

9-275-I	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		1500 ft Gap Outflow						
Date		06-02, 20 11		Party		BR/2M		
Width	Area / Rated Area	Velocity	Index Vel.	Gage Height	Discharge			
1506	11,626	1.51	—	—	29,806			
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			
R5m9			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="radio"/> Y or <input type="radio"/> N		m009	-1.3		On-site <input checked="" type="radio"/> (Model) Previous		<input checked="" type="radio"/> Y or <input type="radio"/> N	
Meas. Water Temp		ADCP Water Temp	Weather / Air Temp		Wind Speed / Dir.			
81 °F / C at		81 °F / C at			°F / C			
Gage Readings					Site Conditions			
Time				Inside	Outside	Max Water Depth		
						Max Water Speed		
0819						Max Boat Speed		
						Water Mode		
						Bottom Mode		
0847						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%), 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		Ref. elev.		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	1500 ft gap	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)	-1.3	Area	ft2
Software Version	2.50			Discharge	cfs
				Temperature	degF

Discharge Calculation Settings				Discharge Results	
Track Reference	Bottom-Track with LC	Left Method	Sloped Bank	Width (ft)	1,506.30
Depth Reference	Vertical Beam	Right Method	Sloped Bank	Area (ft2)	11,626.4
Coordinate System	ENU	Top Fit Type	Power Fit	Total Q (cfs)	20,805.883
		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	8:19:59 AM	0:06:45	81.2	1,512.41	1,483.15	1,505.15	11,698.5	3.734	1.527	0.00	0.00	1,611.51	13,442.40	2,809.63	17,863.539	21,117.789	75.3
3	L	8:27:08 AM	0:06:28	80.2	1,504.38	1,486.92	1,508.92	11,652.3	3.877	1.512	1.08	1.62	1,605.31	13,339.97	2,675.93	17,623.916	21,086.606	75.7
4	R	8:33:55 AM	0:07:03	81.8	1,509.11	1,475.34	1,497.34	11,542.5	3.568	1.524	1.56	0.00	1,642.86	13,269.57	2,676.77	17,590.761	20,650.182	75.4
5	L	8:41:21 AM	0:06:09	80.5	1,522.68	1,491.80	1,513.80	11,612.1	4.127	1.481	1.51	1.97	1,574.99	13,014.64	2,605.91	17,199.018	20,368.948	75.7
			Mean	80.9	1,512.14	1,484.30	1,506.30	11,626.4	3.826	1.511	1.04	0.90	1,608.67	13,266.65	2,692.06	17,569.309	20,805.883	75.5
			Std Dev	0.6	6.72	6.01	6.01	57.3	0.205	0.018	0.63	0.91	24.10	157.94	73.72	238.290	312.748	0.2
			COV	0.0	0.004	0.004	0.004	0.005	0.054	0.012	0.605	1.009	0.015	0.012	0.027	0.014	0.015	0.002

Exposure Time: 0:26:25

Tr2=20110602081957.riv; Tr3=20110602082706.riv; Tr4=20110602083354.riv; Tr5=20110602084120.riv;

Comments
Tr2=20110602081957.riv - ; Tr3=20110602082706.riv - ; Tr4=20110602083354.riv - ; Tr5=20110602084120.riv - ;

Loop Method					
DMG	Loop Time	Moving Bed Velocity	Moving Bed Direction	Flow Direction	Estimated Percent Correction
123.00	594	0.21	73.98	262.86	14.14
File Name: Loop_20110602080938.riv					
Percent Bad Bottom Track: 0.8.					
Difference in flow direction between out and back sections: 3.9 deg.					
Loop Indicates a Moving Bed					

Compass Calibration
File Name: CompassCal20110602080706.txt
Results: PASS
Score is excellent.
Magnetic interference is very low.
Calibration score: M0.00Q9

System Test
File Name: SystemTest20110602080609.txt
System Test: PASS

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

Report generated using SonTek RiverSurveyor Live v2.50