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**SABINE RIVER AUTHORITY OF TEXAS**

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**TO:** INTERESTED PARTIES  
**FROM:** ENVIRONMENTAL SERVICES DIVISION  
**RE:** FEBRUARY 2002 MONTHLY WATER QUALITY REPORT

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This is the Sabine River Authority Water Quality Summary for February 2002. Water quality sampling was performed February 12<sup>th</sup> through February 14<sup>th</sup>. Recent weather was cool with a general warming trend towards the end of the 7-day period prior to the sample run. The Upper Basin received 3.97 – 2.99 inches of rainfall during the 28 days since the previous sample run as recorded at Lake Tawakoni and Lake Fork respectively. Toledo Bend and Orange received 3.6 and 2.04 inches of rain respectively during the 28 days preceding the sample run. Daytime high air temperatures during the most recent seven days prior to the sample run at Lake Tawakoni and Lake Fork were in the 30's and 40's early in the week, rising to the 50's and 60's toward the end of the week. During this same period, Toledo Bend and Orange reported temperatures slightly warmer with daytime highs in the 50's and 60's. The Upper Basin recorded nighttime lows in the 20's and 30's while the Lower Basin recorded lows in the 30's and 40's.

**UPPER SABINE BASIN ABOVE TOLEDO BEND INCLUDING LAKE FORK AND LAKE TAWAKONI**

For the February sample run, most of the parameter's values seen at the Upper Basin sites were consistent with water of high quality. The most recent rains occurred six to seven days prior to sampling. Water clarity was generally good and, with the cooler temperatures, dissolved oxygen values were at least 10mg/l at all sites. Bacteriological counts exceeded stream standards at SR19, SR16, SR14 and SR11. Nitrate/Nitrite concentration was slightly elevated at LT23D on Lake Tawakoni. This site was also very muddy. Lake Fork and Lake Tawakoni were completely mixed.

**LOWER SABINE BASIN INCLUDING TOLEDO BEND TO MORGAN BLUFF**

The February monthly sampling results were indicative of water of high quality at most sites. That last significant rainfall occurred about one week prior to the sampling event. The level of Toledo Bend Reservoir was recorded near pool level at just over 170.2 ft msl, and all the lake sites showed some degree of thermal stratification. *E. coli* results that were above stream standards were found at stations TB8, TB6J, and TB6F.

**TIDAL SECTION OF THE SABINE BASIN BELOW MORGAN BLUFF**

Stations sampled in the tidal portion of the Sabine Basin had values that were consistent with water of high quality at most sites. Thermal stratification was not seen at any of the tidal stations as they were all well mixed. No surface salinities were recorded at any of the sites, but station SRT1 did record a value of 4 ppt at 7 meters and 12 ppt at 10.4 meters, displaying a definite saltwater wedge. Bacterial values were found to be high at all stations. Station SR1 recorded an *E. coli* value above stream standards, and stations ICW1, BB1, SRT2, and SRT1 had *Enterococcus* values above stream standards.

This Report and additional data for these monitoring stations are available on our World Wide Web site ([www.sra.dst.tx.us](http://www.sra.dst.tx.us)). If you have any questions or comments concerning this report, please contact:

- *Upper Sabine Basin*  
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PRINTED WEDNESDAY, APRIL 17, 2002

# SABINE RIVER AUTHORITY OF TEXAS

## Monthly Water Quality Report

February 2002

### Table of Contents

#### Upper Sabine Basin

FY2002 Fixed Monitoring Stations.....	1
Surface Report.....	2
Profile Report .....	9
<i>Lake Tawakoni (near the dam)</i> .....	10
<i>Lake Fork (near the dam)</i> .....	11
Weather, River, and Reservoir Data.....	12
<i>Lake Tawakoni</i> .....	12
<i>Lake Fork</i> .....	14

#### Lower Sabine Basin

FY2002 Fixed Monitoring Stations.....	17
Surface Report.....	18
Profile Report .....	25
<i>Toledo Bend (at Pendleton Bridge)</i> .....	26
<i>Toledo Bend (above the dam)</i> .....	27
Weather, River, and Reservoir Data.....	28
<i>Toledo Bend</i> .....	28
<i>Burkeville</i> .....	30
<i>Bon Wier</i> .....	32
<i>Ruliff</i> .....	34

#### Tidal Sabine Basin

FY2002 Fixed Monitoring Stations.....	37
Surface Report.....	38
Profile Report .....	42
Weather, River, and Reservoir Data.....	43
<i>Orange</i> .....	43

#### Appendix

FY 2002 Fixed Monitoring Station Maps	
Upper Basin.....	45
Lower Basin .....	46

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# ***FY2002 Fixed Monitoring Stations***

## ***Upper Sabine Basin***

<i><b>SW</b></i>	<i><b>Segment</b></i>	<i><b>Station</b></i>	<i><b>Location</b></i>
7.00	0507	10440 (LT23C)	LAKE TAWAKONI NR WIND POINT PARK
7.00	0507	10435 (LT23D)	LAKE TAWAKONI IN KITSEE INLET NEAR WHITE POINT CAUSEWAY
7.00	0507	10434 (LT23A)	LAKE TAWAKONI IN THE MAIN LAKE NEAR THE DAM
6.12	0512	10461 (LF3)	LAKE FORK RESERVOIR MID-ARM IN CANEY CREEK ARM AT FM 515
6.12	0512	10462 (LF4)	LAKE FORK RESERVOIR MID-COVE IN LAKE FORK CREEK ARM AT FM515
6.12	0512	10458 (LF2)	LAKE FORK RESERVOIR NEAR DAM IN CREEK CHANNEL
6.10	0515	10469 (LF20)	LAKE FORK CREEK AT US 80
6.02	0514	10467 (BS18)	BIG SANDY CREEK AT US 80
6.00	0506	17065 (SR22)	SABINE RIVER AT FM 17 (SR22)
6.00	0506	10430 (SR21)	SABINE RIVER AT US 69
6.00	0506	10429 (SR19)	SABINE RIVER AT SH 14 S. OF HAWKINS
5.00	0505	10428 (SR17)	SABINE RIVER AT US 271
5.00	0505	10427 (SR16)	SABINE RIVER AT SH 42
5.00	0505	10426 (SR15)	SABINE RIVER AT US 259
5.00	0505	10423 (SR14)	SABINE RIVER AT SH 149
5.00	0505	13628 (SR11)	SABINE RIVER AT US 59
5.00	0505	10415 (SR10)	SABINE RIVER AT FM 2517

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## Upper Sabine Basin Report

February 2002

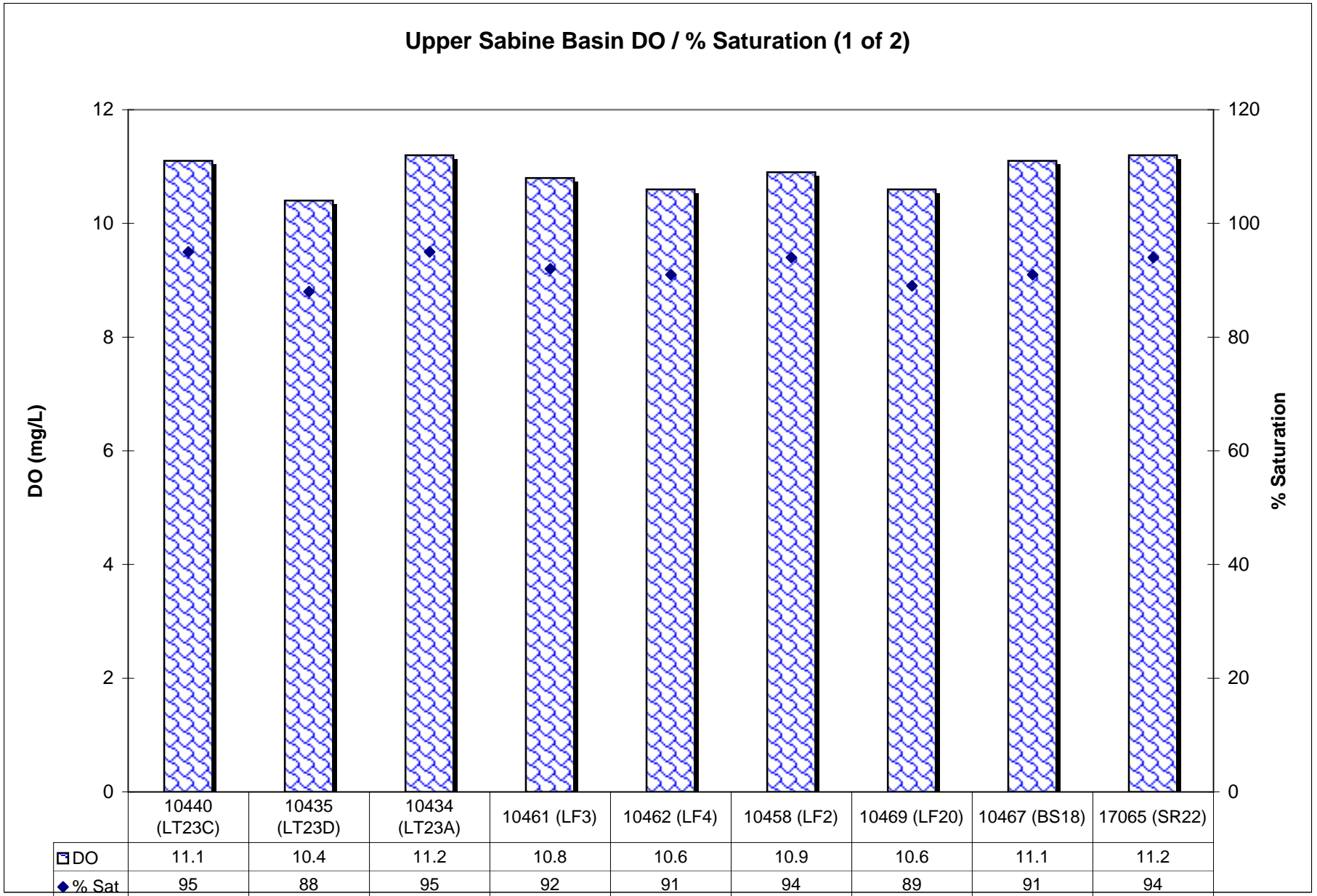
Date	SW ID	Station	Temperature °C 00010	pH Units 00400	DO mg/L 00300	% Saturation 00301	Conductivity µS/cm 00094	Salinity ppt 00480	Secchi Meters 00078	Turbidity NTU 82079	<i>E. coli</i> mpn/100ml 31699	Chlorophyll a µg/L 32211	Nitrate & Nitrite 00630	Ortho- Phosphate 00671	TOC mg/L 00680	Total Alkalinity 00410	Total Hardness 00900	Chloride mg/L 00940	Sulfate mg/L 00945
2/12/02 11:05 AM	7.00	10440 (LT23C)	7.99	7.16	11.1	95	149	*	0.37	39.7	122	*	0.26	*	6	*	*	< 10	< 10
2/12/02 10:24 AM	7.00	10435 (LT23D)	7.27	6.93	10.4	88	153	*	0.24	64.8	272	*	0.59	*	6	*	*	< 10	< 10
2/12/02 9:41 AM	7.00	10434 (LT23A)	7.78	7.24	11.2	95	160	*	1.26	6.72	5	*	0.15	*	5	*	*	< 10	< 10
2/12/02 8:45 AM	6.12	10461 (LF3)	8.19	6.66	10.8	92	124	*	1.23	5.02	35	*	0.2	*	6	*	*	< 10	12
2/12/02 9:02 AM	6.12	10462 (LF4)	8.27	6.62	10.6	91	117	*	0.89	8.61	4	*	0.22	*	5	*	*	< 10	12
2/12/02 8:18 AM	6.12	10458 (LF2)	8.17	7.11	10.9	94	124	*	1.69	2.81	4	*	0.22	< 0.04	5	*	*	< 10	13
2/12/02 12:56 PM	6.10	10469 (LF20)	7.37	6.58	10.6	89	142	*	0.98	8.8	105	*	0.16	*	5	*	*	12	17
2/12/02 1:34 PM	6.02	10467 (BS18)	6.5	6.08	11.1	91	164	*	1.07	10.2	155	*	0.12	< 0.04	7	*	*	19	28
2/12/02 12:03 PM	6.00	17065 (SR22)	6.87	7.21	11.2	94	166	*	0.53	15.1	82	*	0.12	*	5	*	*	< 10	< 10
2/12/02 12:34 PM	6.00	10430 (SR21)	7.48	6.85	10.6	89	173	*	0.69	17.1	160	*	0.11	*	*	*	*	< 10	13
2/12/02 1:15 PM	6.00	10429 (SR19)	7.07	6.8	10.6	88	166	*	0.46	25.2	411	*	0.12	*	6	*	*	12	17
2/12/02 1:55 PM	5.00	10428 (SR17)	6.96	6.69	10.8	90	172	*	0.43	32.4	291	*	0.13	< 0.04	6	*	*	14	20
2/12/02 2:27 PM	5.00	10427 (SR16)	7.09	6.67	10.9	91	181	*	0.45	35.8	411	*	0.13	< 0.04	6	*	*	16	21
2/13/02 8:15 AM	5.00	10426 (SR15)	6.95	6.6	11.7	97	178	*	0.36	37.7	365	*	0.13	< 0.04	6	*	*	16	20
2/13/02 8:37 AM	5.00	10423 (SR14)	7.06	6.74	11.7	96	186	*	0.36	41.5	411	*	0.17	< 0.04	6	*	*	18	21
2/13/02 10:12 AM	5.00	13628 (SR11)	7.2	6.63	11.8	97	205	*	0.34	48.1	579	*	0.17	< 0.04	6	*	*	22	25
2/13/02 10:41 AM	5.00	10415 (SR10)	7.35	6.75	12	100	208	*	0.38	46.7	328	*	0.16	< 0.04	6	*	*	24	25

\*: Not sampled on this run

# SABINE RIVER AUTHORITY OF TEXAS

February 2002

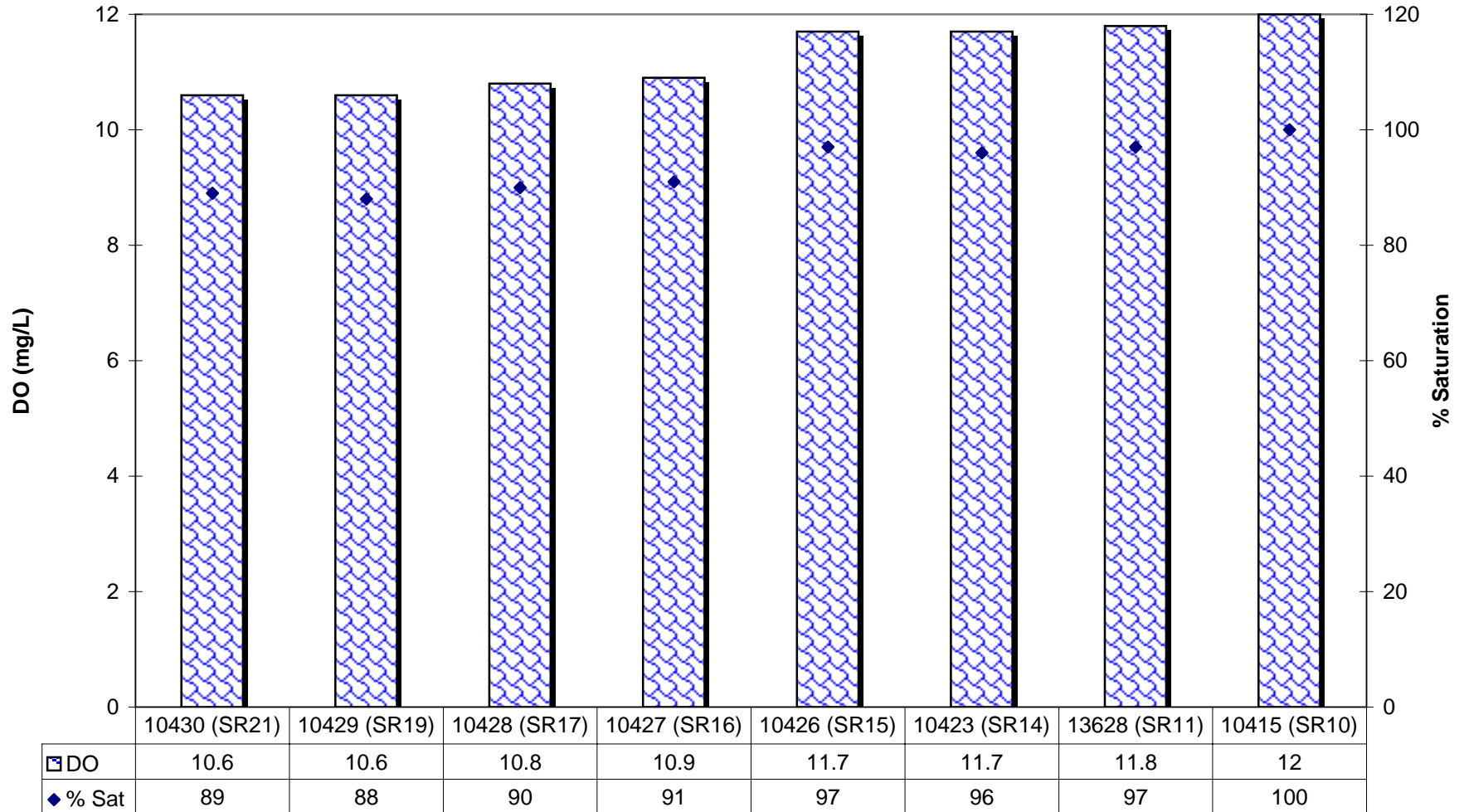
## Upper Sabine Basin DO / % Saturation (1 of 2)



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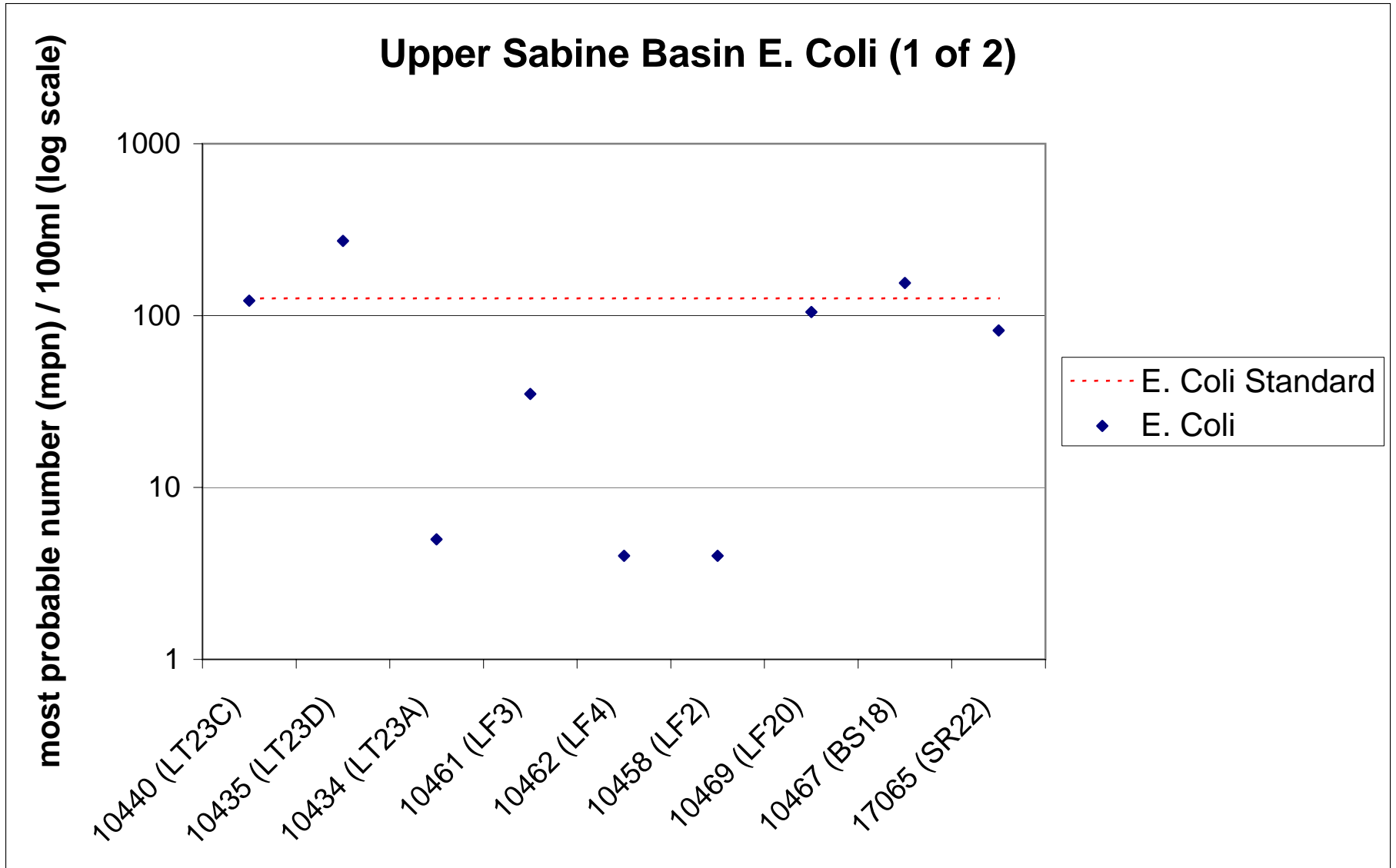
### Upper Sabine Basin DO / % Saturation (2 of 2)





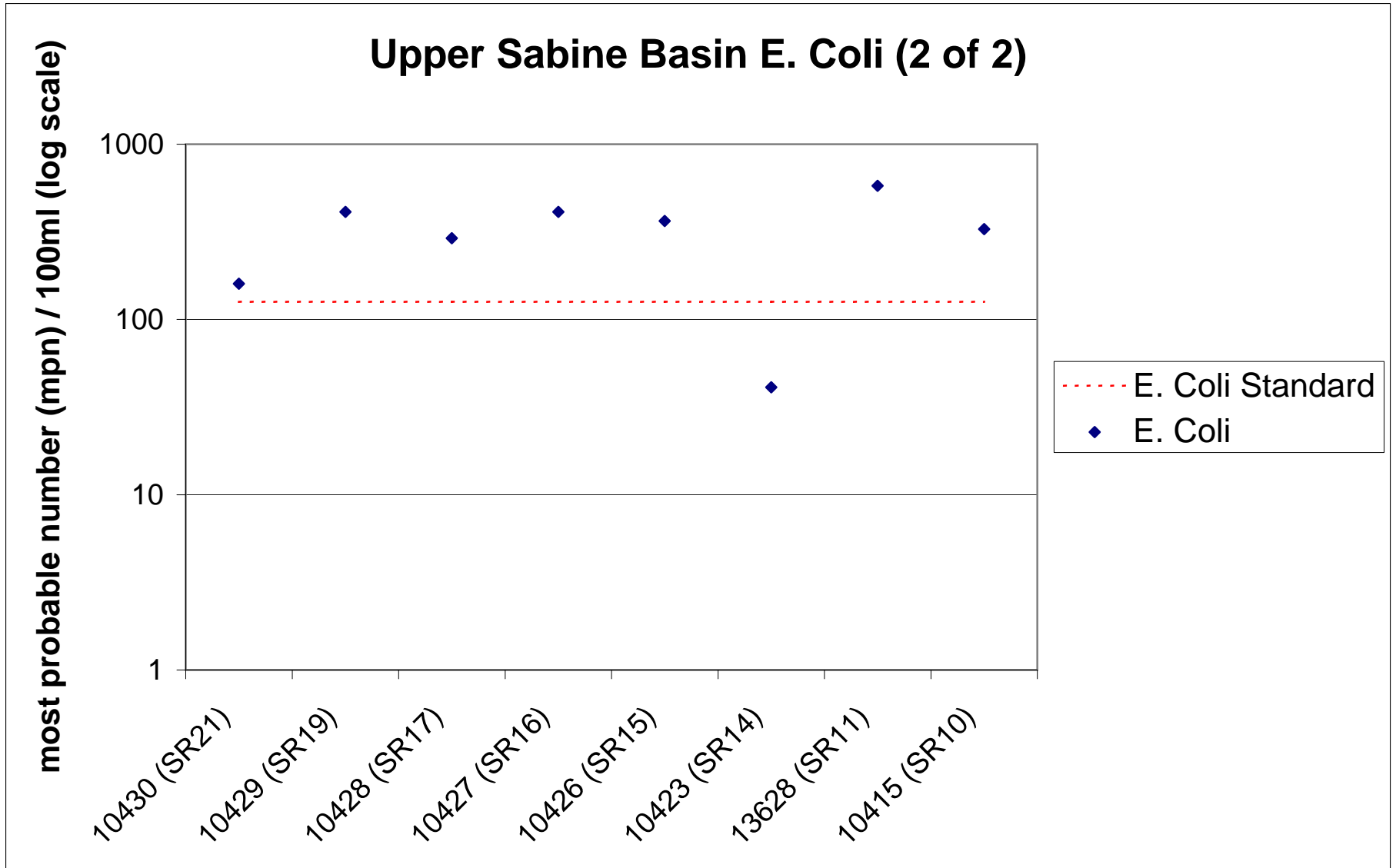
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February 2002



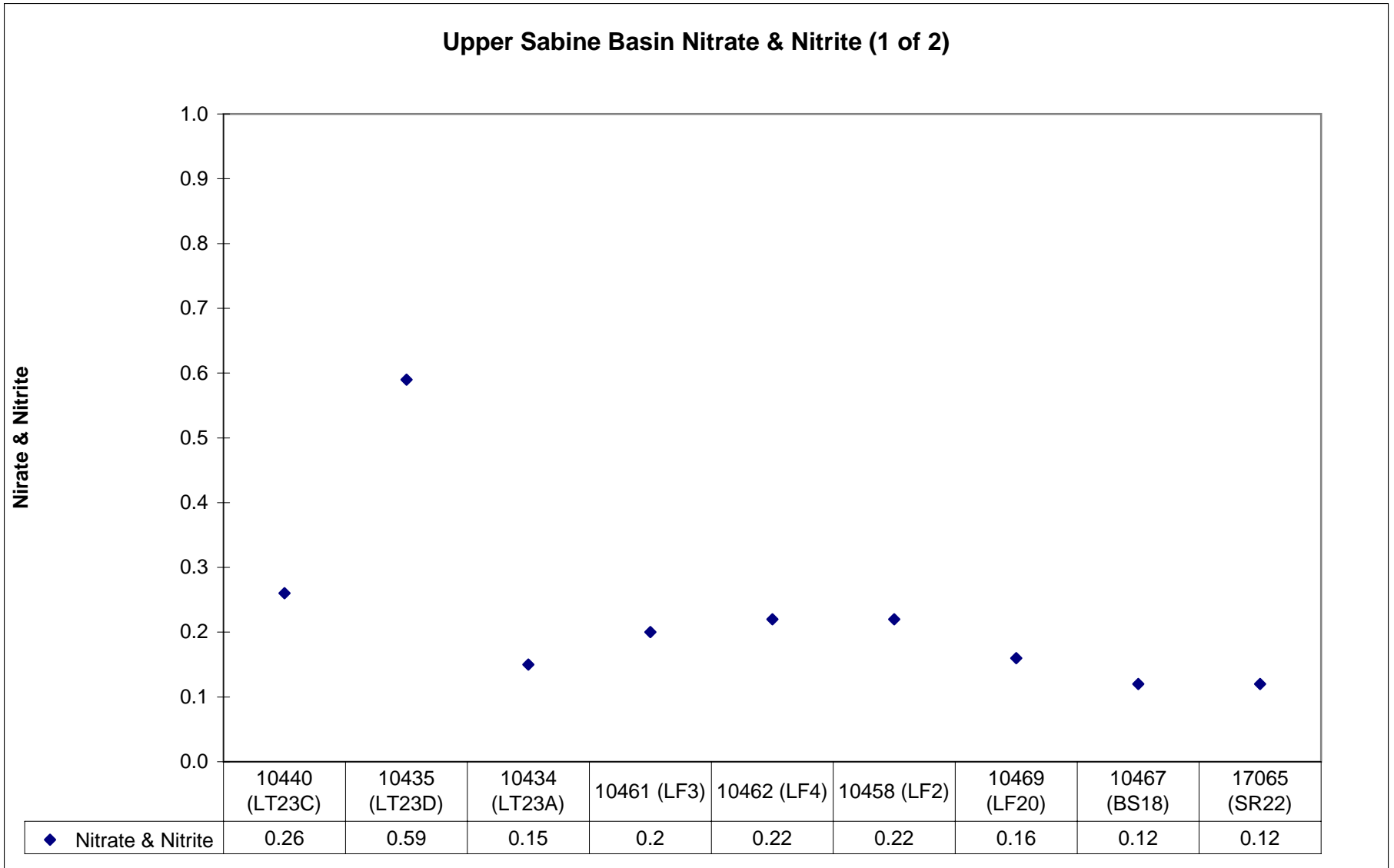
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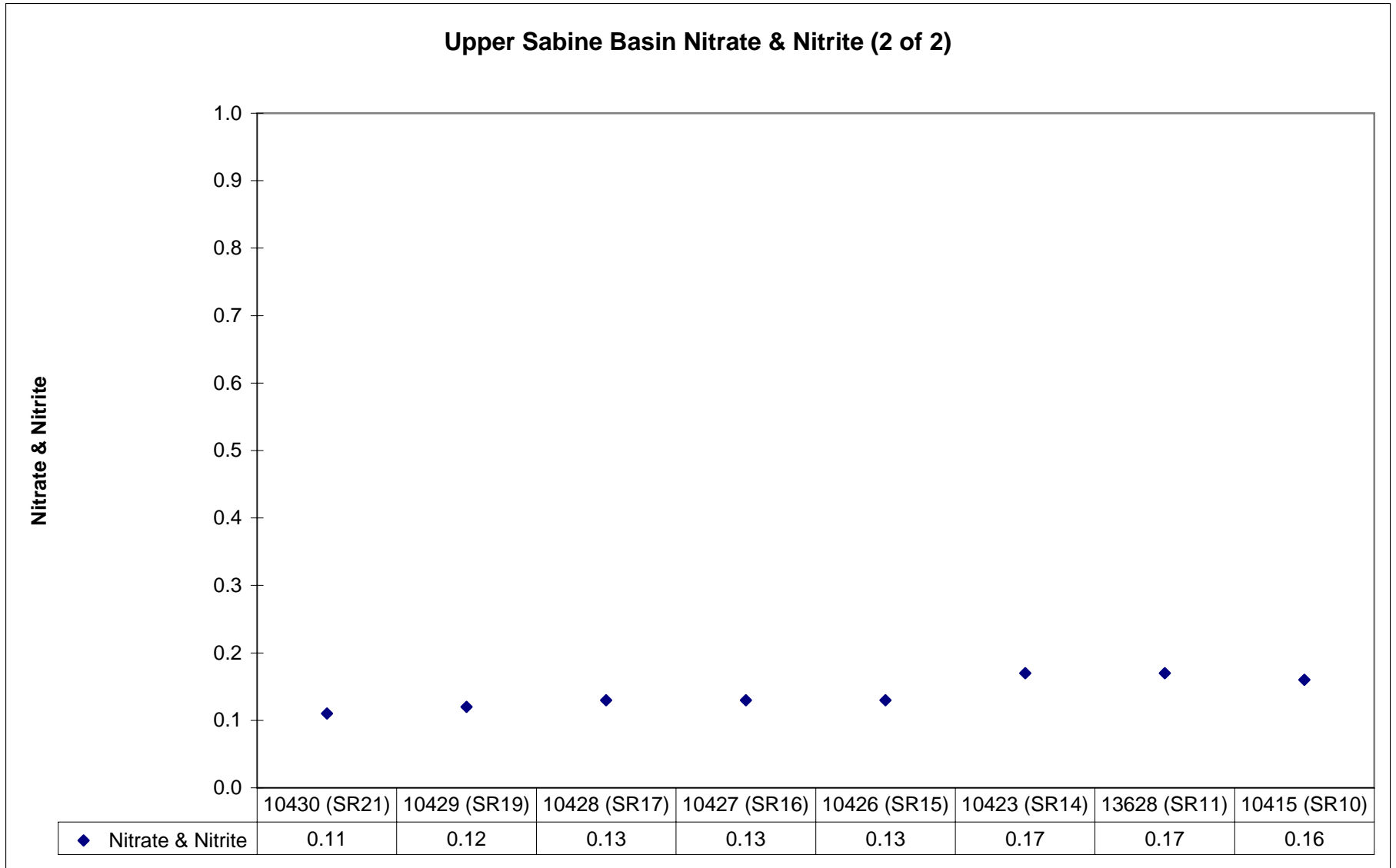
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February 2002



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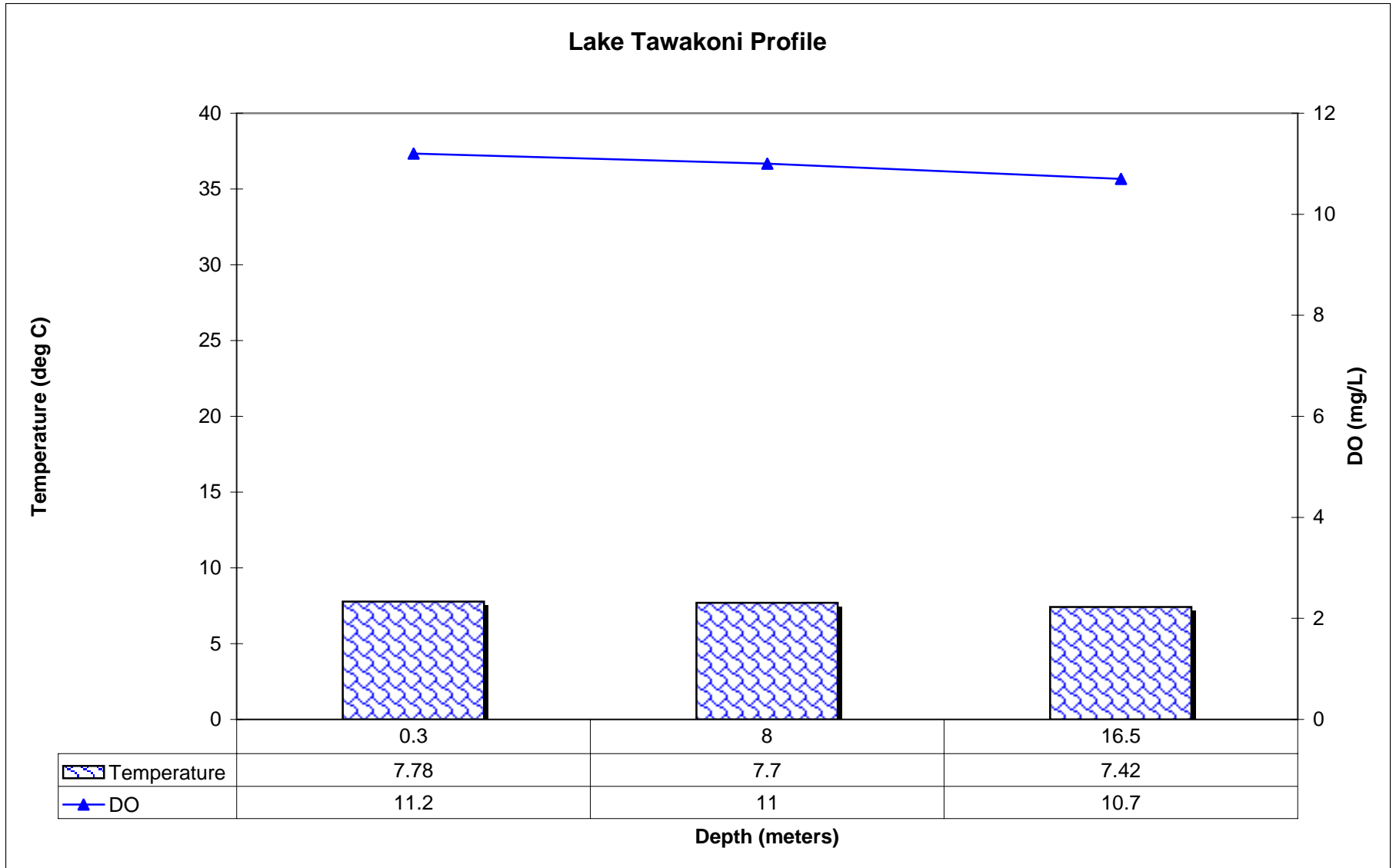
## Upper Basin Profiles

February 2002

Date	SW ID	Station	Depth Meters	Temperature	pH	DO	%	Conductivity
				°C	Units	mg/L	Saturation	µS/cm
				00010	00400	00300	00301	00094
2/12/02 11:05 AM	7.00	10440 (LT23C)	0.3	7.99	7.16	11.1	95	149
			4.1	7.66	7.05	11.1	94	148
2/12/02 10:24 AM	7.00	10435 (LT23D)	0.3	7.27	6.93	10.4	88	153
			3.1	7.24	6.91	10.5	88	153
			7.8	7.22	6.84	10.5	88	155
2/12/02 9:41 AM	7.00	10434 (LT23A)	0.3	7.78	7.24	11.2	95	160
			8	7.7	7.17	11	94	166
			16.5	7.42	7.02	10.7	90	172
2/12/02 8:45 AM	6.12	10461 (LF3)	0.3	8.19	6.66	10.8	92	124
			4.3	8.17	6.61	10.7	92	125
			9.8	7.83	6.42	10.5	90	118
2/12/02 9:02 AM	6.12	10462 (LF4)	0.3	8.27	6.62	10.6	91	117
			6.6	8.22	6.59	10.6	91	116
			11.3	7.93	6.46	10.2	87	111
2/12/02 8:18 AM	6.12	10458 (LF2)	0.3	8.17	7.11	10.9	94	124
			8	8.01	7.02	10.7	92	125
			19.4	7.83	6.96	10.7	90	125

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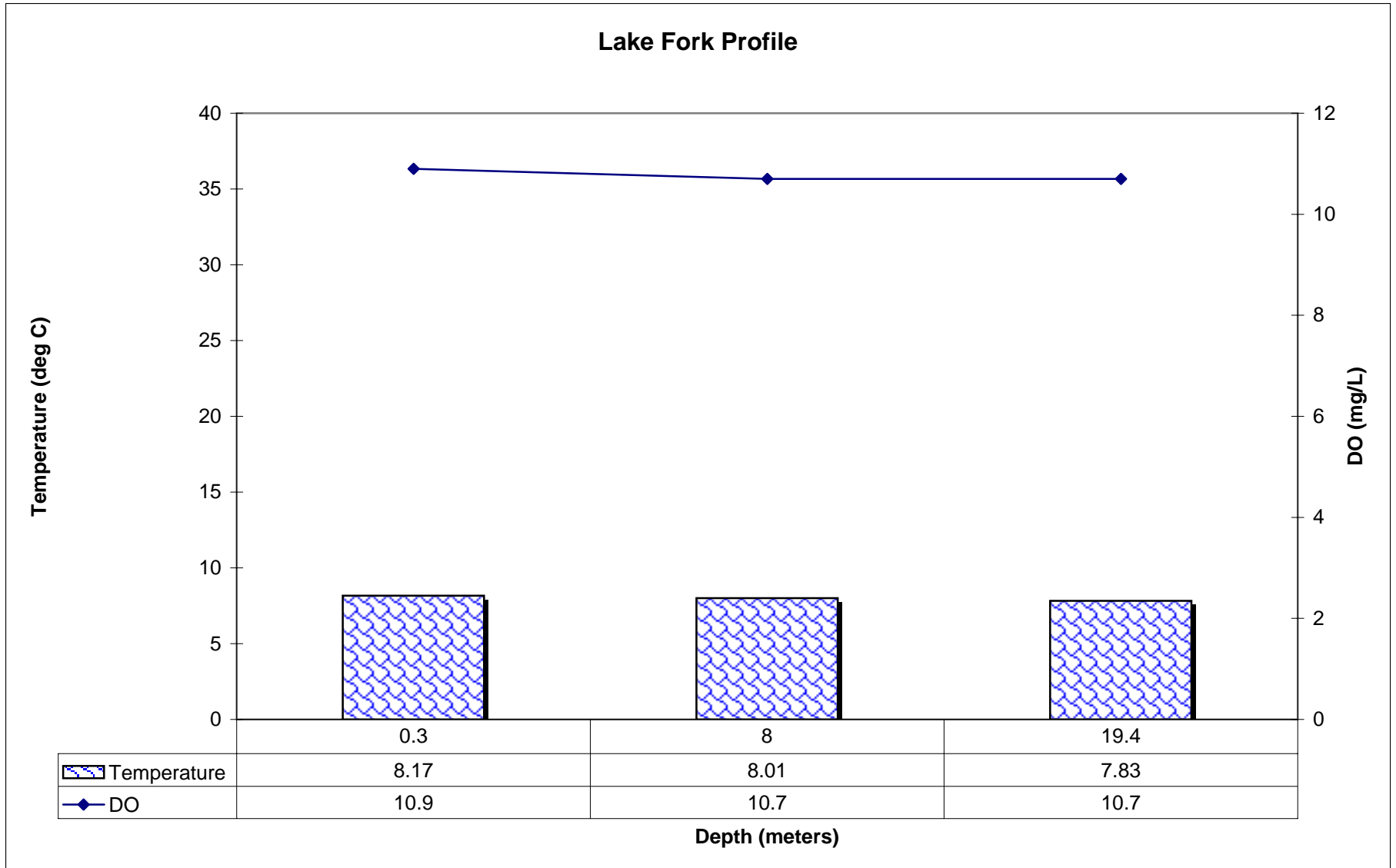
February 2002



For Station 10434 (LT23A): LAKE TAWAKONI IN THE MAIN LAKE NEAR THE DAM IN THE OLD RIVER CHANNEL

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February 2002



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## Lake Tawakoni Weather and Reservoir Data

February 2002

Date	Lake Elev	LE - TOP	Releases inst	Max Temp	Min Temp	Rainfall	Evap
02/01/2002	438.25	0.75	1,045	44	28	0.62	0.00
02/02/2002	438.62	1.12	1,710	46	26	0.00	0.00
02/03/2002	438.60	1.10	1,710	52	36	0.02	0.00
02/04/2002	438.53	1.03	1,475	53	40	0.00	0.04
02/05/2002	438.44	0.94	1,255	54	33	0.41	0.00
02/06/2002	438.57	1.07	1,715	34	29	0.63	0.00
02/07/2002	438.68	1.18	1,975	38	31	0.00	0.00
02/08/2002	438.71	1.21	1,975	43	26	0.00	0.00
02/09/2002	438.64	1.14	1,715	58	28	0.00	0.23
02/10/2002	438.65	1.15	1,715	62	38	0.00	0.21
02/11/2002	438.48	0.98	1,475	43	25	0.00	0.00
02/12/2002	438.37	0.87	1,255	52	27	0.00	0.00
02/13/2002	438.32	0.82	1,045	63	31	0.00	0.15
02/14/2002	438.23	0.73	845	56	31	0.00	0.16
02/15/2002	438.17	0.67	845	63	32	0.00	0.15
02/16/2002	438.11	0.61	845	58	32	0.00	0.12
02/17/2002	438.05	0.55	665	65	34	0.00	0.18
02/18/2002	437.99	0.49	505	70	37	0.00	0.19
02/19/2002	437.94	0.44	355	66	57	0.02	0.01
02/20/2002	437.97	0.47	505	70	46	0.61	0.16
02/21/2002	437.92	0.42	355	70	46	0.00	0.17
02/22/2002	437.90	0.40	355	61	36	0.00	0.12
02/23/2002	437.83	0.33	235	60	34	0.00	0.11
02/24/2002	437.79	0.29	235	70	45	0.00	0.24
02/25/2002	437.75	0.25	235	75	47	0.00	0.25
02/26/2002	437.84	0.34	235	58	22	0.00	0.00
02/27/2002	437.63	0.13	45	35	16	0.00	0.00
02/28/2002	437.57	0.07	45	44	18	0.00	0.00
<b>Avg or Tot</b>	438.20	0.70	942	56	33	2.31	2.49

	Avg	Avg	Avg	Avg	Avg	Tot	Tot
Units	Feet M.S.L.	Feet	cfs	Deg F	Deg F	Inches	Inches
			Instantaneous appx. 8 a.m.				

FZ: Frozen

NR: No Reading

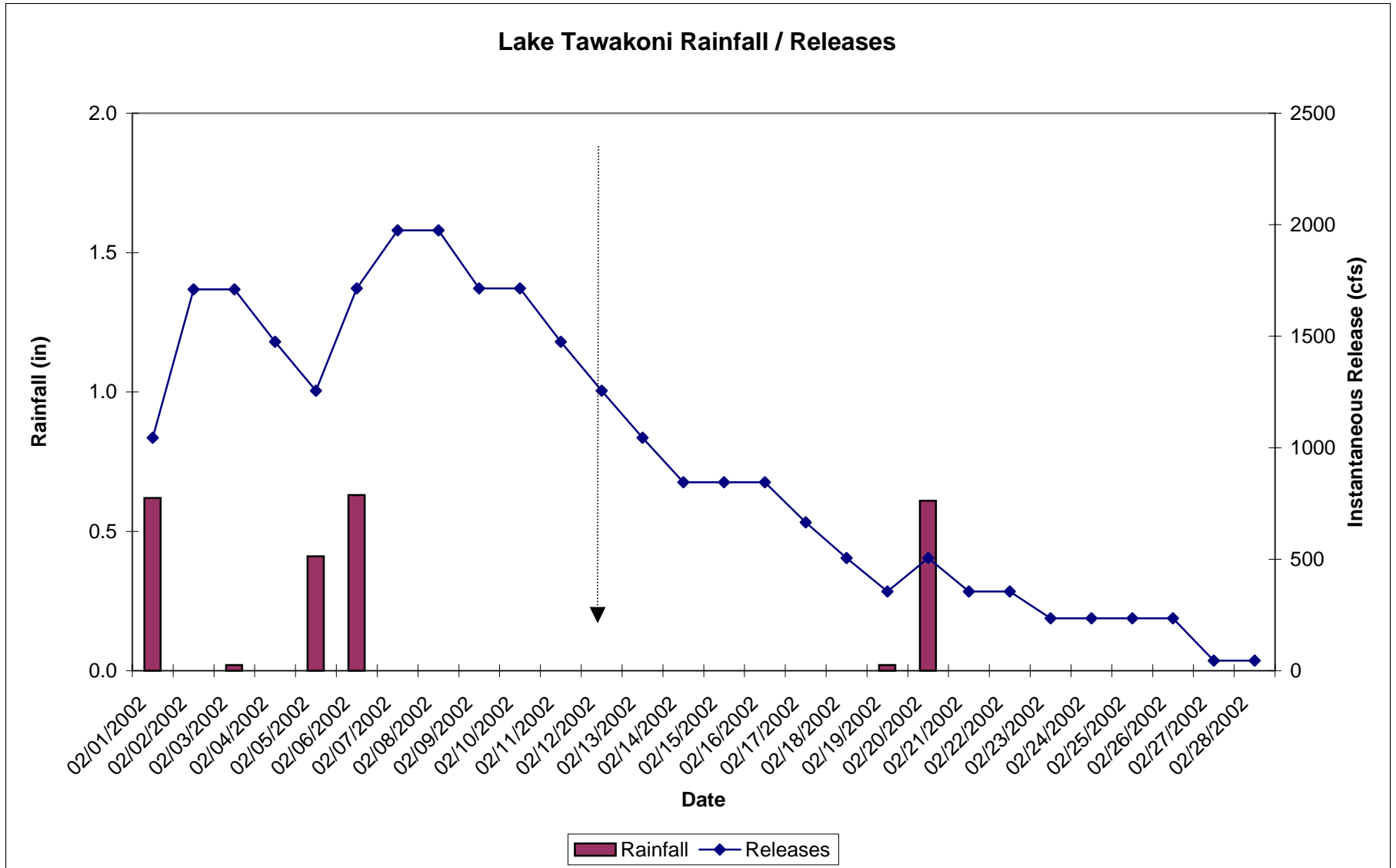
TOP: Top of Pool = 437.5 Feet M.S.L.

Lake Tawakoni Sampled on 2/12/2002



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February 2002



Please Note : Lake Tawakoni has an uncontrolled spillway.

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## Lake Fork Weather and Reservoir Data

February 2002

Date	Lake Elev	LE - TOP	Releases avg	Releases cur	Max Temp	Min Temp	Rainfall	Evap
2/1/2002	402.85	(0.15)	918	1373	50	31	0.57	0.15
2/2/2002	402.82	(0.18)	918	918	50	27	0.00	0.13
2/3/2002	402.75	(0.25)	918	918	56	27	0.01	0.08
2/4/2002	402.66	(0.34)	918	8	56	42	0.00	0.04
2/5/2002	402.69	(0.31)	8	8	57	33	0.33	0.09
2/6/2002	402.88	(0.12)	8	8	36	30	0.32	0.00
2/7/2002	403.01	0.01	8	1380	40	32	0.00	0.00
2/8/2002	403.02	0.02	1380	1380	42	26	0.00	0.00
2/9/2002	402.98	(0.02)	1380	1380	60	28	0.00	0.15
2/10/2002	402.96	(0.04)	1380	1380	64	40	0.00	0.14
2/11/2002	402.81	(0.19)	1380	1373	46	30	0.00	0.08
2/12/2002	402.69	(0.31)	1373	1369	54	30	0.00	0.10
2/13/2002	402.60	(0.40)	1369	8	66	31	0.00	0.13
2/14/2002	402.59	(0.41)	8	8	60	30	0.00	0.12
2/15/2002	402.59	(0.41)	8	8	63	30	0.00	0.18
2/16/2002	402.58	(0.42)	8	8	62	28	0.00	0.06
2/17/2002	402.58	(0.42)	8	8	65	31	0.00	0.13
2/18/2002	402.58	(0.42)	8	8	72	34	0.00	0.19
2/19/2002	402.60	(0.40)	8	8	69	46	0.00	0.13
2/20/2002	402.90	(0.10)	8	8	72	46	0.62	0.11
2/21/2002	402.91	(0.09)	8	8	72	44	0.00	0.18
2/22/2002	402.92	(0.08)	8	8	64	40	0.00	0.05
2/23/2002	402.92	(0.08)	8	8	64	32	0.00	0.15
2/24/2002	402.92	(0.08)	8	8	70	34	0.00	0.24
2/25/2002	402.92	(0.08)	8	8	74	46	0.00	0.23
2/26/2002	403.00	0.00	8	8	66	24	0.00	0.13
2/27/2002	402.89	(0.11)	8	8	40	20	0.00	0.14
2/28/2002	402.88	(0.12)	8	8	44	21	0.00	0.09
<b>Avg or Tot</b>	402.80	(0.20)	431	415	58	33	1.85	3.22

	Avg	Avg	Avg		Avg	Avg	Tot	Tot
Units	Feet M.S.L.	Feet	cfs	cfs	Deg F	Deg F	Inches	Inches
			Previous 24 hrs					

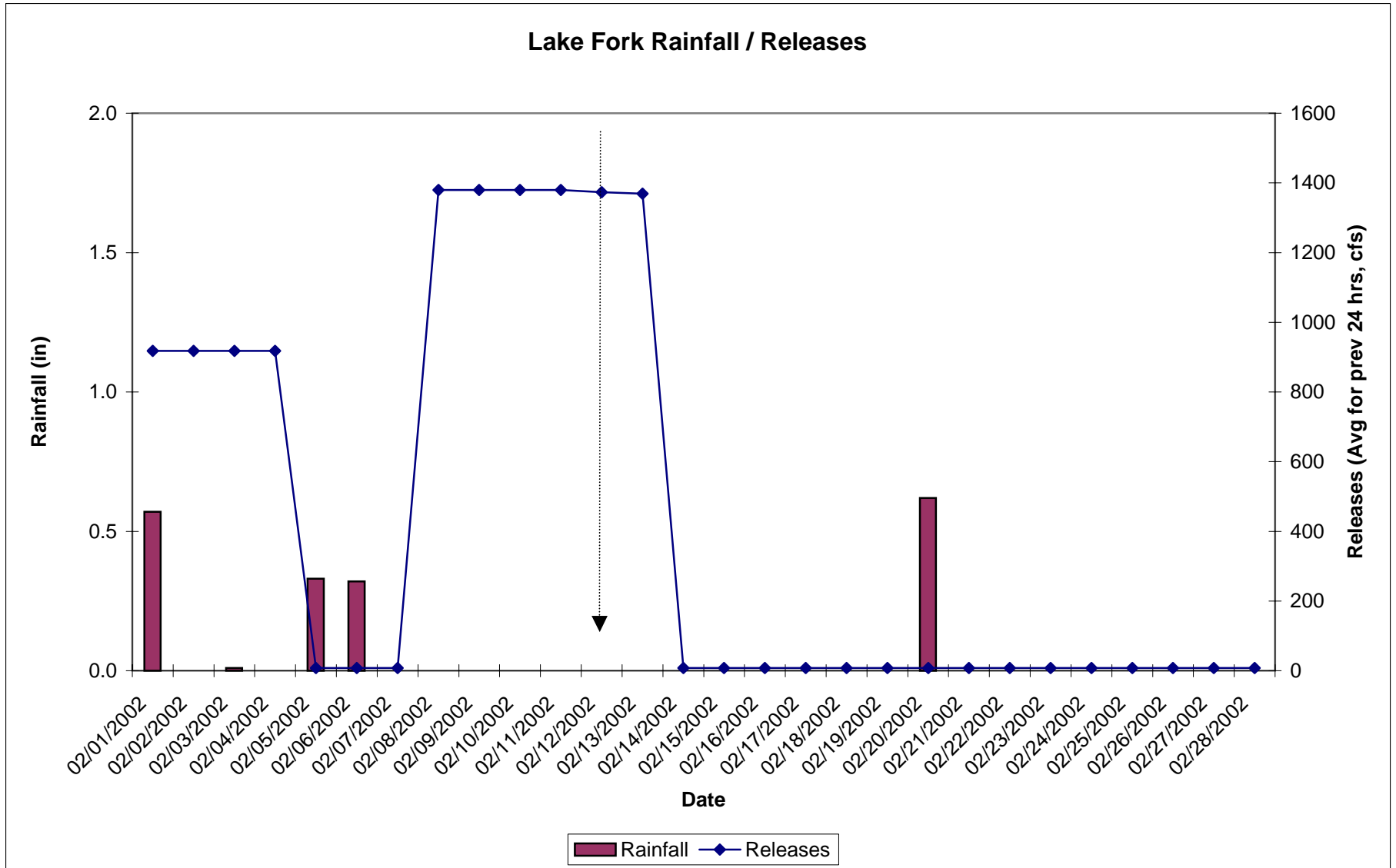
FZ: Frozen

TOP: Top of Pool = 403 Feet M.S.L.

Lake Fork Sampled on 2/12/2002

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February 2002



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# ***FY2002 Fixed Monitoring Stations***

## ***Lower Sabine Basin***

<i><b>SW</b></i>	<i><b>Segment</b></i>	<i><b>Station</b></i>	<i><b>Location</b></i>
4.10	0504	15658 (TB6N)	BAYOU SCIE AT LA SH 191
4.00	0504	10403 (TB8)	TOLEDO BEND RESERVOIR AT US 84
4.00	0504	15657 (TB6M)	TOLEDO BEND RESERVOIR SAN PATRICIA ARM AT LA SH191
4.00	0504	15656 (TB6L)	TOLEDO BEND RESERVOIR SAN MIGUEL ARM AT LA SH191
4.00	0504	15655 (TB6J)	TOLEDO BEND RESERVOIR PATROON BAYOU ARM AT SH 276
4.00	0504	15659 (TB6K)	TOLEDO BEND RESERVOIR LANANA ARM AT LA SH191
4.00	0504	10402 (TB6H)	TOLEDO BEND RESERVOIR AT SH 21
4.00	0504	10411 (TB6F)	TOLEDO BEND RESERVOIR IN SUNSHINE BAY AT FM 3121
4.00	0504	10407 (TB6CN)	TOLEDO BEND RESERVOIR IN SIX MILE BOAT LANE AT SH 87
4.00	0504	10404 (TB6A)	TOLEDO BEND RESERVOIR NEAR DAM IN RIVER CHANNEL
3.03	0503	10340 (BA4)	ANACOCO BAYOU AT LOUISIANA HWY 111
3.00	0503	10401 (TB6S)	SABINE RIVER BELOW TOLEDO BEND SPILLWAY
3.00	0503	10400 (TB6)	TAIL RACE CHANNEL AT FM 692 TB6
3.00	0503	10399 (SR5)	SABINE RIVER AT SH 63
3.00	0503	10398 (SR3)	SABINE RIVER AT US 190
2.00	0503	10397 (SR2)	SABINE RIVER AT SH 12

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## Lower Basin Report

February 2002

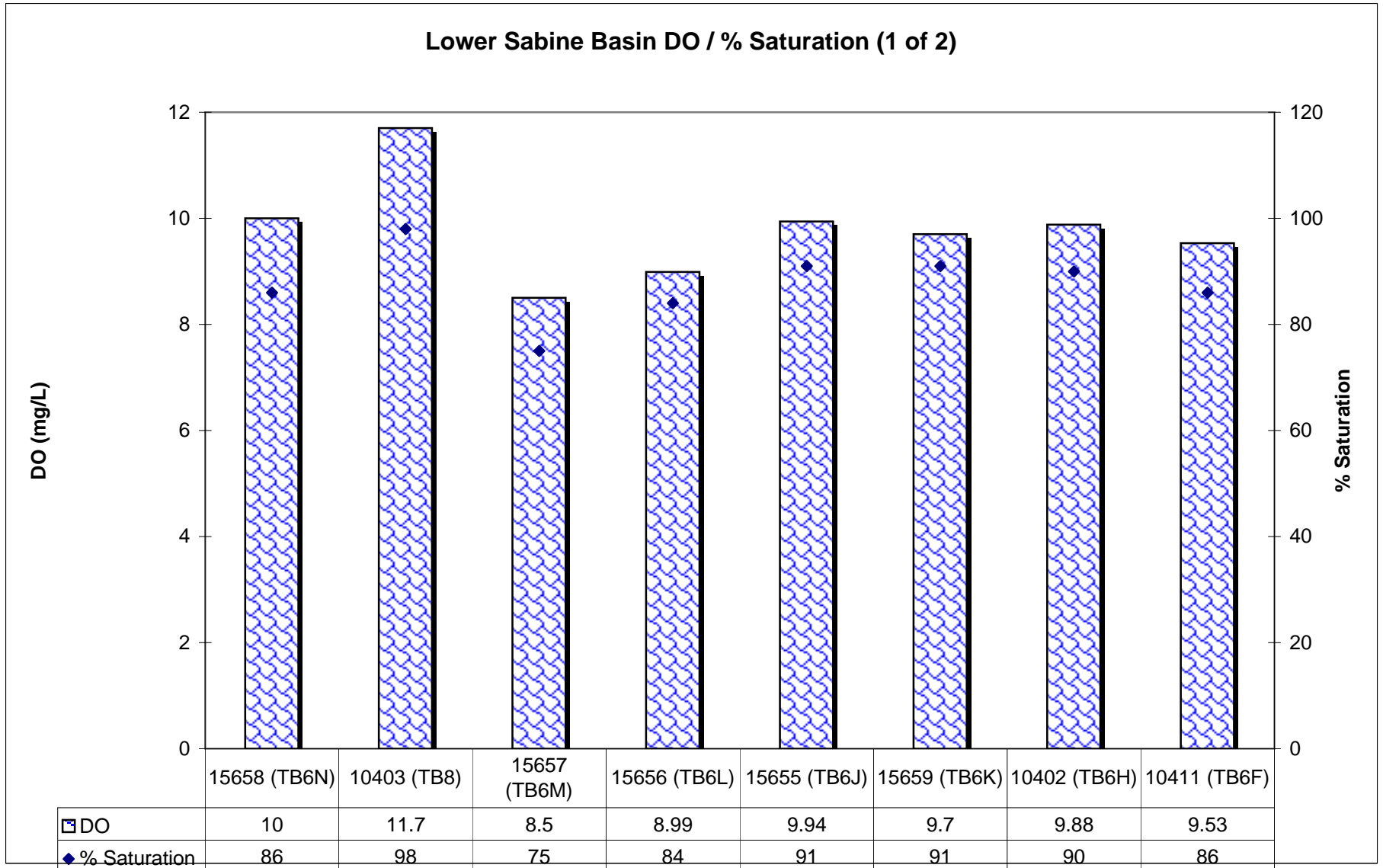
Date	SW ID	Station	Temperature °C 00010	pH Units 00400	DO mg/L 00300	% Saturation 00301	Conductivity µS/cm 00094	Salinity ppt 00480	Secchi Meters 00078	Turbidity NTU 82079	<i>E. coli</i> mpn/100ml 31699	Chlorophyll a µg/L 32211	Nitrate & Nitrite 00630	Ortho- Phosphate 00671	TOC mg/L 00680	Total Alkalinity 00410	Total Hardness 00900	Chloride mg/L 00940	Sulfate mg/L 00945
2/12/02 12:55 PM	4.10	15658 (TB6N)	8.88	7.04	10	86	160	*	0.41	26.1	129	*	0.05	< 0.04	6	*	*	13	24
2/13/02 11:08 AM	4.00	10403 (TB8)	7.84	6.69	11.7	98	195	*	0.3	47	299	*	0.15	< 0.04	6	*	*	22	23
2/12/02 1:20 PM	4.00	15657 (TB6M)	9.9	6.55	8.5	75	101	*	0.55	27	61	*	0.04	< 0.04	8	*	*	10	11
2/12/02 1:05 PM	4.00	15656 (TB6L)	11.4	6.32	8.99	84	91	*	0.37	31.4	70	*	0.07	< 0.04	8	*	*	< 10	11
2/12/02 10:40 AM	4.00	15655 (TB6J)	11.2	7.12	9.94	91	145	*	0.42	20	325	*	0.09	< 0.04	7	*	*	< 10	27
2/12/02 12:30 PM	4.00	15659 (TB6K)	12.3	7.03	9.7	91	121	*	0.63	19.1	29	*	0.14	< 0.04	8	*	*	< 10	16
2/12/02 11:25 AM	4.00	10402 (TB6H)	11.1	7.22	9.88	90	120	*	0.81	9.95	1	*	0.13	< 0.04	8	*	*	10	14
2/12/02 11:05 AM	4.00	10411 (TB6F)	10.6	7.02	9.53	86	85	*	0.39	34.4	397	*	0.18	< 0.04	5	*	*	< 10	10
2/12/02 10:00 AM	4.00	10407 (TB6CN)	10.4	6.71	9.64	86	97	*	0.56	15.8	45	*	0.08	< 0.04	9	*	*	< 10	14
2/13/02 10:40 AM	4.00	10404 (TB6A)	11.8	7.45	10.1	93	147	*	1.53	1.68	< 1	*	< 0.04	< 0.04	5	*	*	10	13
2/13/02 1:40 PM	3.03	10340 (BA4)	12.5	7.16	9.73	91	216	*	0.54	20.3	93	*	0.04	< 0.04	9	*	*	< 10	48
2/13/02 11:30 AM	3.00	10401 (TB6S)	11.1	7.49	11.5	104	138	*	*	2.04	< 1	*	< 0.04	< 0.04	6	*	*	11	13
2/13/02 11:40 AM	3.00	10400 (TB6)	11.2	7.39	9.93	90	140	*	*	2.94	< 1	*	0.12	< 0.04	6	*	*	10	13
2/13/02 1:10 PM	3.00	10399 (SR5)	11.7	7.51	10.2	95	138	*	*	2.4	4	*	0.11	< 0.04	6	*	*	10	13
2/13/02 2:10 PM	3.00	10398 (SR3)	11.8	7.43	10.5	97	138	*	0.96	5.28	11	*	0.17	< 0.04	6	*	*	10	14
2/13/02 8:40 AM	2.00	10397 (SR2)	11.5	7.14	9.58	88	129	*	0.74	11	129	*	0.1	< 0.04	6	*	*	< 10	13

\*: Not sampled on this run

# SABINE RIVER AUTHORITY OF TEXAS

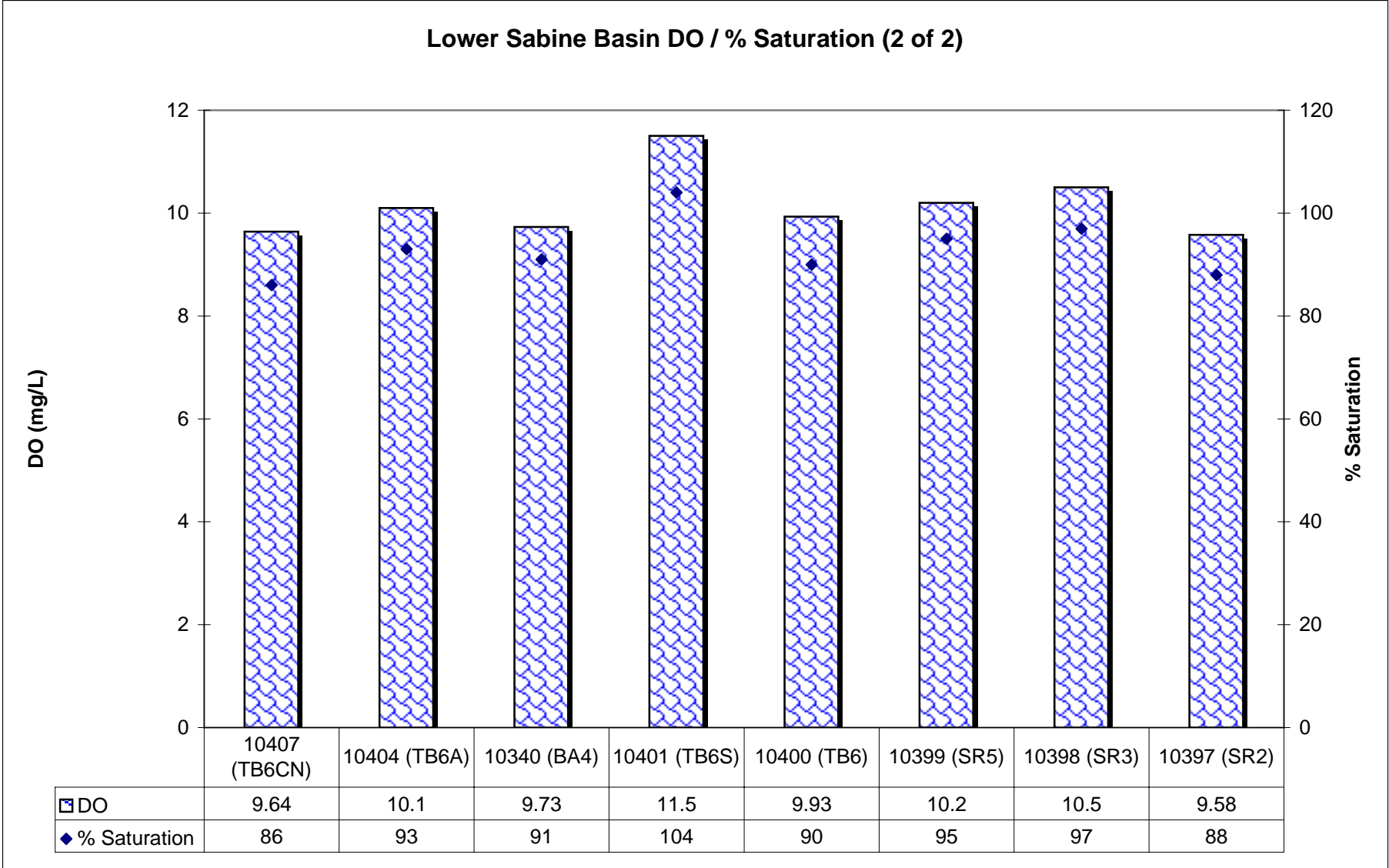
February 2002

## Lower Sabine Basin DO / % Saturation (1 of 2)



# SABINE RIVER AUTHORITY OF TEXAS

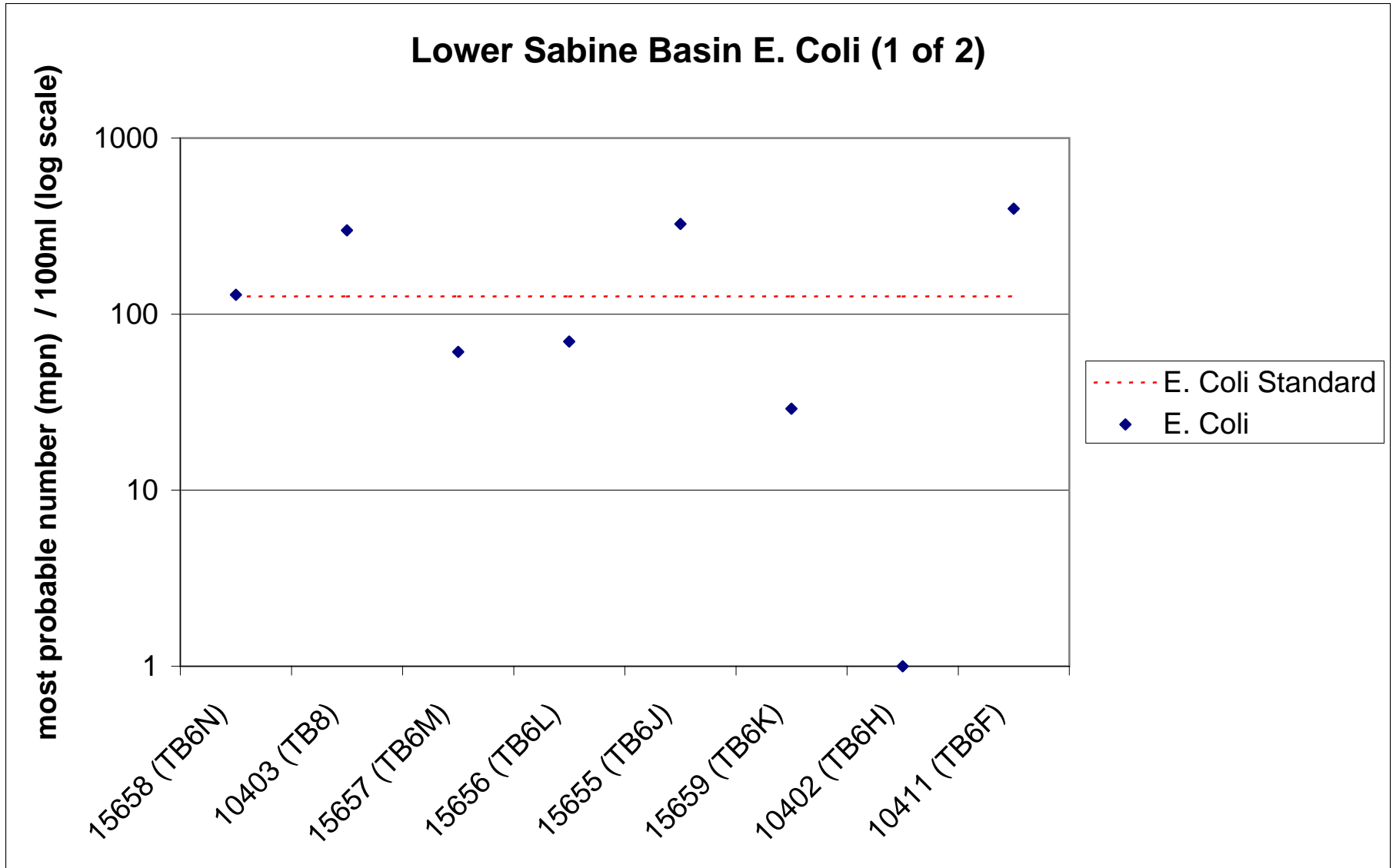
February 2002





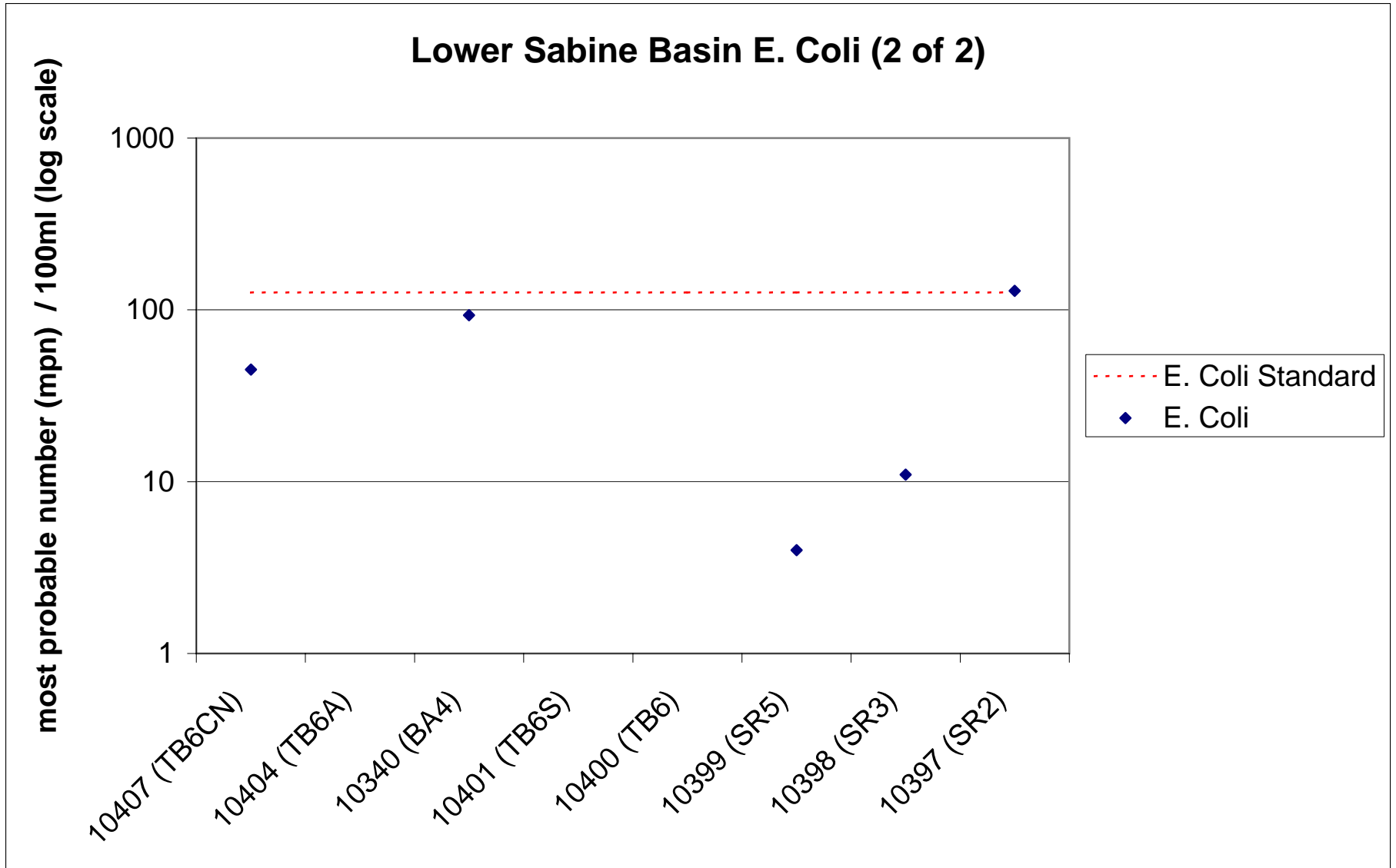
# SABINE RIVER AUTHORITY OF TEXAS

February 2002



# SABINE RIVER AUTHORITY OF TEXAS

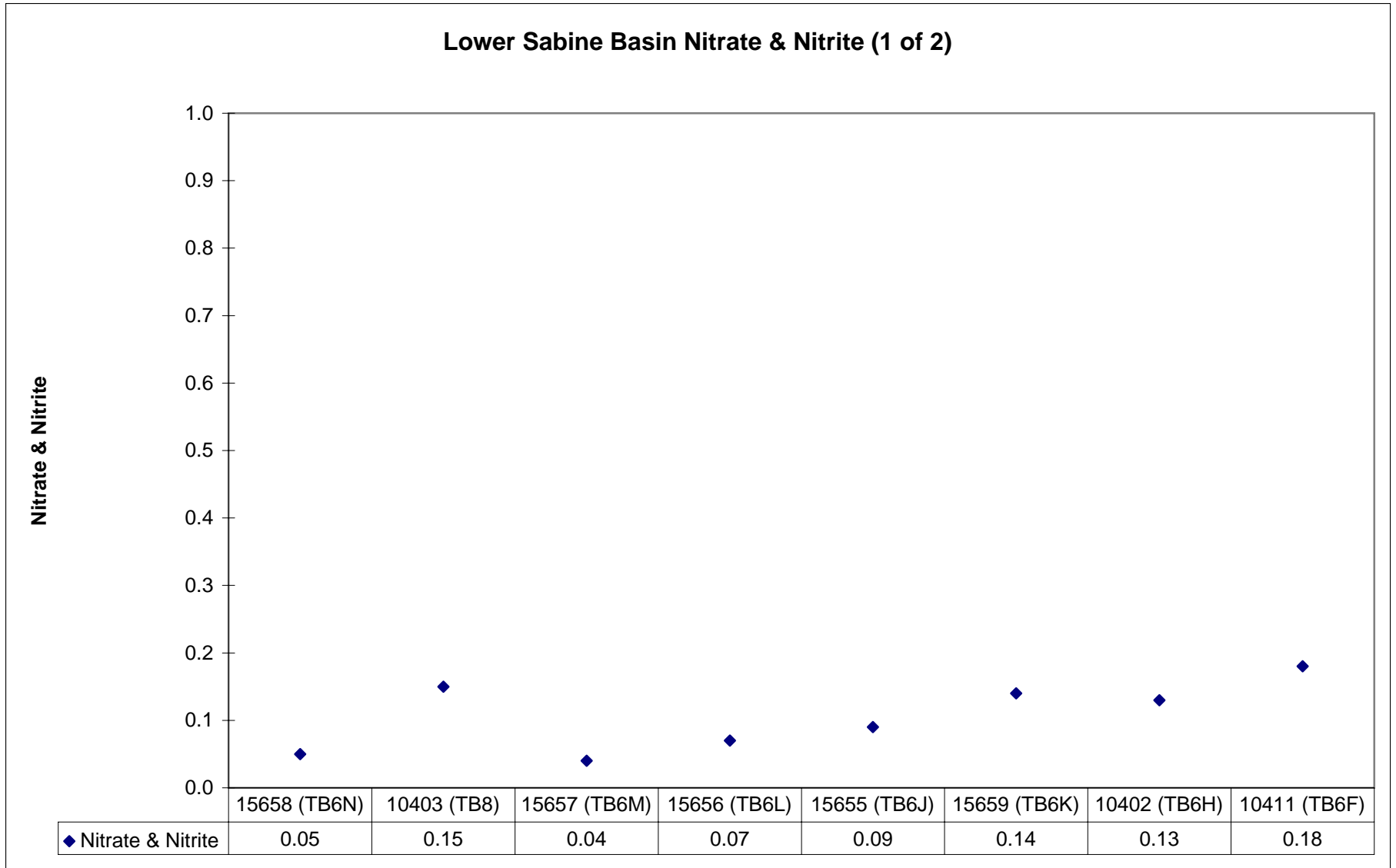
February 2002



Stations without values were below detection limit or not sampled on this run (see page 18).

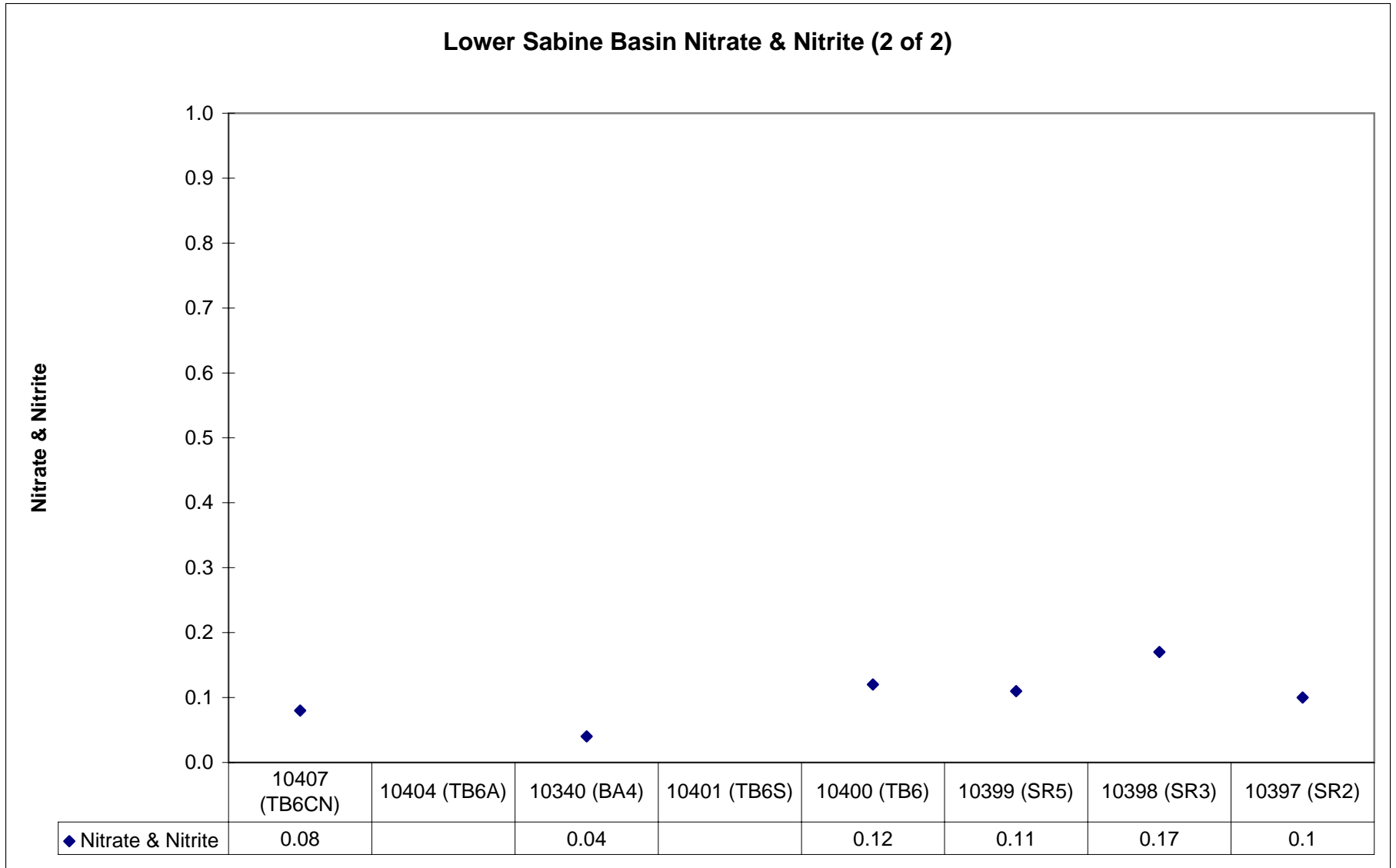
# SABINE RIVER AUTHORITY OF TEXAS

February 2002



# SABINE RIVER AUTHORITY OF TEXAS

February 2002



Stations without values were below detection limit or not sampled on this run (see page 18).

# SABINE RIVER AUTHORITY OF TEXAS

## Lower Basin Profiles

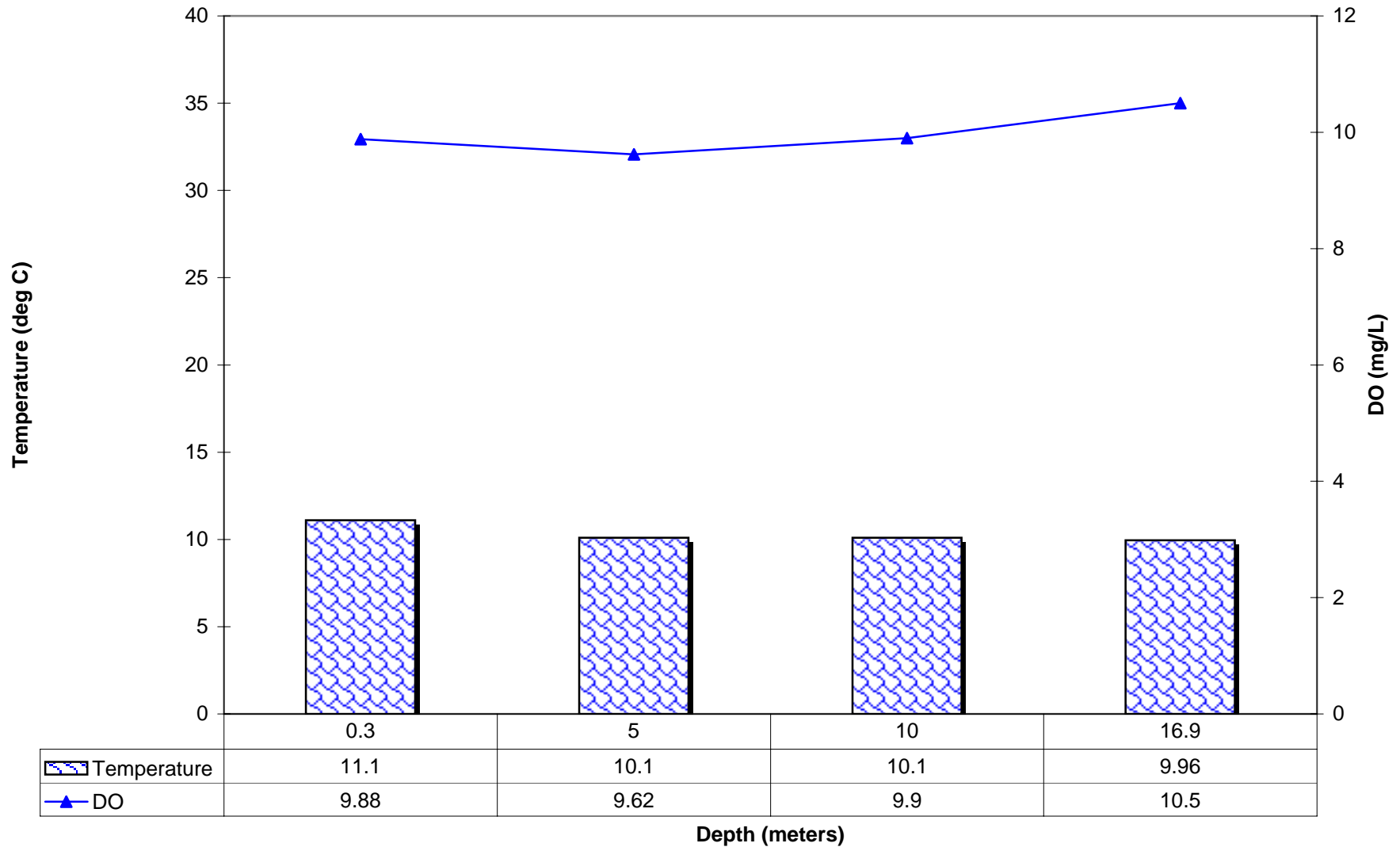
February 2002

Date	SW ID	Station	Depth Meters	Temperature	pH	DO	%	Conductivity
				°C 00010	Units 00400	mg/L 00300	Saturation 00301	µS/cm 00094
2/12/02 1:20 PM	4.00	15657 (TB6M)	0.3	9.9	6.55	8.5	75	101
			4	9.48	6.71	8.39	73	107
2/12/02 1:05 PM	4.00	15656 (TB6L)	0.3	11.4	6.32	8.99	84	91
			2.1	9.24	6.01	9.38	81	100
2/12/02 10:40 AM	4.00	15655 (TB6J)	0.3	11.2	7.12	9.94	91	145
			4.5	9.97	7.12	9.79	87	137
2/12/02 12:30 PM	4.00	15659 (TB6K)	0.3	12.3	7.03	9.7	91	121
			5	10.3	6.89	8.99	81	117
			9.7	10.1	6.88	8.75	78	119
2/12/02 11:25 AM	4.00	10402 (TB6H)	0.3	11.1	7.22	9.88	90	120
			5	10.1	7.12	9.62	85	121
			10	10.1	7.13	9.9	88	129
			16.9	9.96	7.19	10.5	93	119
2/12/02 11:05 AM	4.00	10411 (TB6F)	0.3	10.6	7.02	9.53	86	85
			5.1	9.76	7.13	9.78	86	79
2/12/02 10:00 AM	4.00	10407 (TB6CN)	0.3	10.4	6.71	9.64	86	97
			3	9.81	6.58	9.32	82	94
			6.7	9.83	6.5	9.14	81	88
2/13/02 10:40 AM	4.00	10404 (TB6A)	0.3	11.8	7.45	10.1	93	147
			10	10.8	7.36	9.63	87	138
			15	10.8	7.36	9.54	86	132
			21	10.7	7.36	9.6	87	141

# SABINE RIVER AUTHORITY OF TEXAS

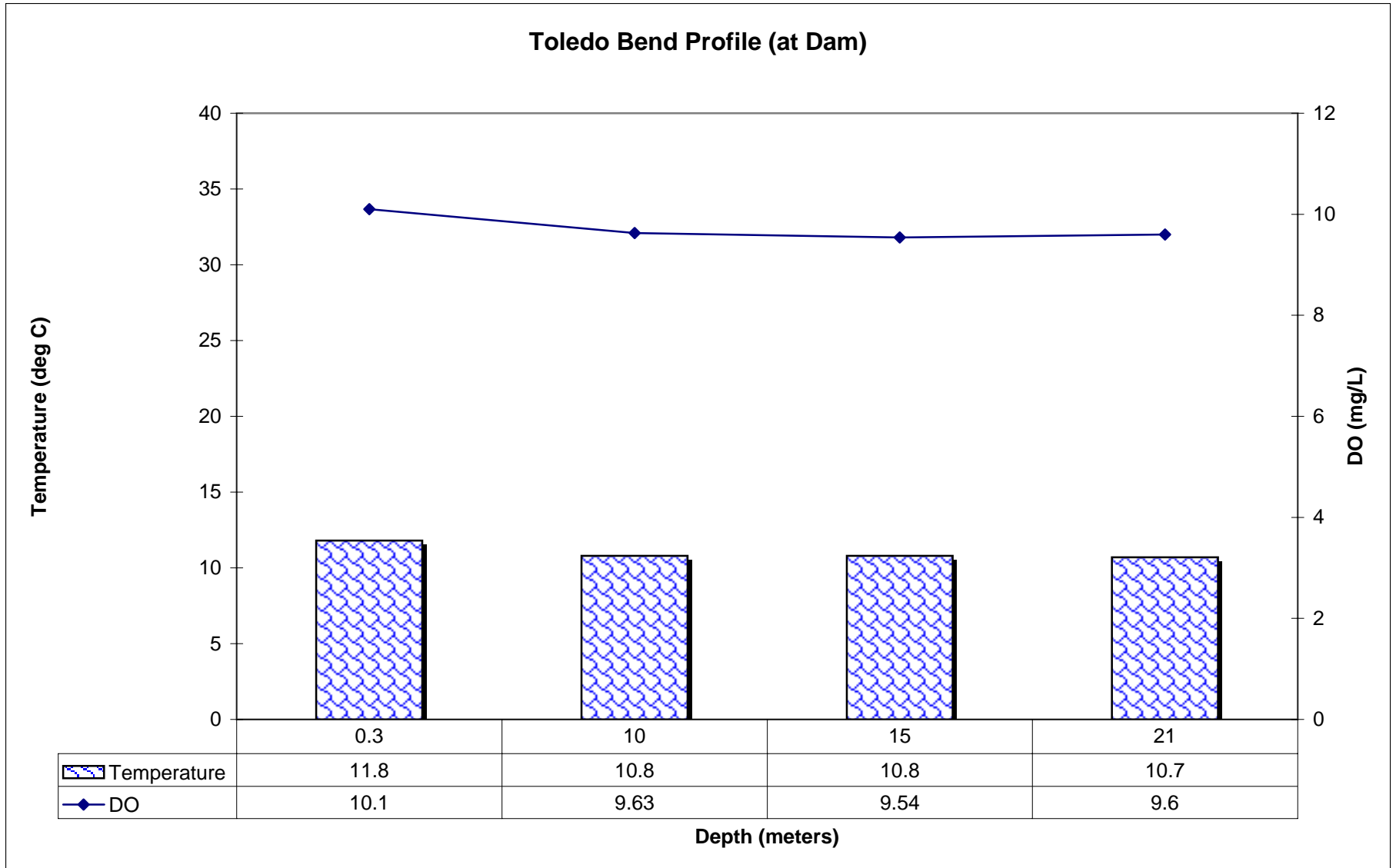
February 2002

## Toledo Bend Profile (at Pendleton Bridge)



# SABINE RIVER AUTHORITY OF TEXAS

February 2002



# SABINE RIVER AUTHORITY OF TEXAS

## Toledo Bend Weather and Reservoir Data

February 2002

Date	Lake Elev	LE - TOP	Max Temp	Min Temp	Rainfall	Evaporation	Daily Releases cfs	Daily Releases ac ft	Current Release
02/01/2002	170.35	(1.65)	78	36	0.07	0.01	7,394	14,666	7,344
02/02/2002	170.14	(1.86)	45	32	0.00	0.19	7,369	14,616	7,344
02/03/2002	170.10	(1.90)	54	33	0.00	0.11	7,369	14,616	7,344
02/04/2002	170.10	(1.90)	55	47	0.00	0.05	7,379	14,636	7,394
02/05/2002	170.03	(1.97)	58	38	0.10	0.09	7,369	14,616	7,369
02/06/2002	170.33	(1.67)	40	35	1.58	0.06	7,352	14,582	7,419
02/07/2002	170.43	(1.57)	42	37	0.00	0.18	11,526	22,861	7,244
02/08/2002	170.37	(1.63)	50	33	0.00	0.10	14,419	28,600	14,444
02/09/2002	170.25	(1.75)	60	33	0.00	0.10	14,369	28,500	14,394
02/10/2002	170.43	(1.57)	70	40	0.13	0.30	14,357	28,477	14,344
02/11/2002	170.41	(1.59)	51	39	0.00	0.14	14,386	28,534	14,369
02/12/2002	170.28	(1.72)	55	29	0.00	0.09	14,402	28,566	14,444
02/13/2002	170.24	(1.76)	58	29	0.00	0.12	14,369	28,500	14,344
02/14/2002	170.16	(1.84)	64	37	0.00	0.14	14,394	28,550	14,394
02/15/2002	170.09	(1.91)	64	35	0.00	0.16	14,419	28,600	14,394
02/16/2002	170.04	(1.96)	67	37	0.00	0.08	14,444	28,649	14,444
02/17/2002	169.93	(2.07)	59	30	0.00	0.16	14,444	28,649	14,444
02/18/2002	169.80	(2.20)	65	30	0.00	0.10	9,436	18,716	14,444
02/19/2002	169.74	(2.26)	70	30	0.00	0.16	7,326	14,531	7,344
02/20/2002	169.91	(2.09)	73	46	1.80	NR	7,344	14,567	7,319
02/21/2002	169.88	(2.12)	69	40	0.00	0.28	7,310	14,499	7,344
02/22/2002	170.05	(1.95)	71	40	0.18	0.11	7,286	14,452	7,269
02/23/2002	169.97	(2.03)	61	30	0.00	0.22	7,311	14,501	7,319
02/24/2002	169.92	(2.08)	70	31	0.00	0.13	7,307	14,493	7,294
02/25/2002	169.93	(2.07)	72	39	0.00	0.20	7,286	14,452	7,319
02/26/2002	170.39	(1.61)	73	36	0.00	0.19	7,269	14,418	7,244
02/27/2002	170.16	(1.84)	45	25	0.00	FZ	7,294	14,467	7,269
02/28/2002	169.95	(2.05)	46	22	0.00	FZ	7,274	14,428	7,319
<b>Avg or Tot</b>	170.12	(1.88)	60	35	3.86	3.47	10,079	559,742	

Units	Avg Feet M.S.L.	Avg Feet	Avg Deg. F	Avg Deg. F	Tot Inches	Tot Inches	Avg cfs	Tot Ac. Ft.	cfs approx. 8:00 a.m.
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FZ: Frozen

NR: No Reading

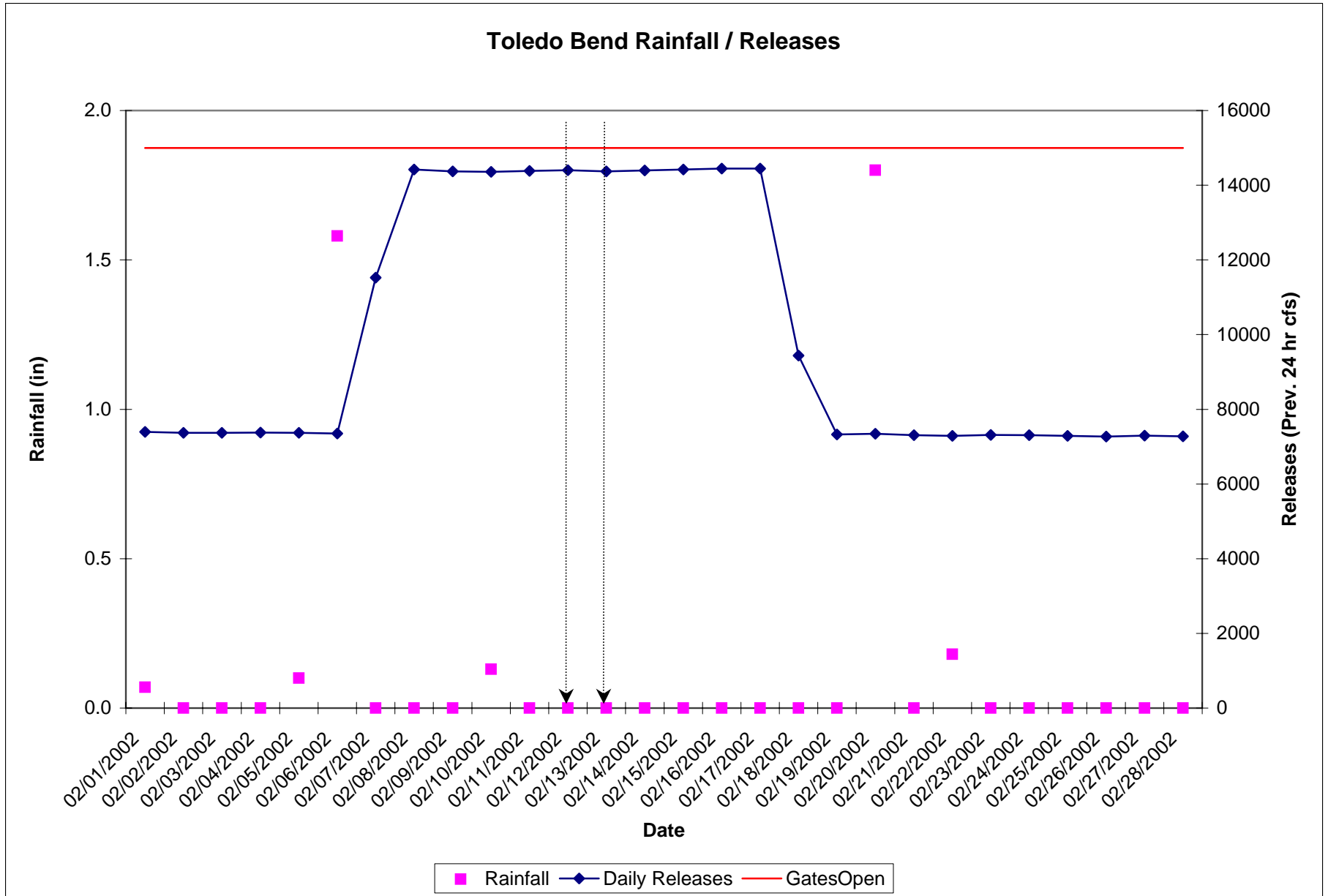
TOP: Top of Pool = 172 Feet M.S.L.

Toledo Bend Sampled on 2/12/2002 and 2/13/2002



# SABINE RIVER AUTHORITY OF TEXAS

February 2002



Toledo Bend sampled on 2/12/2002 and 2/13/2002

Flood gates open when flow greater than approximately 15,000 cfs

# SABINE RIVER AUTHORITY OF TEXAS

## Burkeville Weather and River Data

February 2002

<b>Date</b>	<i>Rainfall</i>	<i>Gauge Height</i>	<i>GH - FS</i>	<i>Flow</i>
02/01/2002	0.00	20.97	(17.03)	6,288
02/02/2002	0.00	21.00	(17.00)	6,322
02/03/2002	0.00	20.99	(17.01)	6,311
02/04/2002	0.00	20.97	(17.03)	6,288
02/05/2002	0.00	20.97	(17.03)	6,288
02/06/2002	OUT	OUT	OUT	OUT
02/07/2002	0.00	22.52	(15.48)	8,133
02/08/2002	0.00	25.75	(12.25)	12,625
02/09/2002	0.00	25.37	(12.63)	12,055
02/10/2002	0.05	25.24	(12.76)	11,860
02/11/2002	0.00	25.20	(12.80)	11,800
02/12/2002	0.00	25.14	(12.86)	11,710
02/13/2002	0.00	25.08	(12.92)	11,622
02/14/2002	0.00	25.09	(12.91)	11,636
02/15/2002	0.00	25.07	(12.93)	11,608
02/16/2002	0.00	25.06	(12.94)	11,594
02/17/2002	0.00	25.02	(12.98)	11,538
02/18/2002	0.00	25.02	(12.98)	11,538
02/19/2002	0.01	21.30	(16.70)	6,664
02/20/2002	1.11	21.97	(16.03)	7,455
02/21/2002	0.00	21.79	(16.21)	7,239
02/22/2002	0.23	21.33	(16.67)	6,699
02/23/2002	0.00	21.13	(16.87)	6,469
02/24/2002	0.01	21.03	(16.97)	6,356
02/25/2002	0.00	21.02	(16.98)	6,344
02/26/2002	0.00	20.95	(17.05)	6,266
02/27/2002	0.00	20.90	(17.10)	6,210
02/28/2002	0.00	20.92	(17.08)	6,232
<b>Avg or Tot</b>	1.41	22.84	(15.16)	8,709

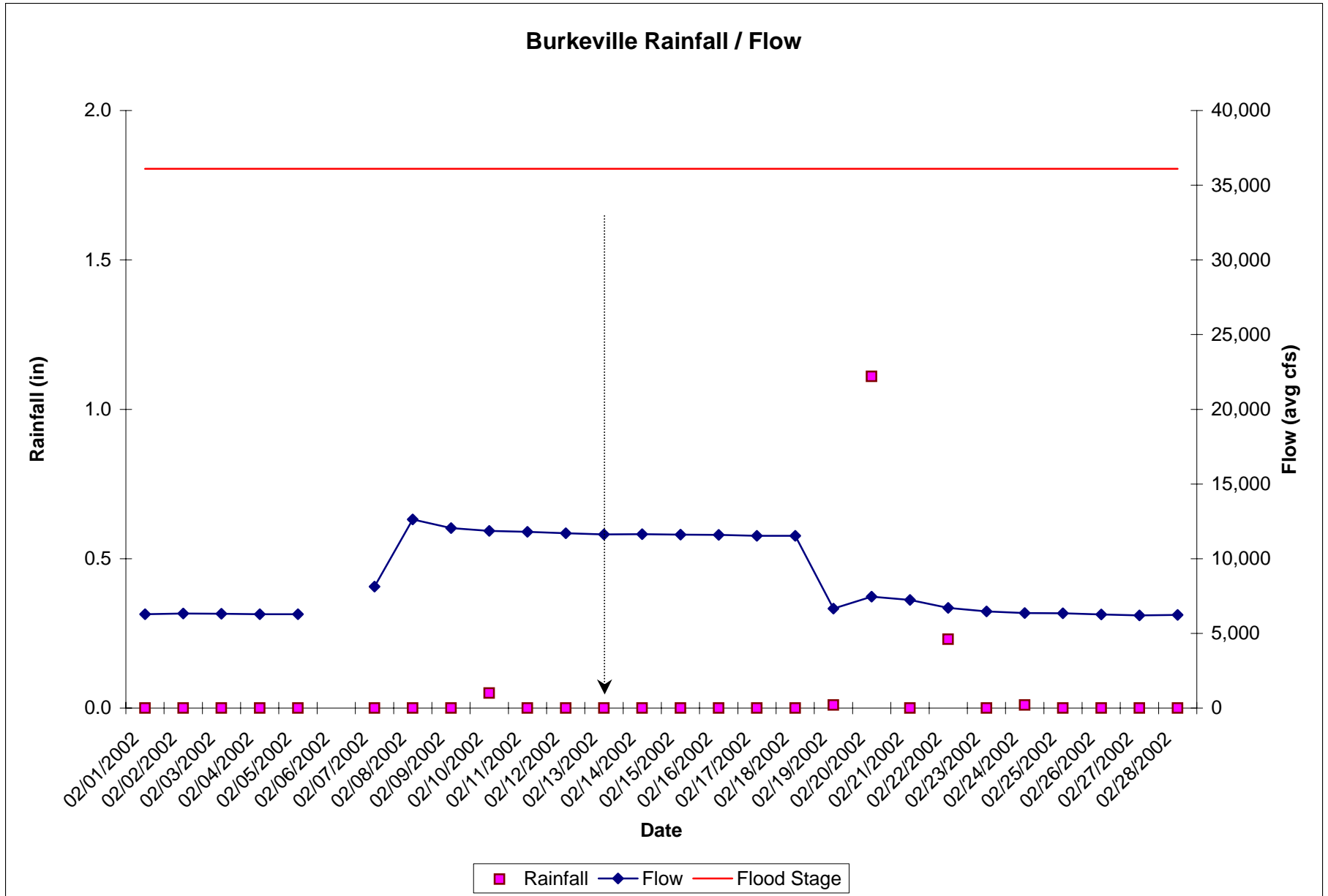
Units	Tot Inches	Avg Feet	Avg Feet	Avg cfs
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FS: Flood Stage = 41 feet  
 TH: Gage height too high to calculate flow  
 NR: No Reading  
 OUT: Gage Out

Lower Sabine Basin Sampled on 2/13/2002

# SABINE RIVER AUTHORITY OF TEXAS

February 2002



Flood stage flow of 36,100 cfs calculated from flood stage gage height, 38 ft msl.

# SABINE RIVER AUTHORITY OF TEXAS

## Bon Wier Weather and River Data

February 2002

<b>Date</b>	<i>Gauge Height</i>	<i>GH - FS</i>	<i>Flow Avg</i>	<i>308 Rainfall</i>
02/01/2002	21.10	(8.90)	8,036	0.06
02/02/2002	21.02	(8.98)	7,931	0.00
02/03/2002	21.01	(8.99)	7,918	0.00
02/04/2002	20.96	(9.04)	7,856	0.00
02/05/2002	20.90	(9.10)	7,774	0.02
02/06/2002	21.19	(8.81)	8,155	0.90
02/07/2002	23.12	(6.88)	10,900	0.00
02/08/2002	24.21	(5.79)	12,606	0.00
02/09/2002	25.75	(4.25)	15,205	0.00
02/10/2002	25.44	(4.56)	14,662	0.05
02/11/2002	25.23	(4.77)	14,301	0.00
02/12/2002	25.06	(4.94)	14,012	0.00
02/13/2002	24.98	(5.02)	13,876	0.00
02/14/2002	24.89	(5.11)	13,724	0.00
02/15/2002	24.81	(5.19)	13,596	0.00
02/16/2002	24.76	(5.24)	13,512	0.00
02/17/2002	24.69	(5.31)	13,393	0.00
02/18/2002	24.68	(5.32)	13,376	0.00
02/19/2002	23.48	(6.52)	11,450	0.00
02/20/2002	21.88	(8.12)	9,095	0.59
02/21/2002	23.47	(6.53)	11,435	0.00
02/22/2002	23.07	(6.93)	10,825	0.45
02/23/2002	22.66	(7.34)	10,210	0.00
02/24/2002	22.00	(8.00)	9,263	0.00
02/25/2002	21.58	(8.42)	8,681	0.00
02/26/2002	21.32	(8.68)	8,329	0.00
02/27/2002	21.10	(8.90)	8,036	0.00
02/28/2002	20.99	(9.01)	7,892	0.00
<b>Avg or Tot</b>	23.05	(6.95)	10,930	2.07

Units	Avg Feet	Avg Feet	Avg	Tot Inches
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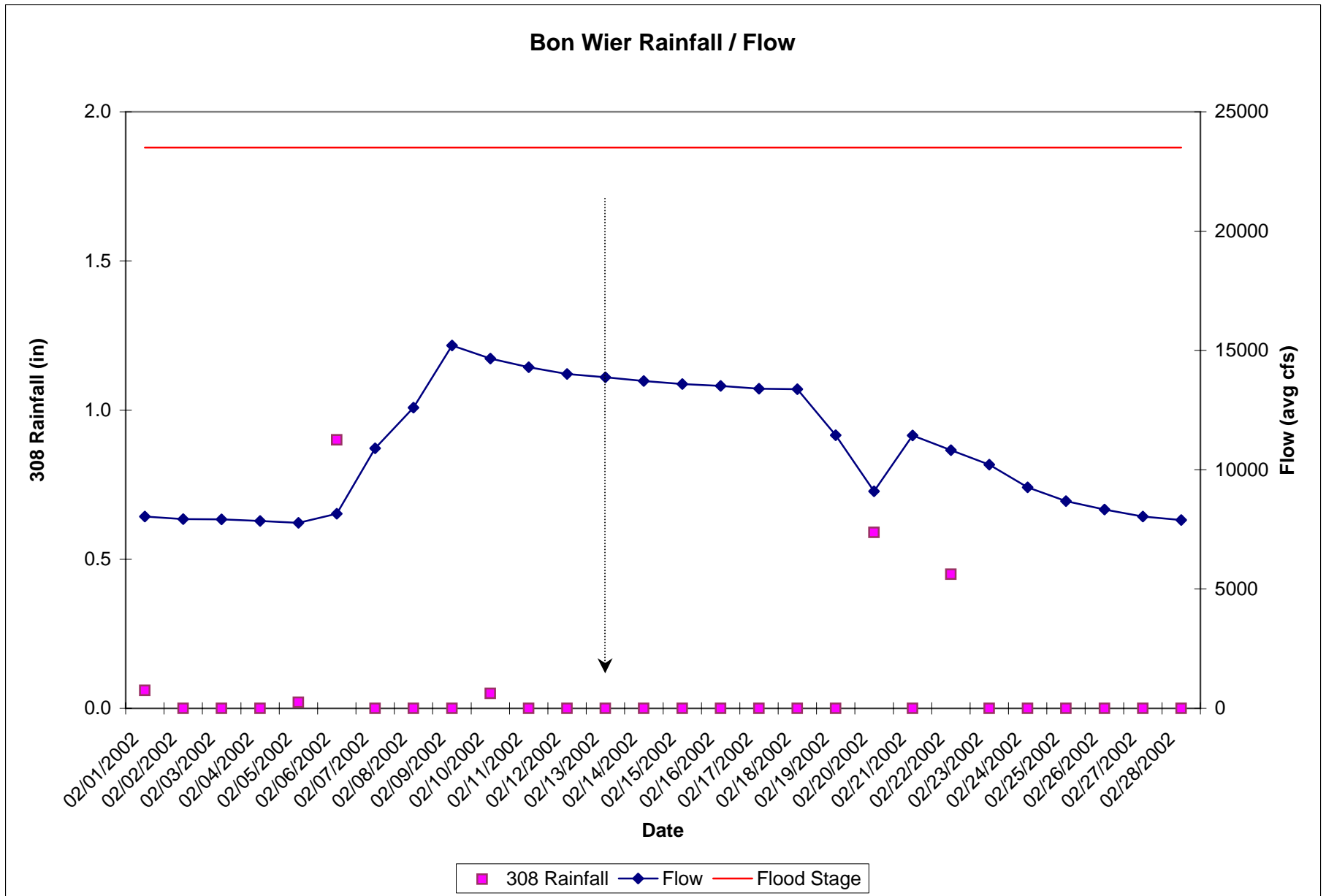
FS: Flood Stage = 30 feet

OUT: Gauge Out

Lower Sabine Basin Sampled on 2/13/2002

# SABINE RIVER AUTHORITY OF TEXAS

February 2002



Lower Sabine Basin sampled on 2/13/2002

Flood stage flow of 23,500 cfs calculated from flood stage gage height, 30 ft msl.

# SABINE RIVER AUTHORITY OF TEXAS

## Ruliff Weather and River Data

February 2002

<b>Date</b>	<i>Gauge Height</i>	<i>GH - FS</i>	<i>Flow cfs</i>	<i>Flow acft</i>	<i>Flow avg</i>	<i>309 Rainfall</i>
02/01/2002	22.96	(1.04)	10,406	20,640	10,406	0.12
02/02/2002	22.86	(1.14)	10,051	19,936	10,229	0.00
02/03/2002	22.80	(1.20)	9,842	19,521	10,100	0.00
02/04/2002	22.76	(1.24)	9,706	19,252	10,001	0.00
02/05/2002	22.71	(1.29)	9,536	18,914	9,908	0.01
02/06/2002	22.77	(1.23)	9,740	19,319	9,880	0.83
02/07/2002	22.83	(1.17)	9,946	19,728	9,890	0.02
02/08/2002	22.91	(1.09)	10,226	20,283	9,932	0.00
02/09/2002	23.12	(0.88)	11,176	22,167	10,070	0.00
02/10/2002	23.31	(0.69)	12,207	24,212	10,284	0.12
02/11/2002	23.49	(0.51)	13,242	26,265	10,553	0.00
02/12/2002	23.61	(0.39)	14,206	28,177	10,857	0.00
<b>02/13/2002</b>	<b>23.68</b>	<b>(0.32)</b>	<b>14,808</b>	<b>29,371</b>	<b>11,161</b>	<b>0.00</b>
02/14/2002	23.69	(0.31)	14,894	29,542	11,428	0.00
02/15/2002	23.68	(0.32)	14,808	29,371	11,653	0.00
02/16/2002	23.64	(0.36)	14,464	28,689	11,828	0.00
02/17/2002	23.61	(0.39)	14,206	28,177	11,968	0.00
02/18/2002	23.63	(0.37)	14,308	28,379	12,098	0.00
02/19/2002	23.63	(0.37)	14,308	28,379	12,215	0.00
02/20/2002	23.68	(0.32)	14,808	29,371	12,344	1.20
02/21/2002	23.63	(0.37)	14,308	28,379	12,438	0.00
02/22/2002	23.55	(0.45)	13,710	27,193	12,496	0.45
02/23/2002	23.52	(0.48)	13,464	26,705	12,538	0.00
02/24/2002	23.51	(0.49)	13,382	26,543	12,573	0.00
02/25/2002	23.49	(0.51)	13,242	26,265	12,600	0.00
02/26/2002	23.41	(0.59)	12,778	25,345	12,607	0.00
02/27/2002	23.25	(0.75)	11,875	23,554	12,580	0.00
02/28/2002	23.12	(0.88)	11,176	22,167	12,529	0.00
<b>Avg or Tot</b>	<b>23.32</b>	<b>(0.68)</b>	<b>12,529</b>	<b>695,844</b>		<b>2.75</b>

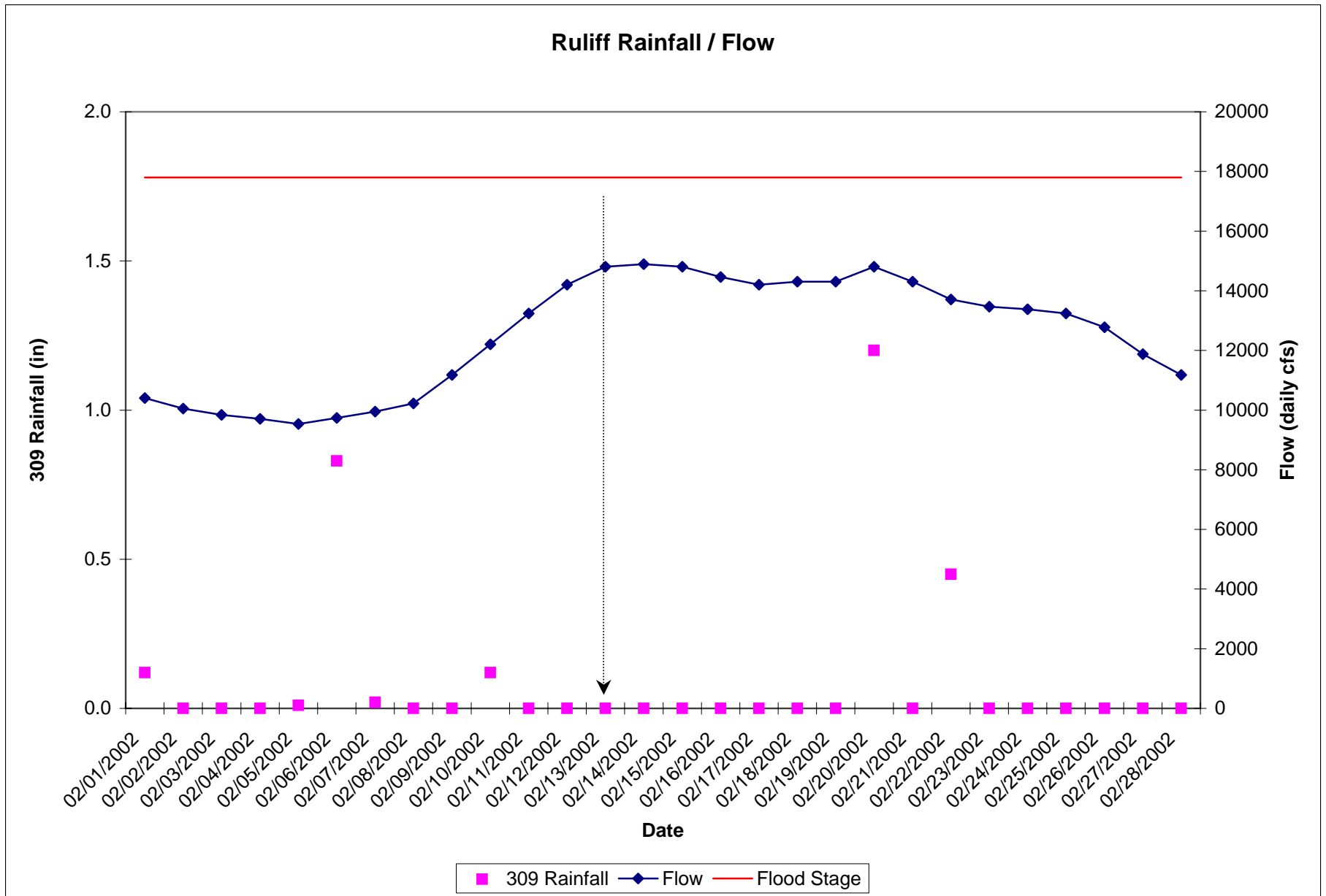
Units	Avg Feet	Avg Feet	Avg cfs	Tot ac ft	Tot Inches
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FS: Flood Stage 24 feet with 10 foot datum

Lower Sabine Basin Sampled on 2/13/2002

# SABINE RIVER AUTHORITY OF TEXAS

February 2002



Lower Sabine Basin sampled on 2/13/2002

Flood stage flow of 17,800 cfs calculated from flood stage gage height, 24 ft msl.

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# ***FY2002 Fixed Monitoring Stations***

## ***Tidal Sabine Basin***

<i><b>SW</b></i>	<i><b>Segment</b></i>	<i><b>Station</b></i>	<i><b>Location</b></i>
1.05	0501	15653 (ICW1)	INTERCOASTAL WATERWAY AT PERRY RIDGE
1.01	0501	15654 (BB1)	BLACK BAYOU IN CAMERON PARISH
1.00	0501	10395 (SR1)	SABINE RIVER 12.00 KM UPSTREAM OF IH 10
1.00	0501	10394 (SRT2)	SABINE RIVER AT IH 10
1.00	0501	10391 (SRT1)	SABINE RIVER AT CHANNEL CAN 3

# SABINE RIVER AUTHORITY OF TEXAS

## Tidal Report

February 2002

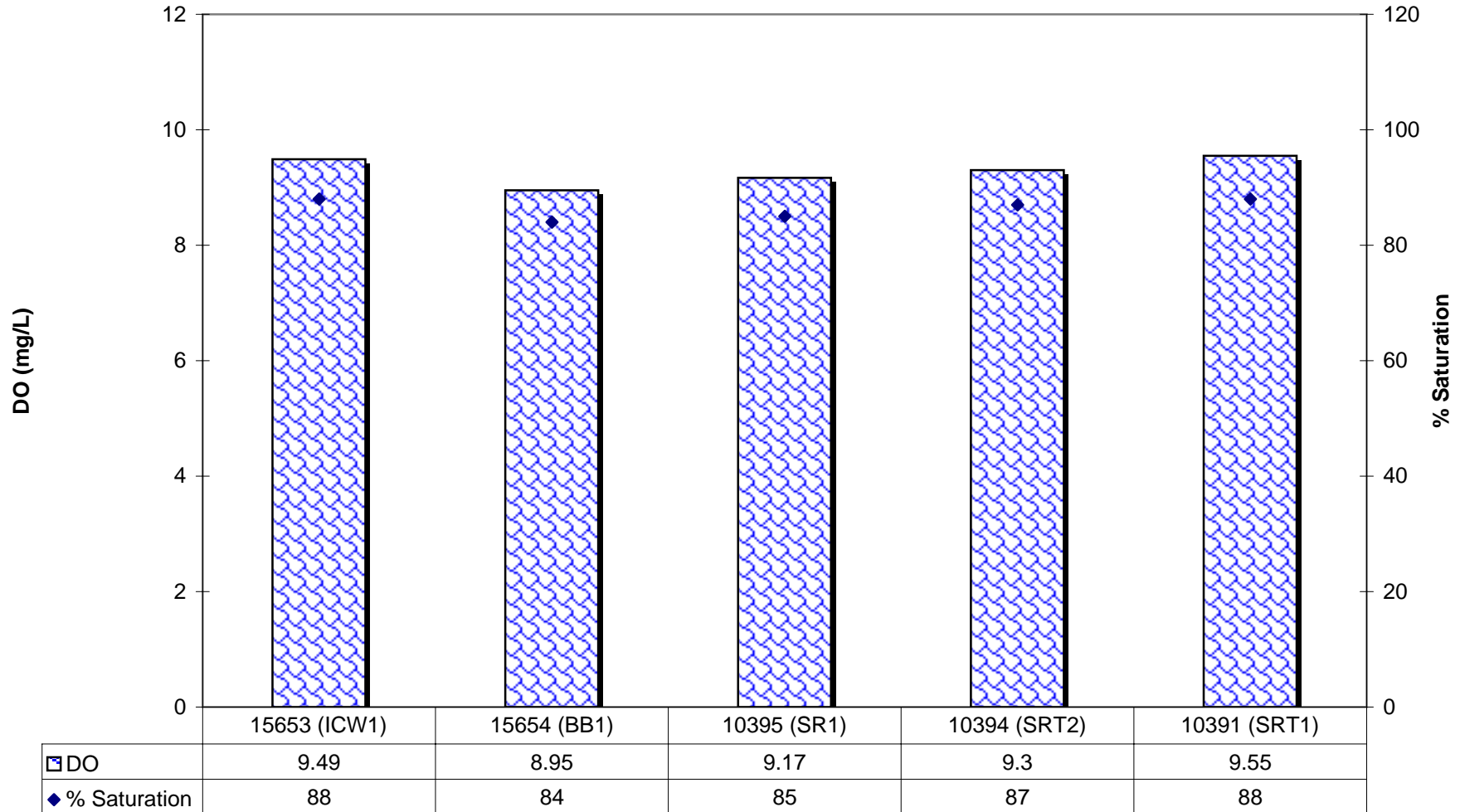
Date	SW ID	Station	Temperature °C 00010	pH Units 00400	DO mg/L 00300	% Saturation 00301	Conductivity µS/cm 00094	Salinity ppt 00480	Secchi Meters 00078	Turbidity NTU 82079	<i>E. coli</i> mpn/100ml 31699	<i>Enterococcus</i> mpn/100ml 31701	Chlorophyll a µg/L 32211	Nitrate & Nitrite 00630	Ortho- Phosphate 00671	TOC mg/L 00680	Total Alkalinity 00410	Total Hardness 00900	Chloride mg/L 00940	Sulfate mg/L 00945
2/14/02 10:10 AM	1.05	15653 (ICW1)	11.9	7.54	9.49	88	369	< 1	0.48	15	*	55	*	0.36	< 0.04	7	*	*	75	22
2/14/02 10:40 AM	1.01	15654 (BB1)	12.4	7.3	8.95	84	1728	< 1	0.37	17.5	*	42	*	0.35	< 0.04	7	*	*	117	76
2/14/02 9:10 AM	1.00	10395 (SR1)	11.9	7.09	9.17	85	135	*	0.55	13.5	214	*	*	0.22	< 0.04	6	*	*	< 10	15
2/14/02 9:35 AM	1.00	10394 (SRT2)	12.3	7.08	9.3	87	75	< 1	0.42	13.2	*	135	*	0.29	< 0.04	6	*	*	< 10	13
2/14/02 10:50 AM	1.00	10391 (SRT1)	12.1	7.66	9.55	88	880	< 1	0.41	13.8	*	78	*	0.37	< 0.04	6	*	*	55	43

\*: Not sampled on this run

# SABINE RIVER AUTHORITY OF TEXAS

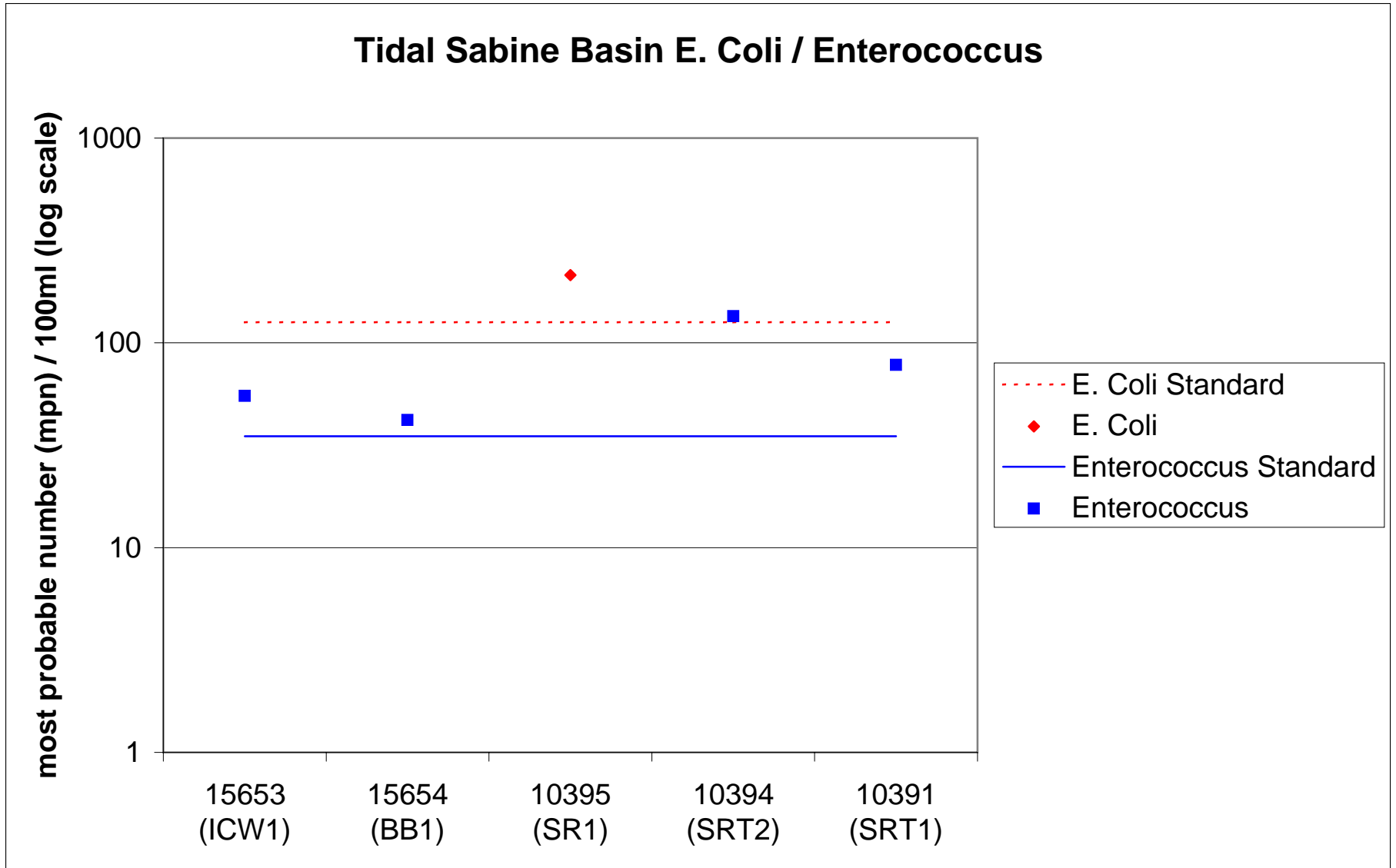
February 2002

## Tidal Sabine Basin DO / % Saturation



# SABINE RIVER AUTHORITY OF TEXAS

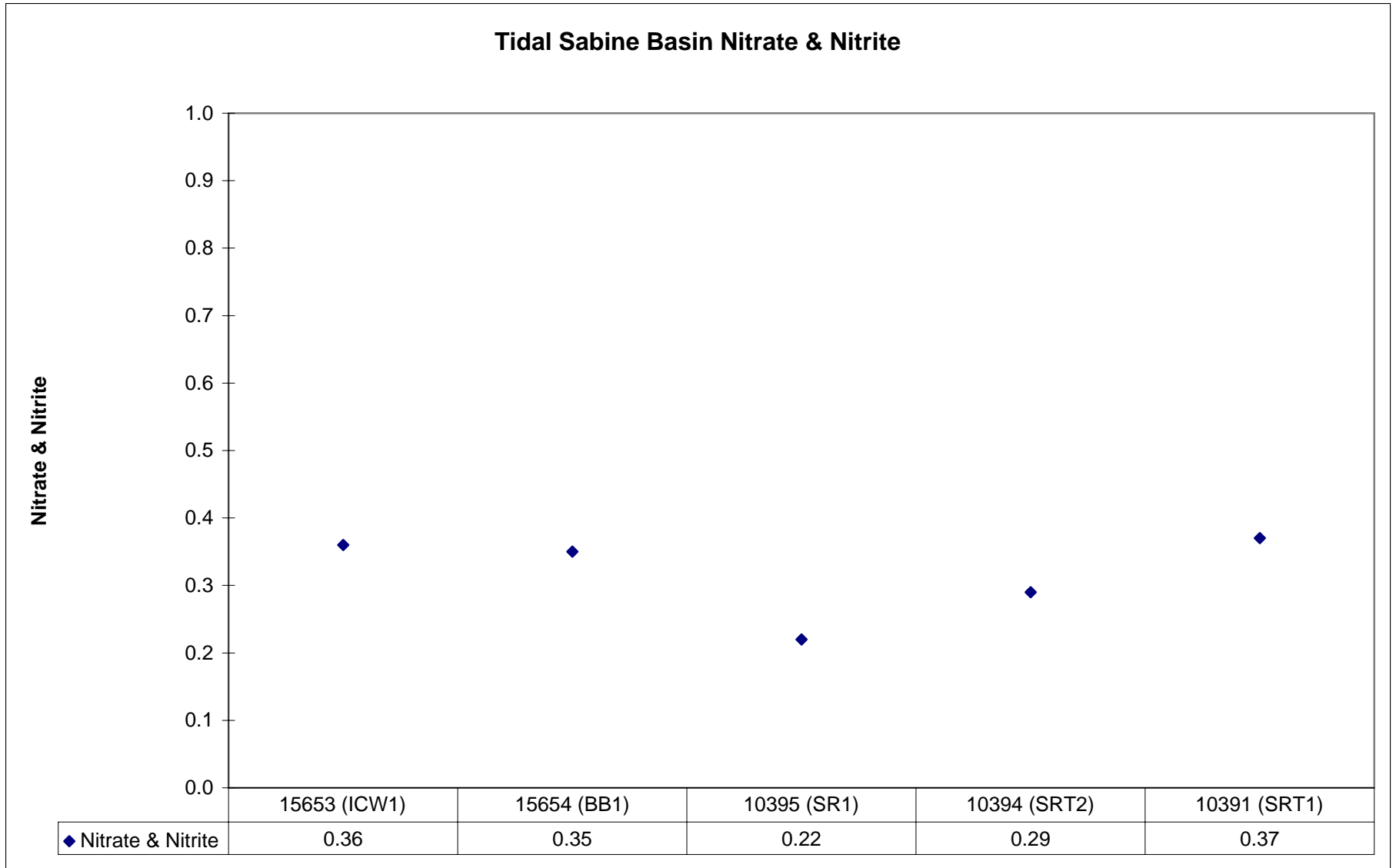
February 2002



Stations without values were below detection limit or not sampled on this run (see page 38).

# SABINE RIVER AUTHORITY OF TEXAS

February 2002



# SABINE RIVER AUTHORITY OF TEXAS

## Tidal Profiles

February 2002

Date	SW ID	Station	Depth Meters	Temperature	pH	DO	%	Conductivity	Salinity
				°C 00010	Units 00400	mg/L 00300	Saturation 00301	µS/cm 00094	ppt 00480
2/14/02 10:10 AM	1.05	15653 (ICW1)	0.3	11.9	7.54	9.49	88	369	< 1
			3	11.9	7.18	9.28	86	372	< 1
			5.8	11.9	7.25	9.29	86	375	< 1
2/14/02 10:40 AM	1.01	15654 (BB1)	0.3	12.4	7.3	8.95	84	1728	< 1
			2.5	12.4	7.21	8.81	83	1738	< 1
			5.3	12.3	7.22	8.87	84	1767	< 1
2/14/02 9:35 AM	1.00	10394 (SRT2)	0.3	12.3	7.08	9.3	87	75	< 1
			5	12.3	7.08	9.23	86	134	< 1
			9.6	12.3	7.02	9.17	86	130	< 1
2/14/02 10:50 AM	1.00	10391 (SRT1)	0.3	12.1	7.66	9.55	88	880	< 1
			5	12	7.6	9.16	86	1274	< 1
			7	12.3	7.75	8.75	84	7314	4
			10.4	12.8	7.6	8.16	84	19550	12

# SABINE RIVER AUTHORITY OF TEXAS

## Orange Weather and River Data

February 2002

Date	310 (Orange) Rainfall	Gauge Height	GH - FS	Max Temp	Min Temp	Cur Temp	293 (GCD) Rainfall
02/01/2002	0.27	1.27	(2.73)	76	40	40	0.11
02/02/2002	0.00	0.85	(3.15)	47	36	36	0.00
02/03/2002	0.00	1.73	(2.27)	59	35	51	0.00
02/04/2002	0.00	1.31	(2.69)	64	49	49	0.00
02/05/2002	0.00	1.49	(2.51)	57	44	44	0.00
02/06/2002	0.67	2.50	(1.50)	44	38	38	0.98
02/07/2002	0.04	1.35	(2.65)	41	37	39	0.05
02/08/2002	0.00	1.74	(2.26)	50	32	32	0.00
02/09/2002	0.00	2.47	(1.53)	57	31	41	0.00
02/10/2002	0.03	2.23	(1.77)	70	41	48	0.10
02/11/2002	0.00	1.19	(2.81)	54	41	41	0.00
02/12/2002	0.00	2.15	(1.85)	56	35	35	0.00
02/13/2002	0.00	2.06	(1.94)	65	35	45	0.00
02/14/2002	0.00	1.87	(2.13)	67	40	40	0.00
02/15/2002	0.00	2.26	(1.74)	67	40	47	0.00
02/16/2002	0.00	1.79	(2.21)	76	44	44	0.00
02/17/2002	0.00	1.58	(2.42)	66	35	35	0.00
02/18/2002	0.00	1.73	(2.27)	71	35	44	0.00
02/19/2002	0.00	2.46	(1.54)	70	44	64	0.00
02/20/2002	0.54	2.21	(1.79)	72	52	54	0.59
02/21/2002	0.00	2.27	(1.73)	74	46	46	0.00
02/22/2002	0.08	2.02	(1.98)	77	46	49	0.36
02/23/2002	0.00	2.15	(1.85)	64	37	38	0.00
02/24/2002	0.00	2.26	(1.74)	66	38	45	0.00
02/25/2002	0.00	2.81	(1.19)	72	45	59	0.00
02/26/2002	0.00	2.01	(1.99)	75	41	41	0.00
02/27/2002	0.00	1.10	(2.90)	45	25	25	0.00
02/28/2002	0.00	2.23	(1.77)	49	25	29	0.00
<b>Avg or Tot</b>	1.63	1.90	(2.10)	63	39	43	2.19

Units	Tot Inches	Avg Feet	Avg Feet	Avg Deg F	Avg Deg F	Avg Deg F	Tot Inches
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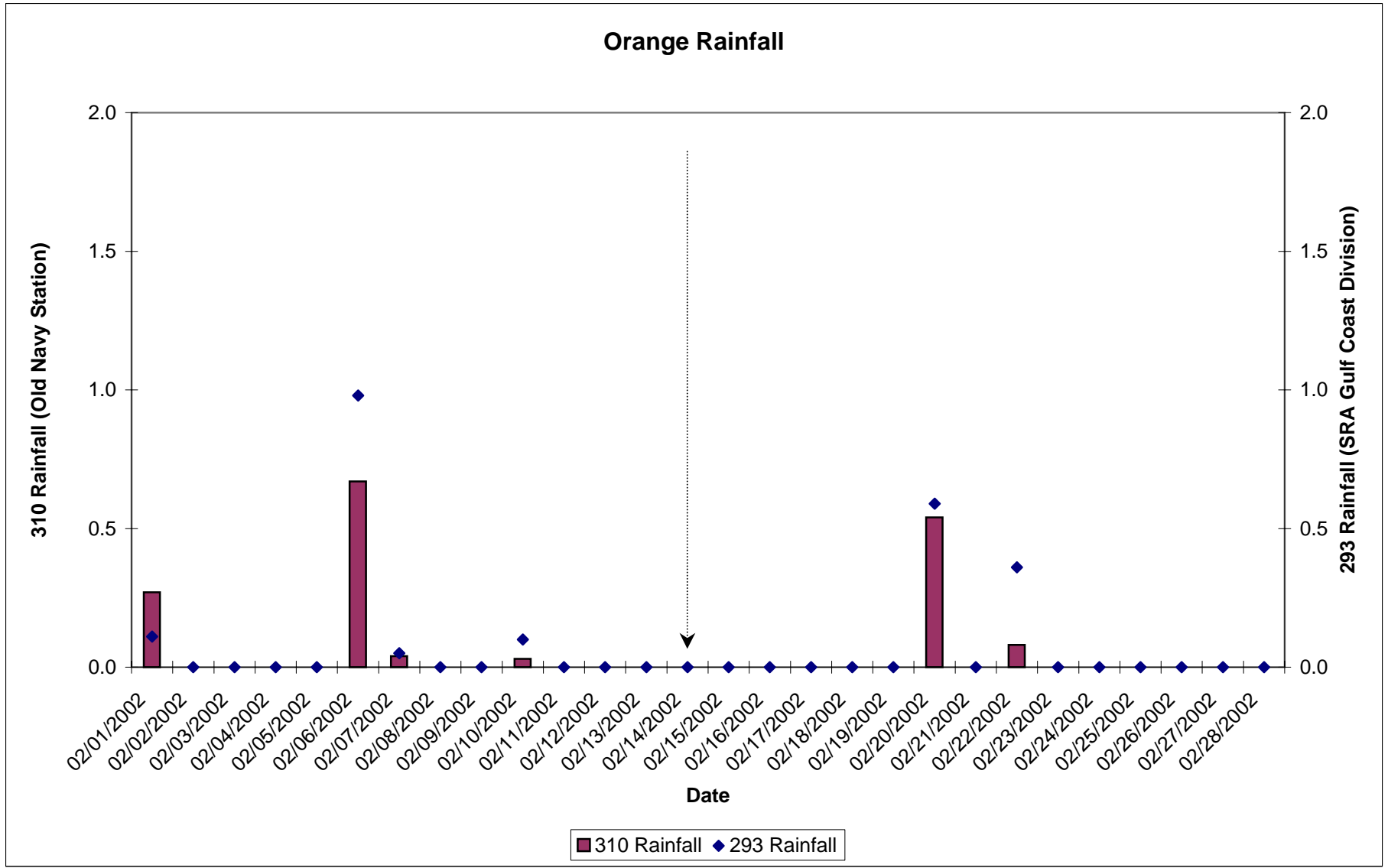
Appx. 8 am

310 Rainfall: Old Navy Base, City of Orange  
 293: SRA Gulf Coast Division Office, Northern Orange County  
 FS: Flood Stage = 4 Feet  
 OUT: Gauge Out

Tidal Sabine Basin Sampled on 2/14/2002

# SABINE RIVER AUTHORITY OF TEXAS

February 2002



Tidal Sabine Basin Sampled on 2/14/2002