

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-13767

Exam Date: 10/22/2013

1. Current Owner: KAREN C BRUNER
PO BOX 606
EMMETT ID 83617
(208)584-3380
2. Accompanied by: Karen Bruner
Phone No: Same
Address: Same
Relationship to Permit Holder:

3. SOURCE

GROUND WATER

TRIBUTARY**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

SW1/4SE1/4

Sec. 27, Twp 08N, Rge 01E, B.M.

GEM County

Method of Determination: Arc Map (Aerial Photo); GPS – Latitude N.43°59.707', Longitude W.116°19.177'; Datum - NVD83.

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
08N	01E	27															1.0		1.0

Total Acres: 1

DOMESTIC same as IRRIGATION

Method of Determination: Arc Map (Aerial Photo); Tax Lots.

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

4.

<u>Well or Diversion 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 Size</u>
D0000537	Franklin	5	Unknown	Unknown	Unknown

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

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
N/A						

2. Measurements: No field measurement. Irrigation system not in operation during the field exam. Domestic non-operational gauge pressure is 52 psi.

E. FLOW CALCULATIONS

Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 5 / 160 + (2.31 \times 40) = 30.8 / 252.4 = 0.12 \text{ cfs}$$

$$Q (\text{theoretical}) = 0.12 \text{ cfs} < 0.17 \text{ cfs } Q(\text{permit})$$

$$HP = 5$$

$$Z = 160' \text{ (Estimated)}$$

$$P = 40 \text{ psi (Assumed)}$$

Appears that the current pumping system cannot attain the permit diversion rate of 0.17 cfs. However, since the Right holder currently irrigates approximately 1.0 acre, the maximum allowable diversion rate for irrigation is 0.03 cfs. With a diversion rate of 0.02 cfs for domestic internal use, the total allowable water appropriation is 0.05 cfs. Recommend the maximum allowable diversion rate of 0.05 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 1.0 \times 4.5 \text{ AF} = 4.5 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.03 \times 260 \times 1.9835 = 15.5 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 4.5 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS**WATER SUPPLY SYSTEM:**

A 5-hp submersible pump diverts ground water for domestic use for 1 home and irrigation of approximately 1.0 acres of lawn and trees. The trees are located on the west, north, and east sides of a non-irrigated field.

IRRIGATION SYSTEM:

The pressurized irrigation system irrigates approximately 1.0 acre of lawn and trees. The lawn area adjacent to the home is irrigated by a variety of pop-up rotary and spray sprinklers. The trees are irrigated by drip lines. A drip line sprinkler is located at the base of each tree. A 4" irrigation main line, which runs parallel with the south boundary of the non-irrigated field, is comprised of risers for connecting hand lines to irrigate the 2.5 acre field. However, the right holder has never planted a crop in the field, and therefore the hand lines have never been used to irrigate the field.

DOMESTIC USE:

The well provides ground water for domestic internal use for the right holder's home. A pressure tank for the home water system is located in a storage area attached to the carport.

OVERLAP ANALYSIS:

Point of Diversion: There are no point of diversion overlaps for Water Right Permit No. 65-13767.

Place of Use: There are no place of use overlaps for Water Right Permit No. 65-13767.

Have conditions of permit approval been met? ☒ Yes ☐ No

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.17	&/or	N/A
Beneficial Use Limit	0.05	&/or	N/A
System Measurement	0.12 (theoretical)	&/or	N/A
Proof Fee Amount	0.20	&/or	N/A
Recommended Amount	0.05	&/or	N/A

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	3/1 to 11/15	0.030 CFS	4.5 AFA
DOMESTIC	1/1 to 12/31	0.020 CFS	N/A
<u>Totals:</u>		0.050 CFS	4.5 AFA

2. Recommended Amendments

___ Change P.D. as reflected above ___ Add P.D. as reflected above X None

___ Change P.U. as reflected above ___ Add P.U. as reflected above ___ Other

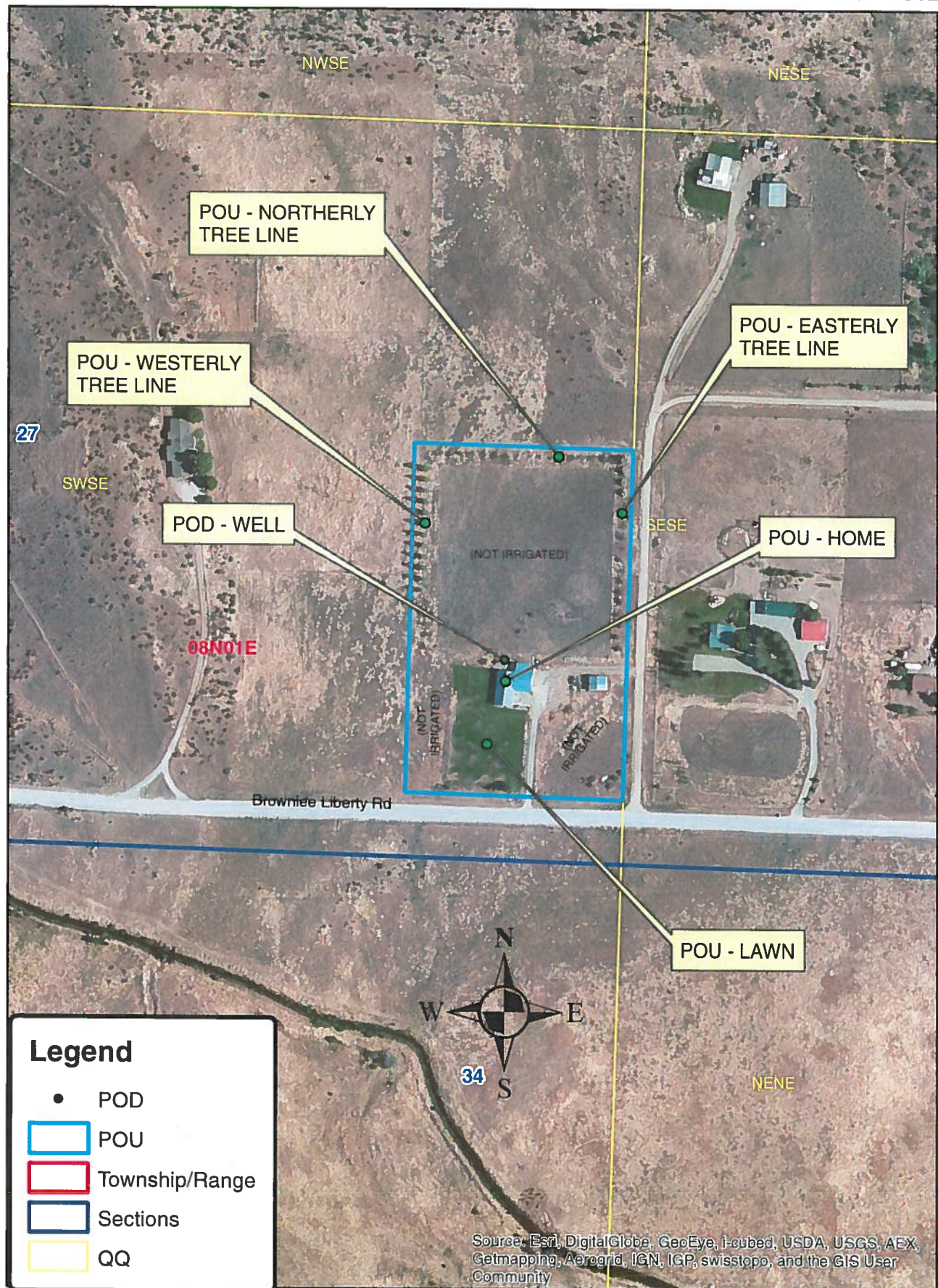
I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 3/6/14

Reviewer _____ Date _____

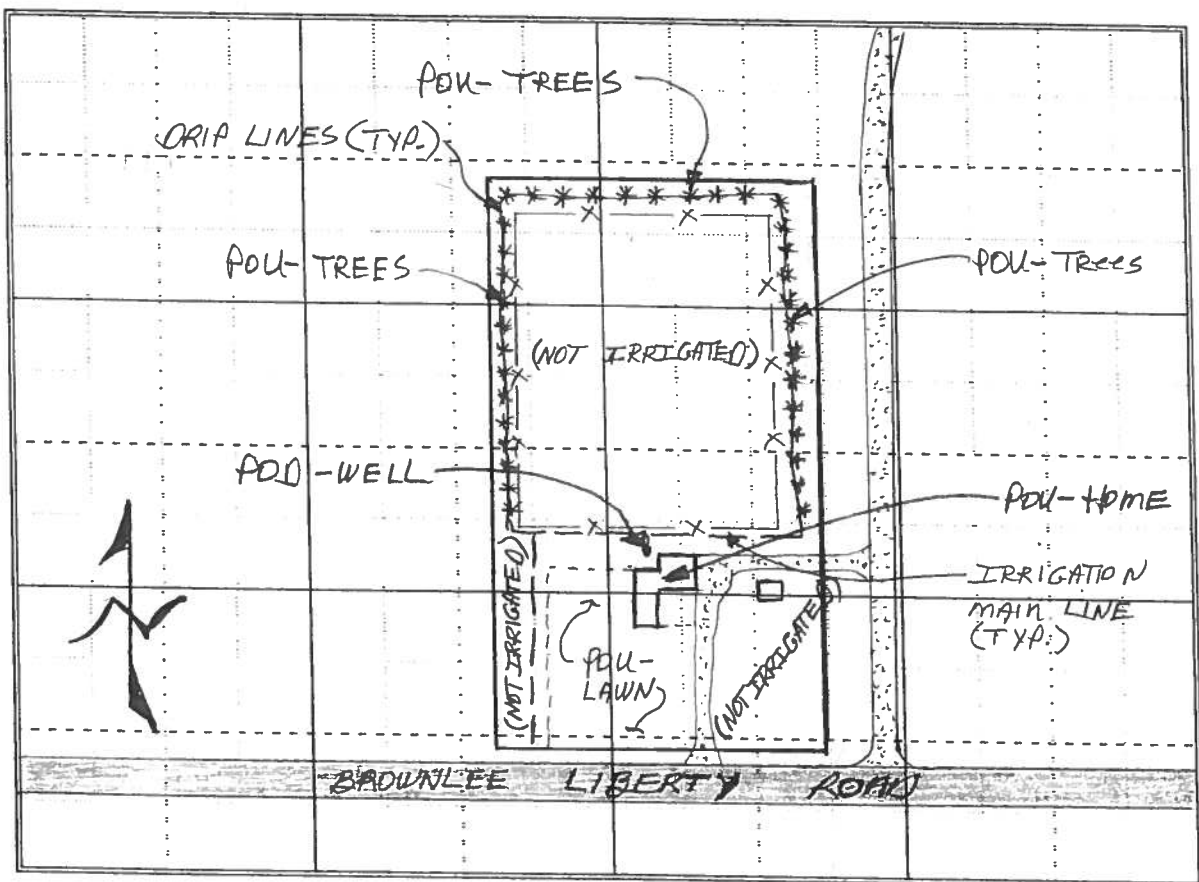
65-13767

ESRI AERIAL PHOTO - 2012



0 80 160 320 480 640
Feet

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☐ see attached.



Scale: 1" = NTS

- ☐ 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

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

Office Use Only			
Inspected by _____			
Twp _____	Rge _____	Sec _____	
_____ 1/4	_____ 1/4	_____ 1/4	
Lat: _____	_____	Long: _____	_____

1. WELL TAG NO. D 0000537
 DRILLING PERMIT NO. 65-98 C-0153-000
 Other IDWR No. 65-13767

2. OWNER: Karen Bruner
 Name Karen Bruner
 Address 960 Broadway Ave, Suite 515
 City Bowen State ID Zip 83706

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

N		Twp. <u>8</u>		North ☒	or	South ☐
E		Rge. <u>1</u>		East ☒	or	West ☐
S		Sec. <u>27</u>		SW ☒	1/4	SE ☒ 1/4
W		Gov't Lot _____		10 acres	40 acres	160 acres
		Lat: _____		Long: _____		
Address of Well Site <u>Brownlee - Liberty</u>						
City <u>Sweet</u>						

(Give at least name of road + Distance to Road or Landmark)

Lt. _____ Blk. _____ Sub. _____ Name _____

4. USE:

☐ Domestic ☐ Municipal ☐ Monitor ☒ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply (Replacement etc.)

☒ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD

☒ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT		METHOD
Material	From	To	Sacks or Pounds		
<u>Bentonite</u>	<u>0</u>	<u>20</u>	<u>500#</u>	<u>Overhaul</u>	

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 18

Was drive shoe seal tested? ☐ Y ☐ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
<u>8"</u>	<u>+2</u>	<u>18</u>	<u>250</u>	<u>Steel</u>	☒	☐	☒	☐
<u>6"</u>	<u>10</u>	<u>210</u>	<u>3/4"</u>	<u>PVC</u>	☐	☒	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

Perforations _____ Method _____
 Screens _____ Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
<u>110</u>	<u>210</u>	<u>1/8"</u>		<u>6"</u>	<u>PVC</u>	☐	☒
		<u>6"</u>				☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

15 ft. below ground Artesian pressure _____ lb.
 Depth flow encountered _____ ft. Describe access port or control devices: _____

11. WELL TESTS:

☐ Pump ☐ Bailor ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
<u>60</u>			<u>1 hr</u>

Water Temp. 68° Bottom hole temp. _____
 Water Quality test or comments: Iron 5 Grains / PH 9
 Depth first Water Encounter 125

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
<u>12"</u>	<u>0</u>	<u>2</u>	<u>Top Soil</u>		
<u>"</u>	<u>2</u>	<u>20</u>	<u>Clay</u>		
<u>8</u>	<u>20</u>	<u>36</u>	<u>Reddish Clay</u>		
<u>"</u>	<u>36</u>	<u>40</u>	<u>Tan clay</u>		
<u>"</u>	<u>40</u>	<u>45</u>	<u>Hard Black Clay</u>		
<u>"</u>	<u>45</u>	<u>57</u>	<u>Lava rock (Black)</u>		
<u>"</u>	<u>57</u>	<u>58</u>	<u>green clay</u>		
<u>"</u>	<u>58</u>	<u>89</u>	<u>Black basalt</u>		
<u>"</u>	<u>89</u>	<u>97</u>	<u>DK brown clay</u>		
<u>"</u>	<u>97</u>	<u>103</u>	<u>DK Blue clay (Blackish)</u>		
<u>"</u>	<u>103</u>	<u>125</u>	<u>Lava rock Basalt</u>		
<u>"</u>	<u>125</u>	<u>138</u>	<u>Basalt - small fracture</u>	☒	
<u>"</u>	<u>138</u>	<u>142</u>	<u>Fine Llava rock</u>		
<u>"</u>	<u>142</u>	<u>150</u>	<u>Lava rock</u>		☒
<u>"</u>	<u>150</u>	<u>165</u>	<u>Lava rock</u>		
<u>"</u>	<u>165</u>	<u>178</u>	<u>Reddish clay</u>		
<u>"</u>	<u>178</u>	<u>190</u>	<u>Lava rock & cleavages</u>		☒
<u>"</u>	<u>190</u>	<u>210</u>	<u>Lava rock w/ cleavages</u>		☒

RECEIVED

AUG 28 1998

WATER RESOURCES
WESTERN REGION

Completed _____ Depth 210 (Measurable)
 Date: Started 8.18.98 Completed 8.19.98

13. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were compiled with at the time the rig was removed.

Company Name Adamson's P&D Firm No. 0457
 Firm Official David Adamson Date 8-24-98
 and
 Driller or Operator DAVE ADAMSON Date 8-24-98
 (Sign once if Firm Official & Operator)

FIELD EXAM PHOTOS

Water Right Permit: 65-13767

PLS: SW1/4, SE1/4 Section 27, T.08N, R.01E

Field Examiner: RC

Field Exam Date: 10-22-13



Point of Diversion: View northeasterly of the ground water well located northerly of the home. The irrigation system discharge line, filter, and valve boxes are shown next to the well.



Place of Use: View southerly of the lawn area on the west side of the home which is irrigated by the pressurized irrigation system.



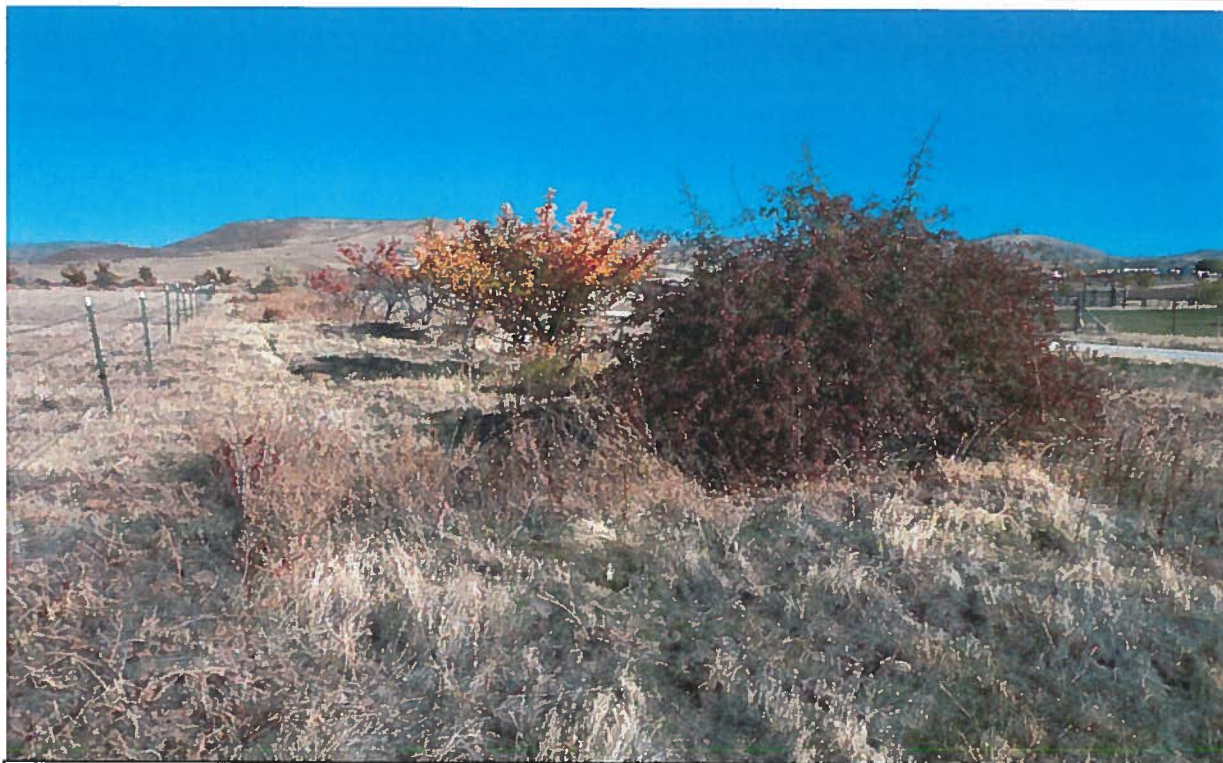
Place of Use: View northerly of the trees located near the westerly property line which are irrigated by the pressurized irrigation system. Drip lines at each tree are used to irrigate the trees.



View of the typical drip line irrigation near the trunk of a tree.



Place of Use: View northerly of the home and the southerly lawn area served by the ground water well.



Place of Use: View northerly of a tree line located on the right holder's easterly property line which is irrigated by a drip line system.