

9-275-1	07/08/09	U.S. DEPARTMENT OF THE INTERIOR U.S. Geological Survey				Meas. No.	
Station Number		ADCP Discharge Measurement Notes				Processed by	FEB
						Checked by	
Station Name		Mississippi R. below branch					
Date	Mar 23, 2011	Party	B. Brumley / L. Graham				
Width	Area / Rated Area	Velocity	Index	Gage Height	Discharge		
535m	238,000	4.63			1,099,000		
Gage Height Change		Meas. plots	From rating	Indicated Shift	ADCP Sync'd to WT		
in hrs.		% diff	No.:		Y at _____ or N		
ADCP Mfr / Model / Frequency			Serial No.	Firmware	Software		
600 kHz Rio			8708	10.16	2.0		
Boat/Motors Used		GPS Used	ADCP Depth	Diag. Test / Errors?			
Sonarman		yes	3.00	Y or (N)			
Compass Calib. & Total Error		Mag. Var	MagVar Method		Moving Bed?		
Y or N		9	-1.60	On-site (Model) Previous	Y or N		
Meas. Water Temp		ADCP Water Temp	Weather / Air Temp		Wind Speed / Dir.		
68 (F) / C at 1300		°F / C at	°F / C				
Gage Readings					Site Conditions		
Time	Start End	Primary reference			Max Water Depth		
					Max Water Speed		
1249	(S)				Max Boat Speed		
					Water Mode		
					Bottom Mode		
					Streambed material		
1413	(e)				Salinity		
					ppt at		
Weighted MGH					Checkbar found		
GH corrections					Checkbar changed to:		
Correct MGH					at		
Wading, cable, ice, boat, upstr., downstr., side bridge				bc. of bank	ft., mi. upstr., downstr. of gage		
Measurement rated:		excellent (2%), good (5%), fair (8%), poor (>8%)			based on following conditions		
Flow	ADCP coming out of water due to choppy conditions						
Cross section:	very busy due to wind						
Control:							
Gage operating:	Y or N	Record removed:	Y or N	Filename:			
Battery voltage	V		Intakes/Orifice cleaned/purged:				
Bubble-gage psi:	Tank	Line	Bubble rate	/ min			
Extreme-GH indicators:	Max	Min	CSG Checked	Y or N			
HWM on stick	Ref elev.		HWM elevation				
GH of zero flow = GH	- depth at control		=	ft.	Uncertainty	±	
Sheet No.			of	sheets			

Acoustic Profiler Discharge Measurement Notes							Filename Prefix:
Left Bank:	Sloping Vertical Other: _____					Right Bank:	Sloping Vertical Other: _____
Transect No.	Starting			Ending		Total Discharge	Notes
	Bank	Time	Distance	Distance	Time		
000	① R	1249	150	590	1303	1129351	
001	L ①	1303	590	126	1328	1062077	
002	① R	1331	186	600	1349	1136254	
003	L ①	1349	600	178	1413	1070211	
	L R					1099473	
	L R						
	L R						
	L R						
	L R						
	L R						
	L R						
	L R						
	L R						
Notes	$Q = 1,100,000$ $M_{time} = 1330 \text{ cft}$						

Station Number:

Meas. No: 0

Station Name: Mississippi R. below breach

Date: 05/23/2011

Party: REB/GEG	Width: 5,350 ft	Processed by:
Boat/Motor:	Area: 238,000 ft ²	Mean Velocity: 4.63 ft/s
Gage Height: 0.00 ft	G.H.Change: 0.000 ft	Discharge: 1,100,000 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 3.000 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: U
MagVar Method: None (-1.6°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	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.: 19.8 ft/s	Type/Freq.: Rio Grande / 600 kHz	
WT 3-Beam Solution: NO	Max. Depth: 62.9 ft	Serial #: 8708	Firmware: 10.16
BT Error Vel.: 0.33 ft/s	Mean Depth: 44.4 ft	Bin Size: 50 cm	Blank: 25 cm
WT Error Vel.: 3.50 ft/s	% Meas.: 79.07	BT Mode: 5	BT Pings: 1
BT Up Vel.: 1.00 ft/s	Water Temp.: None	WT Mode: 12	WT Pings: 1
WT Up Vel.: 8.00 ft/s	ADCP Temp.: 19.5 °C	WV : 175	WO : 1, 14
Use Weighted Mean Depth: YES			

Performed Diag. Test: NO

Project Name: Mississippi_R_below breach.mr

Performed Moving Bed Test: YES

Software: 2.08

Performed Compass Test: NO

Meas. Location:

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	L	150	590	1512	132143	895186	98896	594	2533	1129351	5339	241880	12:49	13:03	5.44	4.67	0	0
001	R	126	590	2548	127607	837546	94920	121	1883	1062078	5308	232020	13:03	13:28	3.93	4.58	0	0
002	L	186	600	1864	133879	893845	102894	589	5046	1136254	5365	237461	13:31	13:49	4.47	4.78	0	0
003	R	148	600	2569	126599	850619	92226	-431	1198	1070211	5375	238727	13:49	14:13	3.34	4.48	0	0
Mean		153	595	2123	130057	869299	97234	219	2665	1099474	5347	237522	Total	01:24	4.29	4.63	0	0
SDev		25	6	523	3508	29608	4663	486	1679	38731	30.1	4111.8			0.89	0.13		
SD/M		0.16	0.01	0.25	0.03	0.03	0.05	2.22	0.63	0.04	0.01	0.02			0.21	0.03		

Remarks: