

9-275-I	10/24/08	U.S. DEPARTMENT OF THE INTERIOR U.S. Geological Survey				Meas. No.	
Station Number						Processed by	
		ADCP Discharge Measurement Notes				Checked by	
Station Name		Inflow/Outflow 1					
Date		05-29, 20 11		Party		BR/ZM	
Width	Area / Rated Area	Velocity	Index Vel.	Gage Height	Discharge		
428	14,228	0.849	—	—	12,071		
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?		
(Y or N) M109		-1.4	On-site Model Previous		Y or <input checked="" type="checkbox"/> N		
Meas. Water Temp		ADCP Water Temp	Weather / Air Temp		Wind Speed / Dir.		
75 °F / C at		74 °F / C at			°F / C		
Gage Readings				Site Conditions			
Time				Inside	Outside	Max Water Depth	
						Max Water Speed	
1441						Max Boat Speed	
						Water Mode	
1454						Bottom Mode	
						Streambed material	
						Salinity	
						ppt at	
Weighted MGH						Checkbox found	
GH corrections						Checkbox 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%), 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: Sunday, May 29, 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)	427.96
Depth Reference	Vertical Beam	Right Method	Sloped Bank	Area (ft2)	14,227.7
Coordinate System	ENU	Top Fit Type	Power Fit	Mean Speed (ft/s)	0.849
		Bottom Fit Type	Power Fit	Total Q (cfs)	12,070.766

Measurement Results																		
Tr	Time			Distance				Mean Vel		Discharge							%	
#	Time	Duration	Temp.	Track	DMG	Width	Area	Boat	Water	Left	Right	Top	Middle	Bottom	Total	LCTotal	Measure	
2	L	2:41:24 PM	0:02:56	75.3	438.85	417.23	427.23	14,021.5	2.493	0.890	-0.81	14.14	716.52	9,719.30	2,059.06	12,479.935	--	77.9
3	R	2:44:44 PM	0:03:15	74.3	427.46	418.48	428.48	14,277.3	2.192	0.865	-0.29	13.19	718.22	9,516.25	2,127.54	12,348.528	--	77.1
4	L	2:48:16 PM	0:02:57	74.3	426.29	419.06	429.06	13,917.3	2.408	0.857	-0.42	-9.61	683.20	9,239.94	2,012.29	11,925.399	--	77.5
5	R	2:51:32 PM	0:03:11	73.5	435.39	417.09	427.09	14,694.8	2.280	0.785	-0.77	-7.94	678.33	8,789.26	2,070.32	11,529.201	--	76.2
			Mean	74.4	432.00	417.96	427.96	14,227.7	2.343	0.849	-0.58	11.22	699.07	9,316.19	2,067.30	12,070.766	0.000	77.2
			Std Dev	0.6	5.28	0.83	0.83	299.8	0.116	0.039	0.22	2.54	18.39	348.57	41.02	373.830	0.000	0.6
			COV	0.0	0.012	0.002	0.002	0.021	0.049	0.046	0.389	0.226	0.026	0.037	0.020	0.031	0.000	0.008

Exposure Time: 0:12:19

Tr2=20110529144124.riv; Tr3=20110529144444.riv; Tr4=20110529144817.riv; Tr5=20110529145132.riv;

## Comments

Tr2=20110529144124.riv - ; Tr3=20110529144444.riv - ; Tr4=20110529144817.riv - ; Tr5=20110529145132.riv - ;

## Loop Method

DMG	Loop Time	Moving Bed Velocity	Moving Bed Direction	Flow Direction	Estimated Percent Correction
54.38	284	0.19	55.52	83.08	22.26

File Name: Loop\_20110529143623.riv

Percent Bad Bottom Track: 0.7.

Difference in flow direction between out and back sections: 4.2 deg.

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

## Compass Calibration

File Name: CompassCal20110529143231.txt

Results: PASS

Score is excellent.

Magnetic interference is very low.

Calibration score: M1.00Q9

## System Test

Not Loaded