9-275-F
(May 1971)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WATER RESOURCES DIVISION

Meas. No. 870

Comp. by JSH

Checked by VAM

DISCHARGE MEASUREMENT NOTES

Sta. No. 08114000

Brazos River at Richmond Tx

Date Dec. 30, 1991 Party Hutchison Sawyer

Width 573 Area 16800 Vel. 5.48 G. H. 49.15 Disch. 92,100

Method .2 8 No. secs. 33 G. H. change +.02 in 1 hrs. Susp.

Method coef. .2 8 Hor. angle coef. noted Susp. coef. 1 Meter No. 226723

Type of meter AA

Date rated std for rod, other.

Meter 1.0 ft. above bottom of weight.

Spin before meas. 2'30" after

Meas. plots % diff. from rating

Wading, cable, ice, boat, upstr., downstr., side bridge feet, mile, above, below gage, and

Check-bar, found 74.19 changed to OK at

Correct Y

Levels obtained NO

GAGE READINGS

Time	A3S	Recorder	Inside	Outside
0900	49.07	49.07	49.07	49.10
0925	(S)			49.11
1130				49.15
(E) 1225	49.18	49.18	49.18	49.19
Weighted M. G. H.				49.15
G. H. correction		0		
Correct M. G. H.				

Measurement rated excellent (2%) good (5%) fair (8%) poor (over 8%) based on following conditions: Cross section firm

Flow swift Weather Cool, cloudy, windy

Other Air °F@

Gage OK Water °F@

Record removed NO Intake flushed U

Observer talked to

Control Bed & banks, willows, trailers etc.

Remarks

G. H. of zero flow ft.

1 of 4

.0 .10 .20 .30 .40 .50 .60 .70 .75

River at—

Angle coefficient	Dist. from initial point	Width	Depth	Observation depth	Revolutions	Time in seconds	VELOCITY		Adjusted for hor. angle or	Area	Discharge
							At point	Mean in vertical			

.80 .85 .90 .92 .94 .96 .97 .98 .99 1.00 .99 .98 .97 .96 .94 .92 .90 .85 .80

.0 .10 .20 .30 .40 .50 .60 .70 .75

9-275-b
(July 1956)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

DISCHARGE MEASUREMENT NOTES
TWO-TABLE METHOD

Brazos River at Richmond Dr

Date Dec 30, 1991 No. of Meas.

Meter No. Reel Coefficient

Type of suspension 100C

Size of line Notes by JSH

	Distance from initial point	Distance above water surface	Vertical angle	Observed depth	Air correction	Wet-line depth	Water correction	Vertical depth	Depth of observation	Revolutions	Time in seconds	Velocity At point	Velocity Mean in vertical	Velocity Mean in section	Area	Mean depth	Width	Discharge
																		4500
	455	–	–	0			LEW @ 09			25						0	22.5	0
L	500	35	0	8.0	–					34	40	1.86	1.60		580	8.0	72.5	930
										25	41	1.35						
.97	600	35	0	11.5	–					27	41	1.47	1.84	1.78	860	11.5	75.0	1530
										40	41	2.20						2460
.99	650	35.0	2°	22.5		–	–	22.5		71	40	3.88	3.41	3.38	900	22.5	40.0	3040
										54	40	2.94			2340		210	5500
.99	680	35	8	35.5	.3	35.2	.1	35.1		100	40	5.46	5.00	4.95	880	35.1	25.0	4360
										100	48	4.55			3220		235	9860
L	700	35	4°	42.3	.1	42.2	.1	42.1		100	43	5.08	4.10	4.10	840	42.1	20.0	3440
										69	42	3.13			4060		255	13300
L	720	35	12°	44.5	.8	43.7	.3	43.4		100	40	5.46	6.06	6.06	650	43.4	15.0	3940
										150	49	6.67			4710		270	17240
L	730	35	12°	46.4	.8	45.6	.3	45.3		150	53	6.17	6.00	6.00	450	45.3	10	2700
										150	56	5.84			5160		280	19940
L	740	35	16°	49.5	1.4	48.1	.6	47.5		150	44	7.43	6.38	6.38	480	47.5	10	3060
										100	41	5.32			5640		230	23000
L	750	35	16°	50.5	1.4	49.1	.6	48.5		150	51	6.41	6.61	6.61	480	48.5	10	3170
										150	48	6.81			6120		300	26170
L	760		16°	51.0	1.4	49.6	.6	49.0		150	48	6.81	6.96	6.96	490	49.0	10	3410
										150	46	7.11			6610		310	29580
L	770		18°	50.1	1.8	48.3	.8	47.5		150	45	7.26	7.04	7.04	480	47.5	10	3380
										150	48	6.81			7090		320	32960
.99	780		18°	50.0	1.8	48.2	.8	47.4		150	42	7.78	7.44	7.37	470	47.4	10	3460
										150	46	7.11			7560		330	36420
.99	790		18°	50.0	1.8	48.2	.8	47.4		150	42	7.78	7.44	7.37	470	47.4	10	3460
										150	46	7.11			8030		340	39880
.99	800		18	49.5	1.8	47.7	.8	46.9		150	43	7.60	7.78	7.71	470	46.9	10	3620
										150	41	7.97			8500		350	43500

Computed by JLK Checked by No. 2 of 4 Sheets.

GPO 911781

9-275-b
(July 1956)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

DISCHARGE MEASUREMENT NOTES
TWO-TABLE METHOD

Date 12/30/91 No. of Meas.
Meter No. Reel Coefficient
Type of suspension
Size of line Notes by

	Distance from initial point	Distance above water surface	Vertical angle	Observed depth	Air correction	Wet-line depth	Water correction	Vertical depth	Depth of observation	Revolutions	Time in seconds	VELOCITY At point	VELOCITY Mean in vertical	VELOCITY Mean in section	Area 8500	Mean depth	Width 350	Discharge 43500
99	810	35'	20°	49.5	2.2	47.3	1.0	46.3	.2	150	42	7.78	7.69	7.61	460	46.3	10	3500
									.8	150	43	7.60			8960		360	47000
99	820	35	20°	49.2	2.2	47.0	1.0	46.0	.2	150	40	8.17	7.98	7.90	460	46.0	10	3630
									.8	150	42	7.78			9420		370	50630
99	830	35	20	50.1	2.2	47.9	1.0	46.9		200	52	8.38	8.28	8.20	470	46.9	10	3850
										150	40	8.17			9890		380	54480
99	840		22	51.2	2.7	48.5	1.2	47.3		150	40	8.17	7.98	7.90	470	47.3	10	3710
										150	42	7.78			10360		390	58190
99	850		20°	51.0	2.2	48.8	1.0	47.8		200	54	8.07	7.44	7.37	480	47.8	10	3540
										150	48	6.81			10840		400	61730
99	860		18°	50.5	1.8	48.7	.8	47.9		150	40	8.17	7.64	7.56	480	47.9	10	3630
										150	46	7.11			11320		410	65360
99	870		18°	51.0	1.8	49.2	.8	48.4		150	42	7.78	7.69	7.61	480	48.4	10	3650
										150	43	7.60			11800		420	69010
99	880		20°	50.5	2.2	48.3	1.0	47.3		150	43	7.60	7.52	7.44	470	47.3	10	3500
			mnt	= 49.15	@ 1130					150	44	7.43			12270		430	72510
99	890		16°	47.4	1.4	46.0	.6	45.4		150	44	7.43	7.27	7.20	450	45.4	10	3240
			cleared	meter						150	46	7.11			12720		440	75750
99	900		18	48.2	1.8	46.4	.8	45.6		150	44	7.43	7.43	7.36	460	45.6	10	3390
										150	44	7.43			13180		450	79140
99	910		16	46.5	1.4	45.1	.6	44.5		150	46	7.11	6.33	6.27	440	44.5	10	2760
										150	59	5.55			13620		460	81900
99	920		12	45.9	.8	45.1	.3	44.8		150	44	7.43	6.92	6.85	450	44.8	10	3080
										150	51	6.41			14070		470	84980
99	930		16	45.2	1.4	43.8	.6	43.2		150	51	6.41	5.86	5.74	430	43.2	10	2470
			bolts							100	41	5.32			14500		480	87450
99	940		6°	39.2	.2	39.0	.1	38.9		150	57	5.74	5.24	5.19	580	38.9	15	3010
										100	46	4.75			15080		495	90460
99	960		4°	35.2	.1	35.1	0	35.1		80	40	4.37	3.79	3.71	700	35.1	20	2600
										60	41	3.21			15780		515	93060

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GPO 9 11781

9-275-b
(July 1956)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

DISCHARGE MEASUREMENT NOTES
TWO-TABLE METHOD

Date 12/30/91 No. of Meas.
Meter No. Reel Coefficient
Type of suspension
Size of line Notes by

	Distance from initial point	Distance above water surface	Vertical angle	Observed depth	Air correction	Wet-line depth	Water correction	Vertical depth	Depth of observation	Revolutions	Time in seconds	VELOCITY At point	VELOCITY Mean in vertical	VELOCITY Mean in section	Area 15780	Mean depth	Width 515	Discharge 93060
-.5	980	35.0	4°	25.7	.1	25.6	0	25.6	25	43	1.29	1.52		-.76	510	25.6	20	-390
		bolts							40	50	1.76							
-1	1000		4°	19.2	.1	19.1	0	19.1		20	42	1.08	1.22	-1.22	460	19.1	24	-560
										25	41	1.35						
	1028			0		REW	@		1225						0	0	14.0	0
	573														1675		573	92110

Computed by Checked by No. 4 of 4 Sheets.

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