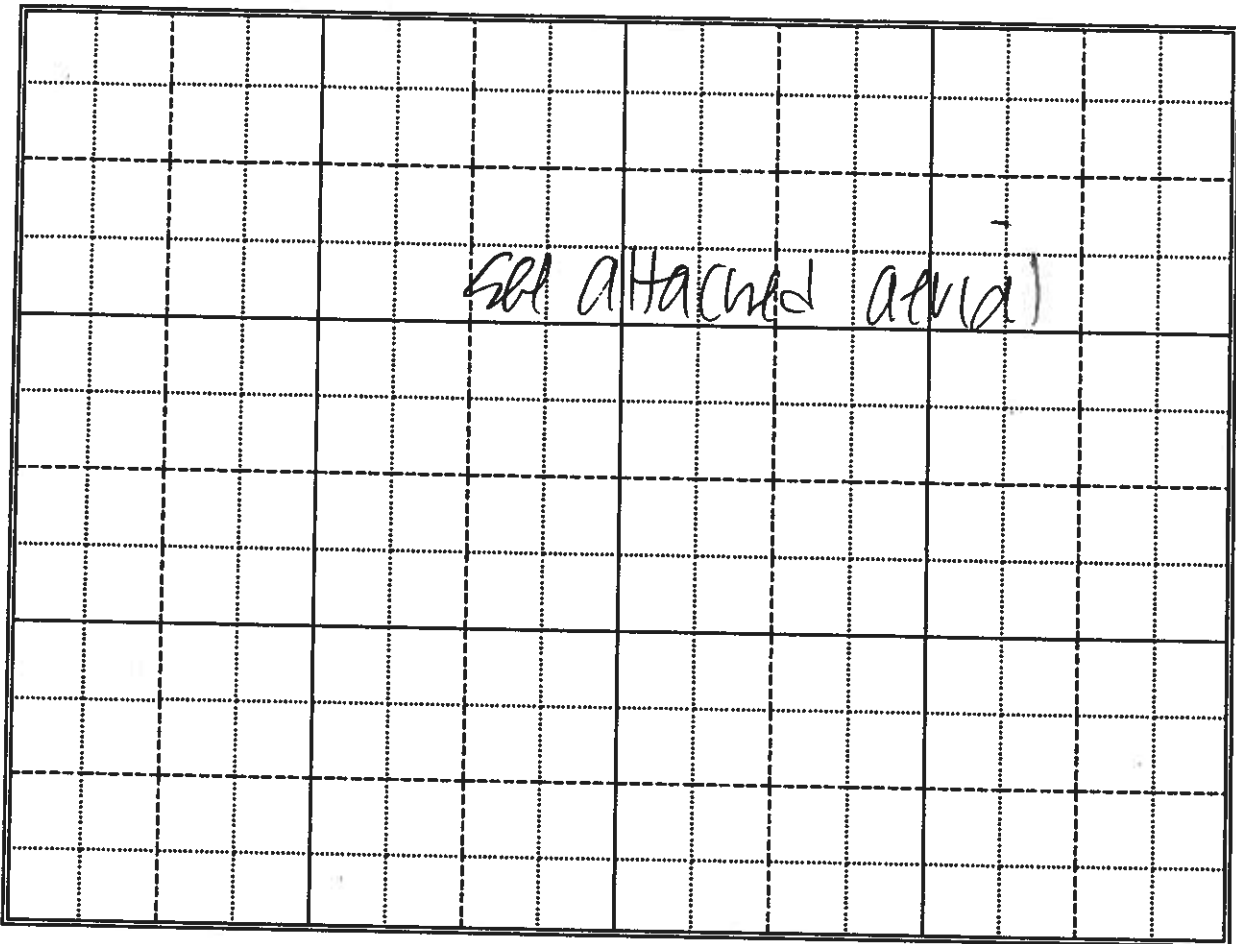


[illegible]

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe I.D. as applicable.



Scale: 1" = _____

____ Copy of USGS 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)

____ Photo of Diversion and System Attached

4.

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

*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:

Pitot tube pressure measurement - 46 psi at the main pressure gauge. Operating at exam: 10 rainbird model 312 heads with 5/32" nozzles (sometimes add 1 head).
11 heads, 5/32", measured at 46 psi

E. NARRATIVE/REMARKS/COMMENTS

IDWR has a well log on record that doesn't totally correspond to this location, however, I believe it is the log for this well for the following reasons:

- (1-) The well log is in the name of Earl Murry and IDWR has listed Earl Murry as the original owner of this application.
- (2-) The well was drilled the same year as the house was built.
- (3-) The well log, in the "Location of well" section states that the well is in the NENE SEC 31, but the "Sketch map" shows the well in the NENW SEC 31 which is where the well is located.
- (4-) There is no lot & block in Haven Estates that matches that on the well log.
- (5-) The NENE SEC 31 is not in Haven Estates.
- (6-) Dennis Dugan, IDWR Tech staff, and Amber Griffin, Sr. WR. Agent, have measured this well previously and believe the "Murry" well log to be for this well.

Well is 8" open hole, 118' deep & is located east of the house. 50' of 2 1/2" buried pipe line from well south to main valve by the main field. Pressure gauge is installed on main handline. 3 1/2" handlines in main field with 10 Rainbird #30 5/32" sprinklers. Pressure at the field gauge measured at 46 psi. Pressure readings taken with pitot tube averaged 46 psi (2 readings). Main field is about 2.7 acres.

From well, 2" line to front yard with popup sprinklers, and 2" line to shop and barn. The main field and the yard are not irrigated at the same time. Sprinkler gauge measurement is therefore a good estimate of capacity.

Current D.U. consistent with late 1990s use when reinstatement

Have conditions of permit approval been met? ☒ yes ☐ no Order was issued.

F. FLOW CALCULATIONS

Measured Method:

☒ Additional Computation Sheets Attached**G. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = (4.4)(4.5) = 19.8$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = (.12)(260)(1.9835) = 61.9$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 19.8$$

2. Volume Calculations for Other Uses:

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
Irrigation	3/1	11/15	.12	19.8
Totals:			.12	19.8

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

Wesley Lusic

Date

9-17-09

Reviewer

Date

SEAL



63-9983 --- T5N R1E Sec 31 . Total of 4.4 acres irrigated

Sprinkler gauge measurements

63.9983

11 max. Lds.

R.B. Model 30

e 5/32" nozzle

e 46 psi

Per chart	50 psi	=	5.15	gpm
(Attached)	45 psi	=	4.91	gpm
	Difference	=	.24	gpm

$$.24/5 = .048 \text{ gpm per add'l psi}$$

$$\begin{array}{r} \text{gpm per Ld e } 4.910 \\ + .048 \\ \hline 4.958 \approx 5 \text{ gpm} \end{array}$$

$$\frac{11 \times 5}{448.8} = .123 = .12 \text{ cfs}$$

Reasonable estimate of system capacity.

HP equation shown as secondary estimate,
reasonable close given assumptions etc.

$$Q = \frac{(8.8)(5)(.7)}{(2.31)(46) + 100} = .15 \text{ cfs}$$

assumed per well loss
static

SPRINKLER DISCHARGE IN GPM

NOZZLE SIZE (INCHES) & PRESSURE (PSI)

$$\text{GPM} = 29.82 \times \text{DIAMETER SQUARED} \times \text{SQUARE ROOT OF PRESSURE}$$

Table 1. Sprinkler discharge gpm (gallons per minute) for nozzle size (inches) and pressures (psi) (pounds per square inch).

psi	Nozzle Size (in)										
	3/32	7/64	1/8	9/64	5/32	11/64	3/16	13/64	7/32	15/64	1/4
20	1.17	1.60	2.09	2.65	3.26	3.92	4.69	5.51	6.37	7.32	8.34
25	1.31	1.78	2.34	2.96	3.64	4.38	5.25	6.16	7.13	8.19	9.32
30	1.44	1.95	2.56	3.26	4.01	4.83	5.75	6.80	7.86	8.97	10.21
35	1.55	2.11	2.77	3.50	4.31	5.18	6.21	7.30	8.43	9.69	11.03
40	1.66	2.26	2.96	3.74	4.61	5.54	6.64	7.80	9.02	10.35	11.79
45	1.76	2.39	3.13	3.99	4.91	5.91	7.03	8.30	9.60	10.99	12.50
50	1.85	2.52	3.30	4.18	5.15	6.19	7.41	8.71	10.10	11.58	13.18
55	1.94	2.64	3.46	4.37	5.39	6.48	7.77	9.12	10.50	12.15	13.82
60	2.03	2.76	3.62	4.50	5.65	6.80	8.12	9.56	11.05	12.68	14.44
65	2.11	2.88	3.77	4.76	5.87	7.06	8.45	9.92	11.45	13.21	15.03
70	2.19	2.99	3.91	4.96	6.10	7.34	8.78	10.32	11.95	13.70	15.59
75	2.27	3.09	4.05	5.12	6.30	7.58	9.08	10.66	12.32	14.19	16.14
80	2.35	3.19	4.18	5.29	6.52	7.84	9.39	11.02	12.74	14.64	16.67
85	2.42	3.29	4.31	5.45	6.71	8.07	9.67	11.35	13.11	15.10	17.18
90	2.49	3.38	4.43	5.61	6.91	8.31	9.95	11.69	13.51	15.53	17.68
100	2.62	3.57	4.67	5.91	7.29	8.76	10.50	12.32	14.23	16.37	18.64
110	2.75	3.74	4.89	6.19	7.63	9.24	11.00	12.90	14.97	17.17	19.55
120	2.87	3.91	5.10	6.46	7.97	9.65	11.48	13.47	15.63	17.93	20.42
130	2.99	4.07	5.31	6.72	8.30	10.04	11.95	14.02	16.27	18.66	21.25

Note: Figures given are approximate maximum discharge rates for given nozzle size and pressure.

- USE DRILL BITS OR TAPE MEASURE TO CHECK NOZZLE SIZE
- USE SPRINKLER GAGE TO CHECK PSI
- PSI FOR SPRINKLER LINE:
 - CHECK NEAR START, MID & END OF LINE, TAKE AVERAGE
 - OR -- CHECK 1 HEAD ABOUT 1/3 FROM START OF LINE

-SL 8/24/07
SCAN "Sprinkler Q"

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

LESSER OF FOUR CHOICES

1) Permit amount	<u>.15</u>	cfs &/or	_____	af storage
2) Beneficial use limit	<u>.13</u>	cfs &/or	_____	af storage
3) System measurement	<u>.12</u>	cfs &/or	_____	af storage
4) Proof fee amount	<u>.20</u>	cfs &/or	_____	af storage
Recommended Amount	<u>.12</u>	cfs &/or	_____	af storage

c \$50 paid

NOTES

Can never exceed permit amount.

Check proof filing fee required when proof was filed. Use current fees for proofs on/after 11/1/1991. See SL for fee schedule if proof filed before 11/1/1991.

If permit includes rate of flow and storage, proof fee is the greater amount for those two categories. Example with current filing fees:

1.0 cfs = \$100	15 af = \$50	required fee = \$100
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Beneficial use limits are recognized standards: 0.03 cfs for up to 5 acres, 0.02 cfs beyond 5 acres, stockwater chart, in-house domestic chart etc. Some exceptions acceptable if already approved in permit: excessive rate for parks etc.

System measurement can be actual measurement reflecting typical operations or theoretical measurement or some combination of both if actual measurement does not reflect true capacity of system based on other supporting information. Be cautious about using just theoretical measurement to limit the amount of water – see SL for details.

If proof filing fee is the limiting factor but otherwise could recommend more water for licensing, provide water user the chance to pay the upgrade - send letter with at least 30-days to respond.

IDAHO DEPARTMENT OF WATER RESOURCES

WELL INSPECTION FORM

1. DRILLING PERMIT NO: well 106-blank OTHER APPLICABLE NO: none
2. OWNER: Barb Jekel and Bill Tiffany Phone: 930-0520
Address: 2862 Haven Dr., Eagle, ID 83616
3. WELL LOCATION: Twp 5N, Rge. 1E, Sec. 31, NE 1/4 NW 1/4
County Ada (Provide sketch map and photo on reverse.)
4. DRILLER: W. Phipps Lic. No. 311
When Drilled? 4-15-1980
5. WELL CONSTRUCTION:
Casing Diameter 8 inches Water tight cap? ☒ Yes ☐ No Access Port: ☒ Yes ☐ No
Casing $\geq$ 12 inches above ground? ☒ Yes ☐ No - Describe _____
Depth of Casing 118 ft. Method Drilled cable
Condition of Well Casing: ☒ Good ☐ Fair ☐ Poor Describe no corrosion
Control Valve? ☒ Yes ☐ No Pressure Gauge: ☐ Yes ☒ No
Condition of Piping and Valving unknown
Auger to a depth of n/a ft. Evidence of Annular Seal ☐ Yes ☐ No
Are there obvious construction problems that may be a source for contamination or waste of water?
☒ Yes ☐ No (Describe in Remarks and Attach Photo - On Reverse)
6. HYDROLOGIC INFORMATION:
Depth to Static Water 10 ft. Water Temperature n/a °F
Flowing Artesian ☐ Yes ☒ No Pressure: _____ (psi)
Water Sample Taken? ☐ Yes ☒ No If yes, describe purpose _____
Water Quality Measurements/Observations (Describe) n/a
7. WELL USE:
☒ Domestic ☒ Irrigation ☒ Stock
☐ Test ☐ Municipal ☐ Industrial
☐ Abandoned ☐ Waste Disposal/Injection ☐ Not Used
☐ Other: _____

OVER →

8. **POSSIBLE CONTAMINATION SOURCES:**

Is there evidence of Chemigation? ☐ Yes ☒ No

If yes, is there a check-valve present? ☐ Yes ☐ No *W/A*

Is there a possible source of contamination nearby? ☐ Yes ☒ No

If yes, what Type? _____

How far away from the well is this source? _____

9. **REMARKS:**

Signature of Dept. Representative & Title

Inspection Date

PHOTOS, DRAWINGS, OTHER ATTACHMENTS:

see photo attached to field exam form.

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.

WELL OWNER

Name EARL MURRY
Address 4708 ADAMS
Owner's Permit No. _____

7. WATER LEVEL

Static water level 70 feet below land surface.Flowing? ☐ Yes ☐ No G.P.M. flow _____

Artesian closed-in pressure _____ p.s.i.

Controlled by: ☐ Valve ☐ Cap ☐ Plug

Temperature _____ °F. Quality _____

NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning) _____

8. WELL TEST DATA

☒ Pump ☐ Bailor ☒ Air ☐ Other _____Discharge G.P.M. 25 Pumping Level 110 Hours Pumped 3

PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

9. LITHOLOGIC LOG

Hole Diam.	Depth		Material	Water	
	From	To		Yes	No
8"	0	3	TOP SOIL		X
	3	80	SAND		X
	80	85	SANDY clay		X
	85	95	SAND		X
	95	118	SAND & GRAVEL		X

METHOD DRILLED

☐ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary
☒ Cable ☐ Dug ☐ Other _____

WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____Thickness 1250 inches 8 inches + 1 feet 118 feet
_____ inches _____ inches _____ feet _____ feet
_____ inches _____ inches _____ feet _____ feet
_____ inches _____ inches _____ feet _____ feetWas casing drive shoe used? ☒ Yes ☐ NoWas a packer or seal used? ☐ Yes ☒ NoPerforated? ☐ Yes ☒ NoHow perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation _____ inches by _____ inches

Number _____ From _____ To _____
_____ perforations _____ feet _____ feet
_____ perforations _____ feet _____ feet
_____ perforations _____ feet _____ feetWell screen installed? ☐ Yes ☒ No

Manufacturer's name _____

Type _____ Model No. _____

Diameter _____ Slot size _____ Set from _____ feet to _____ feet

Diameter _____ Slot size _____ Set from _____ feet to _____ feet

Gravel packed? ☐ Yes ☐ No ☐ Size of gravel _____

Placed from _____ feet to _____ feet

Surface seal depth 18 Material used in seal: ☐ Cement grout☐ Puddling clay ☒ Well cuttingsSealing procedure used: ☒ Slurry pit ☐ Temp. surface casing☐ Overbore to seal depthMethod of joining casing: ☐ Threaded ☐ Welded ☐ Solvent

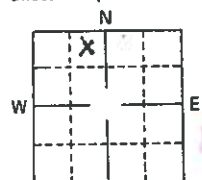
Weld

☐ Cemented between strata

Describe access port _____

LOCATION OF WELL

Sketch map location must agree with written location.

Subdivision Name HAVEN EST._____Lot No. 6 Block No. 2County AdaNE NE 31 T. 5 N. R. 1 E.10. Work started 4/10/80 finished 4/15/80

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were
complied with at the time the rig was removed.Firm Name W Phipps Drill Firm No. 2311Address 2915 OWA BOULEVARD 4/30/80Signed by (Firm Official) _____
and
(Operator) Wesley A. Phipps



Well with 5 hp submersible pump. Located behind (east of) house. 8" casing.



Looking east at the main field that is irrigated and the handlines.