

Meas. No. \_\_\_\_\_

Geological Survey  
Water Resources Division

Processed by BB

Ck'd by\_\_\_\_\_

Sta. Name NEW MADRID FLOODWAY OUTFLOW

Date 5/18, 2011 Party BB, CR

Width 15,500 Area 254,000 Vel. 1,830 G.H. — Disch. 210,000

Profiler Water Temp. 17.6 °C at 1045 Rated area: \_\_\_\_\_ Index Velocity \_\_\_\_\_

Profiler S/N: 2339 Mfg: R01 Freq: 1200 Firmware: 10.16 Software Ver: 2.07

Depth Cell Size	25	Other commands:	Profiler Depth 1.80
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No. of Cells	Config. file
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Blanking Distance	25	Deployment	mmB
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Water Mode	12	Moving Bed	000
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Ambiguity Vel.	170	Moving Bed Present:	Y	N
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Water pings	/	Diag. Test	YES
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Bottom pings / Diag. Test Errors: Y N

Boat/Motor Used W00DR106E ADCP Time to WT ☐ @            GPS: ☒           

Mag. Var. 1) Model 2) \_\_\_\_\_ 3) \_\_\_\_\_ 4) \_\_\_\_\_ Avg: -1.3 Comp. Cal.: ✓

GAGE READINGS					
Time				Inside	Outside
Weighed MGH					
GH correction					
Correct MGH					

Samples collected: water quality, sediment biological, other: \_\_\_\_\_

Measurements documented on other sheets water quality, aux/base gage, other: \_\_\_\_\_

Rain gage serviced/calibrated \_\_\_\_\_

Weather \_\_\_\_\_

Wind Spd. \_\_\_\_\_ Dir. \_\_\_\_\_

Air Temp. \_\_\_\_\_ °C at \_\_\_\_\_

Water Temp. \_\_\_\_\_ °C at \_\_\_\_\_

Specific. Cond: \_\_\_\_\_

Checkbar/chain found \_\_\_\_\_

Changed to \_\_\_\_\_ at \_\_\_\_\_

Correct \_\_\_\_\_

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: MOSTLY EVEN

Cross section: FARMLAND, TREES, GRASS, UNEVEN

Control: \_\_\_\_\_

Gage operating: \_\_\_\_\_ Record removed: Y or N    Filename: \_\_\_\_\_

Battery voltage: \_\_\_\_\_ Intakes/Orifice cleaned/purged: \_\_\_\_\_

Bubble-gage psi: Tank \_\_\_\_\_, Line \_\_\_\_\_; Bubble rate \_\_\_\_\_/min.

Extreme-GH indicators: max \_\_\_\_\_, min \_\_\_\_\_.

CSG checked: \_\_\_\_\_ HWM height on stick \_\_\_\_\_ Ref elev \_\_\_\_\_ HWM elev \_\_\_\_\_

Remarks: GPS DATA INCONSISTENT / DIRECTIONAL BINS

$$GH \text{ of zero flow} = GH_{\text{depth at control}} - \theta_{\text{rated}}$$

Sheet No. 1 of 3 sheets

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Station Number:

Meas. No:

Station Name: New Madrid Floodway Outflow

Date: 05/18/2011

Party: BB,CR

Boat/Motor: wooldridge

Gage Height: 0.00 ft

Width: 15,500 ft

Area: 254,000 ft²

G.H.Change: 0.000 ft

Processed by: BB

Mean Velocity: 0.830 ft/s

Discharge: 210,000 ft³/s

Area Method: Avg. Course

Nav. Method: Bottom Track

MagVar Method: None (-1.3°)

Depth Sounder: Not Used

ADCP Depth: 1.800 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.: 32.81 ft/s

BT Up Vel.: 32.81 ft/s

WT Up Vel.: 32.81 ft/s

Use Weighted Mean Depth: NO

Max. Vel.: 3.06 ft/s

Max. Depth: 39.5 ft

Mean Depth: 16.3 ft

% Meas.: 62.22

Water Temp.: None

ADCP Temp.: 17.6 °C

ADCP:

Type/Freq.: Rio Grande/1200 kHz

Serial #:                      Firmware: 10.16

Bin Size: 25 cm              Blank: 25 cm

BT Mode: 5                      BT Pings: 1

WT Mode: 12                      WT Pings: 1

WV : 170                      WO : 1, 4

Performed Diag. Test: NO

Performed Moving Bed Test: NO

Performed Compass Test: NO

Meas. Location: near New Madrid

Project Name: newmadridoutflow90001

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	
001	R	111	111	1985	51826	134545	27583	201	550	214704	15518	260157	10:33	11:01	9.37	0.83	1	0
002	L	111	111	2012	52195	126896	25839	139	434	205503	15506	247028	11:01	11:30	9.22	0.83	1	0
Mean		111	111	1998	52011	130720	26711	170	492	210104	15512	253592	Total	00:56	9.30	0.83	1	0
SDev		0	0	19	261	5408	1233	43.5	81.9	6506	8.7	9283.6			0.10	0.00		
SD/M		0.00	0.00	0.01	0.01	0.04	0.05	0.26	0.17	0.03	0.00	0.04			0.01	0.01		

Remarks:

LC Version 3.20, July 8, 2010

Processed on: 18-May-2011

Loop File: newmadridoutflow900011-05-18\_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)
127.57	3414.14	0.04	175.84	209.60	4.06

Percent Bad Bottom Track: 1.2

Difference in flow direction between out and back sections: 2.5 deg

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Loop Closure Error not in Upstream Direction -- No Correction Recommended

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