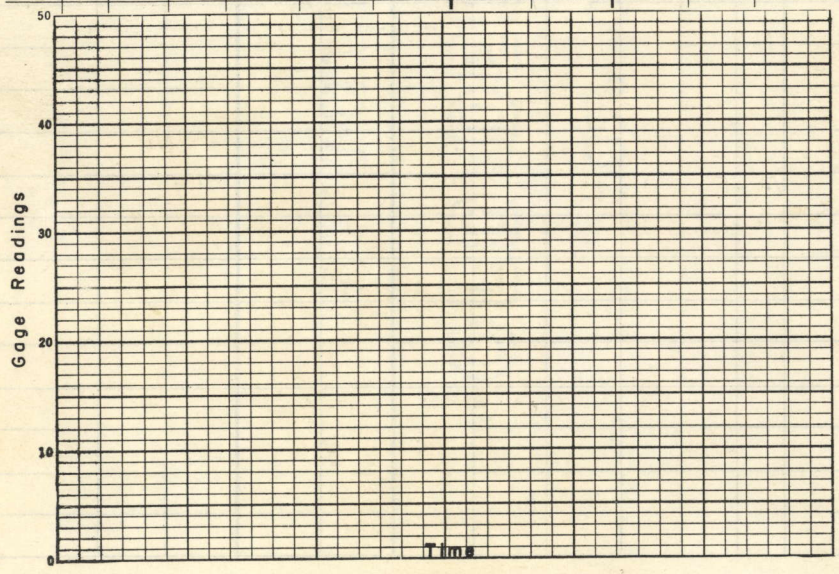
River at

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |




Page ___ of ___ Comp. by: _____ Checked by: _____

CS

A-34

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Water Resources Branch

DISCHARGE MEASUREMENT NOTES

Meas. No. 520
Checked by JWT
Date

Reviewed
Engr. in chg.

Water temp. 88 °F
Air temp. ___ °F
Time

Brazos River at Richmond, Tex.

Date Sept 3, 19 57 Party Tinker & Sauer

Width 336 Area 702 Vel. 1.40 G.H. ___ Disch. 986

Method 6.2.8 No. Secs. 24 G. H. Chng. +01 ft. per hr. Time meas. 1.2 hrs.

Meter No. 30052 Date Rated Jan 54 Susp. rod Susp. Coef. 1.00

Method Coef. 1.00 Hor. angle Coef. 1 Used rating for, rod — Susp.

GAGE READINGS

| Time | Meas | Recorder | Tape | Inside | Outside |
|---|---|---|---|---|---|
| 12:20 | pm | WWT | =2.61 | | |
| 12.25 | PM | | 2.63 | 262 | 261 |
| 1250 | pm | | 263 | 262 | 261 |
| 2:00 | (S) | | (2.64) | | |
| 3:10 | (E) | | (2.65) | | |
| | | W.WT | =2.74 | (Top of wave) | |
| 3:35 | pm | | 2.65 | | |
| ~~Weighted~~ MGH | | | 2.64 | | |
| GH Corr. | | | | | |
| Correct MGH | | | | | |

Meter — ft. above bottom of weight
Spin before meas. OK after OK
Wading, cable, ice, boat, upstr., downstr., side bridge 6000 feet, mile, above, below gage, and
Chain, wire, found 58.70 at ___ G-Sta.
Changed to — at —
Correct length 58.68
Levels Obtained —
Measurement rated, excellent (2 %), good (5%) fair (8 %), poor (over 8 %) based on following
Cross section uniform - sand - gravel

Flow Smooth Weather Raining about 3pm
Other —
Gage Found WWT unlocked.
Record removed Yes Intakes flushed No
Pencil NONE Wt. Adj. No Paper dry
Record clear Chart time ___ Clock Reg. No
Observer —

Control Partially sand bar 6000' below gage.

Remarks Max Peak Ind = 6.06 } Both Reset
Min Peak Ind = 1.81 }

Reviewed
Engr. in chg.

Page 1 of 3 G.H. of zero flow — ft.

Brazos River at Richmond

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| REW @ 2:00 pm, Wade 6000 ft below gage. (3052) | | | | | | | | | | | |
| 7 | | 0 | — | | | | | | | 2 | — |
| 8 | ⊥ | 2.2 | .44 | 30 | 44 | 1.51 | 1.37 | 12.1 | | 5½ | 16.0 |
| | | | 1.76 | 20 | 40 | 1.12 | | | | | |
| 15 | ⊥ | 3.3 | .66 | 30 | 40 | 1.66 | 1.62 | 36.3 | | 11 | 58.8 |
| | | | 2.64 | 30 | 42 | 1.58 | | | | | |
| 30 | ⊥ | 3.1 | .62 | 40 | 50 | 1.77 | 1.58 | 46.5 | | 15 | 73.5 |
| | | | 2.48 | 25 | 40 | 1.39 | | | | | |
| 45 | ⊥ | 2.3 | .46 | 40 | 52 | 1.70 | 1.46 | 34.5 | | 15 | 50.3 |
| | | | 1.84 | 25 | 46 | 1.21 | | | | | |
| 60 | ⊥ | 2.3 | .46 | 40 | 48 | 1.84 | 1.56 | 34.5 | | 15 | 53.8 |
| | | | 1.84 | 25 | 43 | 1.29 | | | | | |
| 75 | ⊥ | 1.9 | .38 | 40 | 45 | 1.96 | 1.72 | 28.5 | | 15 | 49.0 |
| | | | 1.52 | 30 | 45 | 1.48 | | | | | |
| 90 | ⊥ | 1.7 | .34 | 40 | 45 | 1.96 | 1.66 | 25.5 | | 15 | 42.3 |
| | | | 1.36 | 25 | 41 | 1.35 | | | | | |
| 105 | ⊥ | 2.2 | .44 | 40 | 47 | 1.88 | 1.66 | 33.0 | | 15 | 54.8 |
| | | | 1.76 | 30 | 46 | 1.45 | | | | | |
| 120 | ⊥ | 2.5 | .50 | 40 | 44 | 2.01 | 1.82 | 37.5 | | 15 | 68.3 |
| | | | 2.00 | 30 | 41 | 1.62 | | | | | |
| 135 | ⊥ | 2.7 | .54 | 40 | 41 | 2.15 | 1.88 | 40.5 | | 15 | 76.2 |
| | | | 2.16 | 30 | 41 | 1.62 | | | | | |
| 150 | ⊥ | 2.7 | .54 | 40 | 45 | 1.96 | 1.72 | 40.5 | | 15 | 69.7 |
| | | | 2.16 | 30 | 45 | 1.48 | | | | | |
| 165 | ⊥ | 3.0 | .60 | 40 | 47 | 1.88 | 1.60 | 45.0 | | 15 | 72.0 |
| | | | 2.40 | 25 | 42 | 1.32 | | | | | 684.7 |
| 180 | ⊥ | 3.0 | .60 | 40 | 50 | 1.77 | 1.52 | 45.0 | | 15 | 68.4 |
| | | | 2.40 | 30 | 53 | 1.26 | | | | | |
| 195 | ⊥ | 2.7 | .54 | 40 | 52 | 1.70 | 1.59 | 40.5 | | 15 | 64.4 |
| | | | 2.16 | 30 | 45 | 1.48 | | | | | 817.5 |

Page 2 of 3 Comp. by: VBS. Checked by: JWT.

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | 817.5 |
| 210 | ⊥ | 2.3 | .46 | 40 | 53 | 1.67 | 1.36 | 34.5 | | 15 | 46.9 |
| | | | 1.84 | 20 | 43 | 1.04 | | | | | |
| 225 | ⊥ | 2.0 | .40 | 30 | 46 | 1.45 | 1.16 | 30.0 | | 15 | 34.8 |
| | | | 1.60 | 20 | 52 | .86 | | | | | |
| 240 | ⊥ | 2.3 | .46 | 25 | 45 | 1.24 | 1.00 | 34.5 | | 15 | 34.5 |
| | | | 1.84 | 15 | 45 | .75 | | | | | |
| 255 | | 1.5 | .90 | 20 | 48 | | .93 | 22.5 | | 15 | 20.9 |
| RAINING HARD!! | | | | | | | | | | | |
| 270 | | 1.0 | .60 | 15 | 47 | | .72 | 17.5 | | 17½ | 12.6 |
| 290 | | 1.0 | .60 | 10 | 43 | | .53 | 20.0 | | 20 | 10.6 |
| 310 | | 1.4 | .84 | 7 | 54 | | .31 | 28.0 | | 20 | 8.7 |
| 330 | | 1.0 | .60 | 0 | 70 | | .00 | 15.0 | | 15 | 0 |
| 340 | | 0 | — | | | | | | | 5 | — |
| LEW @ 3:10 pm | | | | | | | | 701.9 | | 336 | 986.5 |

Page 3 of 3 Comp. by: Checked by: JWT.