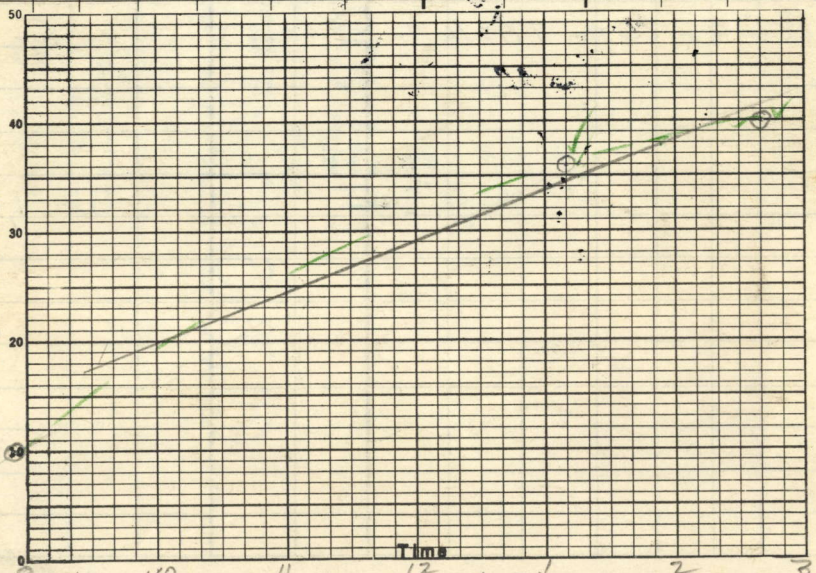
River at

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
	5.6	18.00	@	370							
	16.7	53.00		313							
	27.8	88.50		277							
	38.9	124.00		247							
	50	160.00		211							
	61	195.00		188							
	72.2	230.00		147							
	83.3	267.00		115							
	94.4	302.00		092							



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RECORDED

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Water Resources Branch

DISCHARGE MEASUREMENT NOTES

Meas. No. 507

Checked by RWB

Date 7/11/57

Water temp. °F

Air temp. °F

Time

Brazos River at Richmond, Tex.

Date April 24, 1957 Party J.N. Sanson + Wellborn

Width 410 Area 5810 Vel. 5.47 G.H. Disch. 31,800

Method 2.8 No. Secs. 23 G.H. Chng. +.03 ft. per hr. Time meas. 1.3 hrs.

Meter No. 1847 Date Rated Apr. 56 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

Time	Meas	Recorder	Tape	Inside	~~Outside~~ w.wt.
8:55 am			16.40	±	16.47
1:10 pm			16.66	±	
1:15 pm	Start		(16.66)		
2:35 pm	End		(16.70)		
2:40 pm			16.70	±	
~~Weighted~~ MGH			16.68		
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 58.70 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 -

Flow Weather Clear - hot

Other

Gage OK

Record removed No Intakes flushed No

Pencil None Wt. Adj. No Paper Dry

Record Clear * Chart time OK Clock Reg. N/A

Observer USWB - not visited

Control is channel.

Remarks * Recorder has too much surge - needs to be dampened. Found angle finder on cable car installed backwards - removed and installed correctly. Installed new bolt inside rail.

Page 1 of 4 G.H. of zero flow — ft.

USE THIS SHEET ONLY

9-275
September 1943

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

Date Apr. 24, 1957 **DISCHARGE MEASUREMENT NOTES**

Brazos River at Richmond, Tex.

Dist. from initial point	Depth Dist. 26 W.S.	Observation depth	Revolutions	Time in seconds	VELOCITY At point	VELOCITY Mean in vertical	VELOCITY Mean in section	~~Area~~ Vel.	Mean depth Area	Width Width	Discharge
460		Vert ∡	Obs. depth	Air Corr.	Wet line depth	Water corr.	Vert. depth.	V_M	Area 0	5	0
450							3.2	0	48	15	0
430							5.1	.52	102	20	50
410							7.4	1.06	148	20	160
390							9.4	2.18	188	20	410
370	38	4	11.5	.1	11.4	.0	11.4	4.58	228	20	1,040
350	38	6	12.8	.2	12.6	0	12.6	5.12	252	20	1,290
330	37	7	14.0	.3	13.7	0	13.7	6.38	274	20	1,750
310		7	14.2	.4	13.8	0	13.8	6.58	276	20	1,820
290		8	14.5	.4	14.1	0	14.1	6.50	282	20	1,830
270		8	15.3	.4	14.9	.1	14.8	6.78	296	20	2,010
250		8	15.8	.4	15.4	.1	15.3	6.85	306	20	2,100
230	38	8	16.7	.4	16.3	.1	16.2	6.71	324	20	2,170
210	38	8	18.0	.4	17.6	.1	17.5	6.38	350	20	2,230
190	39	10	18.3	.6	17.7	.1	17.6	6.76	352	20	2,380
170	40	10	19.1	.6	18.5	.1	18.4	6.01	368	20	2,210
150	41	10	19.6	.6	19.0	.1	18.9	5.68	378	20	2,150
130	42	10	23.2	.6	22.6	.1	22.5	5.88	450	20	2,650
110	43	10	24.7	.6	24.1	.1	24.0	6.14	480	20	2,950
90	44	10	22.4	.7	21.7	.1	21.6	5.39	432	20	2,330
70	45	5	13.4	.2	13.2	0	13.2	1.32	198	15	260
Neg flow 60		0	7.5	0			7.5	.42	75	10	30
50			0				0	0	0	5	0
									5807	410	31,760

No. 3a of _____ Sheets. Comp. by JNS. Chk. by [signature]

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80. Brazos River at Richmond, Tex.

Dist. from initial point	Angle Coefficient	OBS. Depth	Depth of observation	Revolutions	Time in seconds	VELOCITY At point	VELOCITY Mean in section	Corr. Area	Area	Width	Discharge
LEW @ 1:15 pm Cable 100 C.1.0 #1847 TG=16.66 @ 1:10 pm											
LEW 460		0	@				0	0		5	0
See sheet 3a for Air & Wet line corrections											
450		3.2					0			15	0
430		5.1	3.0	10	44	.52	.52		104	20	50
410		7.4	1.5	25	42	1.33	1.06		148	20	160
			5.6	15	42	.80					
390		9.4	1.9	50	40	2.78	2.18		188	20	410
38' to W.S.			7.5	30	42	1.59					
4° 370		11.5	2.3	100	43	5.14	4.58		230	20	1040
38'			9.0	80	44	4.02					
6° 350		12.8	2.6	150	55	6.02	5.12		256	20	1300
37'			10.2	80	42	4.22					
7° 330		14.0	2.8	150	51	6.50	6.38		280	20	1790
37'			11.1	150	53	6.25					
7° 310		14.2	2.8	150	48	6.90	6.58		284	20	1870
37'			11.2	150	53	6.25					
8° 290		14.5	2.9	150	49	6.76	6.50		290	20	1890
37			11.7	150	53	6.25					
8° 270		15.3	3.1	150	46	7.20	6.78		306	20	2080
37			12.2	150	52	6.37					
8° 250		15.8	3.2	150	46	7.20	6.85		316	20	2160
38'			12.6	150	51	6.50					
8° 230		16.7	3.3	150	47	7.05	6.71		334	20	2240
38'			13.3	150	52	6.37					
8° 210		18.0	3.6	150	51	6.50	6.38		360	20	2300
			14.4	150	53	6.25					
											17,390

for adjusted Q see P. 3a *

Page 2 of 4 Comp. by: Clarence Wellborn Q.W. Checked by: _____

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
39' to W.S.											17,290
10° 190		18.3	3.7	150	48	6.90	6.76		366	20	2470
40'			14.6	150	50	6.62					
10° 170		19.1	3.8	150	51	6.50	6.01		382	20	2300
41'			15.4	100	40	5.52					
10° 150		19.6	3.9	150	56	5.92	5.68		392	20	2220
42'			15.6	150	61	5.43					
10° 130		23.2	4.6	150	53	6.25	5.88		464	20	2730
43'			18.6	100	40	5.52					
10° 110		24.7	4.9	150	53	6.25	6.14		494	20	3020
44'			19.4	150	55	6.02					
10° 90		22.4	4.5	100	40	5.52	5.39		448	20	2450
45'			18.0	100	42	5.26					
5° trees 70		13.4	2.7	20	45	1.00	1.32		202	15	270
			10.8	30	41	1.63					
neg 60		7.5	1.5	10	60	.38	.42		75	10	- 30
			5.8	10	50	.46					
50		0					0	0		5	0
REW @ 2:35 pm TG=16.70 @ 2:40 pm											
										410	* 32,720

* for adjusted Q, see page 3a

=31,760

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