

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 36-8589

Exam Date: 8/6/1992 Block

Revised 10/23/2012 Walker

1. Current Owner: WARREN E SCHOTH
PO BOX 65
WENDELL ID 83355
(208)536-6545

Present Owner: PAMELA SCHOTH
1826 E 3050 S
WENDELL ID 83355
(208)536-6545

2. Accompanied by: Pamela Schoth (Spouse of applicant and new owner) Note that the applicant has died, and Jana Reeder (IDWR)

Phone No: (208)536-6545

Address: 1826 E 3050 S, Wendell, ID 83355

Relationship to Permit Holder: Spouse

3. **SOURCE****TRIBUTARY**

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: None

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

GROUND WATER

NE1/4SW1/4NW1/4

Sec. 5, Twp 08S, Rge 15E, B.M.

GOODING County

Method of Determination: Field observation

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
08S	15E	5							2.7										2.7

Total Acres: 2.7

DOMESTIC same as IRRIGATION

Method of Determination: Field observation, and IDWR GIS

3. ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable. (See Block Field Report)
- ☒ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- ☒ Aerial Photo Attached (required for irrigation of 10+ acres).
- ☐ Photo of Diversion and System Attached
- ☒ Find attached Block Beneficial Use Field Report (6-11-1992)

4.

<u>Well or Diversion</u> <u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge</u> <u>Size</u>
	Franklin	5	2821192201		

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

D. FLOW MEASUREMENTS

- 16 sprinklers with 9/64" nozzles @ 20 psi were operating (Block Field Report)
- Measurements: 9/64" nozzles @ 20 psi = 2.65 gpm X 16 = 42.4 gpm = 0.09cfs (Block Field Report)

E. FLOW CALCULATIONS

☐ Additional Computation Sheets Attached

Measured Method:

Theoretical yield:

$$Q = \frac{8.8 \times (Hp) \times (Eff)}{H}$$

Where: Hp = 5 Hp (from Block Proof of Beneficial Use form)

Eff = efficiency = 70% assumed

H = total head = pumping level + (2.31 x system pressure)
pumping level of 111 feet (from Applicant)
system pressure = 40 psi (from Applicant)

$$H = 185 + (30 \times 2.31) = 254.3$$

$$Q = \frac{8.8 \times 5 \times .70}{203.4} = 0.15 \text{ cfs}$$

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V = (2.7 \text{ acres}) \times (4.0 \text{ af/acre/annum}) = 10.8 \text{ af/a}$$

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

$$V = (0.09 \text{ cfs}) \times (214 \text{ days}) \times 1.9835 = 38.2 \text{ af/a}$$

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

$$V = \text{Recommend } 10.8 \text{ af/a}$$

2. Volume Calculations for Other Uses: Domestic In home use (one home) = 0.6 afa

G. NARRATIVE/REMARKS/COMMENTS

This exam was compiled based on the initial field exam by Brian Block and a field visit with present owner. Application for permit 36-8589 was filed on May 10, 1991 for the diversion of ground water, 0.09 cfs for the irrigation of 3.0 acres and 0.04 cfs for domestic use associated with a home. Permit 36-8589 was issued on August 2, 1991 and Proof of Beneficial use was filed on March 10, 1992 for 0.11 cfs.

A field exam was conducted on June 11, 1992 by Brian Block. During this exam it was determined the applicant was capable of irrigating 2.7 acres including the lawn area of the home. At the time of this exam 16 sprinklers with 9/64" nozzles @ 20 psi were operating. The information collected at the time of the exam indicated the system consists of one well and a 5 hp submersible pump with depth to water at 111 ft. A theoretical estimate of the well yield indicates that the capacity of the system is 0.15 cfs. This exceeds permitted rate of 0.13 cfs. At the time Block only recommended 0.09 cfs for the system, in addition the applicant filed proof for 0.11 cfs. However my review of this information provided in this report shows no indication to limit the applicant to less than what was permitted. In addition the applicant paid the correct fee for licensing the permitted 0.13cfs. Therefore it is recommended that license 36-8589 be issued for the total permitted amount of 0.13 cfs and 2.7 acres of irrigation. The standard volume allowed per acre of 4.0 af/a was used to determine the volume for irrigation, and at the time the field exam was conducted IDWR standard volume for domestic use was 0.6 cfs. Therefore the total volume of 11.4 af is recommended.

Note, during my visit it was discovered that the permit owner Warren Schoth, is deceased. After licensing the current owner Pamela Schoth, spouse of Warren Schoth will file file for an ownership change.

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>
IRRIGATION	3/15 to 11/15	0.090 CFS	10.8 af
DOMESTIC	1/01 to 12/31	0.040 CFS	0.6 af
<u>Totals:</u>		0.130 CFS	11.4 afa

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 ☐ Other

I. AUTHENTICATION

Field Examiner's Name Benny Walker Date 10/24/12

Reviewer Chris Walker Date 10/30/12

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No. 36-08589

1. Owner: Warren E. Schoth Phone No. 536-6545

Current Address: Box 65 Wendell, 83355

2. Accompanied by: Owner EXAM. DATE: 6-11-92

Address: _____ Phone No. _____

Relationship to Permit Holder: _____

3. Source: groundwater tributary to _____

B. OVERLAP REVIEW

1. Other water rights with same place of use: none

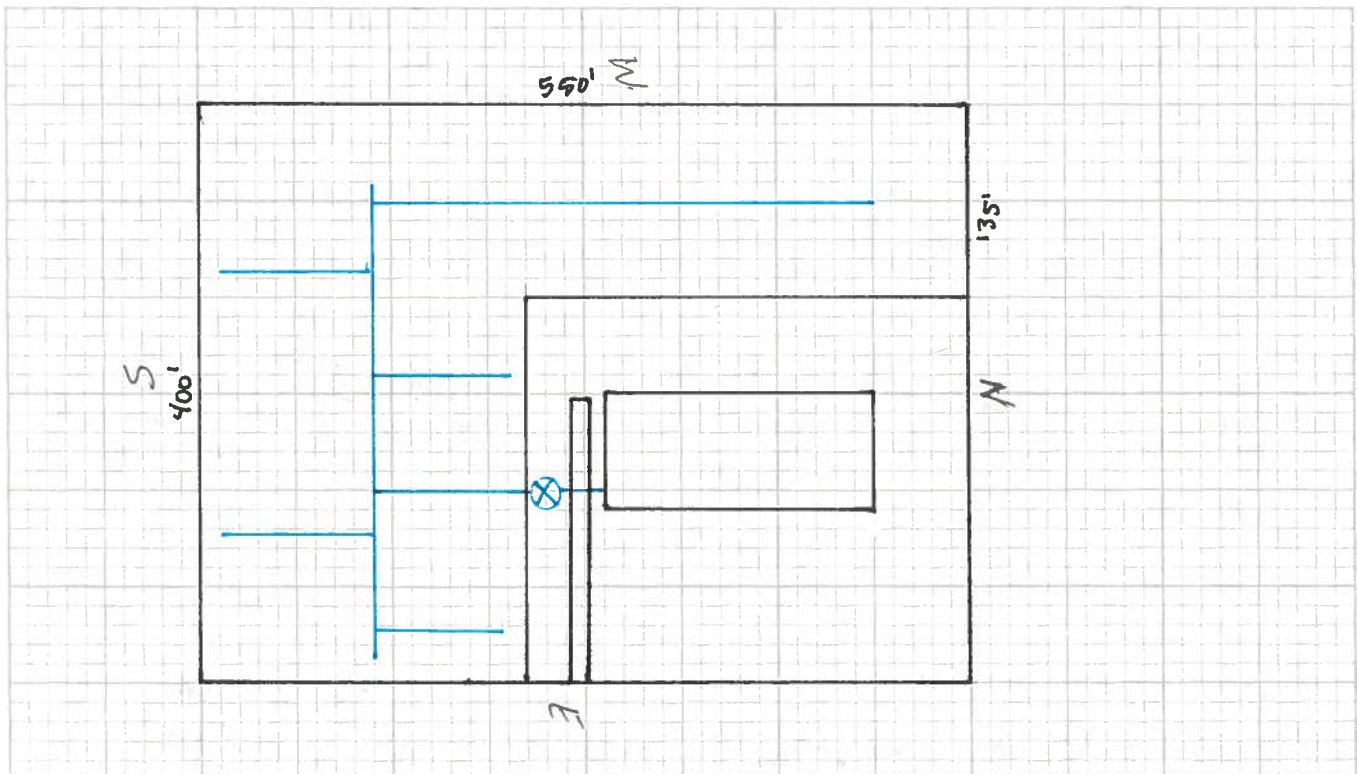
_____ ☐ Copies Attached

2. Other water rights with same point of diversion: none

_____ ☐ Copies Attached ☐ Copies of Field Exam's Attached

C. SYSTEM DESCRIPTION

1. **Diversion System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe i.d. as applicable. ☐ Alternative diagram attached



Scale: 1" = 135'

2. ☒ Copy of U.S.G.S. Quadrangle Attached
Showing location(s) of point(s) of diversion and
place(s) of use (required).

☐ Aerial Photo Attached
(required for irrigation of 10 acres or more).

☒ Photo of Diversion and System Attached
(required for all but single household domestic groundwater, and stockwater).

System Description (continued)

3. Narrative: Description (As operating at time of measurement. Indicate pressure, number of sprinklers, etc.)

well water used for irrigation of pasture area (approx. 3 ac. incl. lawn) and domestic purposes. 16 sprinklers w/ 9/64" nozz. @ 20psi were operating.

☐ See Remarks on page 4 for continuation

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
	Franklin	5	2821192201		

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

5. Point(s) of Diversion:

Ident. No.	Gov't. Lot	1/4	1/4	1/4	Sec.	Twp.	Rge.	County	Method of Determination/Remarks
		NE	SW	NW	5	8S	15E	Gooding	aerial map / inspection

6. Place(s) of Use:

Indicate Method of Determination _____

Twp.	Rge.	Sec.	NE 1/4				NW 1/4				SW 1/4				SE 1/4				Totals
			NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	
8S	15E	5							3										3

Do not use this space

Do not use this space

D. FLOW MEASUREMENTS

☐ Additional Data Sheets Attached

1.

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

2. Measurements:

E. FLOW CALCULATIONS

☒ Additional Computation Sheets Attached

1. Measured Method: HP

2. Alternate Method for Checking Purposes: 9/64" nozzle @ 20 psi = 2.65 gpm x 16 = 42.4 gpm
= 0.09 cfs

F. PUMP EFFICIENCY DATA (Optional)

Discharge Pressure: _____ psi x 2.31 = _____ ft (1); Dynamic pumping level: _____ ft (2)

Total Head: (1) + (2) = _____ (3) ; Flow rate: _____ cfs (4)

Water HP: (3) x (4) ÷ 8.8 = _____ (5)

Meter Input KW: 3.6 x _____ KH x _____ CTR or _____ MULT x _____ PTR x _____ N/ _____ T = _____ (6)

Meter Input HP: (6) x 1.34 = _____ (7)

Panel Input KW: _____ Ave PF x _____ Ave Volts x _____ Ave Amps x .001732 = _____ (6)

Panel Input HP: (6) x 1.34 = _____ (7) Efficiency: (5)/(7) x 100 = _____ %

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \underline{3(4.0) = 12.0}$

$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = \underline{0.09(214)(1.9835) = 38.1}$

$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \underline{12.0}$

2. Volume Calculations for Other Uses:

domestic = 0.4

H. REMARKS AND OVERLAP REVIEW ANALYSIS

Capacity exceeds permit-rate for each separate use. Total rate of diversion is for one use at a time.

I. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
Irrigation	4-1	10-31	0.09	12.0
Domestic	1-01	12-31	0.04	0.6
Totals:			0.09	12.6

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

☐ Other

J. AUTHENTICATION

Field Examiner's Name

BRIAN W. BLOCK

Signature

Brian Block

Certification Date

Field Report Preparation Date

8-7-92

CONSULTANT SEAL

K. Licensing recommendation shall be prepared by an Idaho Department of Water Resources employee on a computer printout attached hereto.

GROUNDWATER MEASUREMENT REQUIREMENT ANALYSIS

FILE: 36-8589

DATE: 8-7-92

BY: BWB

THEORETICAL RATE OF FLOW: $Q = \frac{(8.8) \times (\text{H.P.}) \times (\text{EFF.})}{\text{TDH}}$

Q = CFS

H.P. = Total Brake Horsepower of pumping plant (including booster)

EFF. = Pumping plant efficiency (ASSUME 70% OR 0.70)

TDH = total dynamic head = [(LIFT) + (PSI X 2.31)]

LIFT = depth to water in FEET from land surface to pumping water level

PSI = pumping pressure measured in psi near pump
(if open discharge assume zero [0])

$$Q = \frac{(8.8) \times (5) \times (0.70)}{[(111) + (40 \times 2.31)]} = 0.15$$

LIFT FROM:
measurement ()
owner (X)
area estimate ()
well logs ()
Booster (Y) (N)

PSI FROM:
measurement ()
owner (X)
estimate ()
owner gage ()

NOTES ON PUMP:
Motor Make, Serial or ID
FRANKLIN
Pump Make, Serial or ID, rating

REMARKS

ANNUAL VOLUME ANALYSIS

POTENTIAL Acre Feet/Acre/Annum = $\frac{(\text{DAYS IN SEASON}) \times (1.98) \times (Q)}{(\text{RECOMMENDED ACRES IRRIGATED})}$

(season)	(days)	
3/15 - 11/15	246	
4/1 - 11/1	218	
4/15 - 10/15	184	
3/1 - 12/1	276	

POTENTIAL = $\frac{214 \times (1.98) \times (0.15)}{(3)}$

POTENTIAL = 21.2

REQUIRED Acre Feet/Acre/Annum = 4.0
(AF/Ann/Ac irrigation requirement from chart for area)

NOTE that this is NOT Consumptive use

IF POTENTIAL IS GREATER THAN REQUIRED THEN NO MEASUREMENT NECESSARY (X)

IF POTENTIAL IS LESS THAN REQUIRED THEN MEASUREMENT IS NECESSARY ()

36-8549



P.U.
house/
yard



P.U.
pasture

08S15E5NWNW

08S15E5NENW

Point of Diversion

Place of Use

08S15E5SWNW

08S15E5SENW





