

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-16370

Exam Date: 6/9/2017

1. Current Owner:
RED FIR WATER ASSN INC 9789 E HWY 54 ATHOL ID 83801 (208) 683-1908
2. Accompanied by: Larry Neff
Phone No: 208-683-2623
Address: 30692 N Red Fir Rd Athol ID 83801
Relationship to Permit Holder: Member of association

3. **SOURCE:**
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None
2. Other water rights with the same point-of-diversion: 95-10059

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER SW¼SW¼ Sec. 12, Twp 53N, Rge 03W, B.M. KOOTENAI County

Method of Determination: Maps and GPS. POD located at -116° 39.305, 47° 56.966 given IDWR tag A0003225

2.

PLACE OF USE: DOMESTIC

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
53N	03W	12											X						

Method of Determination: Google Earth, Arcmap, Kootenai County taxlot mapping tool.

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.

X

Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

X

X Aerial Photo Attached (required for irrigation of 10+ acres).

X Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
95-93-N-51	Jacuzzi	5			

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date

2. Measurements: N/A

E. FLOW CALCULATIONS

X Additional Computation Sheets Attached

Measured Method: See attached pump curve for a 5hp 25gpm Franklin pump which is exact same pump as Jacuzzi 5hp. Pump curve shows pump capable of producing between 24-26gpm.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: N/A

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} =$$

2. Volume Calculations for Other Uses: Domestic use for 1 home with irrigation up to ½ acre = 1.2 AF

G. NARRATIVE/REMARKS/COMMENTS

Field exam with Larry Neff showed a well serving a lot where a home burned down sometime in 2012. This well serves a total of 8 homes including this home. The original 7 homes are covered under license 95-10059. I was unable to get a measurement during exam because system pumped directly into a 3,000 gallon storage tank that fed 3 pressure tank before being distributed to homes. Mr. Neff provided a document showing a pump test was performed and averaged 27 gpm. I contacted United Crown Pump & Drilling for any additional information on the system. The reply email stated they had a Jacuzzi 5hp pump set at 462 feet. Jacuzzi pump was bought out by Franklin and a pump curve for the exact same pump that was installed is attached to the field exam report. The pump is a Franklin brand but is the same exact pump that Jacuzzi made. That pump curve shows the system is capable of pumping somewhere between 24-26gpm.

Water right 95-10059 was issued in 2013 and field examiner used a theoretical pumping equation to justify the rate. That right was issued for 0.07 cfs for domestic use for 7 homes and irrigation of 3.5 acres. With the additional information gathered to license this permit, it was found the system can only produce 0.06 cfs. There is nothing that can be done for the diversion rate for right 95-10059. Because we know the system has a capacity, we will use condition X35 to limit the two rights to a diversion rate of 0.07 cfs with an overall maximum diversion volume of 15.9 acre-feet. Condition F06 will also be added to show that 95-10059 and 95-16370 are diverted from the same point of diversion.

Because a home was on the property during the development period, the shape will be attached in that general area. The property is a 10 acre tract and the shape will hopefully eliminate any confusion if the property is subdivided in the future. If the property owner builds in a different location, we could change the place of use shape accordingly. Since the home was destroyed, Mr. Neff thinned out the trees, cleared all the debris and replaced the water line with a brand new stub in and frost free hydrant. Well construction condition will be removed at licensing and all other conditions will be kept on license.

Have conditions of permit approval been met? ☒ Yes ☐ No**H. RECOMMENDATIONS****1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
DOMESTIC	01/01 to 12/31	0.04 CFS	1.2 AF
<u>Totals:</u>		0.040 CFS	1.20 AF

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☒ None

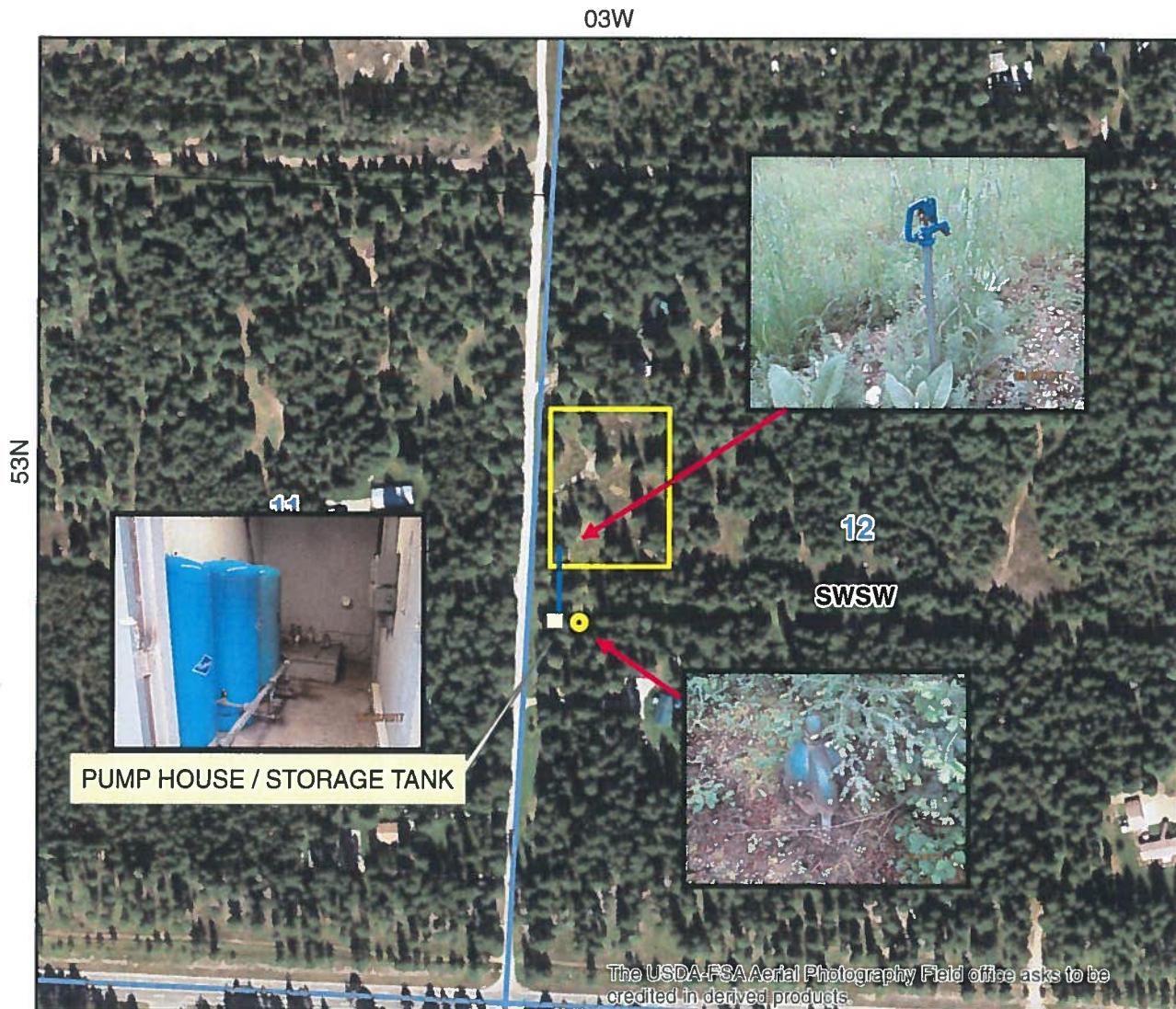
I. AUTHENTICATION

Field Examiner's Name Adam Franklin Date 2-5-2018

Reviewer Douglas Jones P.E. Date 2/28/2018

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-16370

DOMESTIC / SYSTEM DIAGRAM



0 0.035 0.07 0.14 Miles

-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections





WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

[illegible]

Frederick, Adam

From: Steve Currie <steve@unitedcrown.com>
Sent: Friday, February 02, 2018 9:58 AM
To: Frederick, Adam
Subject: RE: East Snowy Lane
Attachments: IMG_5460.jpg

Adam,

Our records show that they have a 5hp 25gpm Jacuzzi pump in the well. Pumps looks like it is set at 462ft.

Hope this helps.

Steve



From: Frederick, Adam [mailto:Adam.Frederick@idwr.idaho.gov]
Sent: Thursday, February 1, 2018 2:48 PM
To: Steve Currie <steve@unitedcrown.com>
Subject: RE: East Snowy Lane

Steve,

Thank you for the help with East Snowy Lane. I have a new one that I could use a pump curve for. I performed an exam for the Red Fir Water Association and they have your sticker on the box. I have been unable to find a corresponding pump model that goes with that control box. Any chance you know what model # pump is in the ground or if you might have a pump curve for them and at what depth it was set? Thank you for any help you might be able to provide.

Adam

Adam Frederick
Senior Water Resource Agent
Idaho Dept. of Water Resources
Northern Regional Office
Phone 208-762-2800

4" TRI-SEAL PUMPS - 25 GPM

PERFORMANCE

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Areas Indicate Most Efficient Performance																				Shut-Off (ft)
		20	40	60	80	100	120	140	160	180	200	240	260	300	360	400	440	480	500	600	700	
1	0			35	33	31	28	26	24	21	17											222
	20		32	30	28	25	22	18	15													
	30	32	29	27	25	22	19															
	40	29	27	25	22	19																
	50	26	24	21	16																	
	60	24	21	17																		
Shut-off PSI		87	79	70	61	53	44	35	27	18	10											
1.5	0						33	31	29	27	25	21	19									297
	20				32	30	28	26	24	22	19											
	30			32	30	28	26	24	22	19	16											
	40	33	32	29	27	25	23	21	19	15												
	50	32	29	27	25	23	21	18														
	60	29	27	25	23	20	18															
Shut-off PSI		120	111	103	94	85	77	68	59	51	42	25	16									
2	0							33	32	30	28	25	24	20								375
	20				34	33	31	29	28	26	25	21	20									
	30			34	33	31	29	28	26	24	23	19	17									
	40		34	33	31	29	28	26	24	23	21	17										
	50	33	32	30	29	27	26	24	22	20	18											
	60	32	30	28	27	26	24	22	20	18												
Shut-off PSI		154	145	136	128	119	110	102	93	84	76	58	50	32								
3	0								33	32	30	29	28	24	22	19	15					519
	20						33	32	32	31	30	28	27	25	22	19						
	30					33	32	32	31	30	29	27	26	24	20							
	40				33	32	31	31	30	29	28	26	25	22	18							
	50			33	32	31	31	30	29	28	27	24	23	21	15							
	60		33	32	31	31	30	29	28	26	25	23	22	19								
Shut-off PSI		216	207	199	190	181	173	164	155	147	138	121	112	95	69	52	34	17				
5	0											33	32	31	30	28	28	24	20			833
	20											33	32	30	30	28	27	26	22	17		
	30										33	33	31	30	28	27	26	25	21	15		
	40									33	32	32	31	29	28	27	25	24	20			
	50								33	33	32	31	30	28	27	25	24	23	19			
	60						33	33	32	31	31	30	28	26	25	23	23	22	18			
Shut-off PSI		352	343	326	317	309	300	291	283	274	257	248	231	205	187	170	153	144	101	58		

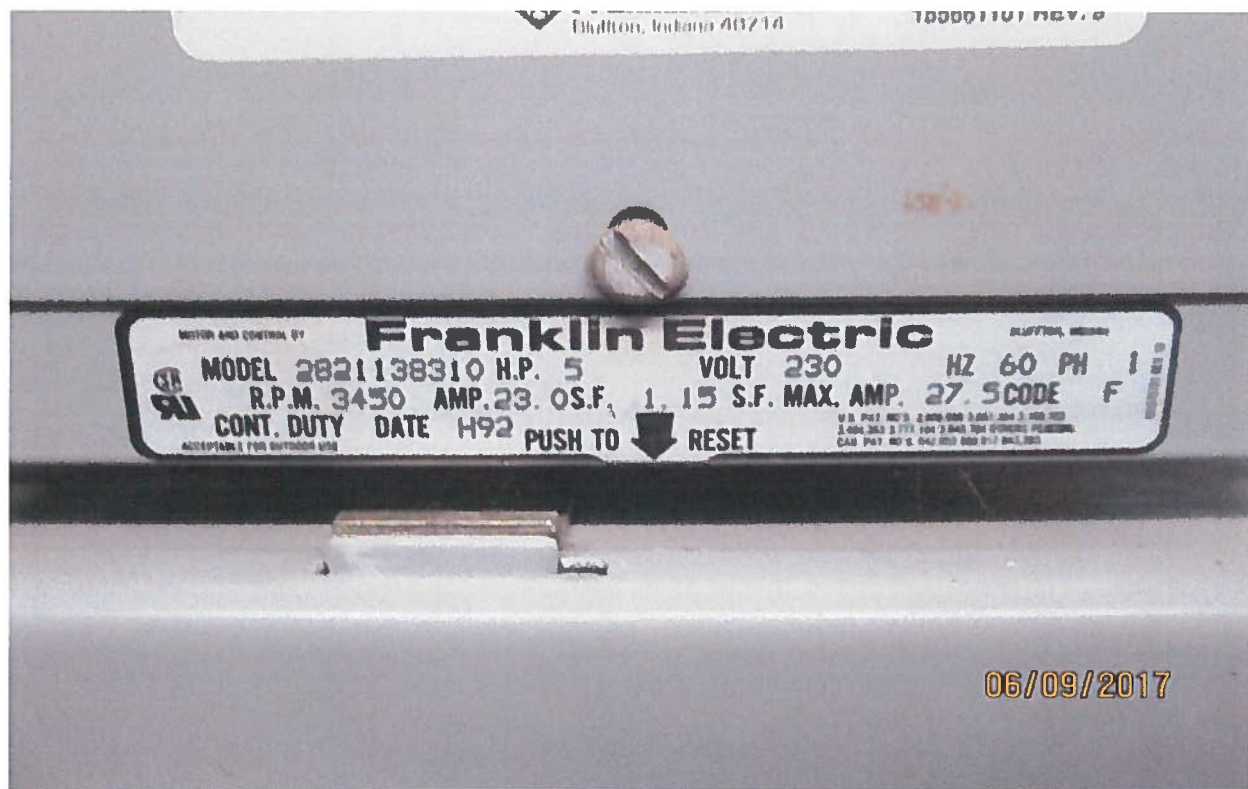
NOTES: Performance shown does not include friction loss in the drop pipe. All performance data is based on rated motor nameplate voltage.

HP	PSI	300	360	400	440	480	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700
7.5	0					33	33	31	29	26	23	20	17	12					
	20				33	32	32	31	28	25	22	19	15						
	30			33	33	32	32	30	27	24	21	18	14						
	40			33	32	32	31	29	27	24	21	17	12						
	50		33	33	32	31	31	29	26	23	20	17							
	60		33	32	32	31	31	28	25	22	19	16							
Shut-off PSI		425	399	382	364	347	338	295	252	208	165	122	78	35					
10	0							33	32	30	29	27	25	23	21	19	15	10	
	20							33	31	30	28	26	24	22	20	17	13		
	30							32	31	29	27	26	24	22	19	17	12		
	40						33	32	30	29	27	25	23	21	19	16	10		
	50					33	33	32	30	28	27	25	23	21	18	15			
	60					33	33	31	30	28	26	24	22	20	18	14			
Shut-off PSI		581	555	538	520	503	494	451	408	365	321	278	235	191	148	105	61	18	

NOTES: Performance shown does not include friction loss in the drop pipe. All performance data is based on rated motor nameplate voltage.



Well 95-93-N-51, given IDWR tag A0003225 during exam for Water Right 95-10059.



Franklin control panel with a Jacuzzi 5hp 25 gpm pump.



Inside of pump house. 3,000 gallon vault under floor.

ARTICLE
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Driller Tested: @100+ GPM Date of Test: 8-3-93

TIME	FLOW RATE	PRESSURE	WATER QUALITY	STATIC LEVEL
11:00	11.56 GPM	140 PSI	COLOR/TRACE	397'
11:10	20.47 GPM	80 PSI	COLOR/TRACE	397'
11:20	25.62 GPM	10 PSI	COLOR/TRACE	397'
11:45	26 GPM	5 PSI	CLEAR	397'
12:00	26 GPM	0 PSI	CLEAR	397'
12:30	27 GPM	0 PSI	CLEAR	397'
1:00	27 GPM	0 PSI	CLEAR	397'
1:30	27 GPM	0 PSI	CLEAR	397'
2:00	27 GPM	0 PSI	CLEAR	397'
2:30	27 GPM	0 PSI	CLEAR	397'
3:00	27 GPM	0 PSI	CLEAR	397'
3:30	27 GPM	0 PSI	CLEAR	397'
4:00	27 GPM	0 PSI	CLEAR	397'
4:30	27 GPM	0 PSI	CLEAR	397'
5:00	27 GPM	0 PSI	CLEAR	397'
5:30	27 GPM	0 PSI	CLEAR	397'
6:00	27 GPM	0 PSI	CLEAR	397'

Test Summary:

06/09/2017

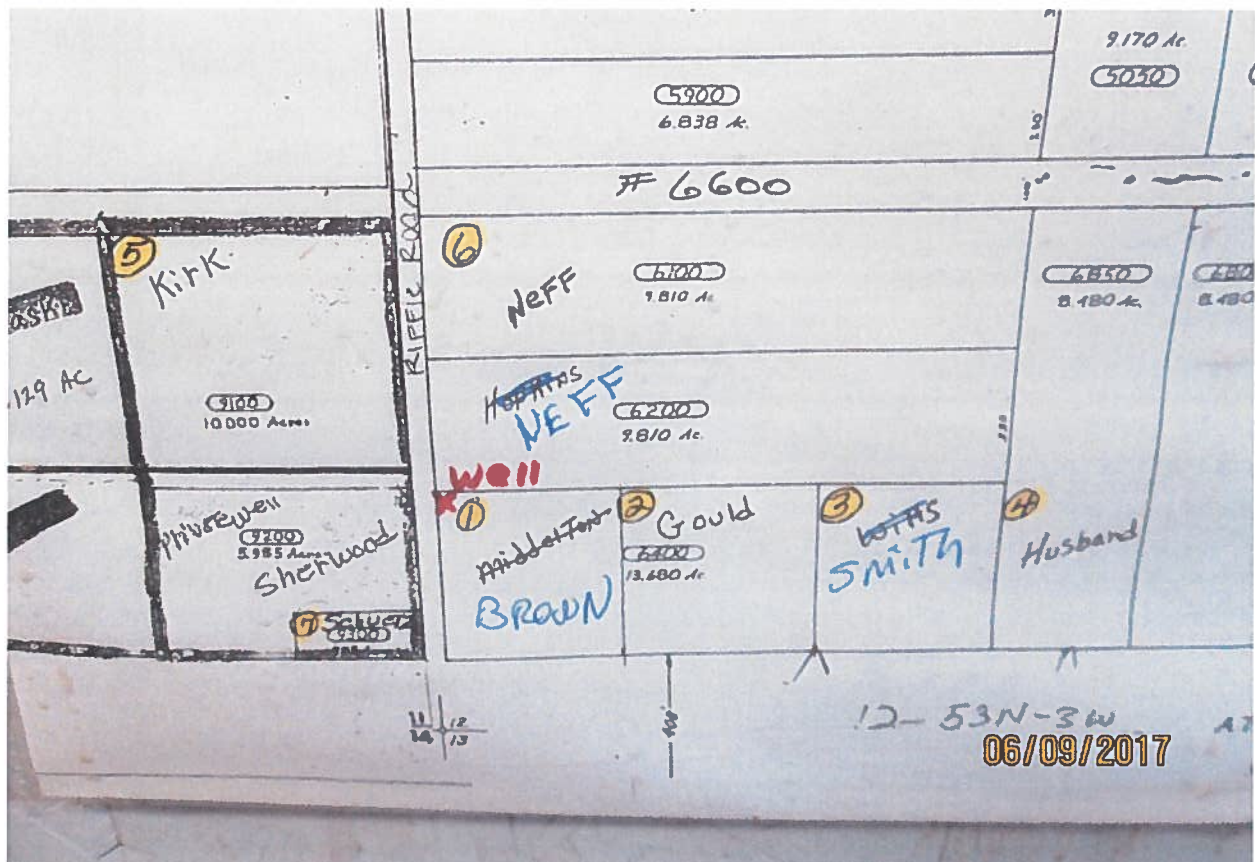
Pump test performed when installed.



Frost free hydrant stub-in.



Home was present on property but burned down in the past couple of years.



Map showing homes served. Neff is 8th home served.