

9-27-1	10/24/08	U.S. DEPARTMENT OF THE INTERIOR U.S. Geological Survey	Meas. No.	16	
Station Number	36374009186601	ADCP Discharge Measurement Notes	Processed by	SJS	
Station Name	Inflow Out Flow #1 NE New Madrid		Checked by	JL	
Date	5-22, 2011	Perry	ESS / TL		
Width	Dred / Rated Area	Velocity	Index Vel.	Gage Height	Discharge
QC3	11470	3.50	-	-	40,100
Gage Height Change	Meas. plots	% diff	No.: -	Shift	ADCP Sync'd to WT
-in	hrs.	-	-	-	Tg or N
ADCP Mfr / Model / Frequency	Serial No.	Firmware	Software		
SonTek / MQ / 3MH, 1 MW	1456	1.50	2.50		
Boat/Motors Used	GPS Used	ADCP Depth	Diag. Test / Errors?		
NB USC BRABCE	SonTek MQ	1.0			
Compass Calib. & Total Error	Magn. Var	Magn. Method	Moving Bed?		
Door N	M1139	-1.4	On-site (Model) Previous	Door N	
Meas. Water Temp	ADCP Water Temp	Weather T	Air Temp	Wind Speed / Dir.	
19.5 F	14.7 F	Cel	MC WAEH	9F/C	5-10 S
Gage Readings					Site Conditions
Time			Inside	Outside	Max Water Depth
0916	(S)				Max Water Speed
0952	(E)				Max Boat Speed
					Water Mode
					Bottom Mode
					Streambed material
Weighted MGH					Salinity
GH corrections					ppt or
Correct MGH					Checkbar found
					Checkbar changed to:
					at
Wading, cable, ice, boat upstr., downstr., side bridge					f.f. mi. upstr.; downstr. of gage
Measurement rated:	excellent (2%), good (5%), fair (3%), poor (>8%)				based on following conditions
Flow	Fairly Even				
Cross section:	Even				
Control:					
Gage operating:	Y or N	Record removed:	Y or N	Filename:	
Battery voltage	V	Intakes/Orifice cleaned/purged:			
Bubble-gage pos:	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	=	f.f.	Rated =
					Sheet No. of sheets

Discharge Measurement Summary

Date Measured: Sunday, May 22, 2011

Site Information		Measurement Information	
Site Name	Inflow Outflow #1	Party	ESS/TL
Station Number		Boat/Motor	MO WSC Blazer
Location	Nr New Madrid	Meas. Number	

System Information		System Setup	Units
System Type	RS-M9	Transducer Depth (ft)	1.00
Serial Number	1456	Salinity (ppt)	0.0
Firmware Version	1.50	Magnetic Declination (deg)	-1.4
Software Version	2.50		
			Distance ft
			Velocity ft/s
			Area ft2
			Discharge cfs
			Temperature degF

Discharge Calculation Settings				Discharge Results	
Track Reference	Bottom-Track with LC	Left Method	Sloped Bank	Width (ft)	963.19
Depth Reference	Vertical Beam	Right Method	Sloped Bank	Area (ft2)	11,466.7
Coordinate System	ENU	Top Fit Type	Power Fit	Total Q (cfs)	40,121.914
		Bottom Fit Type	Power Fit		

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	R 9:25:10 AM	0:07:01	67.3	1,063.10	864.29	969.29	11,950.8	2.525	3.295	52.59	10.71	5,944.99	27,114.57	6,255.34	39,378.207	40,231.570	68.9
3	L 9:33:02 AM	0:05:11	67.6	965.12	809.51	940.51	12,864.8	3.103	3.014	143.38	68.85	5,221.75	26,874.67	6,469.14	38,777.784	39,968.919	69.3
4	R 9:38:41 AM	0:07:07	67.1	1,037.58	801.95	951.95	10,984.9	2.430	3.514	131.84	51.93	6,056.27	26,618.52	5,737.67	38,596.232	39,384.829	69.0
5	L 9:46:13 AM	0:06:29	67.4	1,215.70	868.01	991.01	10,066.5	3.125	3.949	37.39	43.73	6,453.82	27,872.41	5,345.54	39,752.890	40,902.347	70.1
	Mean		67.4	1,070.37	835.94	963.19	11,466.7	2.796	3.443	91.30	43.80	5,919.21	27,120.04	5,951.92	39,126.275	40,121.914	69.3
	Std Dev		0.2	91.28	30.36	19.05	1,046.6	0.320	0.342	46.80	21.14	444.89	468.46	439.65	463.279	544.932	0.5
	COV		0.0	0.085	0.036	0.020	0.091	0.115	0.099	0.513	0.483	0.075	0.017	0.074	0.012	0.014	0.007

Exposure Time: 0:25:48

Tr2=20110522092511r.rivr; Tr3=20110522093301r.rivr; Tr4=20110522093840r.rivr; Tr5=20110522094612r.rivr;

Comments
Tr2=20110522092511r.rivr - ; Tr3=20110522093301r.rivr - ; Tr4=20110522093840r.rivr - ; Tr5=20110522094612r.rivr - ;

Loop Method					
DMG	Loop Time	Moving Bed Velocity	Moving Bed Direction	Flow Direction	Estimated Percent Correction
34.59	495	0.07	249.94	65.44	2.55

File Name: Loop_20110522091626r.rivr

Percent Bad Bottom Track: 1.0.

Difference in flow direction between out and back sections: 3.2 deg.

Loop Indicates a Moving Bed

Compass Calibration
File Name: CompassCal20110522091012.txt
Results: PASS
Score is excellent.
Magnetic interference is fairly low.
Calibration score: M11.00Q9

System Test
File Name: SystemTest20110522090928.txt
System Test: PASS

Parameters and settings marked with a * are not constant for all files.

Report generated using SonTek RiverSurveyor Live v2.50