

9-275-1	10/24/08	U.S. DEPARTMENT OF THE INTERIOR				Meas. No.	
Station Number		U.S. Geological Survey				Processed by	
		ADCP Discharge Measurement Notes				Checked by	
Station Name		Birds Point Inflow					
Date	05-30	20	11	Party	BA/2M		
Width	Area / Rated Area	Velocity	Index Vel.	Gage Height	Discharge		
470	8337	0.081	—	—	730		
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		
RS M9			2010	1.50	2.50		
Boat/Motors Used			GPS Used	ADCP Depth	Diag. Test / Errors?		
			no	0.3	<input checked="" type="checkbox"/> Y or <input checked="" type="checkbox"/> N		
Compass Calib. & Total Error		Mag. Var	MagVar Method		Moving Bed?		
<input checked="" type="checkbox"/> Y or <input checked="" type="checkbox"/> N m3 09		-1.6	On-site <input checked="" type="checkbox"/> Model <input checked="" type="checkbox"/> Previous		Y or <input checked="" type="checkbox"/> N/A		
Meas. Water Temp		ADCP Water Temp	Weather / Air Temp		Wind Speed / Dir.		
80 °F / C at		80 °F / C at	°F / C				
Gage Readings					Site Conditions		
Time			Inside	Outside	Max Water Depth		
					Max Water Speed		
1507					Max Boat Speed		
					Water Mode		
					Bottom Mode		
1533					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%), <input checked="" type="checkbox"/> poor (>8%)			based on following conditions		
Flow							
Cross section:							
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		Refelev.		HWM elevation			
GH of zero flow = GH		- depth at control		=	ft.	Rated=	
Sheet No.				of	sheets		

Discharge Measurement Summary

Date Measured: Monday, May 30, 2011

Site Information		Measurement Information	
Site Name	birdspoint	Party	bcr/zwm
Station Number		Boat/Motor	
Location		Meas. Number	

System Information		System Setup		Units	
System Type	RS-M9	Transducer Depth (ft)	0.30	Distance	ft
Serial Number	2010	Salinity (ppt)	0.0	Velocity	ft/s
Firmware Version	1.50	Magnetic Declination (deg)	-1.6	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)	469.65
Depth Reference	Bottom-Track	Right Method	Sloped Bank	Area (ft2)	8,336.9
Coordinate System	ENU	Top Fit Type	Power Fit	Mean Speed (ft/s)	0.081
		Bottom Fit Type	Power Fit	Total Q (cfs)	672.875

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	3:07:28 PM	0:02:58	81.9	464.28	454.88	468.00	8,603.4	2.608	0.057	-0.73	-1.91	35.97	372.46	83.66	489.443	--	76.1
3	R	3:10:46 PM	0:03:07	80.6	473.85	457.53	470.65	8,224.7	2.534	0.098	-1.05	-0.26	56.94	593.46	159.01	808.108	--	73.4
4	L	3:14:15 PM	0:02:53	80.7	464.95	453.37	466.49	8,524.2	2.688	0.090	-0.83	-0.30	50.45	580.21	138.59	768.120	--	75.5
5	R	3:17:27 PM	0:02:54	79.7	470.49	455.07	468.19	7,927.6	2.704	0.107	-1.10	-0.76	63.33	623.70	159.53	844.696	--	73.8
6	L	3:20:41 PM	0:03:12	79.8	466.22	456.57	469.69	8,435.8	2.428	0.064	-0.68	-0.15	39.93	402.78	96.02	537.907	--	74.9
7	R	3:24:20 PM	0:03:00	78.9	468.01	458.55	471.67	8,354.5	2.600	0.083	-0.57	-0.58	47.83	498.37	145.04	690.096	--	72.2
8	L	3:27:41 PM	0:02:54	79.1	474.62	457.00	470.12	8,391.2	2.728	0.067	-0.91	-0.20	45.44	427.38	87.73	559.444	--	76.4
9	R	3:30:54 PM	0:02:48	78.5	476.40	459.30	472.42	8,233.6	2.836	0.083	-0.85	-0.44	45.27	497.30	143.91	685.184	--	72.6
			Mean	79.9	469.85	456.53	469.65	8,336.9	2.641	0.081	-0.84	-0.58	48.14	499.46	126.69	672.875	0.000	74.4
			Std Dev	1.0	4.38	1.86	1.86	196.8	0.118	0.016	0.17	0.54	8.25	87.66	30.02	123.521	0.000	1.5
			COV	0.0	0.009	0.004	0.004	0.024	0.045	0.201	0.201	0.940	0.171	0.176	0.237	0.184	0.000	0.020

Exposure Time: 0:23:46

Tr2=20110530150728.riv; Tr3=20110530151047.riv; Tr4=20110530151415.riv; Tr5=20110530151727.riv; Tr6=20110530152041.riv; Tr7=20110530152420.riv; Tr8=20110530152741.riv; Tr9=20110530153054.riv;

Comments
Tr2=20110530150728.riv - ; Tr3=20110530151047.riv - ; Tr4=20110530151415.riv - ; Tr5=20110530151727.riv - ; Tr6=20110530152041.riv - ; Tr7=20110530152420.riv - ; Tr8=20110530152741.riv - ; Tr9=20110530153054.riv - ;

Loop Method					
DMG	Loop Time	Moving Bed Velocity	Moving Bed Direction	Flow Direction	Estimated Percent Correction
37.81	303	0.12	96.98	221.74	108.72

File Name: Loop_20110530150210.riv

Percent Bad Bottom Track: 2.3.

Difference in flow direction between out and back sections: 31.3 deg.

WARNING: Difference in flow direction between out and back sections of loop exceeds 5 degrees. This may indicate an inaccurate compass and the loop may not be accurate. Please review data.

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

Compass Calibration
File Name: CompassCal20110530145959.txt
Results: PASS
Score is excellent.