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	Inflow / Outflow 1		
Date	06-04 , 20 11	Party	BR / ZM

Width	Area / Rated Area	Velocity	Index Vel.	Gage Height	Discharge
438	14,301	0.501	—	—	7,159

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?
	VTG	0.3	☑ Y or N

Compass Calib. & Total Error		Mag. Var	MagVar Method	Moving Bed?
(Y) or N	M3Q9	-1.4	On-site (Model) Previous	Y or (N)

Meas. Water Temp	ADCP Water Temp	Weather / Air Temp	Wind Speed / Dir.
79 °F / C at	79 °F / C at	°F / C	

Gage Readings							**Site Conditions**	
Time					Inside	Outside	Max Water Depth	
							Max Water Speed	
S 1239							Max Boat Speed	
							Water Mode	
F 1251							Bottom Mode	
							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: Saturday, June 04, 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	GPS-VTG	Left Method	Sloped Bank	Width (ft)	438.09
Depth Reference	Vertical Beam	Right Method	Sloped Bank	Area (ft2)	14,300.8
Coordinate System	ENU	Top Fit Type	Power Fit	Mean Speed (ft/s)	0.501
		Bottom Fit Type	Power Fit	Total Q (cfs)	7,159.394

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	12:39:01 PM	0:02:49	79.3	444.20	417.59	439.59	14,321.9	2.628	0.507	-3.15	-6.34	438.66	5,517.03	1,308.89	7,255.090	--	76.0
3	L	12:42:29 PM	0:02:38	79.9	439.32	417.78	439.78	14,411.3	2.780	0.474	-5.01	-8.39	405.98	5,272.03	1,163.58	6,828.188	--	77.2
4	R	12:45:25 PM	0:02:35	78.5	436.94	415.96	437.96	14,393.5	2.819	0.493	0.60	-7.34	426.84	5,399.39	1,270.92	7,090.408	--	76.2
5	L	12:48:19 PM	0:03:00	79.0	433.27	413.01	435.01	14,076.4	2.407	0.530	1.90	-8.00	439.52	5,773.52	1,256.96	7,463.892	--	77.4
			Mean	79.2	438.43	416.09	438.09	14,300.8	2.659	0.501	-1.42	-7.52	427.75	5,490.49	1,250.09	7,159.394	0.000	76.7
			Std Dev	0.5	3.97	1.91	1.91	133.8	0.162	0.021	2.78	0.78	13.53	184.95	53.44	232.558	0.000	0.6
			COV	0.0	0.009	0.005	0.004	0.009	0.061	0.041	-1.966	-0.103	0.032	0.034	0.043	0.032	0.000	0.008

Exposure Time: 0:11:02

Tr2=20110604123900.riv; Tr3=20110604124229.riv; Tr4=20110604124525.riv; Tr5=20110604124819.riv;

Comments

Tr2=20110604123900.riv - ; Tr3=20110604124229.riv - ; Tr4=20110604124525.riv - ; Tr5=20110604124819.riv - ;

Loop Method

DMG	Loop Time	Moving Bed Velocity	Moving Bed Direction	Flow Direction	Estimated Percent Correction
42.21	251	0.17	67.26	84.39	28.87

File Name: Loop_20110604123429.riv

Percent Bad Bottom Track: 2.8.

Difference in flow direction between out and back sections: 10.0 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: CompassCal20110604123232.txt

Results: PASS
Score is excellent.
Magnetic interference is very low.

Calibration score: M3.00Q9

System Test

Not Loaded

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

Report generated using SonTek RiverSurveyor Live v2.50