

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 <u>Inflow / Outflow 1</u>							
Date <u>06-02, 20 11</u>		Party <u>BR/ZM</u>					
Width	Area / Rated Area	Velocity	Index Vel.	Gage Height	Discharge		
<u>435</u>	<u>14,495</u>	<u>1.054</u>	<u>—</u>	<u>—</u>	<u>15,275</u>		
Gage Height Change		Meas. plots	From rating	Shift	ADCP Sync'd to WT		
in hrs.		% diff	No.:		Y at <u>—</u> or N		
ADCP Mfr / Model / Frequency			Serial No.	Firmware	Software		
<u>PS M9</u>			<u>2010</u>	<u>1.50</u>	<u>2.50</u>		
Boat/Motors Used		GPS Used	ADCP Depth	Diag. Test / Errors?			
		<u>no</u>	<u>0.3</u>	<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 N <u>m209</u>		<u>-1.4</u>	<u>On-site</u> <input checked="" type="checkbox"/> Model Previous		<input checked="" type="checkbox"/> Y or <input checked="" type="checkbox"/> N		
Meas. Water Temp		ADCP Water Temp	Weather / Air Temp		Wind Speed / Dir.		
<u>78</u> °F / C at		<u>78</u> °F / C at	<u>—</u> °F / C				
Gage Readings					Site Conditions		
Time			Inside	Outside	Max Water Depth		
					Max Water Speed		
<u>1255</u>					Max Boat Speed		
					Water Mode		
<u>1306</u>					Bottom Mode		
					Streambed material		
					Salinity		
					ppt at		
Weighted MGH					Checkbar found		
GH corrections					Checkbar changed to:		
Correct MGH					at		
Wading, cable, ice, <u>boat</u> upstr., downstr., side bridge				ft., mi. upstr., downstr. of gage			
Measurement rated:		<u>excellent (2%), good (5%), fair (8%), poor (>8%)</u>			based on following conditions		
Flow							
Cross section:							
Control:							
Gage operating:		<input checked="" type="checkbox"/> Y or N	Record removed:	<input checked="" type="checkbox"/> Y or N	Filename:		
Battery voltage		<u>V</u>	Intakes/Orifice cleaned/purged:				
Bubble-gage psi:		Tank	Line	Bubble rate		/ min	
Extreme-GH indicators:		Max	Min	CSG Checked		<input checked="" type="checkbox"/> 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: Thursday, June 02, 2011

Site Information		Measurement Information	
Site Name	inflow/outflow 1	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)	-1.4	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)	435.37
Depth Reference	Bottom-Track	Right Method	Sloped Bank	Area (ft2)	14,494.9
Coordinate System	ENU	Top Fit Type	Power Fit	Mean Speed (ft/s)	1.054
		Bottom Fit Type	Power Fit	Total Q (cfs)	15,274.858

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	12:55:57 PM	0:02:08	79.2	430.90	424.87	437.99	14,529.5	3.366	1.042	-0.83	26.88	855.82	11,720.19	2,591.08	15,139.373	--	77.4
3	R	12:58:27 PM	0:02:11	78.0	430.27	420.08	433.20	14,742.0	3.285	1.073	-0.66	25.35	923.30	12,046.49	2,872.68	15,816.468	--	76.2
4	L	1:00:57 PM	0:02:27	77.9	428.57	421.59	434.71	14,223.1	2.915	1.071	1.44	24.54	861.27	11,751.99	2,637.54	15,227.684	--	77.2
5	R	1:03:44 PM	0:02:18	76.9	427.41	422.46	435.58	14,485.1	3.097	1.030	-1.38	15.98	882.66	11,351.22	2,699.38	14,915.907	--	76.1
			Mean	78.0	429.29	422.25	435.37	14,494.9	3.166	1.054	-0.36	23.19	880.76	11,717.47	2,700.17	15,274.858	0.000	76.7
			Std Dev	0.8	1.38	1.74	1.74	184.5	0.174	0.018	1.07	4.25	26.53	246.78	106.75	332.705	0.000	0.6
			COV	0.0	0.003	0.004	0.004	0.013	0.055	0.018	2.983	0.183	0.030	0.021	0.040	0.022	0.000	0.008

Exposure Time: 0:09:04

Tr2=20110602125557.riv; Tr3=20110602125827.riv; Tr4=20110602130057.riv; Tr5=20110602130344.riv;

Comments
Tr2=20110602125557.riv - ; Tr3=20110602125827.riv - ; Tr4=20110602130057.riv - ; Tr5=20110602130344.riv - ;

Loop Method					
DMG	Loop Time	Moving Bed Velocity	Moving Bed Direction	Flow Direction	Estimated Percent Correction
41.92	193	0.22	58.86	81.92	18.75

File Name: Loop_20110602125230.riv

Percent Bad Bottom Track: 0.5.

Difference in flow direction between out and back sections: 4.6 deg.

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

Compass Calibration
File Name: CompassCal20110602125006.txt
Results: PASS
Score is excellent.
Magnetic interference is very low.
Calibration score: M2.00Q9

System Test
Not Loaded