

IDAHO DEPARTMENT OF WATER RESOURCES  
Water Measurement Program

**WATER MEASURING DEVICE CERTIFICATION**  
(Revised 7/2002)

District 47-0 Rock Creek  
Diversion Name Frazier Diversion

Inventory Date _____	Test Date <u>7/17/03</u>
Inventory Examiner _____	Person performing test <u>C. Knowles</u>
PCC o.k.? <input type="checkbox"/> Yes <input type="checkbox"/> No	Exam complete? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Name:	<u>Hal Frazier</u>
Water Right No.:	<u>47-120L 151L 152B</u>
Legal Description:	<u>T 12S R 18E Sec. 29 SE 1/4 NW 1/4 NW 1/4</u>
Site Tag No.:	<u>A-0011964</u>
Diversion Name:	<u>Frazier</u>

**Current Owner**

Name Hal Frazier / Meander Loop Phone 423-4532 / 733-2211  
Address RT 4 Box 7167 Cell \_\_\_\_\_  
City Twin Falls St ID Zip 83301 E-mail \_\_\_\_\_

**Operator (if leased or operated by person other than owner)**

Name \_\_\_\_\_ Phone \_\_\_\_\_  
Address \_\_\_\_\_ Cell \_\_\_\_\_  
City \_\_\_\_\_ St \_\_\_\_\_ Zip \_\_\_\_\_ E-mail \_\_\_\_\_

**SECTION 1 - Well Site Identification**

**Global Positioning System Data:**

Data Collection Filename \_\_\_\_\_ Offset \_\_\_\_\_  
IDWR Site Tag Identification No. \_\_\_\_\_  
Site Tag Location description: \_\_\_\_\_

PLS/USGS LOCATOR \_\_\_\_\_

For Department/District Use Only

Received by \_\_\_\_\_ Date \_\_\_\_\_  
Reviewed by \_\_\_\_\_ Date \_\_\_\_\_  
Data Entry By \_\_\_\_\_ Date \_\_\_\_\_

**SECTION II – Installed Meter Information**

METER AND MOUNTING PIPE INFORMATION			
Motor HP	15 HP	Volume units	Acre-Feet Other (specify) _____
Meter Install Date		Volume multiplier	.001
Manufacturer	4000 MASTER	Installation location	<input type="checkbox"/> Excel <input type="checkbox"/> Fair <input checked="" type="checkbox"/> Good <input type="checkbox"/> Poor <i>Discontinued product</i>
Meter Type	Flowmeter	Pipe material	CS / PVC
Meter Model	400B	Outside diameter	3.531
Serial Number	17127	Wall thickness	.2251
Size (nominal)	3"	Inside diameter	
Measure Flow Rate?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Amount of straight pipe upstream from meter	_____ Inches 10" Pipe Lengths
Measurement Units	<input type="checkbox"/> CFS <input checked="" type="checkbox"/> GPM Other (specify) _____	Amount of straight pipe downstream from meter	_____ Inches 10" Pipe Lengths
Flow Rate Multiplier	X /	Standard Meter Type	<input checked="" type="checkbox"/> Sonic <input type="checkbox"/> Pyg <input type="checkbox"/> Collins <input type="checkbox"/> Hall <input type="checkbox"/> Anub <input type="checkbox"/> Dye/chem <input type="checkbox"/> Other _____
Measure Cumulative Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Standard Meter Confidence	<input type="checkbox"/> Excellent 2% <input checked="" type="checkbox"/> Good 5% <input type="checkbox"/> Fair 10% <input type="checkbox"/> Poor > 10%

**Multiple Flowmeters**

Are multiple flowmeters used to measure diversions from this well?     Yes     No

If yes, how many? \_\_\_\_\_  
 (Attach separate form for each meter checked and/or calibrated.)

**Multiple Wells**

If this meter measures diversions from multiple wells, list names and locations of other wells:

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### SECTION III – Certification for Calibration of a Water Measurement Meter

**Measurement No. 1 (M<sub>1</sub>)** is the measured rate of flow from the permanently installed flow meter.

**Measurement No. 2 (M<sub>2</sub>)** is the measured rate of flow from the measuring device being used to check the flow for the calibration. This method or device must be accurate to within ± 5% error. Describe below the method and equipment used to perform this measurement.

**Percent Difference =  $(M_1 - M_2) \div M_2 \times 100 = \pm \%$**  (Acceptable is within ± 10%) (equation 1)

**Calibration Multiplier =  $M_2 \div M_1$**  (equation 2)

Is flowmeter installed according to manufacturer's specifications?  Yes  No  Unsure

Describe any apparent problems with installation or operation \_\_\_\_\_

Flowmeter accuracy prior to any adjustments: Rotary switches set at 642 +16.65% Totalizer reading 494879

Flowmeter accuracy after final adjustment: 543 Totalizer reading 494902

Flowmeter calibration multiplier: 1.01

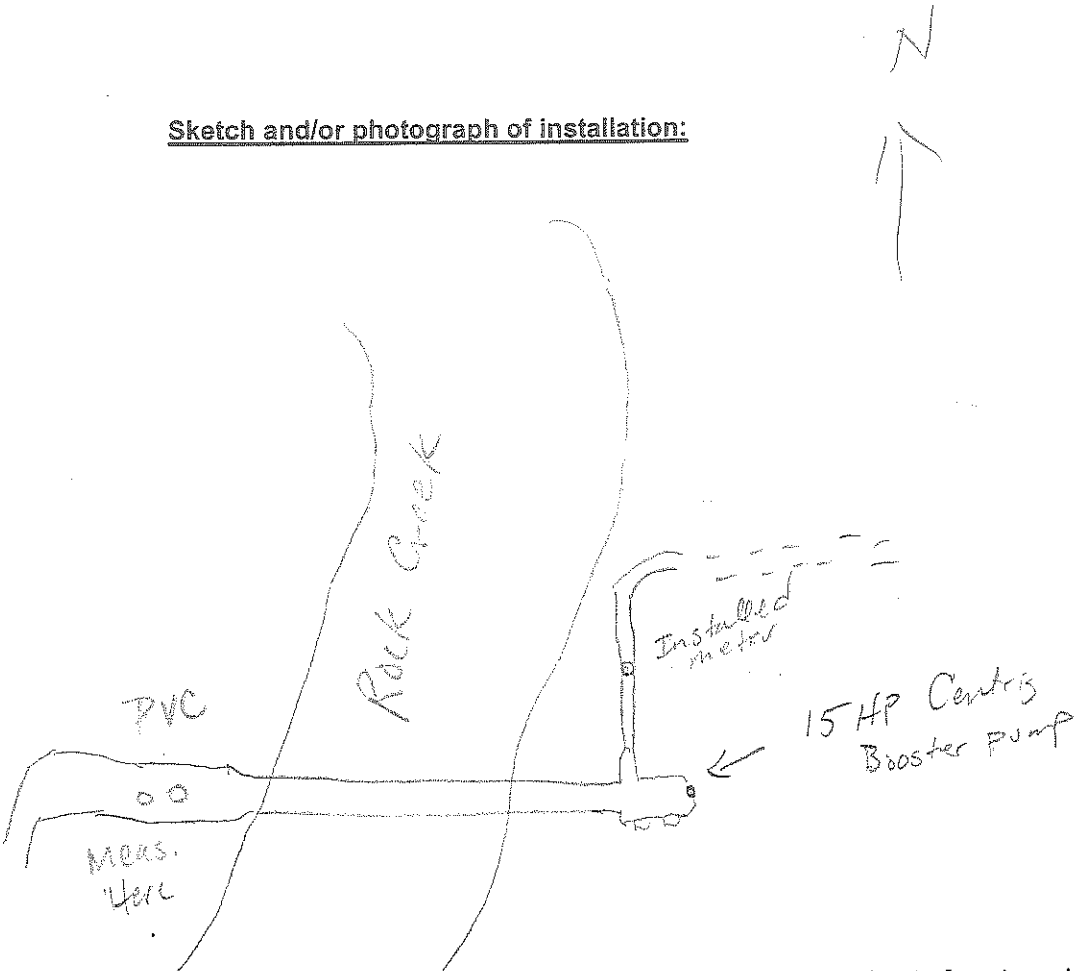
.86 Calibration Factor prior to any adjustments.

FLOWMETER ACCURACY CALIBRATION TABLE							
Installed meter (totalizer reading)	Time	Total Gallons	Average Flow Rate GPM (M <sub>1</sub> )	Standard total gallons	Average Flow Rate GPM (M <sub>2</sub> )	% diff. (±)	Comments and adjustments
494870	Start	2932.65	265.16	2273	227.3	+16.65	Rotary switches set at 642
494879	11.06min						
494895	Start						Rotary switches @ 543
494902	16.16min	2280.95	224.50	2265	226.5	-.881	

Notes – Comments – Calculations: Measurement done on the PVC Pipe across Rock Creek. The dimensions for that pipe are as follows. 6.15" OD - PVC Pipe material - .175" wall thickness with 4.267" spacing on FLGTS transducer.

WATER LEVEL DATA	
Does the well have access to measure water levels? <input type="checkbox"/> Yes <input type="checkbox"/> No (check one)	
Is this well part of USGS, IDWR, or another network of water level monitoring wells? <input type="checkbox"/> Yes <input type="checkbox"/> No (check one)	
Static Water Level _____ ft Date _____	Pumping Water Level _____ ft (at condition _____) Date _____

Sketch and/or photograph of installation:



I certify that the above information is true and correct to the best of my knowledge and ability and the measurements taken and recorded are in accordance with the standards and specifications of the equipment used.

Signature     C. R. K. R.     Date     7/17/03      
(person performing measurements)

Hal Frazier / Rock Creek Diversion  
START :07-17 11:10  
END :07-17 11:20  
INTERVAL:00:01:00

7/17/2003 11:16

+2.755E+0 ft/s  
+2.269E+2 gal/m  
+TOTAL 0003625 gal  
-TOTAL 0000000 gal  
NORMAL

7/17/2003 11:10

+2.708E+0 ft/s  
+2.230E+2 gal/m  
+TOTAL 0002273 gal  
-TOTAL 0000000 gal  
NORMAL

7/17/2003 11:17

+2.773E+0 ft/s  
+2.284E+2 gal/m  
+TOTAL 0003852 gal  
-TOTAL 0000000 gal  
NORMAL

7/17/2003 11:11

+2.737E+0 ft/s  
+2.254E+2 gal/m  
+TOTAL 0002496 gal  
-TOTAL 0000000 gal  
NORMAL

7/17/2003 11:18

+2.751E+0 ft/s  
+2.265E+2 gal/m  
+TOTAL 0004078 gal  
-TOTAL 0000000 gal  
NORMAL

7/17/2003 11:12

+2.741E+0 ft/s  
+2.257E+2 gal/m  
+TOTAL 0002722 gal  
-TOTAL 0000000 gal  
NORMAL

7/17/2003 11:19

+2.753E+0 ft/s  
+2.267E+2 gal/m  
+TOTAL 0004304 gal  
-TOTAL 0000000 gal  
NORMAL

7/17/2003 11:13

+2.757E+0 ft/s  
+2.270E+2 gal/m  
+TOTAL 0002947 gal  
-TOTAL 0000000 gal  
NORMAL

7/17/2003 11:20

+2.746E+0 ft/s  
+2.261E+2 gal/m  
+TOTAL 0004530 gal  
-TOTAL 0000000 gal  
NORMAL

7/17/2003 11:14

+2.749E+0 ft/s  
+2.263E+2 gal/m  
+TOTAL 0003174 gal  
-TOTAL 0000000 gal  
NORMAL

**Forgot to reset Totalizer  
so 4530 - 2273 = 2265 total gal.  
Standard Meter = 226.5 GPM  
Owners Meter = 224.5 GPM  
.88% low**

7/17/2003 11:15

+2.738E+0 ft/s  
+2.255E+2 gal/m  
+TOTAL 0003400 gal  
-TOTAL 0000000 gal  
NORMAL

**Adjustments were made from  
16.65% high to .88% low  
Rotary Switches on owners meter started at 642  
and end up at 543 after adjust.**