9-275 c
(July 1935)

RECORDED

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WATER RESOURCES BRANCH

DISCHARGE MEASUREMENT NOTES

Meas. No. 246

Checked by [illegible]

Date 7-21-44

Brazos River at Richmond, Tex.

Date May 12, 1944 Party Goines and Longacre

Width 448 Area 13,700 Vel. 4.84 G. H. — Disch. 66,400

Method .2 No. secs. 21 G. H. change 0.12 in 0.8 hrs. Susp. 100C1.0

Method coef. 93 Hor. angle coef. as noted Meter No. 1705 Susp. coef. 1.00

GAGE READINGS

Time	C. W. T.	Recorder	Inside	Tape Outside
8:40 a.m.		30.68	30.70	30.70
9:15	Start		(30.62)	±0.05
10:05	Finish		(30.50)	
10:30		30.43	30.45	30.45
				±0.2
	~~Finish~~ U.S.W.B. W-Wt.			
10:25				30.57
Weighted M. G. H.			30.56	
G. H. correction				
Correct M. G. H.				

Date rated Apr. 9, 1942 Used rating for rod Rod susp. Meter 1.0 ft. above bottom of wt. Tags checked —

Spin before meas. OK after OK

Meas. plots — % diff. from — rating

~~Wading, cable, ice, boat, upstr., downstr., side bridge~~ 270 feet, ~~mile, above, below~~ gage, and —

~~Chain, wire, found~~ 58.58, changed to no at —

Correct length 58.57

Levels obtained no

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

Flow Smooth Weather Favorable

Other —

Gage OK

Record removed No Intake flushed No

Observer —

Control Falling 0.14 ft./hr.

Remarks

Sheet No. 1 of 4 sheets. G. H. of zero flow ft.

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T 30.70
P 30.68
O 30.70 ± 0.05
8.140 m

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

9-275
January 1935

Date 5/12/41, 19__ **DISCHARGE MEASUREMENT NOTES**

Brazos River, at Richmond, Tex.

Dist. from initial point	Angle Coefficient	Depth	Depth of observation	Revolutions	Time in seconds	VELOCITY: At point	VELOCITY: Mean in vertical	VELOCITY: Mean in section	Area	Uncorr. area Mean depth	Width	Discharge
LEW 498		0						0	0		11½	
475	99	13.9	2.8	30	50			1.36	330	334	24	450
450	⊥	23.7	4.7	50	44			2.55	593	593	25	1510
425		33.6	6.7	60	43			3.13	890	890	25	2780 ©
400		37.6	7.5	100	51			4.39	940	940	25	4120
		9:25 a.m.										
375		* 39.2 39.4	7.9	100	48			4.67	980	980	25	4470
350	⊥	36.5 37.0	7.4	150	58			5.29	914	914	25	5270
325		37.1 37.4	7.5	150	62			5.42	929		25	5030
300		33.1 33.7	6.7	150	56			5.99	828		25	4950
		9:40 a.m.										
275		33.0 33.5	6.7	150	52			6.45	825		25	5320
250	⊥	32.1 32.6	6.5	150	54			6.21	804		25	4990
225		31.2 31.7	6.3	150	52			6.45	780		25	5030

No. 2 of 4 Sheets. Comp. by WHG JKL Chk. by

* See sheet 4

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80 • 75 •

WW 30.57
58.58 corr. 58.57
10:25 am

9-275
January 1935

85 •

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

Date 5/12/44, 19 ___ DISCHARGE MEASUREMENT NOTES

Brazos River, at Richmond, Tex.

Vert. x 90 • 92 • 12°	Dist. from initial point	Angle coefficient	Depth	Depth of observation	Revolutions	Time in seconds	VELOCITY At point	VELOCITY Mean in vertical	VELOCITY Mean in section	Area	Mean depth	Width	Discharge
94 • 21'	200	+	31.4 32.1	6.4	150	52			6.45	786		25	5070
96 • 9:50 a.m.													
12° 97 • 22'	175		33.4 34.1	6.8	150	51			6.58	835		25	5490
98 • 10° 23' 99 •	150		36.6 37.2	7.4	150	58			5.79	915		25	5290
10° 24	125		37.8 38.4	7.7	100	41			5.46	851		22½	4650
6° 25'	105		35.5 35.7	7.1	100	43			5.21	532		15	2780
8° 26' 99 •	95		31.3 31.7	6.3	100	46			4.87	391		12½	1900
6° 98 • 27'	80		26.7 26.8	5.4	100	49			4.57	466		17½	2130
97 • 96 •	60		9.2	1.8	50	76			1.48	138		15	200
94 • 92 •	50		0						0	0		5	71430
	REW									13727			

90 • Finish 10:05 am

Tape 30.45 OG 30.45 ± 0.2
Pen 43 10:30 am

From discharge relation curve
85 • Coeff. to Convert $Q_{.2}$ to $Q_{.2-.8}$ = .93
$Q_{2-.8} = 0.93 \times Q_2$

80 •

.93 x 71430 = 66,429

No. 3 of 4 Sheets. Comp. by WHG JKL Chk. by [illegible]

75 •

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80 • 75 •

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

9-275
January 1935

Date 5/12/44, 19___ **DISCHARGE MEASUREMENT NOTES**

Brazos River, at Richmond, Tex.

Dist. from initial point	Angle Coef-ficient	Depth	Depth of observation	Revolutions	Time in seconds	VELOCITY: At point	VELOCITY: Mean in vertical	VELOCITY: Mean in section	Area	Mean depth	Width	Discharge
		Depth		Corrections								
Sta	Vert &	Dist. to W.S.	obs. d.	Air Corr	W.L. O.	Meter Corr.		Corr d.				
375	6°	20	39.4	.1	39.3	.1	✓	39.2				
350	10	20	37.0	.3	36.7	.2	✓	36.5				
325	8	19	37.4	.2	37.2	.1	✓	37.1				
300	12	19	33.7	.4	33.3	.2	✓	33.1				
275	10	20	33.5	.3	33.2	.2	✓	33.0				
250	10	20	32.6	.3	32.3	.2	✓	32.1				
225	10	21	31.7	.3	31.4	.2	✓	31.2				
200	12	21	32.1	.5	31.6	.2	✓	31.4				
175	12	22	34.1	.5	33.6	.2	✓	33.4				
150	10	23	37.2	.4	36.8	.2	✓	36.6				
125	10	24	38.4	.4	38.0	.2	✓	37.8				
105	6	25	35.7	.1	35.6	.1	✓	35.5				
95	8	26	31.7	.3	31.4	.1	✓	31.3				
80	6	27	26.8	.1	26.7	—	✓	26.7				

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75 •

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