

9-275-1	10/24/08	U.S. DEPARTMENT OF THE INTERIOR U.S. Geological Survey				Meas. No.	3
Station Number		ADCP Discharge Measurement Notes				Processed by	SS
Station Name		MISSISSIPPI R. AB CONFLUENCE				Checked by	
Date	5-1	2011	Party	ESS/JRM			
Width	Area / Rated Area	Velocity	Index Vel.	Gage Height	Discharge		
7510	258,000	3.14			811 000		
Gage Height Change	Meas. plots	From rating	Shift		ADCP Sync'd to WT		
in	hrs.	% diff	No.		Y or N		
ADCP Mfr / Model / Frequency		Serial No.	Firmware	Software			
RD1 / R10 / 600		1127	10.16	2.07			
Boat/Motors Used		GPS Used	ADCP Depth	Diag. Test / Errors?			
MO WSC QW		TRIMB AB	2.4	Y or N			
Compass Calib. & Total Error	Mag. Var	MagVar Method		Moving Bed?			
Cor N	0.5	-1.6	On-site	Previous			
Meas. Water Temp	ADCP Water Temp	Weather / Air Temp	Wind Speed / Dir.				
15.1 F / Cat	14.1 F / Cat	000000	0-5 SW				

  

Gage Readings			Site Conditions		
Time	Inside	Outside	Max Water Depth	73.3	
1025			Max Water Speed		
			Max Boat Speed		
1120			Water Mode	12	
			Bottom Mode	5	
			Streambed material		
			Salinity		
			ppt at		
Weighted MGH			Checkbar found		
GH corrections			Checkbar changed to:		
Correct MGH			at		

  

Wading, cable, ice, boat, upstr., downstr., side bridge		ft., mi. upstr., downstr. of gage	
Measurement rated: excellent (2%) good (5%) fair (8%) poor (>8%)		based on following conditions	
Flow	EVER		
Cross section:			
Control:	CHANNEL		
Gage operating:	Y or N	Record removed:	Y or N
Battery voltage		Intakes/Orifice cleaned/purged:	
Bubble-gage psi:	Tank	Line	Bubble rate
Extreme-GH indicators:	May	Min	CSG Checked
HWM on stick		Ref elev.	HWM elevation
GH of zero flow = GH		- depth at control	ft. Rated =
Sheet No.		of sheets	

Party: ESS/JRM	Width: 2,150 ft	Processed by: ESS
Boat/Motor: MO WSC QW	Area: 128,000 ft <sup>2</sup>	Mean Velocity: 4.89 ft/s
Gage Height: 0.00 ft	G.H.Change: 0.000 ft	Discharge: 625,000 ft <sup>3</sup> /s

Area Method: Avg. Course	ADCP Depth: 2.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: F
MagVar Method: Model (-1.6°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft <sup>2</sup>	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:		ADCP:	
BT 3-Beam Solution: YES	Max. Vel.: 11.4 ft/s	Type/Freq.: Rio Grande / 600 kHz	
WT 3-Beam Solution: NO	Max. Depth: 73.3 ft	Serial #: 1127	Firmware: 10.16
BT Error Vel.: 0.33 ft/s	Mean Depth: 59.5 ft	Bin Size: 50 cm	Blank: 25 cm
WT Error Vel.: 3.50 ft/s	% Meas.: 82.04	BT Mode: 5	BT Pings: 1
BT Up Vel.: 1.00 ft/s	Water Temp.: 15.1 °C	WT Mode: 12	WT Pings: 1
WT Up Vel.: 12.00 ft/s	ADCP Temp.: 14.1 °C	WV : 254	WO : 1, 19
Use Weighted Mean Depth: YES			

Performed Diag. Test: YES  
 Performed Moving Bed Test: NO  
 Performed Compass Test: YES  
 Meas. Location:

Project Name: MississippiAbConf050111\_0.mr  
 Software: 2.08

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	240	0	468	48315	510888	51596	9459	0.000	620258	2161	128843	10:47	10:53	6.12	4.81	1	0	#
002	L	230	0	621	49826	514867	54690	10733	0.000	630116	2136	126857	10:56	11:03	4.62	4.97	0	0	
Mean		235	0	544	49070	512877	53143	10096	0.000	625187	2149	127850	Total	00:15	5.37	4.89	0	0	
SDev		7	0	108	1068	2814	2188	901	0.000	6971	17.7	1404.7			1.06	0.11			
SD/M		0.03	0.00	0.20	0.02	0.01	0.04	0.09	0.00	0.01	0.01	0.01			0.20	0.02			

**Remarks:** This mmt subsectioned by TAK on 2/14/12 to determine main channel vs overflow  
 for the purpose of estimating overflow on other dates.

Party: ESS/JRM	Width: 7,370 ft	Processed by: ESS
Boat/Motor: MO WSC QW	Area: 131,000 ft <sup>2</sup>	Mean Velocity: 1.42 ft/s
Gage Height: 0.00 ft	G.H.Change: 0.000 ft	Discharge: 186,000 ft <sup>3</sup> /s

Area Method: Avg. Course	ADCP Depth: 2.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: F
MagVar Method: Model (-1.6°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft <sup>2</sup>	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:		ADCP:
BT 3-Beam Solution: YES	Max. Vel.: 5.03 ft/s	Type/Freq.: Rio Grande / 600 kHz
WT 3-Beam Solution: NO	Max. Depth: 44.8 ft	Serial #: 1127      Firmware: 10.16
BT Error Vel.: 0.33 ft/s	Mean Depth: 17.8 ft	Bin Size: 50 cm      Blank: 25 cm
WT Error Vel.: 3.50 ft/s	% Meas.: 56.90	BT Mode: 5      BT Pings: 1
BT Up Vel.: 1.00 ft/s	Water Temp.: 15.1 °C	WT Mode: 12      WT Pings: 1
WT Up Vel.: 12.00 ft/s	ADCP Temp.: 14.1 °C	WV : 254      WO : 1, 19
Use Weighted Mean Depth: YES		

Performed Diag. Test: YES  
 Performed Moving Bed Test: NO  
 Performed Compass Test: YES  
 Meas. Location:

Project Name: MississippiAbConf050111\_0.mr  
 Software: 2.08

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	0	636	1954	51967	105550	29193	0.000	-674	186036	7374	130344	10:25	10:47	5.15	1.43	0	1
002	L	0	636	1477	51370	105593	28648	0.000	-588	185023	7357	131200	11:03	11:20	6.82	1.41	0	1
<b>Mean</b>		0	636	1715	51668	105572	28921	0.000	-631	185529	7366	130772	<b>Total</b>	00:54	5.99	1.42	0	1
<b>SDev</b>		0	0	337	422	30.7	386	0.000	60.6	716	11.6	605.4			1.18	0.01		
<b>SD/M</b>		0.00	0.00	0.20	0.01	0.00	0.01	0.00	0.10	0.00	0.00	0.00			0.20	0.01		

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