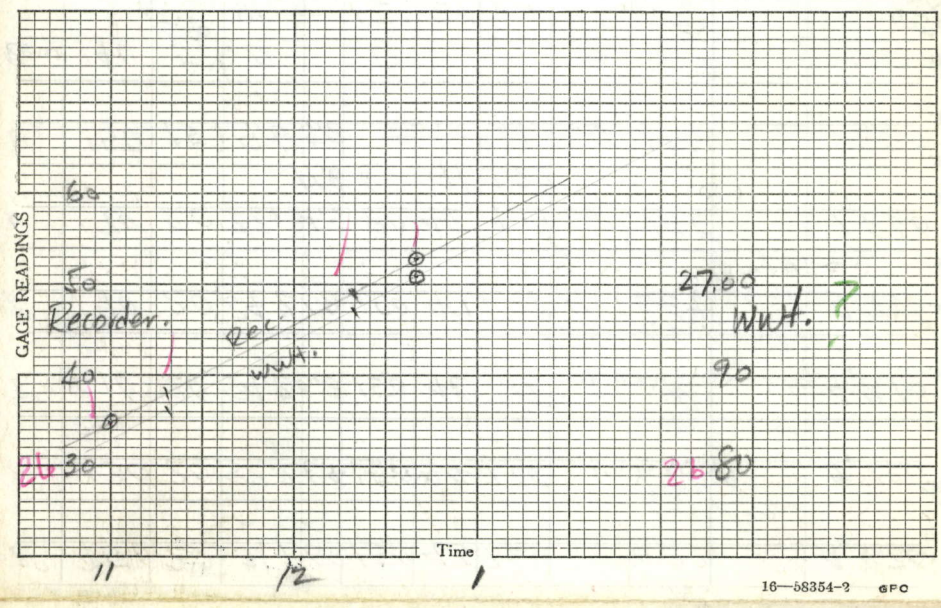
Angle coefficient	Dist. from initial point	Width	Depth	Observation depth	Revolutions	Time in seconds	VELOCITY At point	VELOCITY Mean in vertical	Adjusted for hor. angle or --------	Area	Discharge
.0	.10	.20	.30	.40	.50	.60	.70	.80	.85	.90	.92
											.94
											.96
											.97
											.98
											.99
⊙											1.00
											.99
											.98
											.97
											.96
											.94
											.92
.0	.10	.20	.30	.40	.50	.60	.70	.80	.85	.90	



16—58354-2 GPO

RECORDED

9-275-F
Jan. 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

DISCHARGE MEASUREMENT NOTES

Meas. No. 508
Comp. by
Checked by

Brazos River at Richmond, Tex.

Date April 27, 1957 Party Sansom + Rosenquest

Width 450 Area 10,300 Vel. 6.38 G. H. Disch. 65,700

Method 2 No. secs. 22 G. H. change +.12 / hr. hrs. Susp. 100C1.0

Method coef. 1.93 Hor. angle coef. 1.00 Susp. coef. 1.00 Meter No. 30051

GAGE READINGS				
Time		~~Recorder~~	Inside	~~Outside~~ Wwt.
11:00am		26.35	±.5	
11:18am	Start	(26.38)		
12:20pm	End	(26.49)		
12:40pm		26.53	±.5	27.01
Weighted M. G. H.		26.44		
G. H. correction				
Correct M. G. H.				

Date rated 8-12-49 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

Check-bar, chain found 58.69 changed to — at

Correct 58.68

Levels obtained No

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

Flow Smooth Weather Cloudy

Other — Air — °F@

Gage OK Water — °F@

Record removed No Intake flushed —

Observer USWB - not seen

Control is channel -

Remarks Total air and water corrections shown encircled under observed depths.

G. H. of zero flow — ft.

16—58354-2

508

River at—

Angle coefficient	Dist. from initial point	Width	Depth	Observation depth	Revolutions	Time in seconds	VELOCITY At point	VELOCITY Mean in vertical	Adjusted for hor. angle or AREA	Area	Discharge
T. G. 26.3 ±.05 @ 11:00 a.m.											
LEW @ 11:18 a.m. Cable 100 Clio # 3051											
LEW	490	5	0					0	0		0
	480	20	6.0	3.6	10	60		.38	120		50
	450	30	12.5	2.5	40	50	1.77		375		660
				10.0	40	45	1.97				
	420	30	14.7	2.9	80	51	3.44		441		1,520
				11.8	50	40	2.75				
0	390	30	18.1	3.6	100	43	5.09		543		2,760
				14.5	80	41	4.27				
8°	360	30	23.0	4.6	150	51	6.42		681 ~~690~~		4,370
⊙			-.3	18.4	100	40	5.46				
10°	330	25	24.4	4.9	200	60	7.27		600 ~~610~~		4,360
	27' to W.S.		-.5	19.5	150	50	6.55				
15°	310	20	25.0	5.0	150	41	7.98		476 ~~500~~		3,800
			-1.2								
15°	290	20	24.4	4.9	150	40	8.18		464 ~~488~~		3,800
			-1.2								
15°	270	20	25.7	5.1	200	51	8.55		488 ~~514~~		4,170
			-1.3								
15°	250	20	27.1	5.4	150	41	7.98		516 ~~542~~		4,120
			-1.3								
10°	230	20	29.0	5.8	150	40	8.18		8 ~~562~~ ~~580~~		5 ~~4,600~~
			-.9 .6								
10°	210	20	30.0	6.0	200	49	8.90		8 ~~582~~ ~~600~~		2 ~~5,130~~
	28' to W.S.		-.9 .6								
10°	190	20	31.5	6.3	200	52	8.39		8 ~~612~~ ~~630~~		8 ~~5,130~~
			-.9 .6								
10°	170	20	30.0	6.0	150	42	7.79		8 ~~582~~ ~~600~~		8 ~~4,530~~
			-.9 .6								
	29'										
8°	150	20	31.1	6.2	150	43	7.61		614 ~~622~~		4,670
			-.4								
8°	130	20	32.2	6.4	150	44	7.44		636 ~~644~~		4,730
	30'		-.4								
8°	110	20	34.2	6.8	150	46	7.12		676 ~~684~~		4,810
	31'		-.4								
8°	90	20	34.2	6.8	150	47	6.97		676 ~~684~~		4,710
			-.4								
0	70	20	22.3	4.5	80	42	4.17		446		1,860
				17.8	60	41	3.22				
0	50	15	9.6	5.8	Est. vel.			1.5	144		220
REW	40	5	0		0			0	0		0
	R.E.W. @ 12:20 p.m.								10,258 ~~10,280~~		70,250 ~~000~~
											x.93
⊙	Coeff. to convert $Q_{.2}$ to $Q_{.2.8}$ = .93										65,333 ~~100~~

Vertical angle

.0 .10 .20 .30 .40 .50 .60 .70 .75 .80 .85 .90 .92 .94 .96 .97 .98 .99 1.00 .99 .98 .97 .96 .94 .92 .90 .85 .80 .75

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