APPENDIX B

BASE-LINE AND BENDWAY-WEIR TESTING PROGRAM RESULTS

Table B.1. 8-cfs Base-line Data Sheet

	Initials
Point Gage Reader	KK
Recorder	JH

DATE: 2/24/2004

8 cfs WITH STOP LOGS				
Cross Section	**Point**	**Bed Reading**	**Water-surface Reading**	**Point Gage Position Along Cart**
0	D_{CART}	0.396	1.006	18.80
1	D_{CART}	0.397	0.988	16.53
2	D_{CART}	0.338	0.942	17.02
3	D_{CART}	0.337	0.944	15.88
4	D_{CART}	0.346	0.951	16.59
5	D_{CART}	0.373	0.964	17.45
6	D_{CART}	0.376	0.969	17.80
7	D_{CART}	0.354	0.966	15.89
8	D_{CART}	0.348	0.950	16.08
9	D_{CART}	0.320	0.926	15.13
10	D_{CART}	0.307	0.900	14.12
11	D_{CART}	0.320	0.907	14.56
12	D_{CART}	0.331	0.914	16.24
13	D_{CART}	0.311	0.900	19.38
14	D_{CART}	0.295	0.884	19.54
15	D_{CART}	0.292	0.870	19.77
16	D_{CART}	0.230	0.838	17.80
17	D_{CART}	0.208	0.812	17.39
18	D_{CART}	0.945	1.561	39.53

Table B.2. 12-cfs Base-line Data Sheet

	Initials
Point Gage Reader	KEK
Recorder	CW

DATE: 6/3/2004

12 cfs WITH STOP LOGS				
Cross Section	**Point**	**Bed Reading**	**Water-surface Reading**	~~**Point Gage Position Along Cart**~~
18	D_{CART}	0.928	1.766	0.838
17	D_{CART}	0.187	1.017	0.830
16	D_{CART}	0.204	1.033	0.829
15	D_{CART}	0.255	1.062	0.807
14	D_{CART}	0.271	1.080	0.809
13	D_{CART}	0.287	1.084	0.797
12	D_{CART}	0.299	1.101	0.802
11	D_{CART}	0.289	1.091	0.802
10	D_{CART}	0.282	1.082	0.800
9	D_{CART}	0.286	1.108	0.822
8	D_{CART}	0.303	1.134	0.831
7	D_{CART}	0.336	1.149	0.813
6	D_{CART}	0.346	1.157	0.811
5	D_{CART}	0.351	1.150	0.799
4	D_{CART}	0.322	1.135	0.813
3	D_{CART}	0.303	1.111	0.808
2	D_{CART}	0.312	1.123	0.811
1	D_{CART}	0.374	1.175	0.801
0	D_{CART}	0.370	1.194	0.824

Δ WS Reading and Bed Reading

Table B.3. 16-cfs Base-line Data Sheet

	Initials
Point Gage Reader	KEK
Recorder	CW

DATE: 6/3/2004

16 cfs WITH STOP LOGS				
Cross Section	**Point**	**Bed Reading**	**Water-surface Reading**	~~**Point Gage Position Along Cart**~~
0	D_{CART}	0.372	1.309	0.937
1	D_{CART}	0.368	1.288	0.920
2	D_{CART}	0.312	1.239	0.927
3	D_{CART}	0.307	1.226	0.919
4	D_{CART}	0.327	1.250	0.923
5	D_{CART}	0.350	1.262	0.912
6	D_{CART}	0.344	1.269	0.925
7	D_{CART}	0.331	1.261	0.930
8	D_{CART}	0.310	1.244	0.934
9	D_{CART}	0.286	1.219	0.933
10	D_{CART}	0.283	1.189	0.906
11	D_{CART}	0.291	1.197	0.906
12	D_{CART}	0.303	1.204	0.901
13	D_{CART}	0.282	1.183	0.901
14	D_{CART}	0.267	1.178	0.911
15	D_{CART}	0.262	1.164	0.902
16	D_{CART}	0.204	1.128	0.924
17	D_{CART}	0.190	1.116	0.926
18	D_{CART}	0.935	1.867	0.932

Δ WS Reading and Bed Reading

Table B.4. 8-cfs Bendway-weir Testing Data Sheet

Date: 6/10/04
Initials: PS, SG
Discharge (cfs): 8 - mod.
Test ID: test 19

Cross Section Indicated by:	# (1-18)	Piezo Letter (A-G)	0.5b, 0.25b, toe
Weir Indicated by:	W#U or W#C or W#D	LB or RB or TIP	0.5ft, 1.5ft (US Bend)
Position Between Weirs Indicated by:	W# / W#	LB or RB	0.3ft, 0.9ft (DS Bend)

Velocity File Name	Mark #	XS #/ Weir #	Pizo / Weir Pos	Between Weir Point	Percent Depth (%)	Total Depth
test 19a1	1	W1 U			60	0.768
	3	W1 C	weir			0.733
	5	W1 C	tip			0.734
	7	W1 C	RB			0.707
	9	XS1	E			0.645
	11	XS1	D			0.700
	13	XS1	C			0.654
	15	W1 D				0.689
	17.	W1/W2	RB			0.647
	19	W1/W2	LB			0.664
	21	XS2	D			0.700
	23	XS2	C			0.660
	25	XS2	E			0.658
	27	W2 U	LB			0.689
test 19a2	1	W2 C	weir			0.726
	3	W2 C	tip			0.736
	5	W2 C	RB			0.708
	7	W2 D	LB			0.713
	9	XS3	C			0.668
	11	XS3	D			0.698
	13	XS3	E			0.654
	15	W2/W3	RB			0.691
	17	W2/W3	LB			0.673
	19	W3 U				0.685
	21	W3 C	RB			0.677

Table B.4. (Continue)

Date: _____
Initials: _____
Discharge (cfs): _____
Test ID: _____

Cross Section Indicated by:	# (1-18)	Piezo Letter (A-G)	0.5b, 0.25b, toe
Weir Indicated by:	W#U or W#C or W#D	LB or RB or TIP	0.5ft, 1.5ft (US Bend)
Position Between Weirs Indicated by:	W# / W#	LB or RB	0.3ft, 0.9ft (DS Bend)

	Velocity File Name	Mark #	XS #/ Weir #	Pizo / Weir Pos	Between Weir Point	Percent Depth (%)	Total Depth
		23	W3 C	weir		60	0.693
XS4 C		25	W3 C	tip			0.693
blocked		27	XS 4	D			0.705
		29	XS 4	E			0.641
		31	W3 D				0.752
		33	W3/W4	LB			0.714
		35	W3/W4	RB			0.670
		37	XS 5	E			0.626
		39	XS 5	D			0.689
		41	XS 5	C			0.655
		43	W4 U				0.694
		45	W4 C	RB			0.672
		47	W4 C	weir			0.715
		49	W4 C	tip			0.715
		51	W4 D				0.685
		53	XS 6	D			0.696
		55	XS 6	E			0.619
		57	XS 6	C			0.666
		59	W4/W5	LB			0.660
		61	W4/W5	RB			0.675
		63	W5 U				0.689
XS7C		65	XS 7	D			0.687
blocked		67	XS 7	E			0.633
		69	W5 C	RB			0.657
		71	W5 C	weir			0.698

Table B.4. (Continue)

Date: 6/11/04
Initials: SG PS
Discharge (cfs): 8
Test ID: Test 19

Cross Section Indicated by:	# (1-18)	Piezo Letter (A-G)	0.5b, 0.25b, toe
Weir Indicated by:	W#U or W#C or W#D	LB or RB or TIP	0.5ft, 1.5ft (US Bend)
Position Between Weirs Indicated by:	W# / W#	LB or RB	0.3ft, 0.9ft (DS Bend)

Velocity File Name	Mark #	XS # / Weir #	Pizo / Weir Pos	Between Weir Point	Percent Depth (%)	Total depth
test 19a2 (cont.)	73	W5C	tip		60	0.698
	75	W5 D				0.687
	77	XS 8	D			0.686
	79	XS 8	E			0.615
	81	XS 8	C			0.634
	83	XS 9	D			0.740
	85	XS 10	C			~~0.744~~ 0.630
	87	XS 10	D			0.699
	89	XS 10	E			0.642
	91	XS 11	E			0.646
	93	XS 11	D			0.698
	95	XS 11	C			0.640
	97	W6U				0.673
	99	W6 C	weir			0.616
	101	W6 C	tip			0.616
	103	W6 C	LB			0.614
	105	W6 D				0.604
	107	XS 12	E			0.564
	109	XS 12	D			0.610
	111	XS 12	C			0.559
	113	W6/W7	LB			0.586
	115	W6/W7	RB			0.612
	117	XS 13	E			0.569
	119	XS 13	D			0.632
	121	XS 13	C			0.576

Table B.4. (Continue)

Date: _____
Initials: _____
Discharge (cfs): _____
Test ID: _____

Cross Section Indicated by:	# (1-18)	Piezo Letter (A-G)	0.5b, 0.25b, toe
Weir Indicated by:	W#U or W#C or W#D	LB or RB or TIP	0.5ft, 1.5ft (US Bend)
Position Between Weirs Indicated by:	W# / W#	LB or RB	0.3ft, 0.9ft (DS Bend)

XS 14 = blocked

Velocity File Name	Mark #	XS #/ Weir #	Pizo / Weir Pos	Between Weir Point	Percent Depth (%)	Total depth
	123	W7 U			60	0.668
	125	W7 C	weir			0.588
	127	W7 C	tip			0.588
	129	W7 C	LB			0.604
	131	XS 14	C			0.564
	133	XS 14	D		→	0.605
	135	W7 D				0.565
	137	XS 15	D		→	0.594
	139	XS 15	E			0.526
	141	XS 15	C			0.544
	143	W7/W8	LB			0.575
	145	W7/W8	RB			0.577
	147	XS 16	E			0.595
	149	XS 16	D		→	0.632
	151	XS 16	C			0.570
	153	W8 U				0.630
	155	W8 C	weir			0.588
	157	W8 C	tip			0.588
	159	W8 C	LB			0.598
	161	W8 D				0.558
	163	XS 17	E			0.513
	165	XS 17	D		→	0.570
	167	XS 17	C			0.512

Table B.5. 12-cfs Bendway-weir Testing Data Sheet

Date: 6/15/04
Initials: PS, SG, AC
Discharge (cfs): 12
Test ID: test 19

ADV

Cross Section Indicated by:	# (1-18)	Piezo Letter (A-G)	0.5b, 0.25b, toe
Weir Indicated by:	W#U or W#C or W#D	LB or RB or TIP	0.5ft, 1.5ft (US Bend)
Position Between Weirs Indicated by:	W# / W#	LB or RB	0.3ft, 0.9ft (DS Bend)

Velocity File Name	Mark #	XS #/ Weir #	Pizo / Weir Pos	Between Weir Point	Percent Depth (%)	Total Depth
test1961	1	W1 U			60	0.940
	3	W1 C	weir			0.933
	5	W1 C	tip			0.935
	7	W1 C	RB			0.902
	9	XS1	E			0.840
	11	XS1	D			0.890
	13	XS1	C			0.828
	15	W1 D				0.868
	17	W1/W2	RB			0.853
	19	W1/W2	LB			0.862
	21	XS2	C			0.857
	23	XS2	D			0.905
	25	XS2	E			0.856
	27	W2 U				0.888
	29	W2 C	weir			0.97
	31	W2 C	tip			0.920
	33	W2 C	RB			0.891
	35	W2 D				0.905
	37	XS3	C			0.848
	39	XS3	D			0.886
	41	XS3	E			0.835
	43	W2/W3	RB			0.867
	45	W2/W3	LB			0.858
	47	W3 U				0.86
	49	W3 C	weir			0.88

Table B.5. (Continue)

Date: 06/15/04
Initials: AC, PS
Discharge (cfs): 12
Test ID: TEST 19

ADV

Cross Section Indicated by:	# (1-18)	Piezo Letter (A-G)	0.5b, 0.25b, toe
Weir Indicated by:	W#U or W#C or W#D	LB or RB or TIP	0.5ft, 1.5ft (US Bend)
Position Between Weirs Indicated by:	W# / W#	LB or RB	0.3ft, 0.9ft (DS Bend)

Velocity File Name	Mark #	XS #/ Weir #	Pizo / Weir Pos	Between Weir Point	Percent Depth (%)	Total depth
TEST 19 b1	51	W3 C	TIP		60	0.88
	53	W3 C	RB			0.86
X4 C BLOCKED*	55	XS 4	D			0.892
	57	XS 4	E			0.816
	59	W3 DS				0.941
	61	W3/W4	LB			0.889
	63	W3/W4	RB			0.853
	65	XS 5	E			0.804
	67	XS 5	D			0.886
	69	XS 5	C			0.847
	71	W4	U			0.879
	73	W4 C	weir			.915
	75		tip			0.915
	77		RB			0.861
	79	W4 DS				0.882
	81	XS 6	C			0.84
	83	XS 6	D			0.887
	85	XS 6	E			0.805
	87	W4/W5	RB			0.863
	89	W4/W5	LB			0.853
	91	W5 U				0.885
* XS 7 C BLOCKED*	93	XS 7	D			0.901
	95	XS 7	E			0.827
	97	W5 C	RB			0.871
	99	W5 C	weir			0.912

Table B.5. (Continue)

Date: 06/15/04
Initials: AC, PS
Discharge (cfs): 12
Test ID: Test 19

Cross Section Indicated by:	# (1-18)	Piezo Letter (A-G)	0.5b, 0.25b, toe
Weir Indicated by:	W#U or W#C or W#D	LB or RB or TIP	0.5ft, 1.5ft (US Bend)
Position Between Weirs Indicated by:	W# / W#	LB or RB	0.3ft, 0.9ft (DS Bend)

Velocity File Name	Mark #	XS #/ Weir #	Pizo / Weir Pos	Between Weir Point	Percent Depth (%)	Total depth
Test 19b1	101	W5 C	~~[illegible]~~ tip		60%	0.912
	103	W5 ds				0.899
	105	XS 8	d			0.889
	107	XS 8	E			0.839
	109	XS 8	C			0.852
	111	~~[illegible]~~	~~[illegible]~~			
	113					
	115					
	117					
	119					
	121					
	123					
	125					
	127					
	129					
	131					
	133					
	135					
	137					
	139					
	141					
	143					
	145					
	147					
	149					

Table B.5. (Continue)

Date: 06/16/04
Initials: AC, PS
Discharge (cfs): 12
Test ID: test19

ADV

Cross Section Indicated by:	# (1-18)	Piezo Letter (A-G)	0.5b, 0.25b, toe
Weir Indicated by:	W#U or W#C or W#D	LB or RB or TIP	0.5ft, 1.5ft (US Bend)
Position Between Weirs Indicated by:	W# / W#	LB or RB	0.3ft, 0.9ft (DS Bend)

Velocity File Name	Mark #	XS #/ Weir #	Pizo / Weir Pos	Between Weir Point	Percent Depth (%)	Total Depth
test19b2 ~~ignore~~	~~1~~	~~XS 9D~~			~~62%~~	~~0.92~~
	3	XS 9D				0.92
	5	XS 10	C			0.886
	7	XS 10	D			0.914
	9	XS 10	E			0.86
	11	XS 11	E			0.865
	13	XS 11	D			0.912
	15	XS 11	C			0.862
	17	W6 U				0.888
	19	W6 C	weir			0.849
	21	W6 C	tip			0.849
	23	W6 C	LB			0.793
	25	W6 ds				0.82
	27	XS 12	E			0.784
	29	XS 12	D			0.82
	31	XS 12	C			0.791
	33	W6/W7	LB			0.814
	35	W6/W7	RB			0.825
	37	XS 13	E			0.806
	39	XS 13	D			0.858
	41	XS 13	C			0.808
	43	W7 U				0.884
	45	W7 C	weir			0.832
	47	W7 C	tip			0.832
	49	W7 C	LB			0.815

Table B.5. (Continue)

Date: [illegible]
Initials: AC, PS
Discharge (cfs): 12
Test ID: test 19

Cross Section Indicated by:	# (1-18)	Piezo Letter (A-G)	0.5b, 0.25b, toe
Weir Indicated by:	W#U or W#C or W#D	LB or RB or TIP	0.5ft, 1.5ft (US Bend)
Position Between Weirs Indicated by:	W# / W#	LB or RB	0.3ft, 0.9ft (DS Bend)

Velocity File Name	Mark #	XS #/ Weir #	Pizo / Weir Pos	Between Weir Point	Percent Depth (%)	Total depth
XS 14 E blocked → test 19 b2	51	xs 14	C		60 %	0.802
	53	xs 14	D		→	0.833
	55	w7 DS				0.793
	57	xs 15	E			0.759
	59	xs 15	D		→	0.831
	61	xs 15	C			0.78
	63	w7/w8	LB			0.804
	65	w7/w8	RB			0.803
	67	xs 16	E			0.8
	69	xs 16	D		→	0.865
	71	xs 16	C			0.795
	73	w8 U				0.876
	75	w8 C	weir			0.833
	77	w8 C	tip			0.833
	79	w8 C	LB			0.83
	81	w8 DS				0.81
	83	xs 17	E			0.759
	85	xs 17	D		→	0.81
	87	xs 17	C			0.75
	89					
	91					
	93					
	95					
	97					
	99					

Table B.6. 16-cfs Bendway-weir Test Data Sheet

Date: 6/21/2004
Testers: PS,AC
Discharge (cfs): 16 - modified
Test ID: test19c2

Point #	Theoretical Flowrate	Spacing Ratio	% Depth	Total Depth	XSEC	Piezo	Weir #	Weir Pos.	Bank Pos.	% Top Width	Theta	Notes:
1	16	4.1	60	1.017			5	center	weir	28	75	
3	16	4.1	60	1.017			5	center	tip	28	75	
5	16	4.1	60	0.974			5	center	inner	28	75	
7	16	4.1	60	1.021			5	ds	outer	28	75	
9	16	4.1	60	0.691	8	c				28	75	
11	16	4.1	60	0.999	8	d				28	75	
13	16	4.1	60	0.946	8	e				28	75	
15	16		60	1.021	9	d				28	75	
17	16	7.62	60	0.965	10	e				28	75	
19	16	7.62	60	1.007	10	d				28	75	
21	16	7.62	60	0.955	10	c				28	75	
23	16	7.62	60	0.946	11	c				28	75	
25	16	7.62	60	1.01	11	d				28	75	
27	16	7.62	60	0.967	11	e				28	75	
29	16	7.62	60	0.995			6	us	outer	28	75	
31	16	7.62	60	0.913			6	center	weir	28	75	
33	16	7.62	60	0.913			6	center	tip	28	75	
35	16	7.62	60	0.933			6	center	inner	28	75	
37	16	7.62	60	0.894			6	ds	outer	28	75	
39	16	7.62	60	0.859	12	e				28	75	
41	16	7.62	60	0.91	12	d				28	75	
43	16	7.62	60	0.866	12	c				28	75	
45	16	7.62	60	0.91			b6/7	between	inner	28	75	
47	16	7.62	60	0.927			b6/7	between	outer	28	75	
49	16	7.62	60	0.882	13	e				28	75	
51	16	7.62	60	0.93	13	d				28	75	
53	16	7.62	60	0.877	13	c				28	75	
55	16	7.62	60	0.955			7	us	outer	28	75	
57	16	7.62	60	0.88			7	center	weir	28	75	
59	16	7.62	60	0.88			7	center	tip	28	75	
61	16	7.62	60	0.89			7	center	inner	28	75	
63	16	7.62	60	0.861	14	c				28	75	XSEC 14 e blocked by weir
65	16	7.62	60	0.899	14	d				28	75	
67	16	7.62	60	0.852			7	ds	outer	28	75	
69	16	7.62	60	0.845	15	e				28	75	
71	16	7.62	60	0.891	15	d				28	75	
73	16	7.62	60	0.836	15	c				28	75	
75	16	7.62	60	0.867			b7/8		inner	28	75	
77	16	7.62	60	0.883			b7/8		outer	28	75	
79	16	7.62	60	0.878	16	e				28	75	
81	16	7.62	60	0.899	16	d				28	75	
83	16	7.62	60	0.837	16	c				28	75	
85	16	7.62	60	0.934			8	us	outer	28	75	
87	16	7.62	60	0.865			8	center	weir	28	75	
89	16	7.62	60	0.865			8	center	tip	28	75	
91	16	7.62	60	0.89			8	center	inner	28	75	
93	16	7.62	60	0.864			8	ds	outer	28	75	
95	16	7.62	60	0.819	17	e				28	75	
97	16	7.62	60	0.884	17	d				28	75	
99	16	7.62	60	0.791	17	c				28	75	

Table B.6. (Continue)

Date: 6/18/2004
Testers: PS, AC
Discharge (cfs): 16 - modified
Test ID: test19c1

Point #	Theoretical Flowrate	Spacing Ratio	% Depth	Total Depth	XSEC	Piezo	Weir #	Weir Pos.	Bank Pos.	% Top Width	Theta	Notes:
1	16	4.1	60	1.08			1	us	outer	28	75	
3	16	4.1	60	1.03			1	center	inner	28	75	
5	16	4.1	60	1.052			1	center	weir	28	75	
7	16	4.1	60	1.057			1	center	tip	28	75	
9	16	4.1	60	1.008	1	d				28	75	
11	16	4.1	60	0.931	1	c				28	75	
13	16	4.1	60	0.945	1	e				28	75	
15	16	4.1	60	0.981			1	ds	outer	28	75	
17	16	4.1	60	0.989			b1/2	between	outer	28	75	
19	16	4.1	60	0.959			b1/2	between	inner	28	75	
21	16	4.1	60	0.968	2	e				28	75	
23	16	4.1	60	1.02	2	d				28	75	
25	16	4.1	60	0.966	2	c				28	75	
27	16	4.1	60	1.001			2	us	outer	28	75	
29	16	4.1	60	1.009			2	center	inner	28	75	
31	16	4.1	60	1.022			2	center	weir	28	75	
33	16	4.1	60	1.023			2	center	tip	28	75	
35	16	4.1	60	1.016			2	ds	outer	28	75	
37	16	4.1	60	0.86	3	e				28	75	
39	16	4.1	60	1	3	d				28	75	
41	16	4.1	60	0.969	3	c				28	75	
43	16	4.1	60	0.976			b2/3	between	outer	28	75	
45	16	4.1	60	0.995			b2/3	between	inner	28	75	
47	16	4.1	60	0.986			3	us	outer	28	75	
49	16	4.1	60	0.986			3	center	weir	28	75	
51	16	4.1	60	0.99			3	center	tip	28	75	
53	16	4.1	60	0.974			3	center	inner	28	75	
55	16	4.1	60	1.015	4	d				28	75	xsec 4 c blocked by weir
57	16	4.1	60	0.941	4	e				28	75	
59	16	4.1	60	1.065			3	ds	outer	28	75	
61	16	4.1	60	0.991			b3/4	between	outer	28	75	
63	16	4.1	60	0.958			b3/4	between	inner	28	75	
65	16	4.1	60	0.91	5	e				28	75	
67	16	4.1	60	0.995	5	d				28	75	
69	16	4.1	60	0.945	5	c				28	75	
71	16	4.1	60	0.93			4	us	outer	28	75	
73	16	4.1	60	1.014			4	center	weir	28	75	
75	16	4.1	60	1.016			4	center	tip	28	75	
77	16	4.1	60	0.961			4	center	inner	28	75	
79	16	4.1	60	0.884			4	ds		28	75	
81	16	4.1	60	0.958	6	c				28	75	
83	16	4.1	60	1.01	6	d				28	75	
85	16	4.1	60	0.916	6	e				28	75	
87	16	4.1	60	0.98			b4/5	between	inner	28	75	
89	16	4.1	60	0.972			b4/5	between	outer	28	75	
91	16	4.1	60	1.005			5	us	outer	28	75	
93	16	4.1	60	1.012	7	d				28	75	xsec 7 c blocked by weir
95	16	4.1	60	0.936	7	e				28	75	