

Sheet No. 1 of 1 sheets

MEASUREMENT NOTES

LEFT BANK: Sloping

Vertical

Othertree line

RIGHT BANK: Sloping

Vertical

Other _____

| Transect Number | Start | | | Ending | | Total Discharge Vt6 | Remarks | |
|--------------------|-------|------|----------|----------|------|---------------------------|--------------------|---------------|
| | Bank | Time | Distance | Distance | Time | | BT | BT w/ sq. REW |
| 000 | REW | 1340 | 48 | 20 | 1347 | 958439 | 928,811 | 929385 |
| 001 | LEW | 1347 | 20 | 39 | 1355 | 973959 | 927,767 | 928791 |
| 002 | REW | 1355 | 39 | 20 | 1403 | 929703 | 964,073 | 964886 |
| 003 | LEW | 1403 | 20 | 39 | 1412 | 1040420 | 936,310 | 937378 |
| 004 | REW | 1413 | 39 | 20 | 1419 | 1035788 | 935,699 | 936543 |
| 005 | LEW | 1420 | 20 | 30 | 1428 | | 945,619 | 946769 |
| | | | | | | | | |
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Notes:

flood plain not measured past tree line on main channel's left edge
 Aborted loop test 007, 008, & 009; ADCP malfunctions.

Station Number: Ohio_US_60_Bridge
Station Name: Ohio_Rr_before_Confluence

Meas. No: 3
Date: 05/11/2011

| | | |
|----------------------|----------------------|--------------------------|
| Party: CBR/KMH | Width: 2,620 ft | Processed by: CBR |
| Boat/Motor: 513 | Area: 173,000 ft² | Mean Velocity: 5.45 ft/s |
| Gage Height: 0.00 ft | G.H.Change: 0.000 ft | Discharge: 941,000 ft³/s |

| | | | |
|------------------------------|----------------------------|--------------------------|---------------|
| Area Method: Avg. Course | ADCP Depth: 0.420 ft | Index Vel.: 0.00 ft/s | Rating No.: 1 |
| Nav. Method: Bottom Track | Shore Ens.: 10 | Adj. Mean Vel: 0.00 ft/s | Qm Rating: F |
| MagVar Method: Model (-1.4°) | Bottom Est: Power (0.1667) | Rated Area: 0.000 ft² | Diff.: 0.000% |
| Depth Sounder: 0.000 ft | Top Est: Power (0.1667) | Control1: Unspecified | |
| | | Control2: Unspecified | |
| | | Control3: Unspecified | |

Screening Thresholds:

BT 3-Beam Solution: YES
WT 3-Beam Solution: NO
BT Error Vel.: 0.33 ft/s*
WT Error Vel.: 3.50 ft/s
BT Up Vel.: 1.00 ft/s
WT Up Vel.: 15.00 ft/s
Use Weighted Mean Depth: YES

Max. Vel.: 10.4 ft/s
Max. Depth: 105 ft
Mean Depth: 65.9 ft
% Meas.: 91.02
Water Temp.: 18.5 °C
ADCP Temp.: 18.4 °C

ADCP:

Type/Freq.: Rio Grande/1200 kHz
Serial #: 5954 Firmware: 10.16
Bin Size: 25 cm Blank: 25 cm
BT Mode: 5 BT Pings: 1
WT Mode: 12 WT Pings: 1
WV : 254 WO : 4, 18

Performed Diag. Test: YES
Performed Moving Bed Test: YES
Performed Compass Test: YES

Project Name: Ohio_US_60_BRidge_3.mmt
Software: 2.07

Meas. Location: US of 60 Bridge 0.75 miles

| Tr.# | | Edge Distance | | #Ens. | Discharge | | | | | | Width | Area | Time | | Mean Vel. | | % Bad | | |
|------|---|---------------|------|-------|-----------|--------|--------|------|-------|--------|-------|--------|-------|-------|-----------|-------|-------|------|--|
| | | L | R | | Top | Middle | Bottom | Left | Right | Total | | | Start | End | Boat | Water | Ens. | Bins | |
| 000 | R | 20 | 48 | 209 | 28407 | 853264 | 46600 | 193 | 894 | 929358 | 2618 | 176139 | 13:40 | 13:47 | 6.55 | 5.28 | 9 | 1 | |
| 001 | L | 20 | 39 | 251 | 28934 | 843854 | 54274 | 54.9 | 1674 | 928791 | 2634 | 171481 | 13:47 | 13:55 | 5.48 | 5.42 | 13 | 2 | |
| 002 | R | 20 | 39 | 230 | 30193 | 877591 | 55557 | 217 | 1329 | 964886 | 2613 | 171665 | 13:55 | 14:03 | 5.86 | 5.62 | 15 | 2 | |
| 003 | L | 20 | 39 | 269 | 29357 | 855234 | 50938 | 103 | 1746 | 937378 | 2636 | 172061 | 14:03 | 14:12 | 5.05 | 5.45 | 11 | 2 | |
| 004 | R | 20 | 39 | 201 | 29158 | 853347 | 52074 | 504 | 1461 | 936543 | 2595 | 172690 | 14:13 | 14:19 | 7.05 | 5.42 | 14 | 2 | |
| 005 | L | 20 | 36 | 255 | 29401 | 853700 | 61716 | 73.2 | 1880 | 946769 | 2620 | 171168 | 14:20 | 14:28 | 5.51 | 5.53 | 13 | 3 | |
| Mean | | 20 | 40 | 235 | 29242 | 856165 | 53526 | 191 | 1497 | 940621 | 2619 | 172534 | Total | 00:48 | 5.92 | 5.45 | 12 | 2 | |
| SDev | | 0 | 4 | 27 | 590 | 11260 | 5070 | 167 | 356 | 13569 | 14.8 | 1842.4 | | | | 0.75 | 0.12 | | |
| SD/M | | 0.00 | 0.10 | 0.12 | 0.02 | 0.01 | 0.09 | 0.87 | 0.24 | 0.01 | 0.01 | 0.01 | | | | 0.13 | 0.02 | | |

Remarks: BT Reference. Loop Test correction = 5.27%

* - value not consistent for all transects

Ohio_US_60_BRidge_3_000_11-05-11_ASC20110518

LC Version 3.00, February 1, 2010

Processed on: 18-May-2011

Loop File: Ohio_US_60_BRidge_3_010_11-05-11_LBT_ASC.TXT

| Distance Made Good (ft) | Loop Time (sec) | Moving Bed Velocity (ft/s) | Moving Bed Direction (degrees) | Flow Direction (degrees) | Estimated Percent Correction (percent) |
|----------------------------------|-----------------------|-------------------------------------|---|--------------------------------|---|
| 246.83 | 840.37 | 0.29 | 328.29 | 137.24 | 5.27 |

Percent Bad Bottom Track: 17.1

WARNING: Percentage of bad bottom track values exceeds 5.
Loop may not be accurate. Please review data.

Difference in flow direction between out and back sections: 3.1 deg

Loop Indicates a Moving Bed -- Select transects to be corrected

| File Name | Original Discharge cfs | Adjusted Discharge cfs |
|---------------------------------|---------------------------|---------------------------|
| 0_BRidge_3_000_11-05-11_ASC.TXT | 929358.00 | 987742.89 |
| 0_BRidge_3_001_11-05-11_ASC.TXT | 928790.90 | 983696.19 |
| 0_BRidge_3_002_11-05-11_ASC.TXT | 964886.10 | 1023046.11 |
| 0_BRidge_3_003_11-05-11_ASC.TXT | 937378.10 | 992021.50 |
| 0_BRidge_3_004_11-05-11_ASC.TXT | 936543.60 | 993190.92 |
| 0_BRidge_3_005_11-05-11_ASC.TXT | 946769.50 | 1001370.08 |
| Average | 940621.03 | 996844.61 |