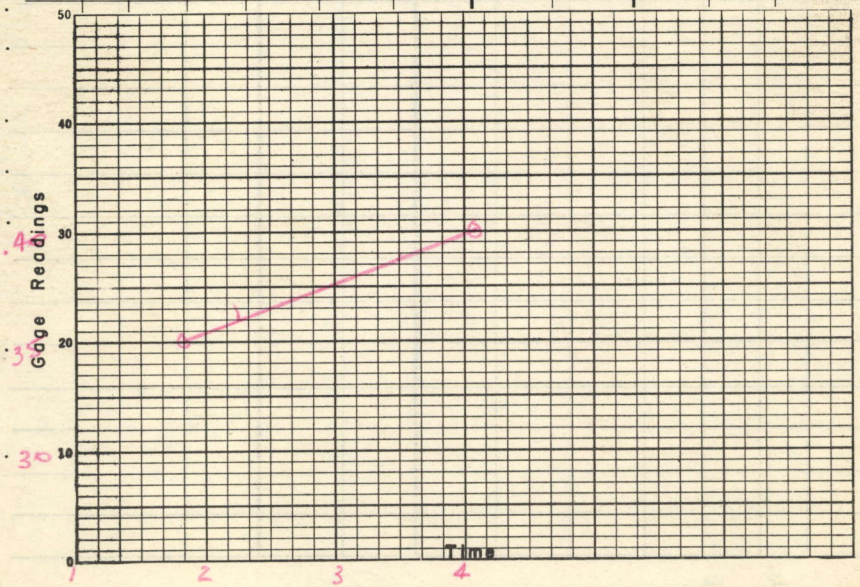
River at

Dist. from initial point	Angle Coefficient	Depth	Depth of observation	Revolutions	Time in seconds	VELOCITY At point	VELOCITY Mean in section	Corr. Area	Area	Width	Discharge



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A-34 RECORDED

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Water Resources Branch

DISCHARGE MEASUREMENT NOTES

Meas. No. 511

Checked by

Date 7/12/57

Water temp. ____ °F

Air temp. ____ °F

Time ____

Brazos River at Richmond, Tex.

Date May 1, 1957 Party Sansom & Rosenquest

Width 480 Area 14,500 Vel. 6.25 G.H. ____ Disch. 90,800

Method 2.8 No. Secs. 21 G.H. Chng. 1.02 ft. per hr. Time meas. 1.2 hrs.

Meter No. 3051 Date Rated 8-12-49 Susp. 100 Cl.0 Susp. Coef. 1.00

Method Coef. 1.00 Hor. angle Coef. 1.00 Used rating for, rod Rod Susp.

GAGE READINGS W.W.

Time	Meas	Recorder	Tape	Inside	Outside
1:50	pm.		34.35	1.50	34.55
2:15 pm	Start		(34.35)		
3:30 pm	End		(34.35)		
4:05 pm.			34.40		34.60
~~Weighted~~ MGH			34.38		34.58
GH Corr.					
Correct MGH					

Meter 1.0 ft. above bottom of weight

Spin before meas. OK after OK

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

Chain, wire, found 58.69 at ____ G-Sta.

Changed to ____ at ____

Correct length 58.68

Levels Obtained No

Measurement rated, excellent (2%), good (5%) fair (8%), poor (over 8%) based on following

Cross section Uniform - firm

Flow Smooth Weather Clear

Other ____

Gage OK

Record removed No Intakes flushed No

Pencil None Wt. Adj. No Paper Dry

Record pen ran out of ink - refilled Chart time OK Clock Reg. No

Observer USWB - not seen

Control channel -

Remarks Computed coeff. for .2 Method = .9X 3

Total air and water corrections shown encircled under observed depths. - areas corrected.

Computed Coeff. for converting $Q_{.2}$ to $Q_{.2\text{-}.8}$ = .9X 3

Page 1 of 3 G.H. of zero flow ____ ft.

9-275
September 1943

511

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

Date May 1, 1957 **DISCHARGE MEASUREMENT NOTES**

Brazos River at Richmond, Tex.

Angle coefficient

Dist. from initial point	Depth	Observation depth	Revolutions	Time in seconds	VELOCITY At point	VELOCITY Mean in vertical	VELOCITY Mean in section	Area	Mean depth	Width	Discharge
	Meas computed using .2 method.										
510	0				0			0		10	0
490	7.0				1.06			210		30	220
450	19.8				3.73			594		30	2220
420	21.4				3.99			642		30	2560
390	26.5				5.46			795		30	4330
360	37.0				6.42			1104		30	7180
330	38.5				6.82			1155		30	7890
300	36.2				7.61			1086		30	8280
270	37.5				8.18			1125		30	9200
240	37.6				7.79			925		25	7190
220	36.4				8.18			728		20	5950
200	35.7				7.98			714		20	5700
180	37.4				7.27			748		20	5440
160	38.4				7.27			768		20	5580
140	37.0				7.79			740		20	5780
120	37.4				6.97			748		20	5220
100	40.6				7.44			812		20	6040
80	39.4				6.97			788		20	5490
60	27.1				4.86			488		18	2380
40	15.5				1.12			232		15	260
30	0				0			0		7	0
							90,160		.93		96,870
				$Q_{.8}$	$Q_{.8}$ =		90,420	=	.94		97,180
				Q_2	$Q_{.2}$ =		96,870				
							97,180				

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511 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 section	Corr. Area	Area	Width	Discharge
L.E.W. @ 2:15 p.m. Cable 100 Cl. 0 #3051											
510		0					0	0		10	0
490	1	7.0	1.4	20	42		1.06	210		30	220
450	1	19.8	4.0	80	47	3.73	2.94	693		35	2,090
			15.8	40	41	2.16					
420	1	21.4	4.3	80	44	3.99	4.04	642		30	2,590
			17.1	80	43	4.08					
21 ft. to W.S. 390		26.5	5.3	100	40	5.46	5.56	795		30	4,420
			21.2	150	58	5.65					
21' 360		37.7	7.5	150	51	6.42	5.88	1,104 ~~1,131~~		30	6,500
		-.9 -.7	30.2	100	41	5.33					
20' 330		39.5	7.9	150	48	6.82	6.68	1,155 ~~1,185~~		30	7,700
		-1.0	31.6	150	50	6.55					
20' 300		37.5	7.5	150	43	7.61	7.08	1,086 ~~1,125~~		30	7,690 ~~7,700~~
		-1.3	30.0	150	50	6.55					
20' 270		38.5	7.7	150	40	8.18	7.24	1,125 ~~1,155~~		30	8,150
		-1.0	30.8	150	52	6.30					
20 ft. to W.S. 240		39.0	7.8	150	42	7.79	7.04	923 ~~975~~		25	6,500
		-2.1	31.2	150	52	6.30					
20' 220		38.1	7.6	150	40	8.18	7.24	728 ~~762~~		20	5,270
		-1.7	30.5	150 ~~100~~	52 ~~40~~	6.30 ~~5.46~~					
21' 200		37.8	7.6	150	41	7.98	7.14	714 ~~756~~		20	5,100
		-2.1	30.2	150	52	6.30					
22' 180		38.4	7.7	150	45	7.27	6.30	748 ~~768~~		20	4,710
		-1.0	30.7	100	41	5.33					
23 ft. to W.S. 160		39.2	7.8	150	45	7.27	6.72	768 ~~784~~		20	5,170
		-.8	31.4	150	53	6.18					
24' 140		38.5	7.7	150	42	7.79	7.20	740 ~~770~~		20	5,320
		-1.5	30.8	150	51	6.42				380	71,440

22° 40.4

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Dist. from initial point	Angle Coefficient	Depth	Depth of observation	Revolutions	Time in seconds	VELOCITY At point	VELOCITY Mean in section	Corr. Area	Area	Width	Discharge
25' to W.S. 22° 120	1	40.4	8.1	150	47	6.97	7.31	748 ~~808~~		20	5,470
		-3.0	32.3	200	57	7.65					
26' 20° 100		43.0	8.6	150	44	7.44	7.36	812 ~~860~~		20	5,980
		-2.4	34.4	150	45	7.27					
27 ft. to W.S. 14° 80		40.6	8.1	150	47	6.97	6.09	788 ~~812~~		20	4,800
		-1.2	32.5	100	42	5.21					
28' 6° 60		27.4	5.5	100	45	4.86	4.56	490 ~~493~~		18	2,280
		-.8 -.2	21.9	80	41	4.27					
44		15.5	3.1	20	40	1.12	1.06	232		15	250
			12.4	20	45	.99					
30		0				0	0	0		7	0
R.E.W. @ 3:30 p.m.								~~14,499~~ 14,507		480	~~90,620~~ 90,160

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