Current meter measurement

Site: Hoagland Tunnel Ditch (aka Jacobson Ditch)
Date: 7/14/2004
WMIS ID:
Source: Hoagland Tunnel

Staff gage readings: feet @
feet @

Meter type: No measuring device
Rating curve:
Meter discharge: ft^3/s

Measured in concrete trapezoidal channel approximately 1/8 mile downstream of the tunnel

	Distance feet	Depth feet	Obs Depth	Velocity ft/sec	Width feet	Area ft^2	Discharge ft^3/s
LEW	1.9	0			0.2		
	2.3	0.2	0.6	1.89	0.3	0.06	0.1134
	2.5	0.35	0.6	1.93	0.2	0.07	0.1351
	2.7	0.67	0.6	2.25	0.25	0.1675	0.376875
	3	0.87	0.6	2.42	0.3	0.261	0.63162
	3.3	1.14	0.6	2.48	0.3	0.342	0.84816
	3.6	1.14	0.6	2.56	0.3	0.342	0.87552
	3.9	1.14	0.6	2.55	0.3	0.342	0.8721
	4.2	0.9	0.6	2.48	0.3	0.27	0.6696
	4.5	0.58	0.6	2.31	0.25	0.145	0.33495
	4.7	0.36	0.6	2.25	0.2	0.072	0.162
	4.9	0.2	0.6	1.82	0.2	0.04	0.0728
REW	5.1	0			0.1		
Total					3.2	2.1115	5.09
Error							-100.0%

Average Velocity = 2.41 ft/sec

STATE OF IDAHO

DEPARTMENT OF WATER RESOURCES

Water District

DISCHARGE MEASUREMENT NOTES

Meas. No. _____

Comp. by _____

Checked by _____

Sta. No. _____

Hoagland Tunnel

Date 7/14/2004 Party _____

Width 3.2 Area 2.11 Vel. 2.41 G. H. _____ Disch. 5.09

Method _____ No. secs. _____ G. H. change _____ in _____ hrs. Susp. _____

Method coef. _____ Hor. angle coef. _____ Susp. coef. _____ Meter No. _____

GAGE READINGS				
Time		Recorder	Inside	Outside
		—	—	—
		no gage		
Weighted M. G. H.				
G. H. correction				
Correct M. G. H.				

Type of meter _____

Date rated _____ for rod, other.

Meter _____ ft. above bottom of weight.

Spin before meas. 3.99 after 3.19

Meas. plots ____ % diff. from rating _____

(Wading), cable, ice, boat, upstr., downstr., side bridge no gage feet, ~~mile, above, below gage, and~~ @ trapezoidal channel

Check-bar, found _____

changed to _____ at _____

Correct _____

Levels obtained _____

Measurement rated excellent (2%), good (5%), fair (8%), poor (over 8%), based on following conditions: Cross section _____

Flow _____ Weather _____

Other _____ Air _____°F@ _____

Gage _____ Water _____°F@ _____

_____ Record removed _____ Intake flushed U _____

Observer _____

_____

Control _____

_____

Remarks _____

_____

_____

G. H. of zero flow _____ ft.

.0 .10 .20 .30 .40 .50 .60 .70 .75

River at—

Angle coefficient	Dist. from initial point	Width	Depth	Observation depth	Revolutions	Time in seconds	VELOCITY: At point	VELOCITY: Mean in vertical	Adjusted for hor. angle or	Area	Discharge	
	1.9	LEW	0				—					.80
	2.3	0.3 ~~0.3~~	0.20	0.6			1.89			0.06	0.113	.85
	2.5	0.2 ~~0.3~~	0.35	|			1.93			~~0.06~~ 0.07	~~0.116~~ 0.135	
	2.7	~~0.25~~ 0.3 ~~0.25~~	0.67	|			2.25			0.168 ~~0.201~~	0.379 ~~0.452~~	.90
	3.0	0.3	0.87	|			2.42			0.261	0.632	
	3.3	0.3	1.14	|			2.48			0.342	0.848	.92
	3.6	0.3	1.14	|			2.56			0.342	0.876	.94
	3.9	0.3	1.14	|			2.55			0.342	0.872	
	4.2	0.3	0.90	|			2.48			0.270	0.670	.96
	4.5	0.25	0.58	|			2.31			0.145	0.335	.97
	~~4.7~~		~~0.19~~	|			—					.98
	4.7	0.2	0.36	|			2.25			0.072	0.162	.99
	4.9	0.2	0.20	V			1.82			~~0.073~~ 0.054	0.073	
	5.1	REW	0				—					
⊙											5.09	1.00

.99 .98 .97 .96 .94 .92 .90 .85 .80

.0 .10 .20 .30 .40 .50 .60 .70 .75