

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-22952

Exam Date: 1/4/2012

1. Current Owner: GEORGE E COLWELL
3990 HWY 52
PAYETTE ID 83661
(208)278-3448

And/Or

CHERYL F COLWELL
3990 HWY 52
PAYETTE ID 83661
(208)278-3448

2. Accompanied by: George Colwell
Phone No: (208)278-3448 and (541) 898-2863
Address: same as above
Relationship to Permit Holder: self

3. **SOURCE**

UNNAMED DRAIN

TRIBUTARY

SNAKE RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use:
2. Other water rights with the same point of diversion:

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

UNNAMED DRAIN L4 SE1/4SW1/4 Sec. 29, Twp 09N, Rge 05W, B.M. PAYETTE County
UNNAMED DRAIN L3 NE1/4NW1/4 Sec. 32, Twp 09N, Rge 05W, B.M. PAYETTE County

Method of Determination: Garmin GPS map 76S, 2009 and 2011 ArcMaps.

2. **PLACE OF USE:** STOCKWATER

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
09N 05W 29												X					
09N 05W 32					X			X				L 4					
					L 3			L 4									

Method of Determination: Garmin GPS map 76S, 2009 and 2011 ArcMaps.

3. ☐X 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 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**

Unnamed Drain with a 24 inch and a 16 inch check, to act as a point of diversion (a board can be placed within the check to alter the level of the water in the drain but not enough cause storage within the drain). The system is entirely gravity flow.

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

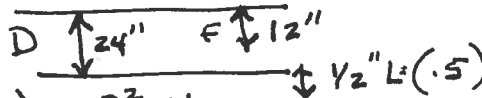
D. FLOW MEASUREMENTS

1. Measurements:

24 inch check #1 (12 inch full) =

$$GPM = (.500 \text{ factor}) \times D^2 \times L$$

$$= 144 \times 0.00223 = 0.32 \text{ cfs}$$



$$F = 12''$$

$$D = 24''$$

$$F/D = 12/24 = .5 \times 100 = 50\%$$

50% factor = .500
gpm thru partially
filled pipe

16 inch check #2 (dry at the time of the field examination, but evidence in the ditch that flow had recently come through the check, plus some water was still apparent in the ditch). = 0.0 cfs

If a board was placed in the 24 inch check, it could raise the level in the unnamed drain and extend the flow down the ditch. For this reason, an average flow from the checks (PODs) was determined as the capacity of the system: (check #1 at 0.32 cfs + check #2 which was dry, therefore 0.0 cfs)/2 = 0.16 cfs capacity of the system

RECOMMEND: 0.12 cfs as permitted

E. VOLUME CALCULATIONS

1. Volume Calculations for Stockwater: 500 head cattle

$$V_{I.R.} = (500 \text{ head} \times 12 \text{ gpd} \times 365 \text{ days}) / 325850 = 6.7 \text{ af}$$

$$V_{D.R.} = 0.12 \text{ cfs} \times 365 \times 1.9835 = 86.9 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 6.7 \text{ af}$$

Application Process Memo #3 Recommends: 401 – 500 head = 6.7 af

RECOMMEND: 6.7 af

G. NARRATIVE/REMARKS/COMMENTS

There are 2 "check structures" (a 24 inch and a 16 inch) in the unnamed drain to moderately check up flow. This does not rise to the level to be considered pond storage. Although water will not be diverted out of the ditch nor stored in each ditch, addition of "check structures" allows the Point of Diversion to be the "check structures", and the Place of Use to be the ditches upstream from each "check structure." The flow in the ditch during the irrigation season is higher due to additional flow from Washoe Irrigation. At the time of the field examination, flow in the ditch is made up from seepage (since the ditches were originally dug for drawing off water from the fields), waste water, and some back flow off the Snake River. At the time of the exam, there was evidence of flow behind the 16 inch check, but there was no active flow present. For this reason, the rate from the 24 inch check was averaged to compensate for the 2 checks. I could not use the water marks in the culvert with accuracy, since those marks could be due to water use during irrigation season supplied by Washoe Irrigation. The POU is the unnamed drain. No water is diverted from the drain, since the 500 head cattle drink directly from the unnamed drain.

Tax Lot information that was updated on 11/1/2010 shows: Smoke Ranch LP, with the same address as Mr. Colwell. This is also the same address on water rights 3-4008A (irrigation) and 3-10015 for C/C LLC (instream stockwater from the Snake River).

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>
STOCKWATER	01/01 to 12/31	0.120 CFS	6.70 AF
	<u>Totals:</u>	0.120 CFS	6.70 AF

2. Recommended Amendments

☒ _X_ Change P.D. as reflected above ☐ __Add P.D. as reflected above ☐ __None

☒ _X_ Change P.U. as reflected above ☐ __Add P.U. as reflected above ☐ __Other

I. AUTHENTICATION

Field Examiner's Name

 Date 2/16/2012





#1
PDD
24"
check
w/12"
current
flowing



#2
PDD
16"
check
dry at
time of
exam

65-22957 Colwell

S. Hemeriksen



POU
unnamed
ditch
running
south-
to north

01/04/2012



500
head
cattle

125-27952 Colwell

S. Hemerway