

ADCP Discharge Measurement Notes

Mud Ditch 95, New Madrid, MO
6/11, 2011 SMM JMH

138	2,006	2,57			5,
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in	hrs.	% diff	No.:	Y at
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RT RS-M9 1036	1036	1.50	2.50
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F-Boat	Yes/ Hemisph. diff	0,3	<input checked="" type="checkbox"/> Y
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(Y) or N	-1,3	On-site Model Previous	Y or N
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°F / C at	°F / C at	°F / C
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<u>Cont</u>	Start End	Primary reference		<u>Lap down</u>	
1210				20.42	
					Mud
					ppt at
					at

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

Even

Channel; Clear

Y or N Y or N

V

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11-58

Discharge Measurement Summary

Date Measured: Saturday, June 11, 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)	138.33
Depth Reference	Bottom-Track	Right Method	Sloped Bank	Area (ft2)	2,006.3
Coordinate System	ENU	Top Fit Type	Power Fit	Mean Speed (ft/s)	2.573
		Bottom Fit Type	Power Fit	Total Q (cfs)	5,162.735

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	
14	L	11:49:56 AM	0:04:59	87.2	147.95	125.75	137.75	2,001.3	0.495	2.572	8.80	14.78	395.15	3,598.75	1,129.57	5,147.045	--	69.9
15	L	11:49:56 AM	0:04:59	87.2	147.95	125.75	137.75	2,001.3	0.495	2.572	8.80	14.78	395.15	3,598.75	1,129.57	5,147.045	--	69.9
16	R	11:55:14 AM	0:02:56	87.1	136.88	127.43	139.43	2,008.3	0.778	2.571	9.61	9.27	399.13	3,612.59	1,131.75	5,162.339	--	70.0
17	R	11:55:14 AM	0:02:56	87.1	136.88	127.43	139.43	2,008.3	0.778	2.571	9.61	9.27	399.13	3,612.59	1,131.75	5,162.339	--	70.0
18	L	11:58:33 AM	0:02:59	87.1	135.12	125.71	137.71	1,992.7	0.755	2.579	10.19	16.68	391.83	3,606.16	1,113.97	5,138.815	--	70.2
19	L	11:58:33 AM	0:02:59	87.1	135.12	125.71	137.71	1,992.7	0.755	2.579	10.19	16.68	391.83	3,606.16	1,113.97	5,138.815	--	70.2
20	R	12:01:50 PM	0:02:31	87.0	137.34	126.44	138.44	2,022.8	0.910	2.572	13.09	12.89	398.92	3,614.89	1,162.95	5,202.740	--	69.5
21	R	12:01:50 PM	0:02:31	87.0	137.34	126.44	138.44	2,022.8	0.910	2.572	13.09	12.89	398.92	3,614.89	1,162.95	5,202.740	--	69.5
			Mean	87.1	139.32	126.33	138.33	2,006.3	0.734	2.573	10.42	13.40	396.25	3,608.10	1,134.56	5,162.735	0.000	69.9
			Std Dev	0.1	5.05	0.70	0.70	11.0	0.150	0.003	1.62	2.74	3.01	6.28	17.77	24.591	0.000	0.3
			COV	0.0	0.036	0.006	0.005	0.005	0.205	0.001	0.155	0.204	0.008	0.002	0.016	0.005	0.000	0.004

Exposure Time: 0:26:50

Tr14=20110611114955r.rivr; Tr15=20110611114955.rivr; Tr16=20110611115514r.rivr; Tr17=20110611115514.rivr; Tr18=20110611115831r.rivr; Tr19=20110611115831r.rivr; Tr20=20110611120149r.rivr; Locked; Tr21=20110611120149r.rivr;

Comments

Tr14=20110611114955r.riv - ; Tr15=20110611114955.riv - ; Tr16=20110611115514r.riv - ; Tr17=20110611115514.riv - ;
Tr18=20110611115831.riv - ; Tr19=20110611115831r.riv - ; Tr20=20110611120149.riv - ; Tr21=20110611120149r.riv -

Loop Method

DMG	Loop Time	Moving Bed Velocity	Moving Bed Direction	Flow Direction	Estimated Percent Correction
0.63	410	0.00	117.82	259.00	0.05

File Name: Loop_20110611112126.riv

Percent Bad Bottom Track: 2.0.

Difference in flow direction between out and back sections: 0.2 deg.

Moving Bed Velocity (MBV) < Minimum MBV Criteria -- No Correction Recommended.

Compass Calibration

File Name: CompassCal20110611110859.txt

Results: PASS

Score is excellent.

Magnetic interference is fairly low.

Calibration score: M13.00Q9

System Test

File Name: SystemTest20110611111354.txt

System Test: PASS

