9-275-I
REV (10-01)

U.S. DEPARTMENT OF THE INTERIOR
Geological Survey
Water Resources Division
Acoustic Profiler Discharge Measurement Notes

Meas. No. 5
Processed by WAK
Ck'd by CBR

Sta. No —
Sta. Name Inflow - Bird point levee
Date 5-13, 20 11 Party SAT, WFK 221,000 VTG
Width 8750 Area 70600 Vel. 3.167 G.H. — Disch. 223,000 BR
5730 69800
Profiler Water Temp. 19.15 °C at 1100 Rated area: — Index Velocity —
Profiler S/N 5954 Mfgr: RDI Freq. 1200 Firmware: 10.16 Software Ver. 2.07

Depth Cell Size	0.82	Other commands:	
No. of Cells	68		
Blanking Distance	0.82		
Water Mode	12		
Ambiguity Vel.	.33		
Water pings	1		
Bottom pings	1		

Profiler Depth 0.42
Config. file
Deployment tether
Moving Bed —
Moving Bed Present: ~~Y~~ ~~N~~
Diag. Test ADCP Test
Diag. Test Errors: Y (N)

Boat/Motor Used 513 ADCP Time to WT ☐ @ GPS: VTG
Mag. Var. 1) -1.4 2) 3) 4) Avg: Comp. Cal.: 0.2°

GAGE READINGS

Time					Inside	Outside
1200	Start					
1238						
1316	Finish					
			Max V = 14.4			
			Max D = 38.7			
Weighed MGH						
GH correction						
Correct MGH						

Samples collected: water quality, sediment, biological, other: N/A
Measurements documented on other sheets: water quality, aux/base gage, other:
Rain gage serviced/calibrated
Weather cloudy/warm
Wind Spd. — Dir. —
Air Temp. — °C at —
Water Temp. 19.1 °C at 10:53 Kestrel
Specific. Cond: —
Checkbar/chain found —
Changed to — at —
Correct —

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: Pulsating With Upwelling Within Large Scour Holes
Cross section: Unprotected Bottom Shallow With Large Scour
Control: Breached Levee Downstream
Gage operating: N/A Record removed: Y or N Filename: N/A
Battery voltage: N/A Intakes/Orifice cleaned/purged: N/A
Bubble-gage psi: Tank —, Line —; Bubble rate — /min.
Extreme-GH indicators: max —, min —.
CSG checked: HWM height on stick Ref elev HWM elev
Remarks: Reference VTG

GH of zero flow = GH - depth at control = ft, rated

Sheet No. of sheets

MEASUREMENT NOTES

LEFT BANK Sloping Vertical Other _____ RIGHT BANK Sloping Vertical Other _____

Transect Number	Start			Ending		Total Discharge	Remarks
	Bank	Time	Distance	Distance	Time		
0000	Right	1200	192	189	1238	217435	
0001	Left	1240	222	57	1316	228573	

Notes:

Station Number:
Station Name: Inflow at Bird Point Levee

Meas. No: 5
Date: 05/13/2011

Party: wfk, sat
Boat/Motor: 513
Gage Height: 0.00 ft

Width: 8,730 ft
Area: 69,800 ft²
G.H.Change: 0.000 ft

Processed by: wfk
Mean Velocity: 3.17 ft/s
Discharge: 221,000 ft³/s

Area Method: Avg. Course
Nav. Method: DGPS
MagVar Method: Model (-1.4°)
Depth Sounder: Not Used

ADCP Depth: 0.420 ft
Shore Ens.:10
Bottom Est: Power (0.1667)
Top Est: Power (0.1667)

Index Vel.: 0.00 ft/s
Adj.Mean Vel: 0.00 ft/s
Rated Area: 0.000 ft²
Control1: Unspecified
Control2: Unspecified
Control3: Unspecified

Rating No.: 1
Qm Rating: F
Diff.: 0.000%

Screening Thresholds:
BT 3-Beam Solution: YES
WT 3-Beam Solution: NO
BT Error Vel.: 0.33 ft/s
WT Error Vel.: 3.50 ft/s
BT Up Vel.: 1.00 ft/s
WT Up Vel.: 14.00 ft/s
Use Weighted Mean Depth: YES

Max. Vel.: 14.6 ft/s
Max. Depth: 38.7 ft
Mean Depth: 8.00 ft
% Meas.: 56.27
Water Temp.: None
ADCP Temp.: 18.5 °C

ADCP:
Type/Freq.: Rio Grande/1200 kHz
Serial #: 5954
Firmware: 10.16
Bin Size: 25 cm
Blank: 25 cm
BT Mode: 5
BT Pings: 1
WT Mode: 12
WT Pings: 1
WV : 335
WO : 3, 8

Performed Diag. Test: YES
Performed Moving Bed Test: NO
Performed Compass Test: YES
Meas. Location: Inflow

Project Name: Inflow.levee_5.mmt
Software: 2.07

Tr.#		Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad	
		L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins
000	R	189	192	2624	54107	123284	37825	3881	-2311	216786	8819	71675	12:00	12:38	4.35	3.02	2	1
001	L	222	57	2515	56299	125097	42165	1002	91.2	224654	8633	67964	12:40	13:16	4.38	3.31	0	0
Mean		206	125	2569	55203	124191	39995	2442	-1110	220720	8726	69820	**Total**	01:15	4.37	3.17	1	1
SDev		23	95	77	1550	1282	3069	2036	1699	5564	131.8	2623.7			0.03	0.20		
SD/M		0.11	0.77	0.03	0.03	0.01	0.08	0.83	1.53	0.03	0.02	0.04			0.01	0.06		

Remarks:

Station Number:
Station Name: Inflow at Bird Point Levee

Meas. Nc: 5
Date: 05/13/2011

Party: wfk, sat	Width: 8,750 ft	Processed by: wfk
Boat/Motor: 513	Area: 70,600 ft²	Mean Velocity: 3.16 ft/s
Gage Height: 0.00 ft	G.H.Change: 0.000 ft	Discharge: 223,000 ft³/s

Area Method: Avg. Course	ADCP Depth: 0.420 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track VTG	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: Model (-1.4°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:		ADCP:	
BT 3-Beam Solution: YES	Max. Vel.: 14.4 ft/s	Type/Freq.: Rio Grande/1200 kHz	
WT 3-Beam Solution: NO	Max. Depth: 38.7 ft	Serial #: 5954	Firmware: 10.16
BT Error Vel.: 0.33 ft/s	Mean Depth: 8.07 ft	Bin Size: 25 cm	Blank: 25 cm
WT Error Vel.: 3.50 ft/s	% Meas.: 56.54	BT Mode: 5	BT Pings: 1
BT Up Vel.: 1.00 ft/s	Water Temp.: 66.2 °F	WT Mode: 12	WT Pings: 1
WT Up Vel.: 14.00 ft/s	ADCP Temp.: 65.3 °F	WV : 335	WO : 3, 8
Use Weighted Mean Depth: YES			

Performed Diag. Test: YES
Performed Moving Bed Test: NO
Performed Compass Test: YES
Meas. Location: Inflow

Project Name: Inflow.levee_5.mmt
Software: 2.07

Tr.#		Edge Distance L	Edge Distance R	#Ens.	Discharge Top	Discharge Middle	Discharge Bottom	Discharge Left	Discharge Right	Discharge Total	Width	Area	Time Start	Time End	Mean Vel. Boat	Mean Vel. Water	% Bad Ens.	% Bad Bins
000	R	189	192	2624	54847	123046	37802	4091	-2352	217435	8797	71117	12:00	12:38	4.33	3.06	10	1
001	L	222	57	2515	55685	129122	42687	1049	31.1	228573	8703	70064	12:40	13:16	4.46	3.26	9	0
Mean		206	125	2569	55266	126084	40245	2570	-1161	223004	8750	70590	**Total**	01:15	4.40	3.16	10	1
SDev		23	95	77	592	4296	3454	2151	1685	7876	66.6	744.8			0.09	0.14		
SD/M		0.11	0.77	0.03	0.01	0.03	0.09	0.84	1.45	0.04	0.01	0.01			0.02	0.05		

Remarks: