9-275-I	10/24/08	U.S. DEPARTMENT OF THE INTERIOR	Meas. No.	1
Station Number		*U.S. Geological Survey*	Processed by	SS
363524089302700		**ADCP Discharge Measurement Notes**	Checked by	

Station Name	NEW MADRID F.W. OUT FLOW				
Date	5-3, 2011	Party	ESS/CSB		113,000 ~ DK
Width	Area / Rated Area	Velocity	Index Vel.	Gage Height	Discharge
7,380	108,000 /	1.22	—	—	132,000

Gage Height Change	Meas. plots	From rating	Shift	ADCP Sync'd to WT
— in — hrs.	% diff	No.:	—	Y at _____ or N

ADCP Mfr / Model / Frequency	Serial No.	Firmware	Software
RDI / RIO / 600	11170	10.16	2.07

Boat/Motors Used	GPS Used	ADCP Depth	Diag. Test / Errors?
MO WSC WORKSKIFF TRIMB. AG.		1.4 / .8	Y or N

Compass Calib. & Total Error		Mag. Var	MagVar Method	Moving Bed?
Y or N	1.1	-1.6	On-site / Model / Previous	Y or N

Meas. Water Temp	ADCP Water Temp	Weather / Air Temp	Wind Speed / Dir.
14.5 °F/C at	15.1 °F/C at	PC WARM °F/C	10-20 NNW

Gage Readings							Site Conditions	
Time					Inside	Outside	Max Water Depth	44
							Max Water Speed	
1711	S						Max Boat Speed	
							Water Mode	12
1844	F						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	EVEN
Cross section:	FAIRLY EVEN
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.	Rated=	
Sheet No.	of	sheets			

Measurements made at two different locations (363454 089285900 and 363524 089302700) and combined on this front sheet.

Station Number:

Station Name: Lower Outflow at New Madrid

Meas. No:

Date: 05/03/2011

Party: ESS/CSB
Boat/Motor: MO WSC Workskiff
Gage Height: 0.00 ft

Width: 3,190 ft
Area: 57,800 ft²
G.H.Change: 0.000 ft

Processed by: ESS
Mean Velocity: 1.96 ft/s
Discharge: 113,000 ft³/s

Area Method: Avg. Course
Nav. Method: DGPS
MagVar Method: Model (-1.6°)
Depth Sounder: Not Used

ADCP Depth: 1.400 ft
Shore Ens.:10
Bottom Est: Power (0.1667)
Top Est: Power (0.1667)

Index Vel.: 0.00 ft/s
Adj.Mean Vel: 0.00 ft/s
Rated Area: 0.000 ft²
Control1: Unspecified
Control2: Unspecified
Control3: Unspecified

Rating No.: 1
Qm Rating: F
Diff.: 0.000%

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.: 7.00 ft/s
Use Weighted Mean Depth: YES

Max. Vel.: 8.39 ft/s
Max. Depth: 44.2 ft
Mean Depth: 18.1 ft
% Meas.: 59.92
Water Temp.: 14.8 °C
ADCP Temp.: 15.1 °C

ADCP:
Type/Freq.: Rio Grande/600 kHz
Serial #: 11170
Bin Size: 50 cm
BT Mode: 5
WT Mode: 12
WV : 175

Firmware: 10.16
Blank: 25 cm
BT Pings: 1
WT Pings: 1
WO : 1, 8*

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

Project Name: LowerOutflow_0.mmt
Software: 2.07

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	75	46	2365	23595	65901	19776	127	137	109537	3217	60363	17:11	17:28	3.62	1.81	0	1
001 R	46	43	3150	25664	69478	20907	196	139	116384	3164	55192	17:29	17:53	2.92	2.11	0	1
Mean	61	44	2757	24630	67689	20341	162	138	112961	3191	57777	**Total**	00:41	3.27	1.96	0	1
SDev	21	1	555	1463	2529	799	48.6	1.82	4842	38.1	3656.9			0.49	0.21		
SD/M	0.34	0.03	0.20	0.06	0.04	0.04	0.30	0.01	0.04	0.01	0.06			0.15	0.11		

Remarks: Section 1 of total outflow.

2 KNOTS PER BARGE TRAFFIC

Impossible: within floodway
— TK 1/3/12