Idaho Dept of Water Resources
ESPA Spring Diversion Inventory

District 36A **Date** _____

Basin 36 **Ditch or users association** _____

Diversion Name Hunt Ditch **POD Number** _____

Spring Name Riley Creek **Tributary to** _____

GPS site ID A0001586 **Inventory Examiner** _____

Owner Dan Yore/Buckey Ranch **Operator** _____

Measuring Device Data			
Type of Device or Method	Orifice, Submerged	Standard	Non-standard
If non-standard describe: see file			

Discharge and Measurement Method	
How Measurement was taken: (Staff gauge, current meter, polysonic meter)	
Staff gauge Head Reading	Current Meter/or poly-sonic measurement:
Time of Day	
Table used for Q	Meter Measurement Confidence 2% 5% 10% +10%
Total Flow =	Does device meet IDWR standards? YES NO
Discharge notes attached? YES NO	Measurement Taken by:
Calculations Attached? YES NO	Is follow-up Needed? YES NO

Concerns about measuring device: _____

Current meter measurement

Site: Hunt Ditch
Date: 7/16/2004
WMIS ID:
Source: Riley Creek

Staff gage readings: feet @
feet @

Meter type: Submerged orifice
Weir Length: NA feet
Rating curve:
Meter discharge: ft^3/s

Measured in north ditch and south ditch approximately 200 feet upstream of weir

	Distance feet	Depth feet	Obs Depth	Velocity ft/sec	Width feet	Area ft^2	Discharge ft^3/s
LEW	2.5	0.00			0.25		
	3.0	0.45	0.6	0.43	0.75	0.3375	0.145125
	4.0	0.80	0.6	0.92	1	0.8	0.736
	5.0	1.05	0.6	1.51	1	1.05	1.5855
	6.0	1.50	0.6	1.70	1	1.5	2.55
	7.0	1.75	0.6	1.94	1	1.75	3.395
	8.0	1.85	0.6	2.15	1	1.85	3.9775
	9.0	1.85	0.6	2.29	1	1.85	4.2365
	10.0	1.80	0.6	2.18	1	1.8	3.924
	11.0	1.70	0.6	2.04	1	1.7	3.468
	12.0	1.35	0.6	0.74	0.75	1.0125	0.74925
REW	12.5	0.00			0.25		
Total					10	13.65	24.77
Error							-100.0%

Average Velocity = 1.81 ft/sec

STATE OF IDAHO

DEPARTMENT OF WATER RESOURCES

Water District

DISCHARGE MEASUREMENT NOTES

Meas. No. 2

Comp. by JB

Checked by JB

Sta. No. Hunt Ditch

Date 7/16/2004 Party C. Knowles/J. Berkey

Width 10.0 Area 13.7 ' Vel. 1.81 G. H. _____ Disch. 24.8

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

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

GAGE READINGS				
Time		Recorder	Inside	Outside
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. 318 after 312

Meas. plots ____ % diff. from rating _____

Wading, cable, ice, boat, upstr., downstr., side bridge 100 (feet) mile, above, (below) ~~gage and~~ Hwy 30 bridge

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 24.8 cfs Weather _____

Other _____ Air _____°F@ _____

Gage _____ Water _____°F@ _____

_____ Record removed _____ Intake flushed U

Observer _____

_____

Control _____

_____

Remarks Stem height @ HG 1.10 ft above header plate

Used upstream orifice rating table 0.84 ft above top of nut @ 11:50 AM

G. H. of zero flow _____ ft. finish measurement @ 12:28 PM

apparently stem ht − 1.5 in = opening

∴ orifice ht = 0.975 ft ; did not measure head

.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
LEW	2.5	0.25	0								
	3.0	0.75	0.45	0.6			0.43			0.34	0.146
	4.0	1.0	0.80	0.6			0.92			0.80	0.736
	5.0	1.0	1.05	0.6			1.51			1.05	1.586
	6.0	1.0	1.50	0.6			1.70			1.50	2.550
	~~7.0~~	~~1.~~	~~1.75~~	~~0.6~~			~~1.63~~ 1.94			~~3.97~~	
	7.0	1.0	1.75	0.6			1.94			1.75	3.395
	8.0	1.0	1.85	0.6			2.15			1.85	3.978
	9.0	1.0	1.85	0.6			2.29			1.85	4.237
	10.0	1.0	1.80	0.6			2.18			1.80	3.924
	11.0	1.0	1.70	0.6			2.04			1.70	3.468
	12.0	0.75	1.35	0.6			0.74			1.01	0.747
REW	12.5										24.77

.80 .85 .90 .92 .94 .96 .97 .98 .99 1.00

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

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