

## ADCP Discharge Measurement Notes

Mud Ditch nr - New Madrid, MO  
10/14, 2011. SRM JMH

134	1,877	1,888			3,5
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in	hrs.	% diff	No.:	Y at
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RS-119	1036	1036	1.50	2.50
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T-Boat	1115020	Hemisphere	0.3	<input checked="" type="checkbox"/>	Y
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(Y) of N		13	On-site Model Previous	Y. o
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°F/Cat	°F/Cat	°F/C
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[illegible]

Wading, cable, ice, boat, upstr., <u>downstr., side bridge</u>	ft., mi. upstr., downstr. o
excellent (2%), good (5%), fair (8%), poor (>8%)	

Even

Channel Clear

Y or N

**Y or N**

**Y**

ft.

## Discharge Measurement Summary

Date Measured: Tuesday, June 14, 2011

Site Information		Measurement Information	
Site Name	INFLOW OUTFLOW 2	Party	SMM JMH
Station Number		Boat/Motor	1115020
Location	D.S.S.B. HWY WW	Meas. Number	

System Information		System Setup		Units	
System Type	RS-M9	Transducer Depth (ft)	0.30	Distance	ft
Serial Number	1036	Salinity (ppt)	0.0	Velocity	ft/s
Firmware Version	1.50	Magnetic Declination (deg)	-1.3	Area	ft2
Software Version	2.50			Discharge	cfs
				Temperature	degF

Discharge Calculation Settings				Discharge Results	
Track Reference	Bottom-Track	Left Method	Sloped Bank	Width (ft)	134.51
Depth Reference	Bottom-Track	Right Method	Sloped Bank	Area (ft2)	1,877.2
Coordinate System	ENU	Top Fit Type	Power Fit	Mean Speed (ft/s)	1.884
		Bottom Fit Type	Power Fit	Total Q (cfs)	3,537.547

Measurement Results																		
Tr	Time			Distance				Mean Vel		Discharge							%	
#	Time	Duration	Temp.	Track	DMG	Width	Area	Boat	Water	Left	Right	Top	Middle	Bottom	Total	LCTotal	Measured	
2	L	06:56:52 AM	0:01:47	78.5	136.21	125.00	135.00	1,882.3	1.273	1.896	6.79	1.82	267.88	2,494.72	797.81	3,569.015	--	69.9
3	L	06:56:52 AM	0:01:47	78.5	136.21	125.00	135.00	1,882.3	1.273	1.896	6.79	1.82	267.88	2,494.72	797.81	3,569.015	--	69.9
4	R	06:58:57 AM	0:02:06	78.7	138.52	125.20	135.20	1,884.0	1.099	1.876	4.63	2.40	281.95	2,410.71	834.33	3,534.028	--	68.2
5	R	06:58:57 AM	0:02:06	78.7	138.52	125.20	135.20	1,884.0	1.099	1.876	4.63	2.40	281.95	2,410.71	834.33	3,534.028	--	68.2
6	L	07:01:23 AM	0:01:34	78.9	134.68	123.53	133.53	1,867.5	1.433	1.878	5.94	1.77	256.59	2,431.65	810.61	3,506.566	--	69.3
7	L	07:01:23 AM	0:01:34	78.9	134.68	123.53	133.53	1,867.5	1.433	1.878	5.94	1.77	256.59	2,431.65	810.61	3,506.566	--	69.3
8	R	07:03:14 AM	0:01:47	78.9	133.69	124.31	134.31	1,874.9	1.249	1.888	6.37	2.44	278.39	2,435.07	818.32	3,540.579	--	68.8
9	R	07:03:14 AM	0:01:47	78.9	133.69	124.31	134.31	1,874.9	1.249	1.888	6.37	2.44	278.39	2,435.07	818.32	3,540.579	--	68.8
			Mean	78.7	135.78	124.51	134.51	1,877.2	1.264	1.884	5.93	2.11	271.20	2,443.04	815.27	3,537.547	0.000	69.1
			Std Dev	0.2	1.82	0.66	0.66	6.5	0.118	0.008	0.81	0.31	9.90	31.26	13.22	22.202	0.000	0.6
			COV	0.0	0.013	0.005	0.005	0.003	0.094	0.004	0.136	0.149	0.036	0.013	0.016	0.006	0.000	0.009

Exposure Time: 0:14:28

Tr2=20110614065652.riv; Tr3=20110614065652r.rivr; Tr4=20110614065857r.rivr; Tr5=20110614065857.riv; Tr6=20110614070123r.rivr; Tr7=20110614070123.riv; Tr8=20110614070313.rivr; Tr9=20110614070313r.rivr;

## Comments

Tr2=20110614065652.riv - ; Tr3=20110614065652r.rivr - ; Tr4=20110614065857r.rivr - ; Tr5=20110614065857.riv - ;  
Tr6=20110614070123r.rivr - ; Tr7=20110614070123.riv - ; Tr8=20110614070313.riv - ; Tr9=20110614070313r.rivr - ;

## Loop Method

DMG	Loop Time	Moving Bed Velocity	Moving Bed Direction	Flow Direction	Estimated Percent Correction
4.13	132	0.03	206.15	260.85	1.48

File Name: Loop\_20110614065413r.rivr

Percent Bad Bottom Track: 1.5.

Difference in flow direction between out and back sections: 4.1 deg.

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

## Compass Calibration

File Name: CompassCal20110614064704.txt

Results: PASS  
Score is excellent.  
Magnetic interference is very low.

Calibration score: M5.00Q9

## System Test

File Name: SystemTest20110614065105.txt

System Test: PASS

