOD SETT 1/DA	ANBOD DECAY 1/DA	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	31.650	7.19	0.70	0.16	0.00	0.00	4.61	4.61	0.04	0.00	0.23	0.10	0.00	0.05	0.08	0.00	0.00	0.00	0.00
12	31.550	7.23	0.69	0.16	0.00	0.00	4.53	4.53	0.04	0.00	0.22	0.10	0.00	0.05	0.09	0.00	0.00	0.00	0.00
13	31.450	7.26	0.69	0.16	0.00	0.00	4.46	4.46	0.04	0.00	0.22	0.10	0.00	0.05	0.09	0.00	0.00	0.00	0.00
14	31.350	7.30	0.69	0.16	0.00	0.00	4.39	4.39	0.03	0.00	0.21	0.09	0.00	0.05	0.09	0.00	0.00	0.00	0.00
15	31.250	7.33	0.68	0.15	0.00	0.00	4.32	4.32	0.03	0.00	0.21	0.09	0.00	0.05	0.10	0.00	0.00	0.00	0.00
20 DEG C RATE				0.09		0.00		1.00	0.02		0.10	0.04	0.00	0.04			0.00	0.00	
AVG 20 DEG C RATE			0.55		0.00					0.00									0.00

* G/SQ M/D ** MG/L/DAY

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A UG/L	MACRO **	COLI #/100ML	NCM *
11	31.650	32.82	0.3	436.3	0.0	5.87	4.17	4.17	1.56	0.16	0.06	1.77	0.13	43.7	0.0	0.	0.00
12	31.550	32.54	0.3	436.3	0.0	5.81	4.22	4.22	1.56	0.16	0.06	1.77	0.13	43.3	0.0	0.	0.00
13	31.450	32.26	0.3	436.3	0.0	5.75	4.28	4.28	1.55	0.16	0.06	1.77	0.13	42.9	0.0	0.	0.00
14	31.350	31.98	0.3	436.3	0.0	5.70	4.32	4.32	1.55	0.16	0.06	1.78	0.14	42.6	0.0	0.	0.00
15	31.250	31.70	0.3	436.3	0.0	5.65	4.35	4.35	1.55	0.17	0.06	1.78	0.14	42.3	0.0	0.	0.00

* CM-I = cond umhos CM-II = NCM =
** G/CU M

********** ALGAE AND MACROPHYTE DATA **********

ELEM NO.	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG SETT 1/DA	ALG LIT LIM	ALG N LIM	ALG P LIM	ALG N&P LIM	ALG TOT LIM	ALG GROW 1/DA	ALG RESP 1/DA	A P/R RATIO	MAC LIT LIM	MAC N LIM	MAC P LIM	MAC N&P LIM	MAC TOT LIM	MAC GROW 1/DA	MAC RESP 1/DA	M P/R RATIO
11	31.650	0.62	0.27	0.45	.31	.42	.77	.54	.17	0.24	0.18	1.09	.00	.00	.00	.00	.00	0.00	0.00	0.00
12	31.550	0.62	0.27	0.44	.31	.42	.77	.54	.17	0.24	0.18	1.09	.00	.00	.00	.00	.00	0.00	0.00	0.00

13	31.450	0.62	0.27	0.44	.31	.42	.77	.55	.17	0.24	0.18	1.10	.00	.00	.00	.00	.00	0.00	0.00	0.00
14	31.350	0.62	0.26	0.44	.31	.43	.77	.55	.17	0.24	0.17	1.11	.00	.00	.00	.00	.00	0.00	0.00	0.00
15	31.250	0.62	0.26	0.43	.31	.43	.77	.55	.17	0.24	0.17	1.11	.00	.00	.00	.00	.00	0.00	0.00	0.00
20 DEG C RATE				0.50						0.81	0.10							0.00	0.00	

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

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FINAL REPORT Lake Des Allemands QUAL-TX simulation for Upper Bayou Des Allemands, LA
REACH NO. 3 Bayou Des Allemands Calibrated Model

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

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A UG/L	COLI #/100ML	NCM *
16	UPR RCH	88.6800	31.70	0.29	436.3	0.0	5.65	4.35	4.35	1.55	0.17	0.06	0.14	42.3	0.	0.00

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

ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S
16	31.25	31.15	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
17	31.15	31.05	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
18	31.05	30.95	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
19	30.95	30.85	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
20	30.85	30.75	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
21	30.75	30.65	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
22	30.65	30.55	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
23	30.55	30.45	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
24	30.45	30.35	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
25	30.35	30.25	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
26	30.25	30.15	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
27	30.15	30.05	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
28	30.05	29.95	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
29	29.95	29.85	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
30	29.85	29.75	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
31	29.75	29.65	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
32	29.65	29.55	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
33	29.55	29.45	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
34	29.45	29.35	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
35	29.35	29.25	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
36	29.25	29.15	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
37	29.15	29.05	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
38	29.05	28.95	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
39	28.95	28.85	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058

40	28.85	28.75	88.6800	5.0	0.058	0.02	1.84	836.1	153846.	83612.0	1538.5	0.	0.000	4.500	0.058
TOT						0.50			3846155.	2090300.6					
AVG					0.058		1.84	836.1			1538.5				
CUM						0.99									

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

ELEM NO.	ENDING DIST	SAT D.O. MG/L	REAER RATE 1/DA	CBOD DECAY 1/DA	CBOD SETT 1/DA	ANBOD DECAY 1/DA	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
16	31.150	7.34	0.56	0.15	0.00	0.00	4.30	4.30	0.03	0.00	0.21	0.18	0.00	0.04	-0.04	0.00	0.00	0.00	0.00
17	31.050	7.34	0.56	0.15	0.00	0.00	4.27	4.27	0.03	0.00	0.21	0.18	0.00	0.04	-0.03	0.00	0.00	0.00	0.00
18	30.950	7.35	0.56	0.15	0.00	0.00	4.25	4.25	0.03	0.00	0.20	0.18	0.00	0.04	-0.03	0.00	0.00	0.00	0.00
19	30.850	7.36	0.56	0.15	0.00	0.00	4.22	4.22	0.03	0.00	0.20	0.18	0.00	0.04	-0.03	0.00	0.00	0.00	0.00
20	30.750	7.37	0.56	0.15	0.00	0.00	4.20	4.20	0.03	0.00	0.20	0.18	0.00	0.04	-0.02	0.00	0.00	0.00	0.00
21	30.650	7.37	0.56	0.15	0.00	0.00	4.18	4.18	0.03	0.00	0.20	0.18	0.00	0.04	-0.02	0.00	0.00	0.00	0.00
22	30.550	7.38	0.56	0.15	0.00	0.00	4.15	4.15	0.03	0.00	0.20	0.18	0.00	0.04	-0.01	0.00	0.00	0.00	0.00
23	30.450	7.39	0.56	0.15	0.00	0.00	4.13	4.13	0.03	0.00	0.20	0.18	0.00	0.04	-0.01	0.00	0.00	0.00	0.00
24	30.350	7.39	0.56	0.15	0.00	0.00	4.11	4.11	0.03	0.00	0.20	0.18	0.00	0.04	0.00	0.00	0.00	0.00	0.00
25	30.250	7.40	0.56	0.15	0.00	0.00	4.08	4.08	0.03	0.00	0.20	0.18	0.00	0.04	0.00	0.00	0.00	0.00	0.00
26	30.150	7.41	0.56	0.15	0.00	0.00	4.06	4.06	0.03	0.00	0.20	0.18	0.00	0.04	0.00	0.00	0.00	0.00	0.00
27	30.050	7.41	0.56	0.15	0.00	0.00	4.04	4.04	0.03	0.00	0.19	0.18	0.00	0.04	0.01	0.00	0.00	0.00	0.00
28	29.950	7.42	0.56	0.15	0.00	0.00	4.02	4.02	0.03	0.00	0.19	0.18	0.00	0.04	0.01	0.00	0.00	0.00	0.00
29	29.850	7.43	0.56	0.15	0.00	0.00	4.00	4.00	0.03	0.00	0.19	0.17	0.00	0.04	0.02	0.00	0.00	0.00	0.00
30	29.750	7.44	0.56	0.15	0.00	0.00	3.97	3.97	0.03	0.00	0.19	0.17	0.00	0.04	0.02	0.00	0.00	0.00	0.00
31	29.650	7.44	0.56	0.15	0.00	0.00	3.95	3.95	0.03	0.00	0.19	0.17	0.00	0.04	0.02	0.00	0.00	0.00	0.00
32	29.550	7.45	0.56	0.15	0.00	0.00	3.93	3.93	0.03	0.00	0.19	0.17	0.00	0.04	0.03	0.00	0.00	0.00	0.00
33	29.450	7.46	0.56	0.15	0.00	0.00	3.91	3.91	0.03	0.00	0.19	0.17	0.00	0.04	0.03	0.00	0.00	0.00	0.00
34	29.350	7.46	0.56	0.15	0.00	0.00	3.89	3.89	0.03	0.00	0.19	0.17	0.00	0.04	0.03	0.00	0.00	0.00	0.00
35	29.250	7.47	0.55	0.15	0.00	0.00	3.87	3.87	0.03	0.00	0.19	0.17	0.00	0.04	0.04	0.00	0.00	0.00	0.00
36	29.150	7.48	0.55	0.15	0.00	0.00	3.85	3.85	0.03	0.00	0.19	0.17	0.00	0.04	0.04	0.00	0.00	0.00	0.00
37	29.050	7.49	0.55	0.15	0.00	0.00	3.83	3.83	0.03	0.00	0.18	0.17	0.00	0.04	0.04	0.00	0.00	0.00	0.00
38	28.950	7.49	0.55	0.15	0.00	0.00	3.81	3.81	0.03	0.00	0.18	0.17	0.00	0.04	0.04	0.00	0.00	0.00	0.00
39	28.850	7.50	0.55	0.14	0.00	0.00	3.79	3.79	0.03	0.00	0.18	0.17	0.00	0.04	0.05	0.00	0.00	0.00	0.00
40	28.750	7.51	0.55	0.14	0.00	0.00	3.77	3.77	0.03	0.00	0.18	0.17	0.00	0.04	0.05	0.00	0.00	0.00	0.00
20 DEG C RATE				0.09		0.00		1.00	0.02		0.10	0.08	0.00	0.03			0.00	0.00	
AVG 20 DEG C RATE			0.46		0.00					0.00									0.00

* G/SQ M/D ** MG/L/DAY

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A UG/L	MACRO **	COLI #/100ML	NCM *

16	31.150	31.64	0.3	436.3	0.0	5.61	4.35	4.35	1.55	0.17	0.06	1.78	0.14	42.0	0.0	0.	0.00
17	31.050	31.59	0.3	436.3	0.0	5.56	4.34	4.34	1.55	0.17	0.06	1.78	0.14	41.8	0.0	0.	0.00
18	30.950	31.53	0.3	436.3	0.0	5.52	4.34	4.34	1.55	0.17	0.06	1.78	0.14	41.5	0.0	0.	0.00
19	30.850	31.48	0.3	436.3	0.0	5.48	4.34	4.34	1.55	0.17	0.06	1.78	0.14	41.2	0.0	0.	0.00
20	30.750	31.42	0.3	436.3	0.0	5.44	4.33	4.33	1.55	0.18	0.06	1.79	0.14	41.0	0.0	0.	0.00
21	30.650	31.36	0.3	436.3	0.0	5.40	4.33	4.33	1.55	0.18	0.06	1.79	0.14	40.7	0.0	0.	0.00
22	30.550	31.31	0.3	436.3	0.0	5.36	4.33	4.33	1.54	0.18	0.06	1.79	0.14	40.4	0.0	0.	0.00
23	30.450	31.25	0.3	436.3	0.0	5.33	4.33	4.33	1.54	0.18	0.06	1.79	0.14	40.2	0.0	0.	0.00
24	30.350	31.20	0.3	436.3	0.0	5.29	4.32	4.32	1.54	0.19	0.06	1.79	0.14	39.9	0.0	0.	0.00
25	30.250	31.14	0.3	436.3	0.0	5.25	4.32	4.32	1.54	0.19	0.06	1.79	0.14	39.7	0.0	0.	0.00
26	30.150	31.08	0.3	436.3	0.0	5.22	4.32	4.32	1.54	0.19	0.06	1.80	0.14	39.5	0.0	0.	0.00
27	30.050	31.03	0.3	436.3	0.0	5.18	4.31	4.31	1.54	0.19	0.07	1.80	0.14	39.2	0.0	0.	0.00
28	29.950	30.97	0.3	436.3	0.0	5.15	4.31	4.31	1.54	0.20	0.07	1.80	0.14	39.0	0.0	0.	0.00
29	29.850	30.92	0.3	436.3	0.0	5.12	4.31	4.31	1.54	0.20	0.07	1.80	0.14	38.7	0.0	0.	0.00
30	29.750	30.86	0.3	436.3	0.0	5.08	4.31	4.31	1.54	0.20	0.07	1.80	0.14	38.5	0.0	0.	0.00
31	29.650	30.80	0.3	436.3	0.0	5.05	4.30	4.30	1.54	0.20	0.07	1.81	0.14	38.3	0.0	0.	0.00
32	29.550	30.75	0.3	436.3	0.0	5.02	4.30	4.30	1.53	0.20	0.07	1.81	0.14	38.0	0.0	0.	0.00
33	29.450	30.69	0.3	436.3	0.0	4.99	4.30	4.30	1.53	0.21	0.07	1.81	0.14	37.8	0.0	0.	0.00
34	29.350	30.64	0.3	436.3	0.0	4.96	4.29	4.29	1.53	0.21	0.07	1.81	0.14	37.6	0.0	0.	0.00
35	29.250	30.58	0.3	436.3	0.0	4.93	4.29	4.29	1.53	0.21	0.07	1.81	0.14	37.4	0.0	0.	0.00
36	29.150	30.52	0.3	436.3	0.0	4.90	4.29	4.29	1.53	0.21	0.07	1.81	0.14	37.1	0.0	0.	0.00
37	29.050	30.47	0.3	436.3	0.0	4.88	4.29	4.29	1.53	0.21	0.07	1.81	0.15	36.9	0.0	0.	0.00
38	28.950	30.41	0.3	436.3	0.0	4.85	4.29	4.29	1.53	0.22	0.07	1.82	0.15	36.7	0.0	0.	0.00
39	28.850	30.36	0.3	436.3	0.0	4.83	4.28	4.28	1.53	0.22	0.07	1.82	0.15	36.5	0.0	0.	0.00
40	28.750	30.30	0.3	436.3	0.0	4.81	4.28	4.28	1.53	0.22	0.07	1.82	0.15	36.4	0.0	0.	0.00

* CM-I = cond umhos CM-II = NCM =

** G/CU M

********** ALGAE AND MACROPHYTE DATA **********

ELEM NO.	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG SETT 1/DA	ALG LIT LIM	ALG N LIM	ALG P LIM	ALG N&P LIM	ALG TOT LIM	ALG GROW 1/DA	ALG RESP 1/DA	A P/R RATIO	MAC LIT LIM	MAC N LIM	MAC P LIM	MAC N&P LIM	MAC TOT LIM	MAC GROW 1/DA	MAC RESP 1/DA	M P/R RATIO
16	31.150	0.62	0.26	0.36	.27	.43	.77	.55	.15	0.20	0.17	0.95	.00	.00	.00	.00	.00	0.00	0.00	0.00
17	31.050	0.63	0.26	0.36	.27	.43	.77	.56	.15	0.20	0.17	0.96	.00	.00	.00	.00	.00	0.00	0.00	0.00
18	30.950	0.63	0.26	0.36	.27	.44	.77	.56	.15	0.20	0.17	0.96	.00	.00	.00	.00	.00	0.00	0.00	0.00
19	30.850	0.63	0.26	0.36	.27	.44	.77	.56	.15	0.21	0.17	0.97	.00	.00	.00	.00	.00	0.00	0.00	0.00
20	30.750	0.63	0.26	0.36	.27	.44	.78	.56	.15	0.21	0.17	0.98	.00	.00	.00	.00	.00	0.00	0.00	0.00
21	30.650	0.63	0.26	0.36	.27	.45	.78	.57	.15	0.21	0.17	0.98	.00	.00	.00	.00	.00	0.00	0.00	0.00
22	30.550	0.63	0.26	0.36	.27	.45	.78	.57	.15	0.21	0.17	0.99	.00	.00	.00	.00	.00	0.00	0.00	0.00
23	30.450	0.63	0.26	0.35	.27	.45	.78	.57	.15	0.21	0.17	0.99	.00	.00	.00	.00	.00	0.00	0.00	0.00
24	30.350	0.63	0.25	0.35	.27	.45	.78	.57	.15	0.21	0.17	1.00	.00	.00	.00	.00	.00	0.00	0.00	0.00
25	30.250	0.63	0.25	0.35	.27	.46	.78	.58	.16	0.21	0.17	1.00	.00	.00	.00	.00	.00	0.00	0.00	0.00
26	30.150	0.64	0.25	0.35	.27	.46	.78	.58	.16	0.21	0.17	1.01	.00	.00	.00	.00	.00	0.00	0.00	0.00
27	30.050	0.64	0.25	0.35	.27	.46	.78	.58	.16	0.21	0.17	1.01	.00	.00	.00	.00	.00	0.00	0.00	0.00
28	29.950	0.64	0.25	0.35	.27	.47	.78	.58	.16	0.21	0.17	1.02	.00	.00	.00	.00	.00	0.00	0.00	0.00

29	29.850	0.64	0.25	0.35	.27	.47	.78	.59	.16	0.21	0.17	1.02	.00	.00	.00	.00	.00	0.00	0.00	0.00
30	29.750	0.64	0.25	0.35	.27	.47	.78	.59	.16	0.21	0.16	1.03	.00	.00	.00	.00	.00	0.00	0.00	0.00
31	29.650	0.64	0.25	0.35	.27	.47	.78	.59	.16	0.21	0.16	1.03	.00	.00	.00	.00	.00	0.00	0.00	0.00
32	29.550	0.64	0.25	0.35	.27	.48	.78	.59	.16	0.21	0.16	1.03	.00	.00	.00	.00	.00	0.00	0.00	0.00
33	29.450	0.64	0.25	0.35	.27	.48	.78	.59	.16	0.21	0.16	1.04	.00	.00	.00	.00	.00	0.00	0.00	0.00
34	29.350	0.64	0.25	0.35	.27	.48	.78	.60	.16	0.21	0.16	1.04	.00	.00	.00	.00	.00	0.00	0.00	0.00
35	29.250	0.65	0.25	0.35	.27	.48	.78	.60	.16	0.21	0.16	1.05	.00	.00	.00	.00	.00	0.00	0.00	0.00
36	29.150	0.65	0.25	0.35	.27	.49	.78	.60	.16	0.21	0.16	1.05	.00	.00	.00	.00	.00	0.00	0.00	0.00
37	29.050	0.65	0.25	0.35	.28	.49	.78	.60	.17	0.21	0.16	1.06	.00	.00	.00	.00	.00	0.00	0.00	0.00
38	28.950	0.65	0.25	0.35	.28	.49	.78	.60	.17	0.21	0.16	1.06	.00	.00	.00	.00	.00	0.00	0.00	0.00
39	28.850	0.65	0.25	0.35	.28	.49	.79	.60	.17	0.21	0.16	1.06	.00	.00	.00	.00	.00	0.00	0.00	0.00
40	28.750	0.65	0.25	0.35	.28	.49	.79	.61	.17	0.21	0.16	1.07	.00	.00	.00	.00	.00	0.00	0.00	0.00
20 DEG C RATE				0.50						0.81	0.10							0.00	0.00	

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

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FINAL REPORT Lake Des Allemands QUAL-TX simulation for Upper Bayou Des Allemands, LA
REACH NO. 4 Bayou Des Allemands Calibrated Model

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

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A UG/L	COLI #/100ML	NCM *
41	UPR RCH	88.6800	30.30	0.28	436.3	0.0	4.81	4.28	4.28	1.53	0.22	0.07	0.15	36.4	0.	0.00

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

ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S
41	28.75	28.65	88.6800	5.0	0.087	0.01	2.16	470.0	101523.	47001.3	1015.2	0.	0.000	4.500	0.087
42	28.65	28.55	88.6800	5.0	0.087	0.01	2.16	470.0	101523.	47001.3	1015.2	0.	0.000	4.500	0.087
43	28.55	28.45	88.6800	5.0	0.087	0.01	2.16	470.0	101523.	47001.3	1015.2	0.	0.000	4.500	0.087
44	28.45	28.35	88.6800	5.0	0.087	0.01	2.16	470.0	101523.	47001.3	1015.2	0.	0.000	4.500	0.087
45	28.35	28.25	88.6800	5.0	0.087	0.01	2.16	470.0	101523.	47001.3	1015.2	0.	0.000	4.500	0.087
TOT						0.07			507614.	235006.6					
AVG					0.087		2.16	470.0			1015.2				
CUM						1.06									

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

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	CBOD DECAY	CBOD SETT	ANBOD DECAY	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
41	28.650	7.50	0.47	0.14	0.00	0.00	3.78	3.78	0.03	0.00	0.18	0.25	0.00	0.03	-0.05	0.00	0.00	0.00	0.00
42	28.550	7.49	0.47	0.15	0.00	0.00	3.78	3.78	0.03	0.00	0.18	0.25	0.00	0.03	-0.05	0.00	0.00	0.00	0.00
43	28.450	7.48	0.47	0.15	0.00	0.00	3.79	3.79	0.03	0.00	0.18	0.25	0.00	0.03	-0.05	0.00	0.00	0.00	0.00
44	28.350	7.47	0.47	0.15	0.00	0.00	3.80	3.80	0.03	0.00	0.19	0.26	0.00	0.03	-0.05	0.00	0.00	0.00	0.00
45	28.250	7.46	0.47	0.15	0.00	0.00	3.81	3.81	0.03	0.00	0.19	0.26	0.00	0.03	-0.04	0.00	0.00	0.00	0.00
20 DEG C RATE				0.09		0.00		1.00	0.02		0.10	0.12	0.00	0.02			0.00	0.00	
AVG 20 DEG C RATE			0.39		0.00					0.00									0.00

* G/SQ M/D ** MG/L/DAY

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A UG/L	MACRO **	COLI #/100ML	NCM *
41	28.650	30.38	0.3	436.3	0.0	4.79	4.29	4.29	1.53	0.22	0.07	1.82	0.15	36.2	0.0	0.	0.00
42	28.550	30.46	0.3	436.3	0.0	4.77	4.29	4.29	1.53	0.22	0.07	1.82	0.15	36.1	0.0	0.	0.00
43	28.450	30.54	0.3	436.3	0.0	4.76	4.30	4.30	1.53	0.22	0.07	1.82	0.15	36.0	0.0	0.	0.00
44	28.350	30.62	0.3	436.3	0.0	4.74	4.30	4.30	1.52	0.23	0.07	1.83	0.15	35.9	0.0	0.	0.00
45	28.250	30.70	0.3	436.3	0.0	4.73	4.30	4.30	1.52	0.23	0.07	1.83	0.15	35.8	0.0	0.	0.00

* CM-I = cond umhos CM-II = NCM =
** G/CU M

********** ALGAE AND MACROPHYTE DATA **********

ELEM NO.	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG SETT 1/DA	ALG LIT LIM	ALG N LIM	ALG P LIM	ALG N&P LIM	ALG TOT LIM	ALG GROW 1/DA	ALG RESP 1/DA	A P/R RATIO	MAC LIT LIM	MAC N LIM	MAC P LIM	MAC N&P LIM	MAC TOT LIM	MAC GROW 1/DA	MAC RESP 1/DA	M P/R RATIO
41	28.650	0.65	0.25	0.30	.24	.50	.79	.61	.15	0.19	0.16	0.93	.00	.00	.00	.00	.00	0.00	0.00	0.00
42	28.550	0.65	0.25	0.30	.24	.50	.79	.61	.15	0.19	0.16	0.93	.00	.00	.00	.00	.00	0.00	0.00	0.00
43	28.450	0.65	0.25	0.30	.24	.50	.79	.61	.15	0.19	0.16	0.93	.00	.00	.00	.00	.00	0.00	0.00	0.00
44	28.350	0.65	0.25	0.30	.24	.50	.79	.61	.15	0.19	0.16	0.94	.00	.00	.00	.00	.00	0.00	0.00	0.00
45	28.250	0.65	0.25	0.30	.24	.50	.79	.61	.15	0.19	0.16	0.94	.00	.00	.00	.00	.00	0.00	0.00	0.00
20 DEG C RATE				0.50						0.81	0.10							0.00	0.00	

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

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FINAL REPORT Lake Des Allemands QUAL-TX simulation for Upper Bayou Des Allemands, LA
REACH NO. 5 Bayou Des Allemands Calibrated Model

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

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A UG/L	COLI #/100ML	NCM *
46	UPR RCH	88.6800	30.70	0.28	436.3	0.0	4.73	4.30	4.30	1.52	0.23	0.07	0.15	35.8	0.	0.00

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

ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S
46	28.25	28.15	88.6800	5.0	0.158	0.01	2.16	260.1	56180.	26009.2	561.8	0.	0.000	4.500	0.158
47	28.15	28.05	88.6800	5.0	0.158	0.01	2.16	260.1	56180.	26009.2	561.8	0.	0.000	4.500	0.158
48	28.05	27.95	88.6800	5.0	0.158	0.01	2.16	260.1	56180.	26009.2	561.8	0.	0.000	4.500	0.158
49	27.95	27.85	88.6800	5.0	0.158	0.01	2.16	260.1	56180.	26009.2	561.8	0.	0.000	4.500	0.158
50	27.85	27.75	88.6800	5.0	0.158	0.01	2.16	260.1	56180.	26009.2	561.8	0.	0.000	4.500	0.158
51	27.75	27.65	88.6800	5.0	0.158	0.01	2.16	260.1	56180.	26009.2	561.8	0.	0.000	4.500	0.158
52	27.65	27.55	88.6800	5.0	0.158	0.01	2.16	260.1	56180.	26009.2	561.8	0.	0.000	4.500	0.158
53	27.55	27.45	88.6800	5.0	0.158	0.01	2.16	260.1	56180.	26009.2	561.8	0.	0.000	4.500	0.158
54	27.45	27.35	88.6800	5.0	0.158	0.01	2.16	260.1	56180.	26009.2	561.8	0.	0.000	4.500	0.158
55	27.35	27.25	88.6800	5.0	0.158	0.01	2.16	260.1	56180.	26009.2	561.8	0.	0.000	4.500	0.158
TOT						0.07			561798.	260091.6					
AVG					0.158		2.16	260.1			561.8				
CUM						1.13									

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

ELEM NO.	ENDING DIST	SAT D.O. MG/L	REAER RATE 1/DA	CBOD DECAY 1/DA	CBOD SETT 1/DA	ANBOD DECAY 1/DA	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
46	28.150	7.45	0.60	0.15	0.00	0.00	3.81	3.81	0.03	0.00	0.19	0.39	0.00	0.02	-0.04	0.00	0.00	0.00	0.00
47	28.050	7.45	0.60	0.15	0.00	0.00	3.81	3.81	0.03	0.00	0.19	0.39	0.00	0.02	-0.04	0.00	0.00	0.00	0.00
48	27.950	7.44	0.60	0.15	0.00	0.00	3.82	3.82	0.03	0.00	0.19	0.39	0.00	0.02	-0.04	0.00	0.00	0.00	0.00
49	27.850	7.44	0.60	0.15	0.00	0.00	3.82	3.82	0.03	0.00	0.19	0.39	0.00	0.02	-0.03	0.00	0.00	0.00	0.00
50	27.750	7.43	0.60	0.15	0.00	0.00	3.82	3.82	0.03	0.00	0.19	0.39	0.00	0.02	-0.03	0.00	0.00	0.00	0.00
51	27.650	7.43	0.60	0.15	0.00	0.00	3.82	3.82	0.03	0.00	0.19	0.39	0.00	0.02	-0.03	0.00	0.00	0.00	0.00
52	27.550	7.42	0.60	0.15	0.00	0.00	3.83	3.83	0.03	0.00	0.19	0.39	0.00	0.02	-0.03	0.00	0.00	0.00	0.00
53	27.450	7.42	0.61	0.15	0.00	0.00	3.83	3.83	0.03	0.00	0.19	0.40	0.00	0.02	-0.02	0.00	0.00	0.00	0.00
54	27.350	7.41	0.61	0.15	0.00	0.00	3.83	3.83	0.03	0.00	0.19	0.40	0.00	0.02	-0.02	0.00	0.00	0.00	0.00
55	27.250	7.41	0.61	0.15	0.00	0.00	3.84	3.84	0.03	0.00	0.19	0.40	0.00	0.02	-0.02	0.00	0.00	0.00	0.00
20 DEG C RATE				0.09		0.00		1.00	0.02		0.10	0.18	0.00	0.02			0.00	0.00	
AVG 20 DEG C RATE			0.49		0.00					0.00									0.00

* G/SQ M/D ** MG/L/DAY

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A UG/L	MACRO **	COLI #/100ML	NCM *
46	28.150	30.74	0.3	436.3	0.0	4.72	4.30	4.30	1.52	0.23	0.07	1.83	0.15	35.7	0.0	0.	0.00
47	28.050	30.78	0.3	436.3	0.0	4.71	4.29	4.29	1.52	0.23	0.08	1.83	0.15	35.6	0.0	0.	0.00
48	27.950	30.82	0.3	436.3	0.0	4.71	4.29	4.29	1.52	0.23	0.08	1.83	0.15	35.6	0.0	0.	0.00
49	27.850	30.86	0.3	436.3	0.0	4.70	4.29	4.29	1.52	0.23	0.08	1.83	0.15	35.5	0.0	0.	0.00
50	27.750	30.90	0.3	436.3	0.0	4.69	4.28	4.28	1.52	0.23	0.08	1.83	0.15	35.4	0.0	0.	0.00
51	27.650	30.94	0.3	436.3	0.0	4.68	4.28	4.28	1.52	0.24	0.08	1.83	0.15	35.4	0.0	0.	0.00
52	27.550	30.98	0.3	436.3	0.0	4.68	4.28	4.28	1.52	0.24	0.08	1.84	0.15	35.3	0.0	0.	0.00
53	27.450	31.02	0.3	436.3	0.0	4.67	4.27	4.27	1.52	0.24	0.08	1.84	0.15	35.2	0.0	0.	0.00
54	27.350	31.06	0.3	436.3	0.0	4.66	4.27	4.27	1.52	0.24	0.08	1.84	0.15	35.1	0.0	0.	0.00
55	27.250	31.10	0.3	436.3	0.0	4.65	4.27	4.27	1.52	0.24	0.08	1.84	0.15	35.1	0.0	0.	0.00

* CM-I = cond umhos CM-II = NCM =

** G/CU M

********** ALGAE AND MACROPHYTE DATA **********

ELEM NO.	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG SETT 1/DA	ALG LIT LIM	ALG N LIM	ALG P LIM	ALG N&P LIM	ALG TOT LIM	ALG GROW 1/DA	ALG RESP 1/DA	A P/R RATIO	MAC LIT LIM	MAC N LIM	MAC P LIM	MAC N&P LIM	MAC TOT LIM	MAC GROW 1/DA	MAC RESP 1/DA	M P/R RATIO
46	28.150	0.65	0.25	0.30	.24	.50	.79	.61	.15	0.19	0.16	0.94	.00	.00	.00	.00	.00	0.00	0.00	0.00
47	28.050	0.65	0.25	0.30	.24	.50	.79	.61	.15	0.19	0.16	0.94	.00	.00	.00	.00	.00	0.00	0.00	0.00
48	27.950	0.65	0.25	0.30	.24	.51	.79	.62	.15	0.19	0.16	0.95	.00	.00	.00	.00	.00	0.00	0.00	0.00
49	27.850	0.65	0.24	0.30	.24	.51	.79	.62	.15	0.20	0.16	0.95	.00	.00	.00	.00	.00	0.00	0.00	0.00
50	27.750	0.66	0.24	0.30	.24	.51	.79	.62	.15	0.20	0.16	0.96	.00	.00	.00	.00	.00	0.00	0.00	0.00
51	27.650	0.66	0.24	0.30	.24	.51	.79	.62	.15	0.20	0.17	0.96	.00	.00	.00	.00	.00	0.00	0.00	0.00
52	27.550	0.66	0.24	0.30	.24	.51	.79	.62	.15	0.20	0.17	0.96	.00	.00	.00	.00	.00	0.00	0.00	0.00
53	27.450	0.66	0.24	0.30	.24	.51	.79	.62	.15	0.20	0.17	0.96	.00	.00	.00	.00	.00	0.00	0.00	0.00
54	27.350	0.66	0.24	0.30	.24	.51	.79	.62	.15	0.20	0.17	0.97	.00	.00	.00	.00	.00	0.00	0.00	0.00
55	27.250	0.66	0.24	0.30	.24	.52	.79	.62	.15	0.20	0.17	0.97	.00	.00	.00	.00	.00	0.00	0.00	0.00
20 DEG C RATE				0.50						0.81	0.10							0.00	0.00	

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

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FINAL REPORT Lake Des Allemands QUAL-TX simulation for Upper Bayou Des Allemands, LA
REACH NO. 6 Bayou Des Allemands Calibrated Model

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

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A UG/L	COLI #/100ML	NCM *
56	UPR RCH	88.6800	31.10	0.28	436.3	0.0	4.65	4.27	4.27	1.52	0.24	0.08	0.15	35.1	0.	0.00

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

ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S
56	27.25	27.15	88.6800	5.0	0.130	0.01	2.62	259.6	68027.	25964.6	680.3	0.	0.000	4.500	0.130
57	27.15	27.05	88.6800	5.0	0.130	0.01	2.62	259.6	68027.	25964.6	680.3	0.	0.000	4.500	0.130
58	27.05	26.95	88.6800	5.0	0.130	0.01	2.62	259.6	68027.	25964.6	680.3	0.	0.000	4.500	0.130
59	26.95	26.85	88.6800	5.0	0.130	0.01	2.62	259.6	68027.	25964.6	680.3	0.	0.000	4.500	0.130
60	26.85	26.75	88.6800	5.0	0.130	0.01	2.62	259.6	68027.	25964.6	680.3	0.	0.000	4.500	0.130
61	26.75	26.65	88.6800	5.0	0.130	0.01	2.62	259.6	68027.	25964.6	680.3	0.	0.000	4.500	0.130
62	26.65	26.55	88.6800	5.0	0.130	0.01	2.62	259.6	68027.	25964.6	680.3	0.	0.000	4.500	0.130
63	26.55	26.45	88.6800	5.0	0.130	0.01	2.62	259.6	68027.	25964.6	680.3	0.	0.000	4.500	0.130
64	26.45	26.35	88.6800	5.0	0.130	0.01	2.62	259.6	68027.	25964.6	680.3	0.	0.000	4.500	0.130
65	26.35	26.25	88.6800	5.0	0.130	0.01	2.62	259.6	68027.	25964.6	680.3	0.	0.000	4.500	0.130
TOT						0.09			680272.	259645.8					
AVG					0.130		2.62	259.6			680.3				
CUM						1.22									

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

ELEM NO.	ENDING DIST	SAT D.O. MG/L	REAER RATE 1/DA	CBOD DECAY 1/DA	CBOD SETT 1/DA	ANBOD DECAY 1/DA	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
56	27.150	7.41	0.41	0.15	0.00	0.00	3.83	3.83	0.03	0.00	0.19	0.44	0.00	0.02	-0.13	0.00	0.00	0.00	0.00
57	27.050	7.42	0.41	0.15	0.00	0.00	3.82	3.82	0.03	0.00	0.19	0.44	0.00	0.02	-0.13	0.00	0.00	0.00	0.00
58	26.950	7.42	0.41	0.15	0.00	0.00	3.80	3.80	0.03	0.00	0.19	0.44	0.00	0.02	-0.13	0.00	0.00	0.00	0.00
59	26.850	7.43	0.41	0.15	0.00	0.00	3.79	3.79	0.03	0.00	0.19	0.44	0.00	0.02	-0.13	0.00	0.00	0.00	0.00
60	26.750	7.43	0.41	0.15	0.00	0.00	3.78	3.78	0.03	0.00	0.19	0.44	0.00	0.02	-0.12	0.00	0.00	0.00	0.00
61	26.650	7.44	0.41	0.15	0.00	0.00	3.77	3.77	0.03	0.00	0.19	0.43	0.00	0.02	-0.12	0.00	0.00	0.00	0.00
62	26.550	7.44	0.41	0.15	0.00	0.00	3.76	3.76	0.03	0.00	0.19	0.43	0.00	0.02	-0.12	0.00	0.00	0.00	0.00
63	26.450	7.45	0.41	0.15	0.00	0.00	3.75	3.75	0.03	0.00	0.19	0.43	0.00	0.02	-0.12	0.00	0.00	0.00	0.00
64	26.350	7.45	0.41	0.15	0.00	0.00	3.74	3.74	0.03	0.00	0.18	0.43	0.00	0.02	-0.11	0.00	0.00	0.00	0.00
65	26.250	7.46	0.41	0.15	0.00	0.00	3.73	3.73	0.03	0.00	0.18	0.43	0.00	0.02	-0.11	0.00	0.00	0.00	0.00
20 DEG C RATE				0.09		0.00		1.00	0.02		0.10	0.20	0.00	0.02			0.00	0.00	
AVG 20 DEG C RATE			0.34		0.00					0.00									0.00

* G/SQ M/D ** MG/L/DAY

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A UG/L	MACRO **	COLI #/100ML	NCM *
56	27.150	31.06	0.3	436.3	0.0	4.64	4.26	4.26	1.52	0.24	0.08	1.84	0.15	35.0	0.0	0.	0.00
57	27.050	31.02	0.3	436.3	0.0	4.63	4.26	4.26	1.52	0.25	0.08	1.84	0.15	34.9	0.0	0.	0.00
58	26.950	30.98	0.3	436.3	0.0	4.62	4.25	4.25	1.52	0.25	0.08	1.84	0.15	34.8	0.0	0.	0.00
59	26.850	30.94	0.3	436.3	0.0	4.61	4.25	4.25	1.52	0.25	0.08	1.85	0.15	34.8	0.0	0.	0.00
60	26.750	30.90	0.3	436.3	0.0	4.60	4.25	4.25	1.52	0.25	0.08	1.85	0.15	34.7	0.0	0.	0.00
61	26.650	30.86	0.3	436.3	0.0	4.59	4.24	4.24	1.52	0.25	0.08	1.85	0.15	34.6	0.0	0.	0.00
62	26.550	30.82	0.3	436.3	0.0	4.58	4.24	4.24	1.52	0.25	0.08	1.85	0.15	34.5	0.0	0.	0.00
63	26.450	30.78	0.3	436.3	0.0	4.57	4.23	4.23	1.52	0.25	0.08	1.85	0.15	34.5	0.0	0.	0.00
64	26.350	30.74	0.3	436.3	0.0	4.56	4.23	4.23	1.52	0.26	0.08	1.85	0.15	34.4	0.0	0.	0.00
65	26.250	30.70	0.3	436.3	0.0	4.54	4.22	4.22	1.52	0.26	0.08	1.85	0.15	34.3	0.0	0.	0.00

* CM-I = cond umhos CM-II = NCM =

** G/CU M

********** ALGAE AND MACROPHYTE DATA **********

ELEM NO.	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG SETT 1/DA	ALG LIT LIM	ALG N LIM	ALG P LIM	ALG N&P LIM	ALG TOT LIM	ALG GROW 1/DA	ALG RESP 1/DA	A P/R RATIO	MAC LIT LIM	MAC N LIM	MAC P LIM	MAC N&P LIM	MAC TOT LIM	MAC GROW 1/DA	MAC RESP 1/DA	M P/R RATIO
56	27.150	0.66	0.24	0.25	.20	.52	.79	.62	.13	0.17	0.17	0.81	.00	.00	.00	.00	.00	0.00	0.00	0.00
57	27.050	0.66	0.24	0.25	.20	.52	.79	.63	.13	0.17	0.17	0.81	.00	.00	.00	.00	.00	0.00	0.00	0.00
58	26.950	0.66	0.24	0.25	.20	.52	.79	.63	.13	0.17	0.17	0.82	.00	.00	.00	.00	.00	0.00	0.00	0.00
59	26.850	0.66	0.24	0.25	.20	.52	.79	.63	.13	0.17	0.17	0.82	.00	.00	.00	.00	.00	0.00	0.00	0.00
60	26.750	0.66	0.24	0.25	.20	.52	.79	.63	.13	0.17	0.16	0.82	.00	.00	.00	.00	.00	0.00	0.00	0.00
61	26.650	0.66	0.24	0.25	.20	.52	.79	.63	.13	0.17	0.16	0.82	.00	.00	.00	.00	.00	0.00	0.00	0.00
62	26.550	0.66	0.24	0.25	.20	.53	.79	.63	.13	0.17	0.16	0.83	.00	.00	.00	.00	.00	0.00	0.00	0.00
63	26.450	0.66	0.24	0.25	.20	.53	.79	.63	.13	0.17	0.16	0.83	.00	.00	.00	.00	.00	0.00	0.00	0.00
64	26.350	0.66	0.24	0.25	.20	.53	.79	.63	.13	0.17	0.16	0.83	.00	.00	.00	.00	.00	0.00	0.00	0.00
65	26.250	0.66	0.24	0.25	.20	.53	.79	.63	.13	0.17	0.16	0.83	.00	.00	.00	.00	.00	0.00	0.00	0.00
20 DEG C RATE				0.50						0.81	0.10							0.00	0.00	

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

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FINAL REPORT Lake Des Allemands QUAL-TX simulation for Upper Bayou Des Allemands, LA

REACH NO. 7 Bayou Des Allemands Calibrated Model

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

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A UG/L	COLI #/100ML	NCM *
66	UPR RCH	88.6800	30.70	0.27	436.3	0.0	4.54	4.22	4.22	1.52	0.26	0.08	0.15	34.3	0.	0.00

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

ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S
66	26.25	26.15	88.6800	5.0	0.111	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.111
67	26.15	26.05	88.6800	5.0	0.111	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.111
68	26.05	25.95	88.6800	5.0	0.111	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.111
69	25.95	25.85	88.6800	5.0	0.111	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.111
70	25.85	25.75	88.6800	5.0	0.111	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.111
71	25.75	25.65	88.6800	5.0	0.111	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.111
72	25.65	25.55	88.6800	5.0	0.111	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.111
73	25.55	25.45	88.6800	5.0	0.111	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.111
74	25.45	25.35	88.6800	5.0	0.111	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.111
75	25.35	25.25	88.6800	5.0	0.111	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.111
TOT						0.10			800000.	259740.3					
AVG					0.111		3.08	259.7			800.0				
CUM						1.32									

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

ELEM NO.	ENDING DIST	SAT D.O. MG/L	REAER RATE 1/DA	CBOD DECAY 1/DA	CBOD SETT 1/DA	ANBOD DECAY 1/DA	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
66	26.150	7.46	0.33	0.15	0.00	0.00	3.73	3.73	0.03	0.00	0.18	0.43	0.00	0.02	-0.19	0.00	0.00	0.00	0.00
67	26.050	7.46	0.33	0.15	0.00	0.00	3.72	3.72	0.03	0.00	0.18	0.43	0.00	0.02	-0.19	0.00	0.00	0.00	0.00
68	25.950	7.46	0.33	0.15	0.00	0.00	3.72	3.72	0.03	0.00	0.18	0.43	0.00	0.02	-0.19	0.00	0.00	0.00	0.00
69	25.850	7.46	0.33	0.15	0.00	0.00	3.71	3.71	0.03	0.00	0.18	0.43	0.00	0.02	-0.19	0.00	0.00	0.00	0.00
70	25.750	7.46	0.33	0.15	0.00	0.00	3.71	3.71	0.03	0.00	0.18	0.43	0.00	0.02	-0.19	0.00	0.00	0.00	0.00
71	25.650	7.46	0.33	0.15	0.00	0.00	3.71	3.71	0.03	0.00	0.18	0.43	0.00	0.02	-0.18	0.00	0.00	0.00	0.00
72	25.550	7.46	0.33	0.15	0.00	0.00	3.70	3.70	0.03	0.00	0.18	0.43	0.00	0.02	-0.18	0.00	0.00	0.00	0.00
73	25.450	7.46	0.33	0.15	0.00	0.00	3.70	3.70	0.03	0.00	0.18	0.43	0.00	0.02	-0.18	0.00	0.00	0.00	0.00
74	25.350	7.46	0.33	0.15	0.00	0.00	3.69	3.69	0.03	0.00	0.18	0.43	0.00	0.02	-0.18	0.00	0.00	0.00	0.00
75	25.250	7.46	0.33	0.15	0.00	0.00	3.69	3.69	0.03	0.00	0.18	0.43	0.00	0.02	-0.18	0.00	0.00	0.00	0.00
20 DEG C RATE				0.09		0.00		1.00	0.02		0.10	0.20	0.00	0.02			0.00	0.00	
AVG 20 DEG C RATE			0.27		0.00					0.00									0.00

* G/SQ M/D ** MG/L/DAY

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A UG/L	MACRO **	COLI #/100ML	NCM *
66	26.150	30.70	0.3	436.3	0.0	4.53	4.22	4.22	1.52	0.26	0.08	1.86	0.15	34.2	0.0	0.	0.00
67	26.050	30.70	0.3	436.3	0.0	4.52	4.21	4.21	1.51	0.26	0.08	1.86	0.15	34.2	0.0	0.	0.00
68	25.950	30.70	0.3	436.3	0.0	4.50	4.21	4.21	1.51	0.26	0.08	1.86	0.15	34.1	0.0	0.	0.00
69	25.850	30.70	0.3	436.3	0.0	4.49	4.20	4.20	1.51	0.26	0.08	1.86	0.15	34.0	0.0	0.	0.00
70	25.750	30.70	0.3	436.3	0.0	4.48	4.20	4.20	1.51	0.27	0.08	1.86	0.15	33.9	0.0	0.	0.00
71	25.650	30.70	0.3	436.3	0.0	4.47	4.19	4.19	1.51	0.27	0.08	1.86	0.15	33.8	0.0	0.	0.00
72	25.550	30.70	0.3	436.3	0.0	4.45	4.19	4.19	1.51	0.27	0.08	1.86	0.15	33.8	0.0	0.	0.00
73	25.450	30.70	0.3	436.3	0.0	4.44	4.18	4.18	1.51	0.27	0.08	1.87	0.15	33.7	0.0	0.	0.00
74	25.350	30.70	0.3	436.3	0.0	4.43	4.18	4.18	1.51	0.27	0.08	1.87	0.15	33.6	0.0	0.	0.00
75	25.250	30.70	0.3	436.3	0.0	4.42	4.17	4.17	1.51	0.27	0.09	1.87	0.15	33.5	0.0	0.	0.00

* CM-I = cond umhos CM-II = NCM =

** G/CU M

********** ALGAE AND MACROPHYTE DATA **********

ELEM NO.	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG SETT 1/DA	ALG LIT LIM	ALG N LIM	ALG P LIM	ALG N&P LIM	ALG TOT LIM	ALG GROW 1/DA	ALG RESP 1/DA	A P/R RATIO	MAC LIT LIM	MAC N LIM	MAC P LIM	MAC N&P LIM	MAC TOT LIM	MAC GROW 1/DA	MAC RESP 1/DA	M P/R RATIO
66	26.150	0.66	0.24	0.21	.17	.53	.79	.63	.11	0.15	0.16	0.71	.00	.00	.00	.00	.00	0.00	0.00	0.00
67	26.050	0.66	0.24	0.21	.17	.53	.79	.64	.11	0.15	0.16	0.71	.00	.00	.00	.00	.00	0.00	0.00	0.00
68	25.950	0.66	0.24	0.21	.17	.53	.79	.64	.11	0.15	0.16	0.72	.00	.00	.00	.00	.00	0.00	0.00	0.00
69	25.850	0.66	0.24	0.21	.17	.54	.79	.64	.11	0.15	0.16	0.72	.00	.00	.00	.00	.00	0.00	0.00	0.00
70	25.750	0.66	0.24	0.21	.17	.54	.79	.64	.11	0.15	0.16	0.72	.00	.00	.00	.00	.00	0.00	0.00	0.00
71	25.650	0.66	0.24	0.21	.17	.54	.79	.64	.11	0.15	0.16	0.72	.00	.00	.00	.00	.00	0.00	0.00	0.00
72	25.550	0.66	0.24	0.21	.17	.54	.79	.64	.11	0.15	0.16	0.72	.00	.00	.00	.00	.00	0.00	0.00	0.00
73	25.450	0.66	0.24	0.21	.17	.54	.79	.64	.11	0.15	0.16	0.72	.00	.00	.00	.00	.00	0.00	0.00	0.00
74	25.350	0.66	0.24	0.21	.17	.54	.79	.64	.11	0.15	0.16	0.73	.00	.00	.00	.00	.00	0.00	0.00	0.00
75	25.250	0.66	0.24	0.21	.17	.54	.79	.64	.11	0.15	0.16	0.73	.00	.00	.00	.00	.00	0.00	0.00	0.00
20 DEG C RATE				0.50						0.81	0.10							0.00	0.00	

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

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FINAL REPORT Lake Des Allemands QUAL-TX simulation for Upper Bayou Des Allemands, LA

REACH NO. 8 Bayou Des Allemands Calibrated Model

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

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

NO.		CMS	DEG C	PPT	*	*	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	#/100ML	*
76	UPR RCH	88.6800	30.70	0.27	436.3	0.0	4.42	4.17	4.17	1.51	0.27	0.09	0.15	33.5	0.	0.00

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

ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S
76	25.25	25.15	88.6800	5.0	0.111	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.111
77	25.15	25.05	88.6800	5.0	0.111	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.111
78	25.05	24.95	88.6800	5.0	0.111	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.111
79	24.95	24.85	88.6800	5.0	0.111	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.111
80	24.85	24.75	88.6800	5.0	0.111	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.111
81	24.75	24.65	88.6800	5.0	0.111	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.111
82	24.65	24.55	88.6800	5.0	0.111	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.111
83	24.55	24.45	88.6800	5.0	0.111	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.111
84	24.45	24.35	88.6800	5.0	0.111	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.111
85	24.35	24.25	88.6800	5.0	0.111	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.111
TOT						0.10			800000.	259740.3					
AVG					0.111		3.08	259.7			800.0				
CUM						1.43									

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

ELEM NO.	ENDING DIST	SAT D.O. MG/L	REAER RATE 1/DA	CBOD DECAY 1/DA	CBOD SETT 1/DA	ANBOD DECAY 1/DA	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
76	25.150	7.46	0.33	0.15	0.00	0.00	3.90	3.90	0.03	0.00	0.18	0.43	0.00	0.02	-0.18	0.00	0.00	0.00	0.00
77	25.050	7.46	0.33	0.15	0.00	0.00	3.90	3.90	0.03	0.00	0.18	0.43	0.00	0.02	-0.18	0.00	0.00	0.00	0.00
78	24.950	7.46	0.33	0.15	0.00	0.00	3.89	3.89	0.03	0.00	0.18	0.43	0.00	0.02	-0.17	0.00	0.00	0.00	0.00
79	24.850	7.46	0.33	0.15	0.00	0.00	3.89	3.89	0.03	0.00	0.18	0.43	0.00	0.02	-0.17	0.00	0.00	0.00	0.00
80	24.750	7.46	0.33	0.15	0.00	0.00	3.89	3.89	0.03	0.00	0.18	0.43	0.00	0.02	-0.17	0.00	0.00	0.00	0.00
81	24.650	7.46	0.33	0.15	0.00	0.00	3.88	3.88	0.03	0.00	0.18	0.43	0.00	0.02	-0.17	0.00	0.00	0.00	0.00
82	24.550	7.46	0.33	0.15	0.00	0.00	3.88	3.88	0.03	0.00	0.18	0.43	0.00	0.02	-0.17	0.00	0.00	0.00	0.00
83	24.450	7.46	0.33	0.15	0.00	0.00	3.87	3.87	0.03	0.00	0.18	0.43	0.00	0.02	-0.17	0.00	0.00	0.00	0.00
84	24.350	7.46	0.33	0.15	0.00	0.00	3.87	3.87	0.03	0.00	0.18	0.43	0.00	0.02	-0.17	0.00	0.00	0.00	0.00
85	24.250	7.46	0.33	0.15	0.00	0.00	3.87	3.87	0.03	0.00	0.18	0.43	0.00	0.02	-0.17	0.00	0.00	0.00	0.00
20 DEG C RATE				0.09		0.00		1.11	0.02		0.10	0.20	0.00	0.01			0.00	0.00	
AVG 20 DEG C RATE			0.27		0.00					0.00									0.00

* G/SQ M/D ** MG/L/DAY

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A UG/L	MACRO **	COLI #/100ML	NCM *
76	25.150	30.70	0.3	436.3	0.0	4.40	4.17	4.17	1.51	0.27	0.09	1.87	0.15	33.4	0.0	0.	0.00
77	25.050	30.70	0.3	436.3	0.0	4.39	4.17	4.17	1.51	0.28	0.09	1.87	0.15	33.4	0.0	0.	0.00
78	24.950	30.70	0.3	436.3	0.0	4.38	4.16	4.16	1.51	0.28	0.09	1.87	0.15	33.3	0.0	0.	0.00
79	24.850	30.70	0.3	436.3	0.0	4.36	4.16	4.16	1.51	0.28	0.09	1.88	0.15	33.2	0.0	0.	0.00
80	24.750	30.70	0.3	436.3	0.0	4.35	4.16	4.16	1.51	0.28	0.09	1.88	0.15	33.1	0.0	0.	0.00
81	24.650	30.70	0.3	436.3	0.0	4.34	4.15	4.15	1.51	0.28	0.09	1.88	0.15	33.1	0.0	0.	0.00
82	24.550	30.70	0.3	436.3	0.0	4.32	4.15	4.15	1.51	0.28	0.09	1.88	0.15	33.0	0.0	0.	0.00
83	24.450	30.70	0.3	436.3	0.0	4.31	4.15	4.15	1.51	0.29	0.09	1.88	0.15	32.9	0.0	0.	0.00
84	24.350	30.70	0.3	436.3	0.0	4.30	4.14	4.14	1.51	0.29	0.09	1.88	0.15	32.8	0.0	0.	0.00
85	24.250	30.70	0.3	436.3	0.0	4.29	4.14	4.14	1.51	0.29	0.09	1.88	0.15	32.8	0.0	0.	0.00

* CM-I = cond umhos CM-II = NCM =
** G/CU M

********** ALGAE AND MACROPHYTE DATA **********

ELEM NO.	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG SETT 1/DA	ALG LIT LIM	ALG N LIM	ALG P LIM	ALG N&P LIM	ALG TOT LIM	ALG GROW 1/DA	ALG RESP 1/DA	A P/R RATIO	MAC LIT LIM	MAC N LIM	MAC P LIM	MAC N&P LIM	MAC TOT LIM	MAC GROW 1/DA	MAC RESP 1/DA	M P/R RATIO
76	25.150	0.67	0.24	0.21	.17	.55	.79	.65	.11	0.15	0.16	0.73	.00	.00	.00	.00	.00	0.00	0.00	0.00
77	25.050	0.67	0.24	0.21	.17	.55	.79	.65	.11	0.15	0.16	0.73	.00	.00	.00	.00	.00	0.00	0.00	0.00
78	24.950	0.67	0.24	0.21	.17	.55	.79	.65	.11	0.15	0.16	0.73	.00	.00	.00	.00	.00	0.00	0.00	0.00
79	24.850	0.67	0.24	0.21	.17	.55	.79	.65	.11	0.15	0.16	0.73	.00	.00	.00	.00	.00	0.00	0.00	0.00
80	24.750	0.67	0.24	0.21	.17	.55	.79	.65	.11	0.15	0.16	0.74	.00	.00	.00	.00	.00	0.00	0.00	0.00
81	24.650	0.67	0.24	0.21	.17	.55	.79	.65	.11	0.15	0.16	0.74	.00	.00	.00	.00	.00	0.00	0.00	0.00
82	24.550	0.67	0.24	0.21	.17	.55	.79	.65	.11	0.15	0.16	0.74	.00	.00	.00	.00	.00	0.00	0.00	0.00
83	24.450	0.67	0.24	0.21	.17	.56	.79	.65	.11	0.15	0.16	0.74	.00	.00	.00	.00	.00	0.00	0.00	0.00
84	24.350	0.67	0.24	0.21	.17	.56	.79	.65	.11	0.15	0.16	0.74	.00	.00	.00	.00	.00	0.00	0.00	0.00
85	24.250	0.67	0.24	0.21	.17	.56	.79	.65	.11	0.15	0.16	0.74	.00	.00	.00	.00	.00	0.00	0.00	0.00
20 DEG C RATE				0.50						0.81	0.10							0.00	0.00	

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

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FINAL REPORT Lake Des Allemands QUAL-TX simulation for Upper Bayou Des Allemands, LA
REACH NO. 9 Bayou Des Allemands Calibrated Model

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

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A UG/L	COLI #/100ML	NCM *

86	UPR RCH	88.6800	30.70	0.27	436.3	0.0	4.29	4.14	4.14	1.51	0.29	0.09	0.15	32.8	0.	0.00

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

ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S
86	24.25	24.15	88.6800	5.0	0.122	0.01	2.79	259.7	72464.	25972.7	724.6	0.	0.000	4.500	0.122
87	24.15	24.05	88.6800	5.0	0.122	0.01	2.79	259.7	72464.	25972.7	724.6	0.	0.000	4.500	0.122
88	24.05	23.95	88.6800	5.0	0.122	0.01	2.79	259.7	72464.	25972.7	724.6	0.	0.000	4.500	0.122
89	23.95	23.85	88.6800	5.0	0.122	0.01	2.79	259.7	72464.	25972.7	724.6	0.	0.000	4.500	0.122
90	23.85	23.75	88.6800	5.0	0.122	0.01	2.79	259.7	72464.	25972.7	724.6	0.	0.000	4.500	0.122
91	23.75	23.65	88.6800	5.0	0.122	0.01	2.79	259.7	72464.	25972.7	724.6	0.	0.000	4.500	0.122
92	23.65	23.55	88.6800	5.0	0.122	0.01	2.79	259.7	72464.	25972.7	724.6	0.	0.000	4.500	0.122
93	23.55	23.45	88.6800	5.0	0.122	0.01	2.79	259.7	72464.	25972.7	724.6	0.	0.000	4.500	0.122
94	23.45	23.35	88.6800	5.0	0.122	0.01	2.79	259.7	72464.	25972.7	724.6	0.	0.000	4.500	0.122
95	23.35	23.25	88.6800	5.0	0.122	0.01	2.79	259.7	72464.	25972.7	724.6	0.	0.000	4.500	0.122
TOT						0.09			724638.	259726.8					
AVG					0.122		2.79	259.7			724.6				
CUM						1.52									

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

ELEM NO.	ENDING DIST	SAT D.O. MG/L	REAER RATE 1/DA	CBOD DECAY 1/DA	CBOD SETT 1/DA	ANBOD DECAY 1/DA	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
86	24.150	7.46	0.37	0.15	0.00	0.00	3.65	3.65	0.03	0.00	0.18	0.47	0.00	0.01	-0.12	0.00	0.00	0.00	0.00
87	24.050	7.46	0.37	0.15	0.00	0.00	3.64	3.64	0.03	0.00	0.18	0.47	0.00	0.01	-0.11	0.00	0.00	0.00	0.00
88	23.950	7.46	0.37	0.15	0.00	0.00	3.64	3.64	0.03	0.00	0.18	0.47	0.00	0.01	-0.11	0.00	0.00	0.00	0.00
89	23.850	7.46	0.37	0.15	0.00	0.00	3.64	3.64	0.03	0.00	0.18	0.47	0.00	0.01	-0.11	0.00	0.00	0.00	0.00
90	23.750	7.46	0.37	0.15	0.00	0.00	3.63	3.63	0.03	0.00	0.18	0.47	0.00	0.01	-0.11	0.00	0.00	0.00	0.00
91	23.650	7.46	0.37	0.15	0.00	0.00	3.63	3.63	0.03	0.00	0.18	0.47	0.00	0.01	-0.11	0.00	0.00	0.00	0.00
92	23.550	7.46	0.37	0.15	0.00	0.00	3.63	3.63	0.03	0.00	0.18	0.47	0.00	0.01	-0.11	0.00	0.00	0.00	0.00
93	23.450	7.46	0.37	0.15	0.00	0.00	3.62	3.62	0.03	0.00	0.18	0.47	0.00	0.01	-0.11	0.00	0.00	0.00	0.00
94	23.350	7.46	0.37	0.15	0.00	0.00	3.62	3.62	0.03	0.00	0.18	0.47	0.00	0.01	-0.11	0.00	0.00	0.00	0.00
95	23.250	7.46	0.37	0.15	0.00	0.00	3.62	3.62	0.03	0.00	0.18	0.47	0.00	0.01	-0.11	0.00	0.00	0.00	0.00
20 DEG C RATE				0.09		0.00		1.00	0.02		0.10	0.22	0.00	0.00			0.00	0.00	
AVG 20 DEG C RATE			0.30		0.00					0.00									0.00

* G/SQ M/D ** MG/L/DAY

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A UG/L	MACRO **	COLI #/100ML	NCM *
86	24.150	30.70	0.3	436.3	0.0	4.28	4.14	4.14	1.51	0.29	0.09	1.89	0.15	32.7	0.0	0.	0.00
87	24.050	30.70	0.3	436.3	0.0	4.27	4.13	4.13	1.50	0.29	0.09	1.89	0.15	32.6	0.0	0.	0.00
88	23.950	30.70	0.3	436.3	0.0	4.26	4.13	4.13	1.50	0.29	0.09	1.89	0.15	32.6	0.0	0.	0.00
89	23.850	30.70	0.3	436.3	0.0	4.25	4.13	4.13	1.50	0.29	0.09	1.89	0.15	32.5	0.0	0.	0.00
90	23.750	30.70	0.3	436.3	0.0	4.24	4.13	4.13	1.50	0.30	0.09	1.89	0.15	32.4	0.0	0.	0.00
91	23.650	30.70	0.3	436.3	0.0	4.23	4.12	4.12	1.50	0.30	0.09	1.89	0.15	32.3	0.0	0.	0.00
92	23.550	30.70	0.3	436.3	0.0	4.22	4.12	4.12	1.50	0.30	0.09	1.90	0.15	32.3	0.0	0.	0.00
93	23.450	30.70	0.3	436.3	0.0	4.21	4.12	4.12	1.50	0.30	0.09	1.90	0.15	32.2	0.0	0.	0.00
94	23.350	30.70	0.3	436.3	0.0	4.20	4.12	4.12	1.50	0.30	0.09	1.90	0.15	32.1	0.0	0.	0.00
95	23.250	30.70	0.3	436.3	0.0	4.19	4.11	4.11	1.50	0.30	0.09	1.90	0.15	32.1	0.0	0.	0.00

* CM-I = cond umhos CM-II = NCM =
** G/CU M

********** ALGAE AND MACROPHYTE DATA **********

ELEM NO.	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG SETT 1/DA	ALG LIT LIM	ALG N LIM	ALG P LIM	ALG N&P LIM	ALG TOT LIM	ALG GROW 1/DA	ALG RESP 1/DA	A P/R RATIO	MAC LIT LIM	MAC N LIM	MAC P LIM	MAC N&P LIM	MAC TOT LIM	MAC GROW 1/DA	MAC RESP 1/DA	M P/R RATIO
86	24.150	0.67	0.24	0.23	.19	.56	.79	.65	.13	0.17	0.16	0.82	.00	.00	.00	.00	.00	0.00	0.00	0.00
87	24.050	0.67	0.24	0.23	.19	.56	.79	.66	.13	0.17	0.16	0.82	.00	.00	.00	.00	.00	0.00	0.00	0.00
88	23.950	0.67	0.24	0.23	.19	.56	.79	.66	.13	0.17	0.16	0.82	.00	.00	.00	.00	.00	0.00	0.00	0.00
89	23.850	0.67	0.24	0.23	.19	.56	.79	.66	.13	0.17	0.16	0.82	.00	.00	.00	.00	.00	0.00	0.00	0.00
90	23.750	0.67	0.24	0.23	.19	.56	.79	.66	.13	0.17	0.16	0.82	.00	.00	.00	.00	.00	0.00	0.00	0.00
91	23.650	0.67	0.24	0.23	.19	.57	.79	.66	.13	0.17	0.16	0.83	.00	.00	.00	.00	.00	0.00	0.00	0.00
92	23.550	0.67	0.24	0.23	.19	.57	.79	.66	.13	0.17	0.16	0.83	.00	.00	.00	.00	.00	0.00	0.00	0.00
93	23.450	0.67	0.24	0.23	.19	.57	.79	.66	.13	0.17	0.16	0.83	.00	.00	.00	.00	.00	0.00	0.00	0.00
94	23.350	0.67	0.24	0.23	.19	.57	.79	.66	.13	0.17	0.16	0.83	.00	.00	.00	.00	.00	0.00	0.00	0.00
95	23.250	0.67	0.24	0.23	.19	.57	.79	.66	.13	0.17	0.16	0.83	.00	.00	.00	.00	.00	0.00	0.00	0.00
20 DEG C RATE				0.50						0.81	0.10							0.00	0.00	

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

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FINAL REPORT Lake Des Allemands QUAL-TX simulation for Upper Bayou Des Allemands, LA
REACH NO. 10 Bayou Des Allemands Calibrated Model

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

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A UG/L	COLI #/100ML	NCM *

96	UPR RCH	88.6800	30.70	0.27	436.3	0.0	4.19	4.11	4.11	1.50	0.30	0.09	0.15	32.1	0.	0.00

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

ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S
96	23.25	23.15	88.6800	5.0	0.137	0.01	2.50	259.7	64935.	25974.0	649.4	0.	0.000	4.500	0.137
97	23.15	23.05	88.6800	5.0	0.137	0.01	2.50	259.7	64935.	25974.0	649.4	0.	0.000	4.500	0.137
98	23.05	22.95	88.6800	5.0	0.137	0.01	2.50	259.7	64935.	25974.0	649.4	0.	0.000	4.500	0.137
99	22.95	22.85	88.6800	5.0	0.137	0.01	2.50	259.7	64935.	25974.0	649.4	0.	0.000	4.500	0.137
100	22.85	22.75	88.6800	5.0	0.137	0.01	2.50	259.7	64935.	25974.0	649.4	0.	0.000	4.500	0.137
101	22.75	22.65	88.6800	5.0	0.137	0.01	2.50	259.7	64935.	25974.0	649.4	0.	0.000	4.500	0.137
102	22.65	22.55	88.6800	5.0	0.137	0.01	2.50	259.7	64935.	25974.0	649.4	0.	0.000	4.500	0.137
103	22.55	22.45	88.6800	5.0	0.137	0.01	2.50	259.7	64935.	25974.0	649.4	0.	0.000	4.500	0.137
104	22.45	22.35	88.6800	5.0	0.137	0.01	2.50	259.7	64935.	25974.0	649.4	0.	0.000	4.500	0.137
105	22.35	22.25	88.6800	5.0	0.137	0.01	2.50	259.7	64935.	25974.0	649.4	0.	0.000	4.500	0.137
TOT						0.08			649351.	259740.3					
AVG					0.137		2.50	259.7			649.4				
CUM						1.61									

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

ELEM NO.	ENDING DIST	SAT D.O. MG/L	REAER RATE 1/DA	CBOD DECAY 1/DA	CBOD SETT 1/DA	ANBOD DECAY 1/DA	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
96	23.150	7.46	0.45	0.15	0.00	0.00	3.37	3.37	0.03	0.00	0.18	0.52	0.00	0.01	-0.05	0.00	0.00	0.00	0.00
97	23.050	7.45	0.45	0.15	0.00	0.00	3.37	3.37	0.03	0.00	0.18	0.52	0.00	0.01	-0.05	0.00	0.00	0.00	0.00
98	22.950	7.45	0.45	0.15	0.00	0.00	3.36	3.36	0.03	0.00	0.18	0.52	0.00	0.01	-0.04	0.00	0.00	0.00	0.00
99	22.850	7.45	0.45	0.15	0.00	0.00	3.36	3.36	0.03	0.00	0.18	0.52	0.00	0.01	-0.04	0.00	0.00	0.00	0.00
100	22.750	7.45	0.45	0.15	0.00	0.00	3.36	3.36	0.03	0.00	0.18	0.52	0.00	0.01	-0.04	0.00	0.00	0.00	0.00
101	22.650	7.45	0.45	0.15	0.00	0.00	3.36	3.36	0.03	0.00	0.18	0.52	0.00	0.01	-0.04	0.00	0.00	0.00	0.00
102	22.550	7.45	0.45	0.15	0.00	0.00	3.36	3.36	0.03	0.00	0.18	0.52	0.00	0.01	-0.04	0.00	0.00	0.00	0.00
103	22.450	7.45	0.45	0.15	0.00	0.00	3.36	3.36	0.03	0.00	0.18	0.52	0.00	0.01	-0.04	0.00	0.00	0.00	0.00
104	22.350	7.45	0.45	0.15	0.00	0.00	3.35	3.35	0.03	0.00	0.18	0.52	0.00	0.01	-0.04	0.00	0.00	0.00	0.00
105	22.250	7.44	0.45	0.15	0.00	0.00	3.35	3.35	0.03	0.00	0.18	0.52	0.00	0.01	-0.04	0.00	0.00	0.00	0.00
20 DEG C RATE				0.09		0.00		0.88	0.02		0.10	0.24	0.00	0.00			0.00	0.00	
AVG 20 DEG C RATE			0.37		0.00					0.00									0.00

* G/SQ M/D ** MG/L/DAY

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A UG/L	MACRO **	COLI #/100ML	NCM *
96	23.150	30.71	0.3	436.3	0.0	4.18	4.11	4.11	1.50	0.31	0.09	1.90	0.15	32.0	0.0	0.	0.00
97	23.050	30.72	0.3	436.3	0.0	4.18	4.11	4.11	1.50	0.31	0.10	1.90	0.15	32.0	0.0	0.	0.00
98	22.950	30.73	0.3	436.3	0.0	4.17	4.11	4.11	1.50	0.31	0.10	1.90	0.15	31.9	0.0	0.	0.00
99	22.850	30.74	0.3	436.3	0.0	4.16	4.11	4.11	1.50	0.31	0.10	1.91	0.15	31.8	0.0	0.	0.00
100	22.750	30.75	0.3	436.3	0.0	4.16	4.10	4.10	1.50	0.31	0.10	1.91	0.15	31.8	0.0	0.	0.00
101	22.650	30.76	0.3	436.3	0.0	4.15	4.10	4.10	1.50	0.31	0.10	1.91	0.15	31.7	0.0	0.	0.00
102	22.550	30.77	0.3	436.3	0.0	4.14	4.10	4.10	1.50	0.32	0.10	1.91	0.15	31.6	0.0	0.	0.00
103	22.450	30.78	0.3	436.3	0.0	4.14	4.10	4.10	1.50	0.32	0.10	1.91	0.15	31.6	0.0	0.	0.00
104	22.350	30.79	0.3	436.3	0.0	4.13	4.10	4.10	1.50	0.32	0.10	1.92	0.15	31.5	0.0	0.	0.00
105	22.250	30.80	0.3	436.3	0.0	4.13	4.09	4.09	1.50	0.32	0.10	1.92	0.15	31.5	0.0	0.	0.00

* CM-I = cond umhos CM-II = NCM =
** G/CU M

********** ALGAE AND MACROPHYTE DATA **********

ELEM NO.	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG SETT 1/DA	ALG LIT LIM	ALG N LIM	ALG P LIM	ALG N&P LIM	ALG TOT LIM	ALG GROW 1/DA	ALG RESP 1/DA	A P/R RATIO	MAC LIT LIM	MAC N LIM	MAC P LIM	MAC N&P LIM	MAC TOT LIM	MAC GROW 1/DA	MAC RESP 1/DA	M P/R RATIO
96	23.150	0.67	0.24	0.26	.21	.57	.79	.66	.14	0.19	0.16	0.93	.00	.00	.00	.00	.00	0.00	0.00	0.00
97	23.050	0.67	0.24	0.26	.21	.57	.79	.66	.14	0.19	0.16	0.93	.00	.00	.00	.00	.00	0.00	0.00	0.00
98	22.950	0.67	0.24	0.26	.22	.57	.79	.67	.14	0.19	0.16	0.93	.00	.00	.00	.00	.00	0.00	0.00	0.00
99	22.850	0.67	0.24	0.26	.22	.58	.79	.67	.14	0.19	0.16	0.93	.00	.00	.00	.00	.00	0.00	0.00	0.00
100	22.750	0.67	0.24	0.26	.22	.58	.79	.67	.14	0.19	0.16	0.93	.00	.00	.00	.00	.00	0.00	0.00	0.00
101	22.650	0.67	0.24	0.26	.22	.58	.79	.67	.14	0.19	0.16	0.93	.00	.00	.00	.00	.00	0.00	0.00	0.00
102	22.550	0.67	0.24	0.26	.22	.58	.79	.67	.14	0.19	0.16	0.94	.00	.00	.00	.00	.00	0.00	0.00	0.00
103	22.450	0.68	0.24	0.26	.22	.58	.79	.67	.14	0.19	0.16	0.94	.00	.00	.00	.00	.00	0.00	0.00	0.00
104	22.350	0.68	0.24	0.26	.22	.58	.79	.67	.14	0.19	0.16	0.94	.00	.00	.00	.00	.00	0.00	0.00	0.00
105	22.250	0.68	0.23	0.26	.22	.58	.79	.67	.14	0.19	0.16	0.94	.00	.00	.00	.00	.00	0.00	0.00	0.00
20 DEG C RATE				0.50						0.81	0.10							0.00	0.00	

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

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FINAL REPORT Lake Des Allemands QUAL-TX simulation for Upper Bayou Des Allemands, LA
REACH NO. 11 Bayou Des Allemands Calibrated Model

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

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A UG/L	COLI #/100ML	NCM *
106	UPR RCH	88.6800	30.80	0.28	436.3	0.0	4.13	4.09	4.09	1.50	0.32	0.10	0.15	31.5	0.	0.00

112	WSTLD	0.0004	30.80	0.00	503.0	0.0	2.00	60.00	60.00	5.00	10.00	10.00	5.00	0.0	0.	0.00

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

ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S
106	22.25	22.15	88.6800	5.0	0.326	0.00	2.50	108.7	27174.	10869.6	271.7	0.	0.000	4.500	0.326
107	22.15	22.05	88.6800	5.0	0.326	0.00	2.50	108.7	27174.	10869.6	271.7	0.	0.000	4.500	0.326
108	22.05	21.95	88.6800	5.0	0.326	0.00	2.50	108.7	27174.	10869.6	271.7	0.	0.000	4.500	0.326
109	21.95	21.85	88.6800	5.0	0.326	0.00	2.50	108.7	27174.	10869.6	271.7	0.	0.000	4.500	0.326
110	21.85	21.75	88.6800	5.0	0.326	0.00	2.50	108.7	27174.	10869.6	271.7	0.	0.000	4.500	0.326
111	21.75	21.65	88.6800	5.0	0.326	0.00	2.50	108.7	27174.	10869.6	271.7	0.	0.000	4.500	0.326
112	21.65	21.55	88.6804	5.0	0.326	0.00	2.50	108.7	27174.	10869.6	271.7	0.	0.000	4.500	0.326
TOT						0.02			190217.	76087.0					
AVG					0.326		2.50	108.7			271.7				
CUM						1.63									

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

ELEM NO.	ENDING DIST	SAT D.O. MG/L	REAER RATE 1/DA	CBOD DECAY 1/DA	CBOD SETT 1/DA	ANBOD DECAY 1/DA	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
106	22.150	7.43	0.70	0.15	0.00	0.00	3.12	3.12	0.03	0.00	0.18	0.57	0.00	0.01	-0.04	0.00	0.00	0.00	0.00
107	22.050	7.42	0.70	0.15	0.00	0.00	3.13	3.13	0.03	0.00	0.18	0.57	0.00	0.01	-0.04	0.00	0.00	0.00	0.00
108	21.950	7.41	0.70	0.15	0.00	0.00	3.14	3.14	0.03	0.00	0.18	0.57	0.00	0.01	-0.04	0.00	0.00	0.00	0.00
109	21.850	7.39	0.70	0.15	0.00	0.00	3.15	3.15	0.03	0.00	0.19	0.58	0.00	0.01	-0.04	0.00	0.00	0.00	0.00
110	21.750	7.38	0.70	0.15	0.00	0.00	3.17	3.17	0.03	0.00	0.19	0.58	0.00	0.01	-0.04	0.00	0.00	0.00	0.00
111	21.650	7.37	0.70	0.15	0.00	0.00	3.18	3.18	0.03	0.00	0.19	0.59	0.00	0.01	-0.04	0.00	0.00	0.00	0.00
112	21.550	7.36	0.70	0.15	0.00	0.00	3.19	3.19	0.03	0.00	0.19	0.59	0.00	0.01	-0.03	0.00	0.00	0.00	0.00
20 DEG C RATE				0.09		0.00		0.75	0.02		0.10	0.26	0.00	0.00			0.00	0.00	
AVG 20 DEG C RATE			0.57		0.00					0.00									0.00

* G/SQ M/D ** MG/L/DAY

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A UG/L	MACRO **	COLI #/100ML	NCM *
106	22.150	30.90	0.3	436.3	0.0	4.13	4.09	4.09	1.50	0.32	0.10	1.92	0.15	31.4	0.0	0.	0.00
107	22.050	31.00	0.3	436.3	0.0	4.13	4.09	4.09	1.50	0.32	0.10	1.92	0.15	31.4	0.0	0.	0.00
108	21.950	31.10	0.3	436.3	0.0	4.13	4.09	4.09	1.50	0.32	0.10	1.92	0.15	31.4	0.0	0.	0.00

109	21.850	31.20	0.3	436.3	0.0	4.13	4.09	4.09	1.50	0.32	0.10	1.92	0.15	31.4	0.0	0.	0.00
110	21.750	31.30	0.3	436.4	0.0	4.13	4.09	4.09	1.50	0.33	0.10	1.92	0.15	31.3	0.0	0.	0.00
111	21.650	31.40	0.3	437.7	0.0	4.16	4.08	4.08	1.49	0.33	0.10	1.92	0.15	31.3	0.0	0.	0.00
112	21.550	31.50	0.3	448.5	0.0	4.35	4.03	4.03	1.45	0.35	0.09	1.88	0.14	31.2	0.0	0.	0.00

* CM-I = cond umhos CM-II = NCM =
** G/CU M

********** ALGAE AND MACROPHYTE DATA **********

ELEM NO.	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG SETT 1/DA	ALG LIT LIM	ALG N LIM	ALG P LIM	ALG N&P LIM	ALG TOT LIM	ALG GROW 1/DA	ALG RESP 1/DA	A P/R RATIO	MAC LIT LIM	MAC N LIM	MAC P LIM	MAC N&P LIM	MAC TOT LIM	MAC GROW 1/DA	MAC RESP 1/DA	M P/R RATIO
106	22.150	0.68	0.23	0.26	.22	.58	.79	.67	.14	0.19	0.16	0.94	.00	.00	.00	.00	.00	0.00	0.00	0.00
107	22.050	0.68	0.23	0.26	.22	.58	.79	.67	.14	0.19	0.17	0.94	.00	.00	.00	.00	.00	0.00	0.00	0.00
108	21.950	0.68	0.23	0.26	.22	.58	.79	.67	.15	0.20	0.17	0.94	.00	.00	.00	.00	.00	0.00	0.00	0.00
109	21.850	0.68	0.23	0.26	.22	.59	.79	.67	.15	0.20	0.17	0.94	.00	.00	.00	.00	.00	0.00	0.00	0.00
110	21.750	0.68	0.23	0.26	.22	.59	.79	.67	.15	0.20	0.17	0.94	.00	.00	.00	.00	.00	0.00	0.00	0.00
111	21.650	0.68	0.23	0.26	.22	.59	.79	.67	.15	0.20	0.17	0.94	.00	.00	.00	.00	.00	0.00	0.00	0.00
112	21.550	0.68	0.20	0.26	.22	.59	.78	.67	.15	0.20	0.17	0.95	.00	.00	.00	.00	.00	0.00	0.00	0.00
20 DEG C RATE				0.50						0.81	0.10							0.00	0.00	

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

1
QUAL-TX simulation for Upper Bayou Des Allemands, LA
Calibrated Model

INPUT/OUTPUT LOADING SUMMARY

	FLOW CMS	DO KG/D	BOD KG/D	ORG-N KG/D	NH3-N KG/D	NO3-N KG/D	PHOS KG/D	CHL A KG/D	NCM
HEADWATER INFLOW	84.290	53309.0	27601.3	11506.6	873.9	364.1	873.9	371415.5	0.0
INCREMENTAL INFLOW	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
INCREMENTAL OUTFLOW	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NON-POINT INPUT		0.0	10224.0	0.0					0.0
WASTELOADS	4.390	1589.3	1439.8	599.5	45.9	19.3	45.7	19344.1	0.0
WITHDRAWLS	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OUTFLOW THRU LOWER BNDRY	-88.680	-33345.7	-30854.4	-11086.4	-2672.9	-683.1	-1099.7	-239308.2	0.0
DISPERSION THRU LOWER BNDRY		1707.2	-500.7	-373.9	171.5	-82.7	-49.7	-492.7	0.0
REAERATION		13349.5							
BACKGROUND BENTHAL		-12705.8							
AEROBIC BOD DECAY		-7910.1	-7910.1						
BOD SETTLING		0.0	0.0						
ANAEROBIC BOD DECAY			0.0						

ORGANIC N HYDROLYSIS		0.0		-645.9	645.9				
ORGANIC N SETTLING				0.0	0.0				
NH3 DECAY		-2221.1			-513.0	513.0			
BACKGROUND NH3 SOURCE					1406.3				
DENITRIFICATION			0.0			0.0			
PHOSPHORUS SOURCE							243.3		
ALGAE PHOTOSYNTHESIS		9550.6			-376.8	-130.6	-77.6	99485.6	
ALGAE RESPIRATION		-9861.9			419.1		64.1	-82182.2	
ALGAE SETTLING		-13460.1						-168250.6	
MACRO PHOTOSYNTHESIS		0.0			0.0	0.0	0.0		
NCM DECAY		0.0							0.0
NCM SETTLING		0.0							0.0
TOTAL INPUTS	88.680	79505.7	39265.1	12106.1	3562.6	896.4	1227.0	490245.2	0.0
TOTAL OUTPUTS	-88.680	-79504.6	-39265.2	-12106.1	-3562.7	-896.5	-1227.0	-490233.7	0.0
NET CONVERGENCE ERROR	0.000	1.1	-0.2	0.0	-0.1	0.0	0.0	11.5	0.0

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.....EXECUTION COMPLETED

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APPENDIX K

DO Calculations (Verification Survey)

Table K.1. Estimation of Daily Average DO Using Continuous Data for Station 020201-1.

Continuous Monitoring Data (020201-10)			Instantaneous Data				
Date/Time	DO (mg/L)	DO as fraction of daily average	Station	Date	Time	Measured DO at sampling time (mg/L)	Estimated daily avg DO at this station (mg/L)
7/10/2003 0:05	5.77	0.9793					
7/10/2003 0:15	5.76	0.9776					
7/10/2003 0:25	5.73	0.9725					
7/10/2003 0:35	5.73	0.9725					
7/10/2003 0:45	5.71	0.9691					
7/10/2003 0:55	5.71	0.9691					
7/10/2003 1:05	5.7	0.9674					
7/10/2003 1:15	5.64	0.9573					
7/10/2003 1:25	5.51	0.9352					
7/10/2003 1:35	5.49	0.9318					
7/10/2003 1:45	5.49	0.9318					
7/10/2003 1:55	5.45	0.9250					
7/10/2003 2:05	5.46	0.9267					
7/10/2003 2:15	5.44	0.9233					
7/10/2003 2:25	5.44	0.9233					
7/10/2003 2:35	5.47	0.9284					
7/10/2003 2:45	5.42	0.9199					
7/10/2003 2:55	5.37	0.9114					
7/10/2003 3:05	5.33	0.9046					
7/10/2003 3:15	5.37	0.9114					
7/10/2003 3:25	5.31	0.9013					
7/10/2003 3:35	5.36	0.9097					
7/10/2003 3:45	5.31	0.9013					
7/10/2003 3:55	5.3	0.8996					
7/10/2003 4:05	5.29	0.8979					
7/10/2003 4:15	5.29	0.8979					
7/10/2003 4:25	5.32	0.9029					
7/10/2003 4:35	5.34	0.9063					
7/10/2003 4:45	5.38	0.9131					
7/10/2003 4:55	5.31	0.9013					
7/10/2003 5:05	5.31	0.9013					
7/10/2003 5:15	5.26	0.8928					
7/10/2003 5:25	5.26	0.8928					
7/10/2003 5:35	5.14	0.8724					
7/10/2003 5:45	5.08	0.8622					
7/10/2003 5:55	5.11	0.8673					
7/10/2003 6:05	4.92	0.8351					
7/10/2003 6:15	4.97	0.8435					
7/10/2003 6:25	4.87	0.8266					
7/10/2003 6:35	4.8	0.8147					
7/10/2003 6:45	4.88	0.8283					
7/10/2003 6:55	4.84	0.8215					
7/10/2003 7:05	4.83	0.8198	020201-5	7/10/2003	700	5.20	6.34
7/10/2003 7:15	4.91	0.8334					
7/10/2003 7:25	4.84	0.8215					
7/10/2003 7:35	4.87	0.8266					
7/10/2003 7:45	4.87	0.8266					
7/10/2003 7:55	4.8	0.8147					
7/10/2003 8:05	4.73	0.8028					
7/10/2003 8:15	4.75	0.8062					
7/10/2003 8:25	4.75	0.8062					

Continuous Monitoring Data (020201-10)

Date/Time	DO (mg/L)	DO as fraction of daily average
7/10/2003 8:35	4.73	0.8028
7/10/2003 8:45	4.78	0.8113
7/10/2003 8:55	4.8	0.8147
7/10/2003 9:05	4.73	0.8028
7/10/2003 9:15	4.8	0.8147
7/10/2003 9:25	4.86	0.8249
7/10/2003 9:35	4.96	0.8418
7/10/2003 9:45	4.87	0.8266
7/10/2003 9:55	4.94	0.8385
7/10/2003 10:05	4.91	0.8334
7/10/2003 10:15	4.98	0.8452
7/10/2003 10:25	5.02	0.8520
7/10/2003 10:35	5.03	0.8537
7/10/2003 10:45	4.99	0.8469
7/10/2003 10:55	5.1	0.8656
7/10/2003 11:05	5.05	0.8571
7/10/2003 11:15	5.11	0.8673
7/10/2003 11:25	5.14	0.8724
7/10/2003 11:35	5.11	0.8673
7/10/2003 11:45	5.16	0.8758
7/10/2003 11:55	5.21	0.8843
7/10/2003 12:05	5.26	0.8928
7/10/2003 12:15	5.35	0.9080
7/10/2003 12:25	5.38	0.9131
7/10/2003 12:35	5.4	0.9165
7/10/2003 12:45	5.39	0.9148
7/10/2003 12:55	5.33	0.9046
7/10/2003 13:05	5.39	0.9148
7/10/2003 13:15	5.4	0.9165
7/10/2003 13:25	5.41	0.9182
7/10/2003 13:35	5.51	0.9352
7/10/2003 13:45	5.43	0.9216
7/10/2003 13:55	5.49	0.9318
7/10/2003 14:05	5.58	0.9471
7/10/2003 14:15	5.4	0.9165
7/10/2003 14:25	5.45	0.9250
7/10/2003 14:35	5.48	0.9301
7/10/2003 14:45	5.54	0.9403
7/10/2003 14:55	5.68	0.9641
7/10/2003 15:05	5.8	0.9844
7/10/2003 15:15	5.82	0.9878
7/10/2003 15:25	5.8	0.9844
7/10/2003 15:35	5.81	0.9861
7/10/2003 15:45	5.88	0.9980
7/10/2003 15:55	5.98	1.0150
7/10/2003 16:05	5.95	1.0099
7/10/2003 16:15	5.85	0.9929
7/10/2003 16:25	6.18	1.0489
7/10/2003 16:35	8.11	1.3765
7/10/2003 16:45	7.93	1.3459
7/10/2003 16:55	7.5	1.2730
7/10/2003 17:05	7.71	1.3086
7/10/2003 17:15	7.58	1.2865
7/10/2003 17:25	7.53	1.2780

Instantaneous Data

Station	Date	Time	Measured DO at sampling time (mg/L)	Estimated daily avg DO at this station (mg/L)
020201-2	7/10/2003	850	4.90	6.04
020201-3	7/10/2003	1145	5.90	6.74
020201-1	7/10/2003	1330	5.30	5.67

Continuous Monitoring Data (020201-10)			Instantaneous Data				
Date/Time	DO (mg/L)	DO as fraction of daily average	Station	Date	Time	Measured DO at sampling time (mg/L)	Estimated daily avg DO at this station (mg/L)
7/10/2003 17:35	7.45	1.2645					
7/10/2003 17:45	7.47	1.2679					
7/10/2003 17:55	7.5	1.2730					
7/10/2003 18:05	7.47	1.2679					
7/10/2003 18:15	7.48	1.2696					
7/10/2003 18:25	7.44	1.2628					
7/10/2003 18:35	7.4	1.2560					
7/10/2003 18:45	7.33	1.2441					
7/10/2003 18:55	7.22	1.2254					
7/10/2003 19:05	7.14	1.2119					
7/10/2003 19:15	7.09	1.2034					
7/10/2003 19:25	6.98	1.1847					
7/10/2003 19:35	6.96	1.1813					
7/10/2003 19:45	6.93	1.1762					
7/10/2003 19:55	6.9	1.1711					
7/10/2003 20:05	6.89	1.1694					
7/10/2003 20:15	6.91	1.1728					
7/10/2003 20:25	6.9	1.1711					
7/10/2003 20:35	6.96	1.1813					
7/10/2003 20:45	7	1.1881					
7/10/2003 20:55	7.02	1.1915					
7/10/2003 21:05	6.96	1.1813					
7/10/2003 21:15	6.98	1.1847					
7/10/2003 21:25	7.05	1.1966					
7/10/2003 21:35	7	1.1881					
7/10/2003 21:45	7.05	1.1966					
7/10/2003 21:55	7.06	1.1983					
7/10/2003 22:05	7.06	1.1983					
7/10/2003 22:15	7.14	1.2119					
7/10/2003 22:25	7.16	1.2152					
7/10/2003 22:35	7.16	1.2152					
7/10/2003 22:45	7.17	1.2169					
7/10/2003 22:55	7.18	1.2186					
7/10/2003 23:05	7.21	1.2237					
7/10/2003 23:15	7.18	1.2186					
7/10/2003 23:25	7.25	1.2305					
7/10/2003 23:35	7.22	1.2254					
7/10/2003 23:45	7.31	1.2407	7/10/2003				
7/10/2003 23:55	7.27	1.2339					
Average:	5.891806						

FILE: R:\PROJECTS\2110-611\CD_DES_ALL\APP K DO CAL (VERIF SURVEY)\DO CALCULATIONS-UP_BDA-

Table K.2. Estimation of Daily Average DO Using Continuous Data for Station 020201-8.

Continuous Monitoring Data (020201-10)			Instantaneous Data				
Date/Time	DO (mg/L)	DO as fraction of daily average	Station	Date	Time	Measured DO at sampling time (mg/L)	Estimated daily avg DO at this station (mg/L)
7/10/2003 0:05	5.93	0.8833					
7/10/2003 0:15	5.97	0.8893					
7/10/2003 0:25	6.13	0.9131					
7/10/2003 0:35	5.76	0.8580					
7/10/2003 0:45	5.69	0.8476					
7/10/2003 0:55	5.81	0.8655					
7/10/2003 1:05	5.71	0.8506					
7/10/2003 1:15	5.76	0.8580					
7/10/2003 1:25	5.8	0.8640					
7/10/2003 1:35	5.8	0.8640					
7/10/2003 1:45	5.81	0.8655					
7/10/2003 1:55	5.86	0.8729					
7/10/2003 2:05	5.65	0.8416					
7/10/2003 2:15	5.67	0.8446					
7/10/2003 2:25	5.56	0.8282					
7/10/2003 2:35	5.65	0.8416					
7/10/2003 2:45	5.6	0.8342					
7/10/2003 2:55	5.65	0.8416					
7/10/2003 3:05	5.66	0.8431					
7/10/2003 3:15	5.61	0.8357					
7/10/2003 3:25	5.61	0.8357					
7/10/2003 3:35	5.49	0.8178					
7/10/2003 3:45	5.55	0.8267					
7/10/2003 3:55	5.56	0.8282					
7/10/2003 4:05	5.66	0.8431					
7/10/2003 4:15	5.83	0.8684					
7/10/2003 4:25	5.9	0.8789					
7/10/2003 4:35	6.09	0.9072					
7/10/2003 4:45	6.14	0.9146					
7/10/2003 4:55	6.32	0.9414					
7/10/2003 5:05	6.17	0.9191					
7/10/2003 5:15	6.11	0.9101					
7/10/2003 5:25	6.05	0.9012					
7/10/2003 5:35	6.03	0.8982					
7/10/2003 5:45	5.86	0.8729					
7/10/2003 5:55	5.65	0.8416					
7/10/2003 6:05	5.62	0.8372					
7/10/2003 6:15	5.45	0.8118					
7/10/2003 6:25	5.38	0.8014					
7/10/2003 6:35	5.4	0.8044					
7/10/2003 6:45	5.44	0.8103					
7/10/2003 6:55	5.45	0.8118					
7/10/2003 7:05	5.28	0.7865					
7/10/2003 7:15	5.37	0.7999					
7/10/2003 7:25	5.31	0.7910					
7/10/2003 7:35	5.25	0.7820					
7/10/2003 7:45	5.37	0.7999					
7/10/2003 7:55	5.44	0.8103	020201-8	7/10/2003	750	5.40	6.66
7/10/2003 8:05	5.49	0.8178					
7/10/2003 8:15	5.57	0.8297	020201-9	7/10/2003	820	0.20	0.24

Continuous Monitoring Data (020201-10)

Date/Time	DO (mg/L)	DO as fraction of daily average
7/10/2003 8:25	5.62	0.8372
7/10/2003 8:35	5.62	0.8372
7/10/2003 8:45	5.61	0.8357
7/10/2003 8:55	5.7	0.8491
7/10/2003 9:05	5.69	0.8476
7/10/2003 9:15	5.82	0.8669
7/10/2003 9:25	5.78	0.8610
7/10/2003 9:35	5.8	0.8640
7/10/2003 9:45	5.78	0.8610
7/10/2003 9:55	5.97	0.8893
7/10/2003 10:05	5.85	0.8714
7/10/2003 10:15	5.81	0.8655
7/10/2003 10:25	6.12	0.9116
7/10/2003 10:35	6.01	0.8953
7/10/2003 10:45	6.12	0.9116
7/10/2003 10:55	6.22	0.9265
7/10/2003 11:05	6.31	0.9399
7/10/2003 11:15	6.61	0.9846
7/10/2003 11:25	6.67	0.9936
7/10/2003 11:35	6.78	1.0100
7/10/2003 11:45	6.96	1.0368
7/10/2003 11:55	7.04	1.0487
7/10/2003 12:05	7.19	1.0710
7/10/2003 12:15	7.12	1.0606
7/10/2003 12:25	7.06	1.0517
7/10/2003 12:35	7.1	1.0576
7/10/2003 12:45	7.06	1.0517
7/10/2003 12:55	7.12	1.0606
7/10/2003 13:05	6.9	1.0278
7/10/2003 13:15	6.86	1.0219
7/10/2003 13:25	6.77	1.0085
7/10/2003 13:35	6.86	1.0219
7/10/2003 13:45	7.16	1.0666
7/10/2003 13:55	7.17	1.0680
7/10/2003 14:05	7.25	1.0800
7/10/2003 14:15	7.71	1.1485
7/10/2003 14:25	8.39	1.2498
7/10/2003 14:35	8.06	1.2006
7/10/2003 14:45	8.95	1.3332
7/10/2003 14:55	8.63	1.2855
7/10/2003 15:05	8.44	1.2572
7/10/2003 15:15	8.51	1.2677
7/10/2003 15:25	8.5	1.2662
7/10/2003 15:35	8.68	1.2930
7/10/2003 15:45	8.74	1.3019
7/10/2003 15:55	8.8	1.3109
7/10/2003 16:05	8.81	1.3123
7/10/2003 16:15	7.23	1.0770
7/10/2003 16:25	7.4	1.1023
7/10/2003 16:35	7.32	1.0904
7/10/2003 16:45	7.35	1.0949
7/10/2003 16:55	6.93	1.0323
7/10/2003 17:05	7.12	1.0606

Instantaneous Data

Station	Date	Time	Measured DO at sampling time (mg/L)	Estimated daily avg DO at this station (mg/L)
020201-10	7/10/2003	1015	8.60	9.94
020201-6A	7/10/2003	1035	7.8	8.71
020201-6B	7/10/2003	1045	7.50	8.23

Continuous Monitoring Data (020201-10)

Date/Time	DO (mg/L)	DO as fraction of daily average
7/10/2003 17:15	7.5	1.1172
7/10/2003 17:25	7.2	1.0725
7/10/2003 17:35	6.9	1.0278
7/10/2003 17:45	5.25	0.7820
7/10/2003 17:55	7.16	1.0666
7/10/2003 18:05	7.29	1.0859
7/10/2003 18:15	7.38	1.0993
7/10/2003 18:25	7.4	1.1023
7/10/2003 18:35	7.41	1.1038
7/10/2003 18:45	7.42	1.1053
7/10/2003 18:55	7.42	1.1053
7/10/2003 19:05	7.4	1.1023
7/10/2003 19:15	7.35	1.0949
7/10/2003 19:25	7.37	1.0978
7/10/2003 19:35	7.42	1.1053
7/10/2003 19:45	7.48	1.1142
7/10/2003 19:55	7.51	1.1187
7/10/2003 20:05	7.52	1.1202
7/10/2003 20:15	7.52	1.1202
7/10/2003 20:25	7.63	1.1366
7/10/2003 20:35	7.64	1.1381
7/10/2003 20:45	7.68	1.1440
7/10/2003 20:55	7.73	1.1515
7/10/2003 21:05	7.73	1.1515
7/10/2003 21:15	7.73	1.1515
7/10/2003 21:25	7.69	1.1455
7/10/2003 21:35	7.75	1.1544
7/10/2003 21:45	7.81	1.1634
7/10/2003 21:55	7.85	1.1693
7/10/2003 22:05	7.93	1.1813
7/10/2003 22:15	7.89	1.1753
7/10/2003 22:25	7.95	1.1842
7/10/2003 22:35	7.93	1.1813
7/10/2003 22:45	7.98	1.1887
7/10/2003 22:55	8	1.1917
7/10/2003 23:05	8	1.1917
7/10/2003 23:15	7.98	1.1887
7/10/2003 23:25	7.99	1.1902
7/10/2003 23:35	7.99	1.1902
7/10/2003 23:45	7.96	1.1857
7/10/2003 23:55	7.96	1.1857
Average:	6.713194	

Instantaneous Data

Station	Date	Time	Measured DO at sampling time (mg/L)	Estimated daily avg DO at this station (mg/L)

FILE: R:\PROJECTS\2110-611\CD_DES_ALL\APP K DO CAL (VERIF SURVEY)\DO CALCULATIONS-UP_BDA-V

APPENDIX L

Model Inputs Verification Survey

APPENDIX L. DES ALLEMANDS MODEL INPUTS FOR VERIFICATION

Table L.1. Verification Inputs for Hydraulics (Data Type 9).

Parameter name or description	Reach(es)	Value used in model	Data Source / Comment
Velocity coefficient, a	1	0.000455	Same as Calibration
	2	0.000553	
	3	0.000650	
	4	0.000985	
	5	0.001780	
	6	0.001470	
	7	0.001250	
	8	0.001250	
	9	0.001380	
	10	0.001540	
	11	0.003680	
Velocity exponent, b	1 – 11	1	
Depth coefficient, c	1 – 2	1.52	
	3	1.84	
	4 – 5	2.16	
	6	2.62	
	7 – 8	3.08	
	9	2.79	
	10 – 11	2.5	
Depth exponent, d	1 – 11	0	
Depth constant, e	1 – 11	0	

Table L.2. Verification Inputs for Initial Conditions (Data Type 11).

Parameter name or description	Reach(es)	Value used in model	Data Source / Comment
Temperature, ^{o}C	1 – 2	27.7	Verification survey on 7/10/03 station 020201-8
	3	28.6	Verification survey on 7/10/03 station 020201-6A average of all depths
	4	29.5	Verification survey on 7/10/03 average of stations 020201-6A and 020201-6B, 0.33 m depth
	5	28.9	Verification survey on 7/10/03 average of stations 020201-6A and 020201-5, 0.33 m depth
	6	28.3	Verification survey on 7/10/03 station 020201-5, 0.33 m depth
	7	29.6	Verification survey on 7/10/03 station 020201-3, 0.33 m depth
	8	29.1	Verification survey on 7/10/03 average of stations 020201-3 and 020201-2, 0.33 m depth
	9 – 10	28.5	Verification survey on 7/10/03 station 020201-2, 0.33 m depth
	11	28.9	Verification survey on 7/10/03 station 020201-1, 0.33 m depth
Salinity, ppt	1 – 2	0.11	Calculated from conductivity. Sources of conductivity measurements same as for temperatures listed above.
	3	0.12	
	4	0.13	
	5	0.12	
	6	0.11	
	7 – 8	0.12	
	9 – 11	0.11	
DO, mg/L	1 – 2	6.66	Estimated daily average form verification survey on 7/10/03 station 020201-8
	3	7.57	Estimated daily average from verification survey on 7/10/03 station 020201-6A average of all depths
	4	8.47	Estimated daily average from verification survey on 7/10/03 average of stations 020201-6A and 020201-6B, 0.33 m depth
	5	7.41	Estimated daily average from verification survey on 7/10/03 average of stations 020201-6A and 020201-5, 0.33 m depth
	6	6.34	Estimated daily average from verification survey on 7/10/03 station 020201-5, 0.33 m depth
	7	6.74	Estimated daily average form verification survey on 7/10/03 station 020201-3, 0.33 m depth

Table L.2. (Continued)

	8	6.39	Estimated daily average from verification survey on 7/10/03 average of stations 020201-3 and 020201-2, 0.33 m depth
	9 – 10	6.04	Estimated daily average form verification survey on 7/10/03 station 020201-2, 0.33 m depth
	11	5.89	Estimated daily average form verification survey on 7/10/03 station 020201-1, 0.3 m depth
Ammonia N, mg/L	1 – 5	0.19	Verification survey 7/10/03 average of stations 020201-6A and 020201-6B
	6	0.17	Verification survey 7/10/03 average of stations 020201-6B and 020201-3
	7	0.16	Verification survey 7/10/03 station 020201-3
	8	0.21	Verification survey 7/10/03 average of stations 020201-3 and 020201-1
	9 – 11	0.25	Verification survey 7/10/03 station 020201-3
NO3 + NO2 N, mg/L	1 – 11	0.05	Set to half of detection (0.1 mg/L) because all measurements of NO2-N and NO3-N during verification survey were less than detection
Phosphorus, mg/L	1 – 5	0.06	Verification survey 7/10/03 average of stations 020201-6A and 020201-6B
	6	0.07	Verification survey 7/10/03 average of stations 020201-6A, 020201-6B and 020201-3
	7	0.07	Verification survey 7/10/03 stations 020201-3
	8	0.08	Verification survey 7/10/03 average of stations 020201-3 and 020201-1
	9 – 11	0.09	Verification survey 7/10/03 stations 020201-3
Chlorophyll, ug/L	1 – 5	44	Verification survey 7/10/03 average of stations 020201-6A and 020201-6B
	6	43.5	Verification survey 7/10/03 average of stations 020201-6A, 020201-6B and 020201-3
	7	43	Verification survey 7/10/03 stations 020201-3
	8	41.5	Verification survey 7/10/03 average of stations 020201-3 and 020201-1
	9 – 11	40	Verification survey 7/10/03 stations 020201-3

Table L.3. Verification Inputs for Kinetic Coefficients (Data Types 12 and 13).

Parameter name or description	Reach(es)	Value used in model	Data Source / Comment
Reaeration option	1 – 11	3	Same as calibration
K_L (surface transfer coefficient)	1 – 11	0.99 m/day	Wind aided reaeration specified due to low velocities and large surface area. Wind speed values and K_L calculations are included in Appendix M.
CBODu decay rate	1 – 11	0.09/day	Same as calibration
Organic N decay rate	1 – 11	0.02/day	
Ammonia N decay rate	1 – 11	0.10/day	

Table L.4. Verification Inputs for NPS Loads (Data Types 12, 13 and 19).

Parameter name or description	Reach	Value used in model	Data Source / Comment
Sediment oxygen demand, g/m2/day	1	0.875	Same as calibration
	2 – 7	1.0	
	8	1.11	
	9	1.0	
	10	0.875	
	11	0.75	
Benthic ammonia, g/m2/day	1 – 2	0.04	
	3	0.08	
	4	0.12	
	5	0.18	
	6 – 8	0.20	
	9	0.22	
	10	0.24	
	11	0.26	
Benthic phosphorus, g/m2/day	1	0.040	
	2	0.036	
	3	0.032	
	4	0.020	
	5 - 7	0.016	
	8	0.012	
	9 – 11	0.004	
CBODu mass loads, kg/day	1	3840	
	2	2880	
	3	1920	
	4	480	
	5 – 7	96	
	8 – 10	240	
	11	96	
Organic N mass loads, kg/day	1- 11	0	

Table L.5. Verification Inputs for Headwater (Data Types 20, 21, and 22).

Name of inflow	Parameter name	Value used in model	Data Source / Comment
Headwater Des Allemands	Flow Rate	96.96 m^3/sec	See section 5.4
	Temperature	29.1 C	Verification survey 7/10/03 station 020201-10, 1 ft depth
	Specific conductivity	200 : mhos	
	DO	9.94 mg/L	24 hour average of continuous monitoring data on 7/10/03 from station 020201-10
	CBODu	5.30 mg/L	Average of two values calculated in GSBOD spreadsheet using data from station 020201-10 during verification survey
	NBODu	1.24 mg/L	Verification survey 7/10/03 station 020201-10 TKN minus ammonia
	Ammonia	0.16 mg/L	Verification survey 7/10/03 station 020201-10
	NO2 + NO3	0.05 mg/L	Set to half the detection level since measurement was less than detection
	Phosphorus	0.07 mg/L	Verification survey 7/10/03 station 020201-10
	Chlorophyll	49 ug/L	

Table L.6. Verification Inputs for Wasteload (Data Types 24, 25, and 26).

Name of inflow	Parameter name	Value used in model	Data Source / Comment
Providence Canal	Flow Rate	9.96 m^3/sec	See Section 5.6
	Temperature	26.3 C	Verification survey station 020201-9, 1 ft depth
	Specific conductivity	256 : mhos	
	DO	0.24 mg/L	Estimated average daily DO (see Section 4.10) using Verification survey 7/10/03 station 020201-9
	CBODu	5.30 mg/L	Calculated from Verification survey 7/10/03 station 020201-10 using GSBOD spreadsheet provided by LDEQ
	NBODu	1.24 mg/L	Verification survey 7/10/03 station 020201-10 TKN minus ammonia
	Ammonia	0.16 mg/L	Verification survey 7/10/03 station 020201-10
	NO2 + NO3	0.05 mg/L	Set to half the detection limit because measurement was less than detection
	Phosphorus	0.07 mg/L	Verification survey 7/10/03 station 020201-10
	Chlorophyll	49 µg/L	
Collier Fisheries	Flow Rate	0.00044 m^3/sec	Same as calibration
	Temperature	30.8 C	
	Specific conductivity	503 µmhos	
	DO	2.0 mg/L	
	CBODu	30.0 mg/L	
	Organic N	5.0 mg/L	
	Ammonia	10.0 mg/L	
	NO2 + NO3	10.0 mg/L	
	Phosphorus	5.0 mg/L	
	Chlorophyll	0 µg/L	

Table L.7. Verification Inputs for Lower Boundary Conditions (Data Type 27).

Parameter name	Value used in model	Data Source / Comment
Temperature	29.4 C	Verification survey 7/10/03 station 020201-0, 1 ft depth
Salinity	0.111 ppt	Calculated from Verification survey 7/10/03 station 020201-0 specific conductivity at 1 ft
Specific Conductivity	200 : mhos	Verification survey 7/10/03 station 020201-0, 1ft depth
DO	5.89 mg/L	Estimated daily average DO (see Section 4.10) using Verification survey 7/10/03 station 020201-0, 1 ft depth
CBODu	3.69 mg/L	Calculated from Verification survey 7/10/03 station 020201-1 using GSBOD spreadsheet provided by LDEQ
NBODu	1.25 mg/L	Verification survey 7/10/03 station 020201-1 TKN minus ammonia
Ammonia N	0.25 mg/L	Verification survey 7/10/03 station 020201-1
NO2 + NO3	0.05 mg/L	Set to half the detection limit because measurement was less than detection
Phosphorus	0.089 mg/L	Verification survey 7/10/03 station 020201-1
Chlorophyll	40 ug/L	

APPENDIX M

Calculation of K_L (Verification Survey)

Wind Aided Reaeration for Bayou des Allemands

Wind Aided Reaeration Coefficient Equation (Eq.3-23 from Rates, Constants, and Kinetics publication)

$K_{L\ with\ wind} = K_{L\ without\ wind}\ [1+(0.2395V_w^{1.643})]$ **Equation 1**

V_w = wind velocity in meters per second
K_2 = reaeration in 1/day that does not account for wind effects. For Louisiana equation use K_2 = 0.664/D.
D = depth in meters
$K_L = K_2 * D$ (=oxygen transfer coefficient "a" in model)

Formula to correct wind speed for elevation (obtained from LDEQ):

$V_{w@\ height\ z} = V_{w@\ height\ s}\ [(z/s)^{0.143}]$ **Equation 2**

CALCULATIONS FOR VERIFICATION PERIOD:

Verification Period: July 10,2003

Station	Average Wind Speed (knots)	Average Wind Speed (m/s)	Height of Wind Measurement (m)	Height for Calculating Wind-Aided K_L (m)	Wind Speed at Surface using Eqn 2 (m/s)	K_L without wind (m/day)	K_L with wind using Eqn 1 (m/day)
New Orleans Intl. Airport	5.8	3.0	10	0.1	1.5	0.664	0.99

FILE: R:\PROJECTS\2110-611\CD_DES_ALL\APP M CAL KL (VERIF)\VERIF WIND_SPEED.XLS

APPENDIX N

Plots of Verification Model Results

Figure N-1. Verification results of Organic N for Bayou Des Allemands on July 10, 2003

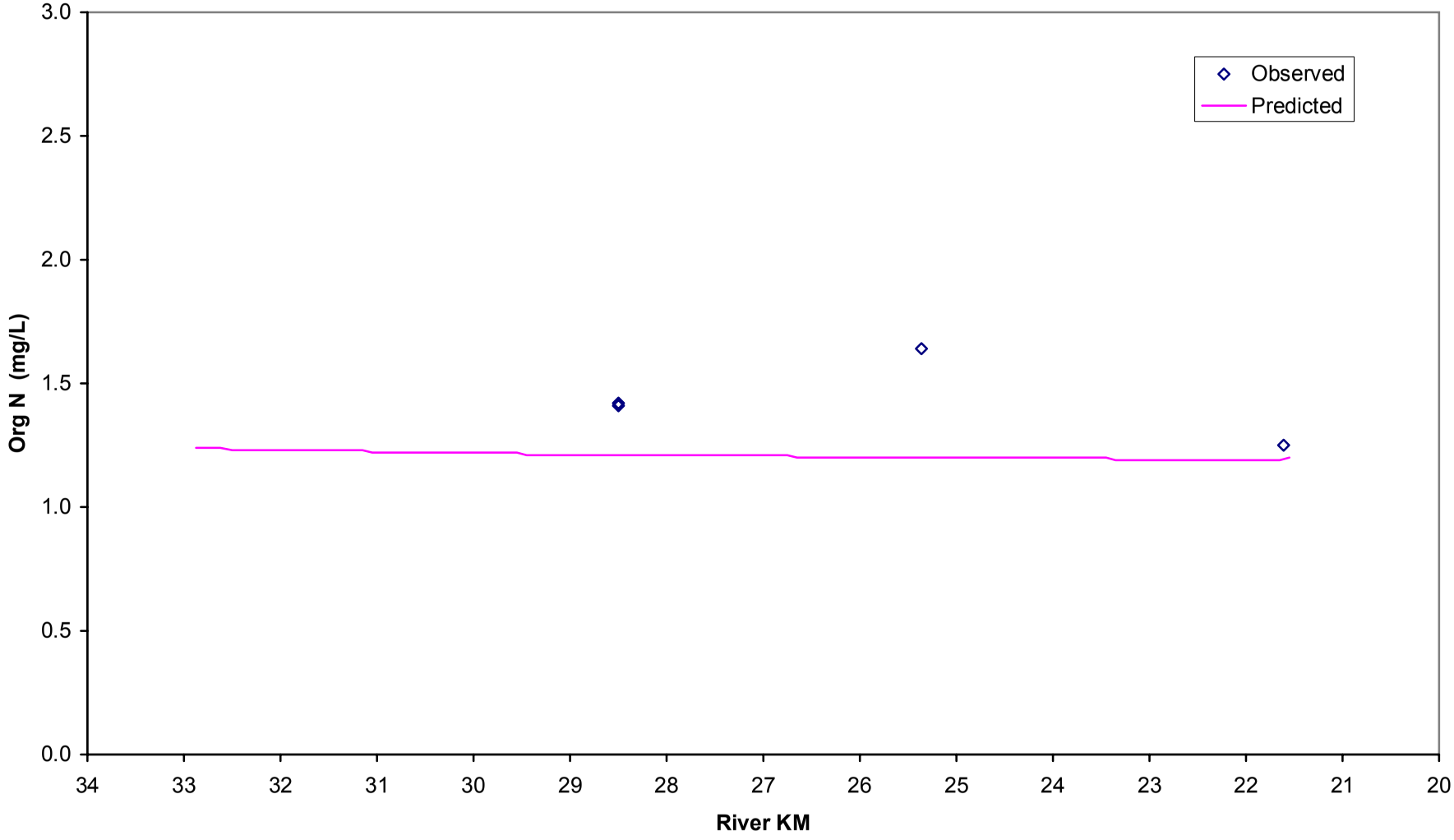

Figure N-2. Verification results for Ammonia N for Bayou Des Allemands on July 10,2003

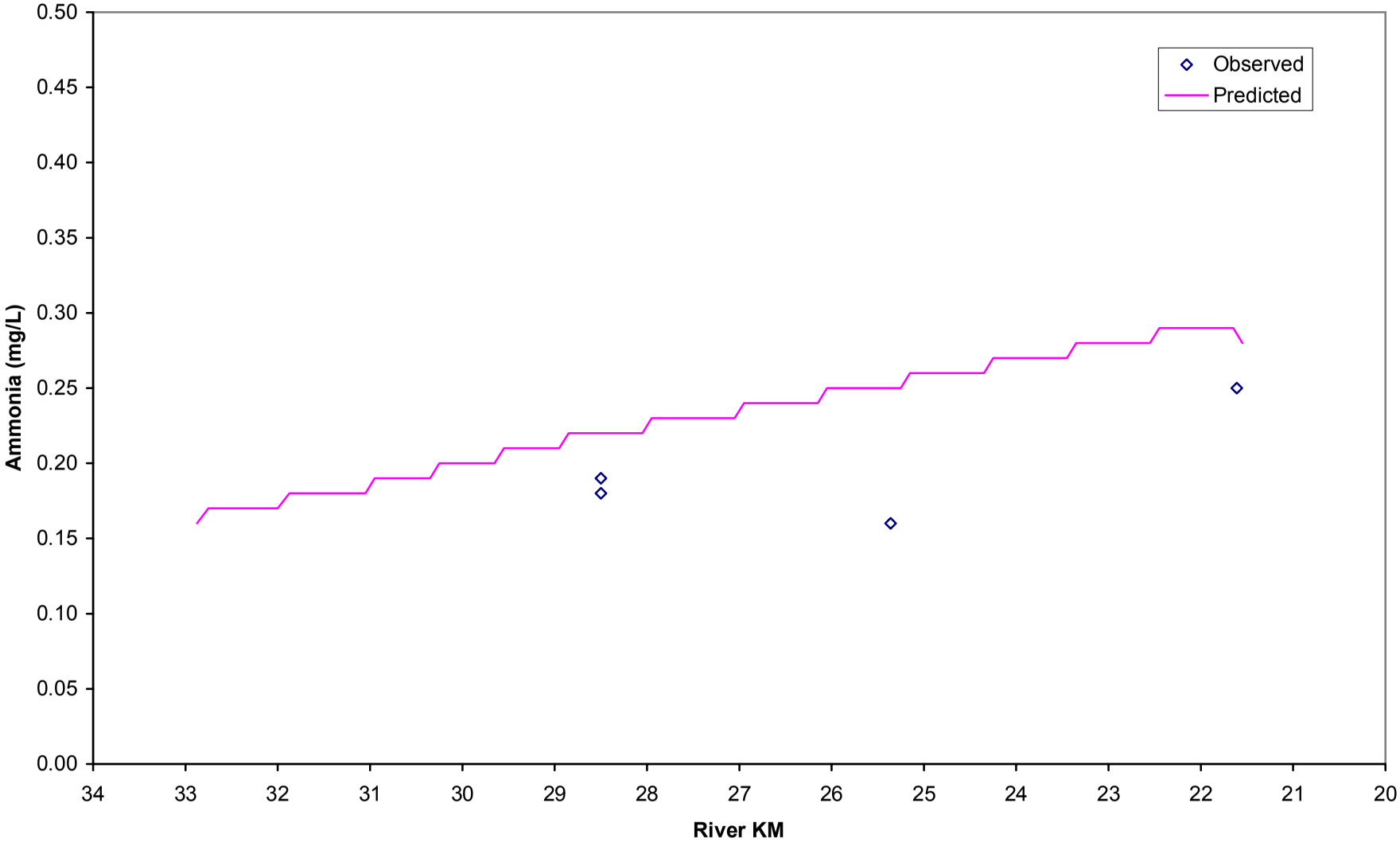

Figure N-3. Verification results for NO2+NO3 for Bayou Des Allemands on July 10,2003

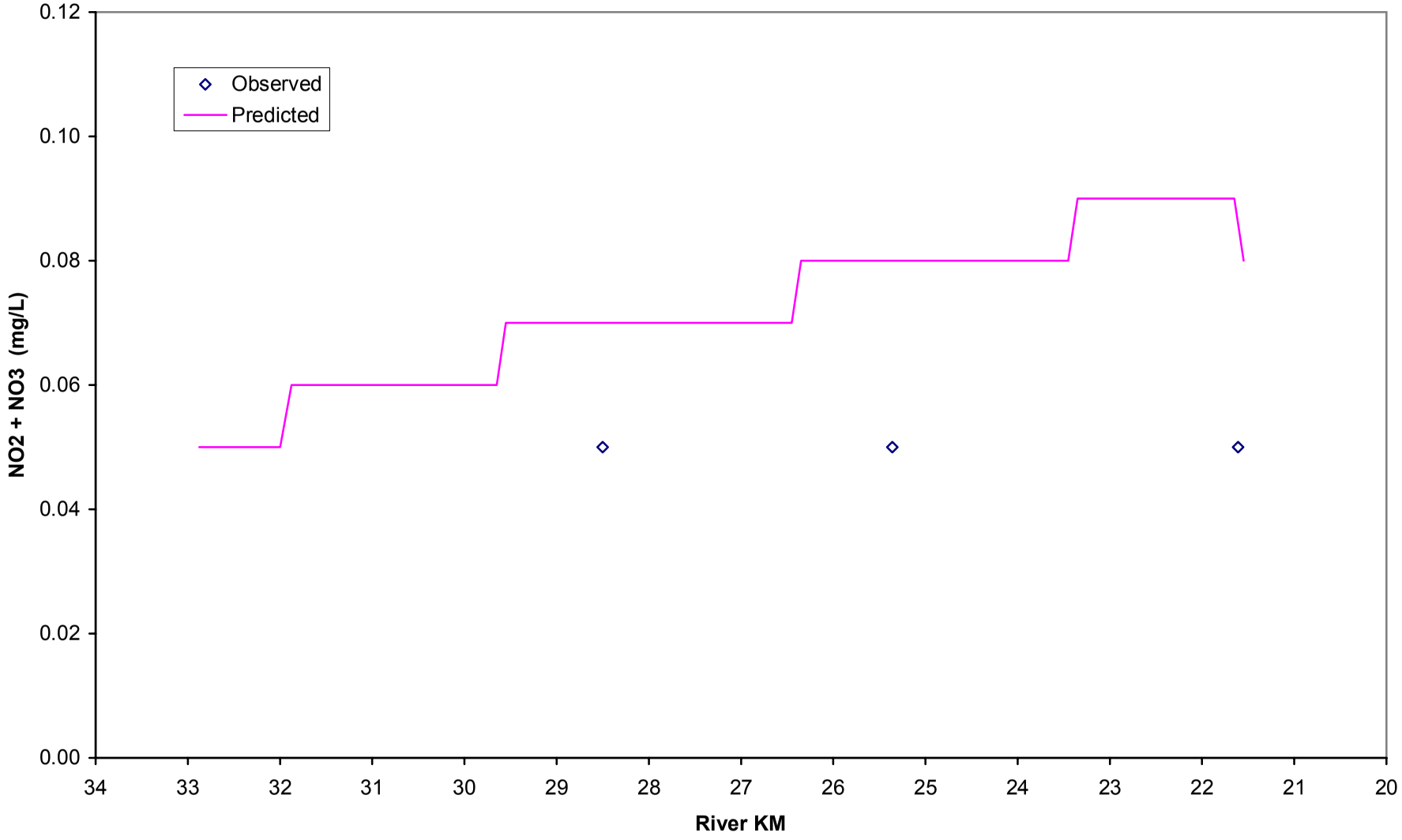

Figure N-4. Verification results of phosphorus for Bayou Des Allemands on July 10, 2003

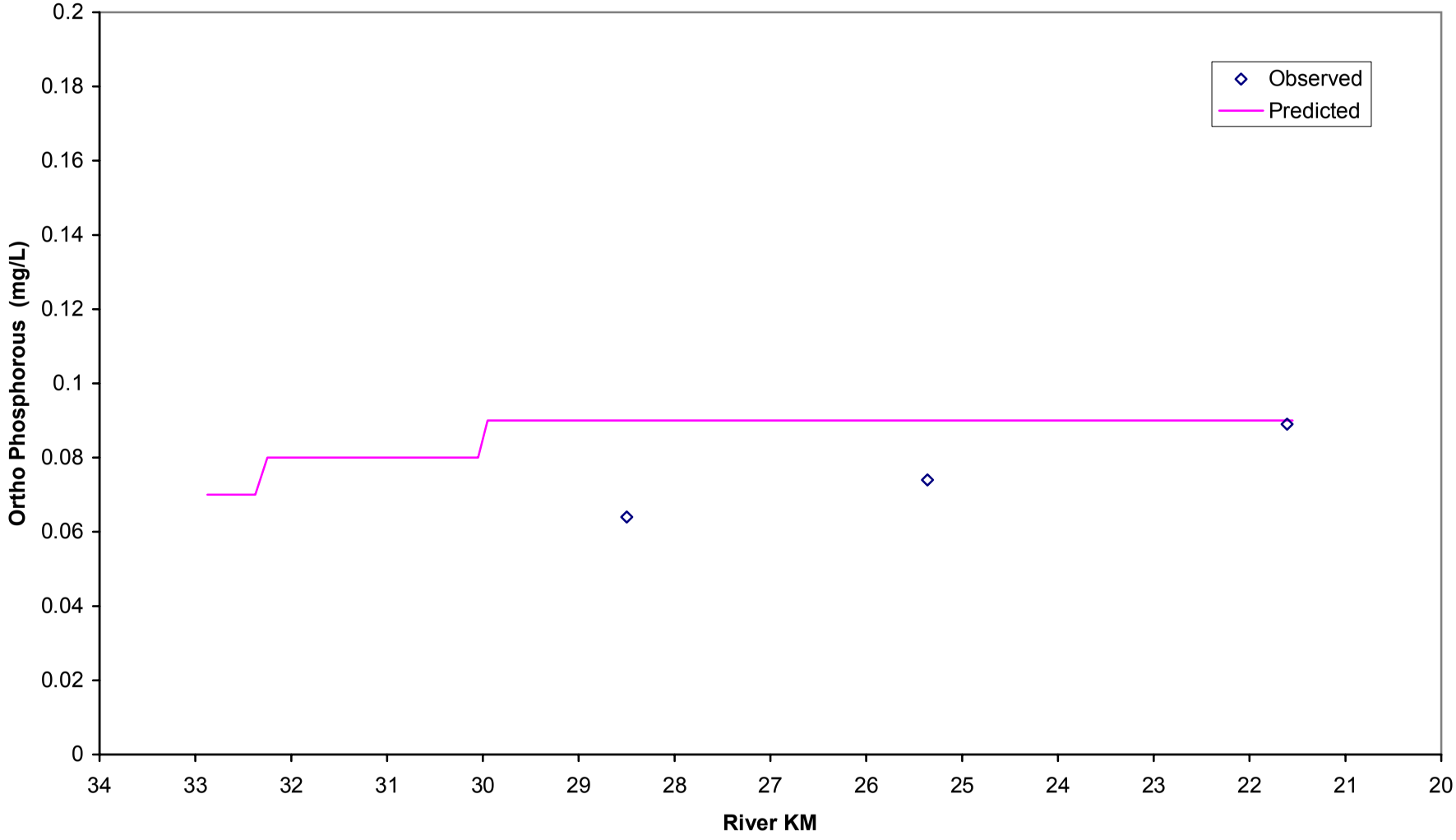

Figure N-5. Verification Results of Chloropyhll a for Bayou Des Allemands on July 10,2003

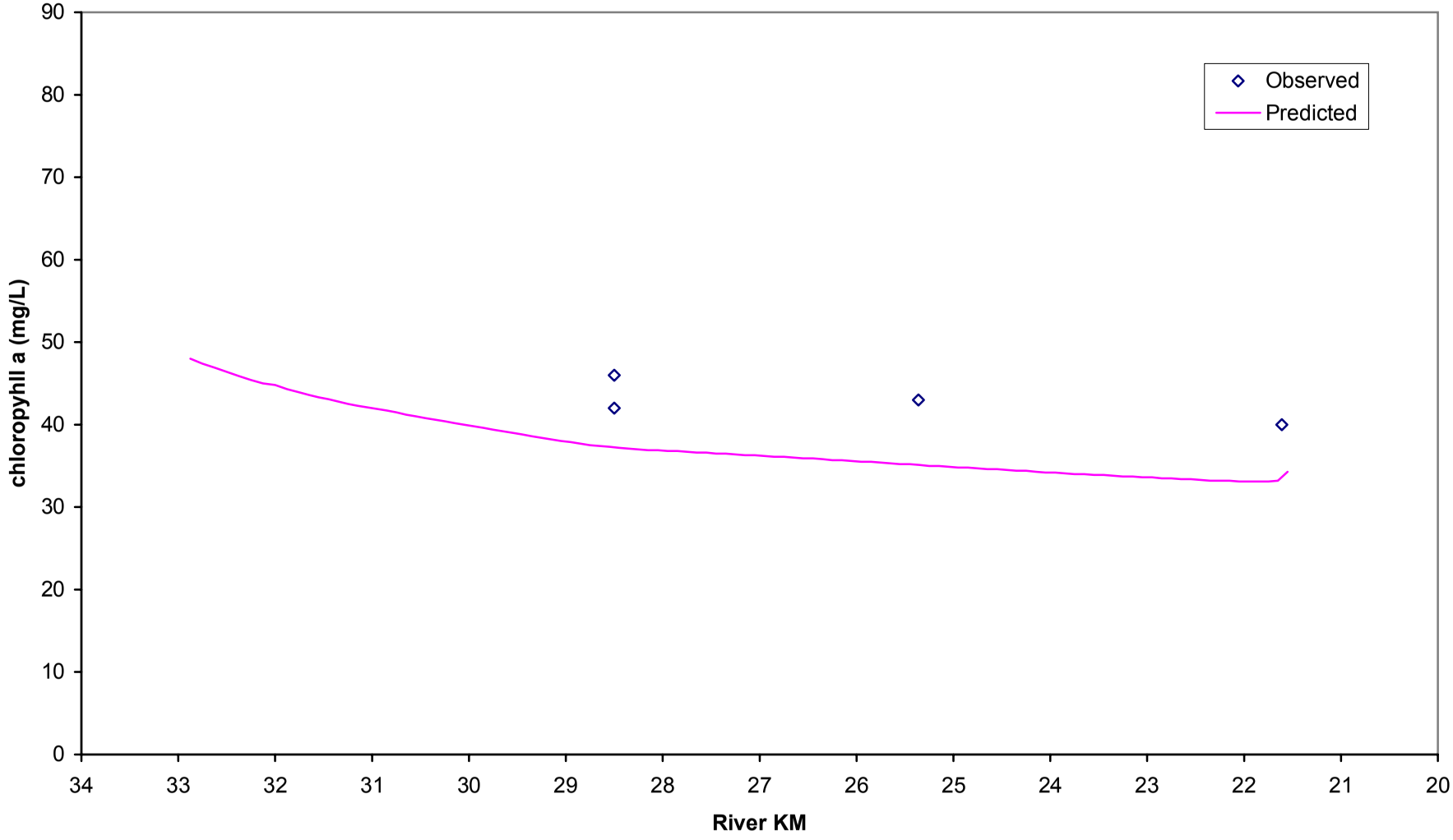

Figure N-6. Verification results of CBODu for Bayou Des Allemands on July 10,2003

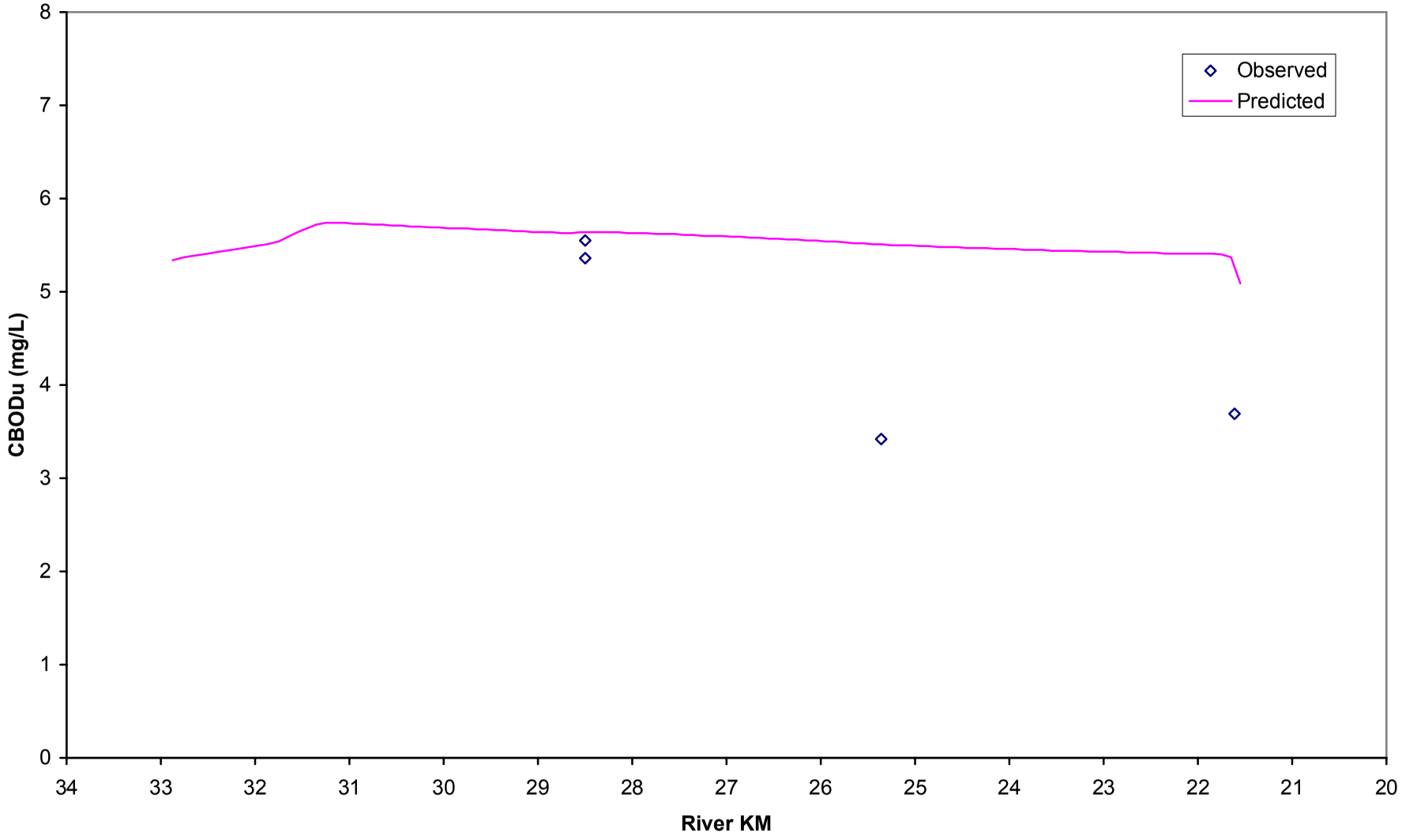
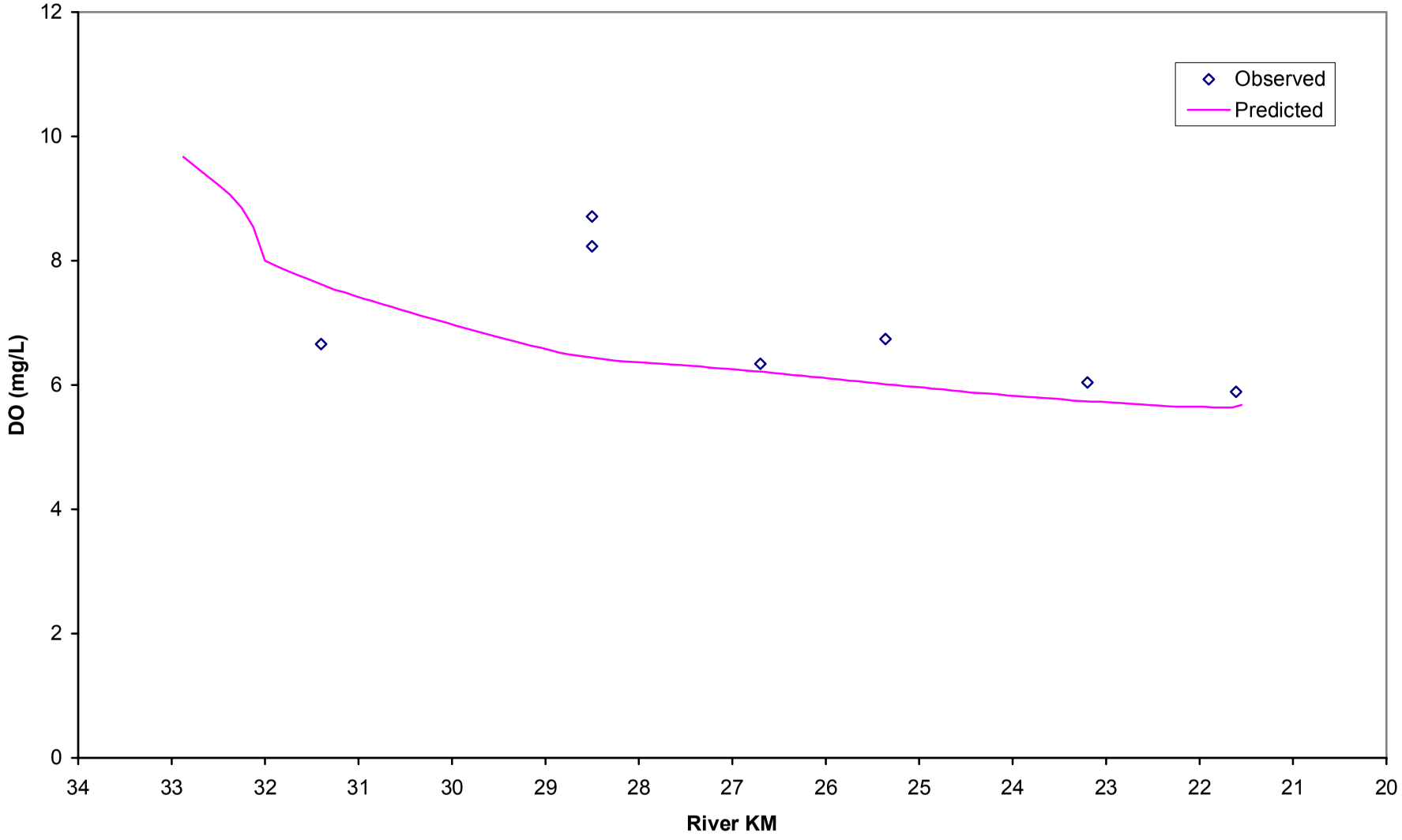
Figure N-7. Verification results for DO for Bayou Des Allemands on July 10,2003