

MEMO

To: 65-13823 Barnes

From: Sandy Hemenway

Date: 12/15/2010

REF: Licensing Review Memo

The Application for Permit was submitted by Lenora B. Barnes on 11/16/1998. The Permit to Appropriate Water was approved on 4/23/1999 for Domestic (1 home) at 0.04 cfs, with proof due on or before 5/1/2004. On 4/29/2004, the Proof of Beneficial Use was received by IDWR, for Domestic (1 home) at 0.04 cfs. **No fee is due**, since the field exam was conducted by Ed Squires, Hydro Logic, Inc., and also since a license examination fee is not required in connection with permits that use a ground water source and have a total diversion of 0.04 cfs or less or where the total volume stored is 4.0 AF per year or less.

The **Tax Lot Information** shows the owner as Barnes Ventures Inc, C/O Southfork Landing. Parcel # RP09N04E354851 for Govt. Lots 5, 6, and 7. The physical address is 20 Charters Mtn. Ranch Rd. 83622.

The **location of the POU** was confirmed by zooming in on the POU using the 2004 ArcMap, shows the house on the SENW within close proximity to the NESW quarter-quarter line. If there is any shifting with new updates, the POU could fall in the NESW. For licensing purposes, the POU will be in the T9N R4E Sec 35 SENW (copy of close up map enclosed in file). This is the same information confirmed by the field exam conducted on 4/24/2004.

The **POU Overlaps** are as follows: 65-8850 aesthetic, and irrigation; 65-11324 aesthetic, irrigation, and stockwater. The source for these water rights is the Payette River. The current owner of both water rights is Barnes Venture, Inc. **There are no POD Overlaps.**

A **field exam** was conducted on 4/24/2004 by Ed Squires, Hydro Logic Inc. The following information was obtained: 100 ft well, 4 ft static, 6 inch casing, 3/4 Hp Franklin pump, 1 inch discharge with black plastic to pitless adaptor to frost free hydrant and piped to house. There are 4 (20)-gallon Amtrol Well XTrol WX202 hydro pneumatic tanks that were installed in 2/3/1999, that are connected in series, and that run at 59 psi. Domestic/1 home.

All notices and correspondence should be sent to Scott L. Campbell, Elam & Burke. **Any inquiries** about the field exam or system should be directed to Ed Squires, Hydro Logic, Inc.

RECOMMENDATION:

CFS:

A **5-gallon measurement** was conducted during the 4/24/2004 field exam:

5-gallon in 50 seconds = 6 gpm $6 \text{ gpm} \times 0.00223 = 0.013 \text{ cfs}$

The 4/24/2004 field exam stated that the pump kicked on and off during the measurement; which may be due to high sand in the impellers causing wear on parts. Another reason may be due to a saturated bladder(s) in the pressure tanks that require replacement. For this reason, the system could possibly produce more, as indicated in the field exam, which would be reflected in the Theoretical.

Theoretical: $(8.8) \times (\text{Hp}) \times (*\text{eff})/H$ $H = (\text{lift} + (2.31 \times \text{psi}))$

$8.8 \times 0.75 \times 0.7/12 + (2.31 \times 59) = 4.62/148.29 = 0.03 \text{ cfs}$

*In the field exam 80% efficiency was used, where the Department standard is 70% unless the operator can show proof to validate a higher amount.

Allow 0.02 cfs internal use only.

Volume:

Domestic internal use only: **0.6 af**

Conditions:

WB5 Domestic 1 home, not including irrigation of lawn, etc. (that should be included in their overlapping water rights from the Payette River: 65-8850, and 65-11324)

SENW

POH

SENW

NESW

NESW