9-275 c
(July 1935)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WATER RESOURCES BRANCH

RECORDED

DISCHARGE MEASUREMENT NOTES

Meas. No. 138

Checked by M.A.F.

Date 5/29/39

Brazos River at Richmond, Tex.

Date May 21, 1939 Party Goines and Fry

Width 384 Area 7900 Vel. ~~5.27~~ 5.27 G. H. 20.40 Disch. ~~41,500~~ 41,600

Method 2-8 No. secs. 22 G. H. change -0.05 in 1.7 hrs. Susp. 100 C 1.0

Method coef. 1.00 Hor. angle coef. Noted Meter No. 1319 Susp. coef. 1.00

GAGE READINGS

Time		Recorder	Inside	Outside
2:10 pm		USWB	gage	20.55
2:15	~~Start~~	20.42±	20.48±	20.56±0.05
2:56	Start	20.42	Tape	
3:43		20.40		
4:12		20.38		
4:38	Finish	20.37		
5:07	U.S.W.B			20.57
5:13	~~Finish~~	20.37	20.42	20.54±0.1
			Tape	
~~Weighted~~ M. G. H		20.40		
G. H. correction				
Correct M. G. H				

Date rated Oct 31, 1938 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 58.57+, changed to No at —

Correct length 58.57

Levels obtained —

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 see chart

Record removed No Intake flushed No

Observer —

Control —

Remarks Rate of change in stage -0.03 ft/hr.

Sheet No. 1 of ____ sheets. G. H. of zero flow — ft.

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January 1935

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

Date 5/21/39, 19___ **DISCHARGE MEASUREMENT NOTES**

Brazos River, at Richmond, Tex.

90 •

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
			Start			2:56 pm						
LEW 464		0					0		Mean in section	Area		
									.54	33.0	10	20
454	99	6.6		1.3	25	50	1.11	1.07				
				5.3	25	53	1.05	1.08				
		15.7							2.08	100	9	210
445	98	~~15.7~~		3.1	80	47	3.73	3.08				
				12.6	50	43	2.55	~~3.14~~				
									3.70	275	15	1,020
430	⊥	21.0		4.2	100	44½	4.92	4.32				
				16.8	80	47	3.73					
									4.10	424	20	1,740
410		21.4		4.3	100	54	4.06	3.88				
				17.1	80	47½	3.69					
									4.06	450	20	1,820
390	⊥	23.6		4.7	100	52	4.21	4.23				
				20.9	100	51½	4.25					
									4.64	472	20	2,190
370		23.6	4.7	150	60½	5.42	5.04					
			20.9	100	47	4.66						
								5.42	4.28		20	2,320
350		19.2	3.8	150	53½	6.14	5.80					
			15.4	100	40	5.47						
								5.88 ~~5.86~~	381		20	2,240 ~~2,230~~

No. 2 of 4 Sheets. Comp. by [illegible] Chk. by M.A.F.

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9-275
January 1935

UNITED STATES
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GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

Date 5/21/39, 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	Mean depth	Width	Discharge
	11°=	6' drag										
330		~~19.6~~ 18.9	3.9	150	53½	~~6.14~~ 6.10	~~5.95~~ 5.91					
			15.7	150	57	5.76						
	11°=	6' drag			3:43			~~6.02~~ 6.00	387		20	2,320
310		~~20.5~~ 19.8	4.1	150	50	6.56	6.08					
			16.4	150	58½	5.61						
	11°=	6' drag						6.03	401		20	2,420
290		~~21.0~~ 20.3	4.2	150	51	6.43	5.98					
			16.8	150	59½	5.52						
	11°=	6' drag						5.98	414		20	2,480
270		~~21.8~~ 21.1	4.4	150	50	6.56	5.99					
			17.4	150	60½	5.42						
	14°=	8' drag						5.97	419		20	2,500
350		~~22.0~~ 20.8	4.4	150	49	6.69	5.95					
			17.6	150	63	5.21						
	11°=	6'						5.90	433		20	2,560
230		~~23.2~~ 22.5	4.6	150	48½	6.76	5.86					
			18.6	100	42	4.97		~~5.96~~ 5.95	454		20	2,700
	7°=	4'										
210		~~23.2~~ 22.9	4.6	150	47	6.98	~~6.06~~ 6.04					
			18.6	100	42½	~~5.15~~ 5.13						~~2860~~
	4°=	2'						~~6.20~~ 6.19	461		20	~~2850~~
190		~~23.3~~ 23.2	4.7	150	52½	6.25	6.34					
			18.6	150	51	6.43						
								6.13	481		20	2,950

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9-275-b

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

DISCHARGE MEASUREMENT NOTES
TWO-TABLE METHOD

U. S. GOVERNMENT PRINTING OFFICE: 1931 6—8166

Brazos R. at Richmond, Tex.

Date 5/21/39 No. of Meas.

Meter No. 1319 Reel Coefficient

Type of suspension 100 C. 1.0

Size of line 1/8" Notes by

Distance from initial point	Distance above water surface	Vertical angle	Observed depth	Air correction	Wet-line depth	~~Water~~ total 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
		✓	6' drag.				4:12 pm										
170	approx 32'	11°	25.7	.6	.2	.8	24.9	5.1	150	52	6.31	5.92					
From X-Sect								20.6	150	59½	5.52						
			4'										5.64	518		20	2,920
150		7°	27.2	.2	.1	.3	26.9	5.4	150	56	5.86	5.36					
								21.8	100	45	4.86						
			4' drag.										4.91	538		20	2640
130		7°	27.2			.3	26.9	5.4	100	45	4.86	4.46					
								21.8	100	54	4.06						
													4.68	462		20	2160
110			19.3				19.3	3.9	100	40	5.47	4.90					
								15.4	50	25¼	4.34						
													4.76	176		10	840
100			15.9				15.9	3.2	100	43½	5.03	4.62					
								12.7	80	41¼	4.22						
			No drag										4.06	134		10	540
90			10.8				10.8	2.2	80	48	3.65	3.51					
								8.6	80	52	3.37						
													1.76	54.0		10	100
80			0				0	0			0						~~41,530~~
REW					4:38 pm									7895			41,550

Computed by WAS Checked by M.A.F. No. 4 of 4 Sheets.