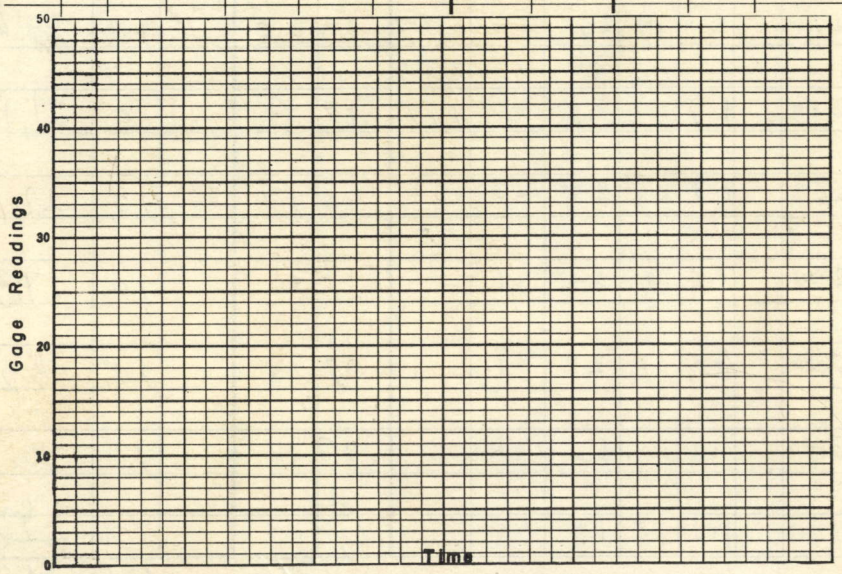
80. Brazos River at Richmond, Tex

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 310 | | .9 | .54 | 15 | 54 | | .64 | 9 | | 10 | 5.8 |
| 320 | | 1.4 | .84 | 10 | 45 | | .51 | 14 | | 10 | ~~6~~ 7.1 |
| 330 | | .8 | .48 | 7 | 52 | | .32 | 8 | | 10 | 2.6 |
| 340 | | .9 | .54 | 3 | 64 | | .13 | 9 | | 10 | 1.2 |
| 350 | | .8 | .48 | 0 | 70 | | 0 | 8 | | 10 | 0 |
| 360 | | .4 | .16 | 0 | 70 | | 0 | 2 | | 5 | 0 |
| | | | | | | | | 50 | | 55 | 15.7 |
| | | | | | | | | 35.3 | | 160 | 631.3 |
| | | | | | | | | 376 | | 195 | 587.4 |
| | | | | | | | | 780 | | 360 | ~~1234.4~~ |
| | | | | | | | | 79 | | | 1193.2 |

REW @ 1:00 pm




Page 4 of 4 Comp. by: JCS Checked by:

A-34

C5

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Water Resources Branch

DISCHARGE MEASUREMENT NOTES

Water temp. °F
Air temp. °F
Time

Meas. No. 521
Checked by SHH
Date 1-6-58

Brazos River Nr. Richmond, Tex

Date Oct 8, 1957 Party J. E. Smith

Width 360 Area ~~780~~ 779 Vel. ~~.96~~ 1.53 G.H. Disch. ~~1230~~ 1190

Method .628 No. Secs. 367 G.H. Chng. -.01 ft. per hr. Time meas. 2.0 hrs.

Meter No. 1950 Date Rated Dec 53 Susp. Rod 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 |
|---|---|---|---|---|---|
| 9:00 | am | | 2.78 | 2.78 | 2.78 |
| 11:00 | am | St-(2.78) | | | |
| 1:00 | pm | Fin (2.75) | | | |
| 1:05 | pm | | 2.75 | | |
| Weighted MGH | | | 2.76 | | |
| GH Corr. | | | | | |
| Correct MGH | | | | | |

Meter ft. above bottom of weight
Spin before meas. ok after ok
Wading, cable, ice, boat, upstr., downstr., side bridge 3/4 feet, mile, above, below gage, and
Chain, wire, found at G-Sta.
Changed to at
Correct length
Levels Obtained
Measurement rated, excellent (2%), good (5%) fair (8%), poor (over 8%) based on following
Cross section Sandy

Flow Uniform Weather clear & warm
Other
Gage ok
Record removed yes Intakes flushed No
Pencil Wt. Adj. No Paper dry
Record Good Chart time OK Clock Reg.
Observer
Control
Remarks PK. Stage indc - 7.61 Min pk - 1.78

Reviewed
[signature]
Engr. in chg.

Page 1 of 4 G.H. of zero flow ft.

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 @ 11:00 am | | | | | | | | | | | |
| 0 | | 0 | VE | 0 | | | | | | 5 | |
| | | | | | | | | | | | |
| 1.0 | | 3.0 | .6 | 30 | 41 | 1.63 | 1.48 | 30 | | 10 | 44.4 |
| | | | 2.4 | 25 | 42 | 1.33 | | | | | |
| 2.0 | | 3.6 | .7 | 40 | 45 | 1.97 | 1.76 | 36 | | 10 | 63.3 |
| | | | 2.9 | 30 | 43 | 1.55 | | | | | |
| 3.0 | | 3.0 | .6 | 40 | 52 | 1.71 | 1.55 | 30 | | 10 | 46.5 |
| | | | 2.4 | 25 | 40 | 1.39 | | | | | |
| 4.0 | | 2.5 | .5 | 21 | 42 | 1.33 | 1.50 | 25 | | 10 | 37.5 |
| | | | 2.0 | 30 | 40 | 1.67 | | | | | |
| 5.0 | | 2.2 | .4 | 25 | 48 | 1.17 | 1.47 | 22 | | 10 | 32.3 |
| | | | 1.8 | 40 | 50 | 1.77 | | | | | |
| 6.0 | | 2.5 | .5 | 40 | 52 | 1.71 | 1.82 | 25 | | 10 | 45.5 |
| | | | 2.0 | 40 | 46 | 1.93 | | | | | |
| 7.0 | | 2.2 | .4 | 25 | 48 | 1.17 | 1.57 | 22 | | 10 | 34.5 ~~23.5~~ |
| | | | 1.8 | 40 | 45 | 1.97 | | | | | |
| 8.0 | | 2.0 | .4 | 30 | 45 | 1.48 | 1.74 | 20 | | 10 | 34.8 |
| | | | 1.6 | 40 | 44 | 2.01 | | | | | |
| 9.0 | | 1.9 | .4 | 25 | 42 | 1.33 | 1.65 | 19 | | 10 | 31.3 |
| | | | 1.5 | 40 | 45 | 1.97 | | | | | |
| 10.0 | | 2.0 | .4 | 30 | 46 | 1.45 | 1.69 | 20 | | 10 | 33.8 |
| | | | 1.6 | 40 | 46 | 1.93 | | | | | |
| 11.0 | | 2.2 | .4 | 30 | 41 | 1.63 | 1.82 | 22 | | 10 | 40.0 |
| | | | 1.8 | 40 | 44 | 2.01 | | | | | |
| 12.0 | | 2.5 | .5 | 30 | 43 | 1.55 | 1.83 | 25 | | 10 | 45.8 |
| | | | 2.0 | 40 | 42 | 2.11 | | | | | |
| 13.0 | | 2.7 | .5 | 30 | 41 | 1.63 | 1.87 | 27 | | 10 | 50.4 |
| | | | 2.2 | 40 | 42 | 2.11 | | | | | |
| 14.0 | | 3.0 | .6 | 40 | 48 | 1.87 | 1.98 | 30 | | 10 | 59.4 |
| | | | 2.4 | 40 | 41 | 2.16 | | 358 | | 145 | ~~587.4~~ |

Page 2 of 2 Comp. by: JEA 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 15.0 | | 3.0 | .6 | 40 | 47 | 1.89 | 2.00 | 30 | | 10 | 60.0 |
| | | | 2.4 | 40 | 42 | 2.11 | | | | | |
| 16.0 | | 3.0 | .6 | 30 | 40 | 1.67 | 1.86 | 30 | | 10 | 55.8 |
| | | | 2.4 | 40 | 43 | 2.06 | | | | | |
| 17.0 | | 3.0 | .6 | 40 | 50 | 1.77 | 1.92 | 30 | | 10 | 57.6 |
| | | | 2.4 | 40 | 43 | 2.06 | | | | | |
| 18.0 | | 3.0 | .6 | 40 | 47 | 1.89 | 1.91 | 30 | | 10 | 57.3 |
| | | | 2.4 | 40 | 46 | 1.93 | | | | | |
| 19.0 | | 3.0 | .6 | 30 | 44 | 1.52 | 1.74 | 30 | | 10 | 52.2 |
| | | | 2.4 | 40 | 45 | 1.97 | | | | | |
| 20.0 | | 3.0 | .6 | 30 | 46 | 1.45 | 1.63 | 30 | | 10 | 48.9 |
| | | | 2.4 | 40 | 49 | 1.81 | | | | | |
| 21.0 | | 3.0 | .6 | 30 | 47 | 1.42 | 1.55 | 30 | | 10 | 46.5 |
| | | | 2.4 | 40 | 53 | 1.68 | | | | | |
| 22.0 | | 2.8 | .6 | 25 | 42 | 1.33 | 1.44 | 28 | | 10 | 40.3 |
| | | | 2.2 | 30 | 43 | 1.55 | | | | | |
| 23.0 | | 2.5 | .5 | 20 | 40 | 1.12 | 1.36 | 25 | | 10 | ~~33.7~~ 34.0 |
| | | | 2.0 | 30 | 42 | 1.59 | | | | | |
| 24.0 | | 2.0 | .4 | 25 | 44 | 1.27 | 1.43 | 20 | | 10 | 28.6 |
| | | | 1.6 | 30 | 42 | 1.59 | | | | | |
| 25.0 | | 1.8 | 1.0 | 25 | 48 | 1.17 | 1.17 | 18 | | 10 | 21.1 |
| | | | | | | | | | | | |
| 26.0 | | 1.7 | 1.0 | 25 | 43 | | 1.30 | 17 | | 10 | 22.1 |
| | | | | | | | | | | | |
| 27.0 | | 1.6 | .96 | 25 | 46 | | 1.21 | 16 | | 10 | 19.3 |
| | | | | | | | | | | | |
| 28.0 | | 1.8 | 1.1 | 20 | 49 | | .92 | 18 | | 10 | 16.5 |
| | | | | | | | | | | | |
| 29.0 | | 1.4 | 1.0 | 15 | 44 | | .77 | 14 | | 10 | 10.7 |
| | | | | | | | | | | | |
| 30.0 | | 1.0 | .6 | 15 | 56 | | .61 | 10 | | 10 | ~~6.1~~ 6.10 |
| | | | | | | | | 396 | | 160 | 631.3 |

Page 3 of 2 Comp. by: JEA Checked by: _____