

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 45-7655

Exam Date: 9/18/2012

1. Current Owner: ADAMS PETROLEUM INC
DBA CARLSON CANYON RANCH
PO BOX A
BURLEY ID 83318
(208)678-1101

2. Accompanied by: Kelly Adams
Phone No: (208)431-2101 (cell)
Address: 210 E 27th St., Burley, ID 83318
Relationship to Permit Holder: current owner

3. SOURCE

SPRINGS

TRIBUTARY

SINKS

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:

SPRINGS	NW1/4SE1/4SW1/4	Sec. 15,	Twp 16S,	Rge 20E, B.M.	CASSIA County
SPRINGS	NW1/4SE1/4SW1/4	Sec. 15,	Twp 16S,	Rge 20E, B.M.	CASSIA County
SPRINGS	NE1/4SE1/4SW1/4	Sec. 15,	Twp 16S,	Rge 20E, B.M.	CASSIA County

Method of Determination: Garmin GPS Map, ArcMap 2011 Imagery

2.

PLACE OF USE: DOMESTIC

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
16S	20E	15													X				X

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	
16S	20E	15													X				

Method of Determination: Garmin GPS Map, ArcMap 2011 Imagery

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

Well or Diversion**ID No.*****Motor Make****Hp****Motor Serial No.****Pump Make****Pump Serial No. or Discharge****Size**

Stockwater spring #1, and Stockwater spring #2 are collected in a 2 ft X 3 ft collection tank, with 1 ¼ inch discharge to buried 1 ¼ poly that discharges to (2) 300 gallon troughs (the overflow from the collection tank continues down a ditch and open discharges into a stockwater pond that has (2) 4 inch overflow pipes, that if there is any discharge it Sinks before making it east to where the 2 cabins are located.

Domestic spring is developed within a fenced area with a 2 ft X 6 ft collection tank, with a 1 ¼ inch discharge to buried 1 ¼ inch PVC that runs east then split with one line going to home #1 and the other going to home #2. Overflow from this spring continues down the ditch to the stockwater pond (listed above).

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

D. FLOW MEASUREMENTS

1. Measurements:

Domestic Spring: 5 gallon bucket measurement

$[(5 \text{ gal.} \times 60 \text{ sec}) / 19 \text{ sec}] \times 0.00223 = 0.035 = 0.04 \text{ cfs capacity}$

Stockwater Springs:

$[(1 \text{ gal} \times 60 \text{ sec}) / 9 \text{ sec}] \times 0.00223 = 0.02 \text{ cfs (with the flow being lower than normal)}$

Table 1, Recommended Diversion Rates for Stockwater (Exh 15A) for 65 head cattle: 51 – 100 head = 0.03 cfs

Stockwater Pipe Conversion for 1 ¼ inch buried poly from the 2ft X 3 ft collection to the (2) 300 gallon troughs, with overflow running to the stockwater pond: $(3.1416 \times 5 \times [(1.25/12)/2]^2) = 0.04 \text{ cfs}$

RECOMMEND:

Domestic (2 homes) 0.03 cfs (as permitted) The 2 homes are both owned by the same owner and on the same property (a main home and a guest home for his kids).

Stockwater: 0.03 cfs (recommend allowing due to the spring running lower than normal, and historical evidence that there had been a higher diversion rate).

Total Diversion Rate: 0.06 cfs (as permitted)

E. FLOW CALCULATIONS

Measured Method: No additional measurements

F. VOLUME CALCULATIONS

1. Volume Calculations for Stockwater:

$$V_{I.R.} = (65 \text{ head} \times 12 \text{ gpd} \times 365) / 325,850 = 0.9 \text{ af}$$

$$V_{D.R.} = [0.03 \text{ Diversion Rate (cfs)}] \times (365 \text{ Days in Irrigation season}) \times 1.9835 = 21.7 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 0.9 \text{ af}$$

2. Volume Calculations for Other Uses:

Domestic: IDWR standard for Domestic internal/external use 1.2 af (proof of beneficial use form stated 1 home which would be 1.2 af, even though at the time of the field examination, it is the same owner of the main cabin and the guest cabin for his kids, on the same property).

RECOMMEND:

Stockwater 0.9 af

Domestic 1.2 af

Total Annual Vol. 2.1 af

G. NARRATIVE/REMARKS/COMMENTS

At the time of the field examination, no irrigation use was found. Kelly Adams stated that the springs that were originally to be used for irrigation use dried up with the drought. There are 3 groups of developed springs: One culinary spring for domestic use, and (2)-stockwater springs that are both piped into a 2 ft X 3 ft collection tank, and then piped with buried 1 1/4 inch poly pipe to (2) 300 gallon troughs. The culinary/domestic spring is fenced off and collects in a 2 ft X 6 ft culvert, then is piped via buried 1 1/4 inch PVC to the main cabin and guest cabin, plus to frost free hydrants (used for external landscaping and fire protection). The Overflow from the 3 springs goes to a small stockwater pond, which has (2) 4-inch overflows for flow to continue down the ditch and then sinks. In a phone conversation with Kelly Adams on 7/9/2013, these hydrants are not used for stockwater, so for this reason stockwater was not shown in this quarter-quarter. Only the 2 stockwater springs used for the troughs, and the springs overflow pond are used for stockwater. Stockwater use is for 65 head cattle. Domestic use is for both the main cabin and guest cabin, for both internal and external use (landscaping around the cabins). The pressure taken off of one of the frost free hydrants was 30 psi.

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>
DOMESTIC	01/01 to 12/31	0.030 CFS	1.20 AF
STOCKWATER	01/01 to 12/31	0.030 CFS	0.90 AF
<u>Totals:</u>		0.060 CFS	2.10 AF

2. Recommended Amendments

☒ Change P.D. as reflected above ☐ Add P.D. as reflected above ☐ None

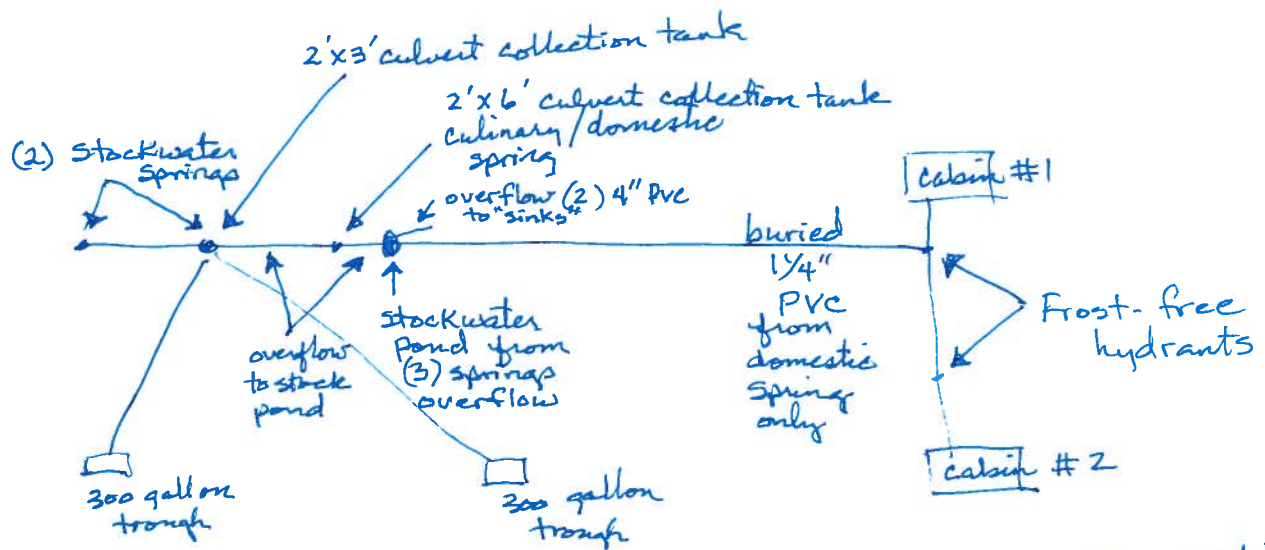
☒ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name

Judy Hernerway

Date: 7/9/2013



Main cabin +
guest cabin for
the kids



SWNW SENW 3 SWNE 4 SENE

NWSW 8 NESW 7 NWSE 6 NESE 5

NWSW 15 NESW 2 NWSE 1 NESE 1

SWSW 16S20E SESW SWSE SESE

SWSW 9 SESW 10 SWSE 11 SESE 12

NWNW NENW NWNW 22 NENE

POD: #1 Stockwater Springs

POD: #2 Stockwater Springs & 2' X 3' collection tank

Overflow Stockwater Pond

POD: Domestic Springs & 2' X 6' collection tank

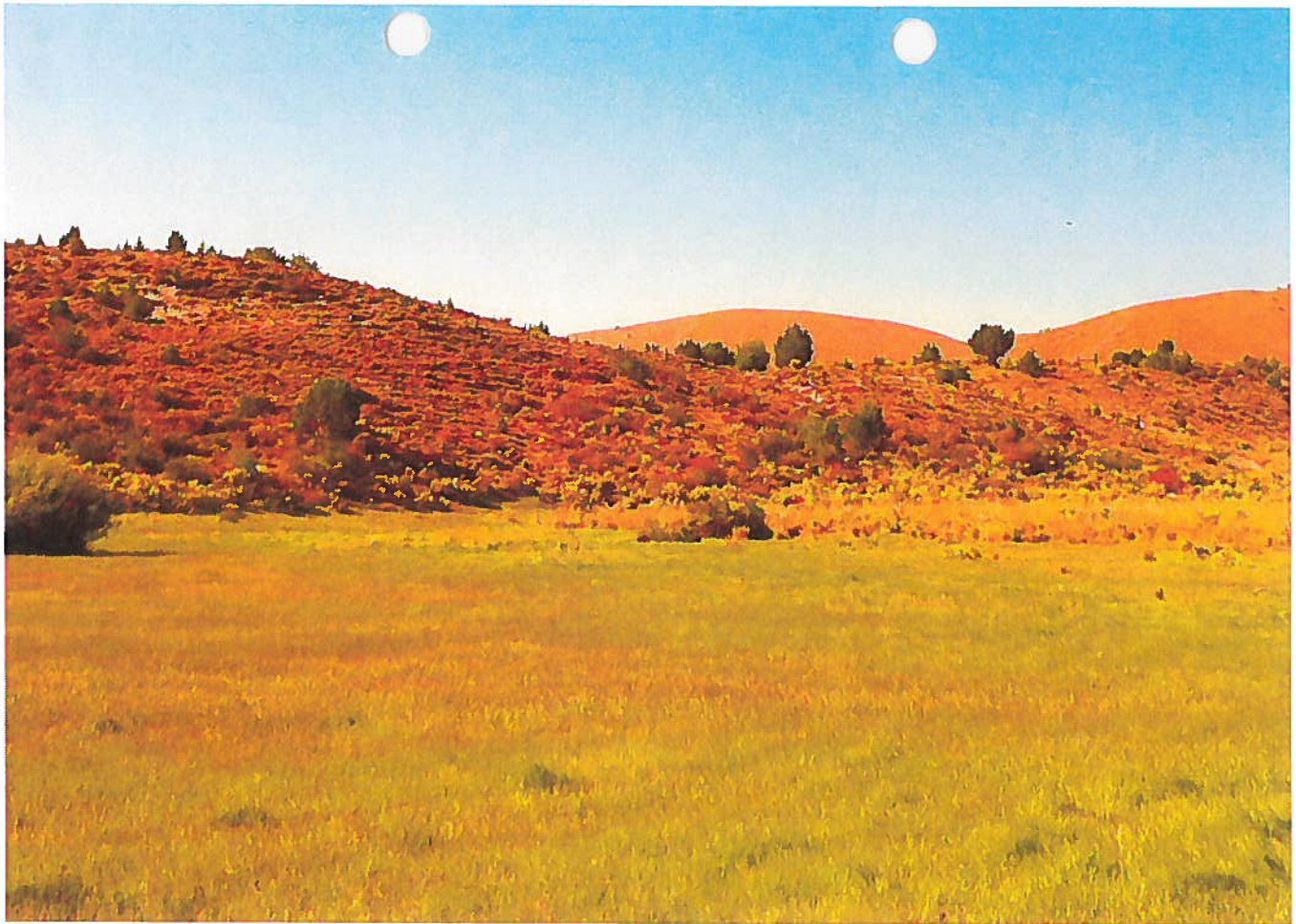
#1 Cabin

#2 Cabin

POU: Stockwater

POU: Domestic

16S20E 16S20E 16S20E 16S20E



The
springs
area
(where
the
bushes
are
located)

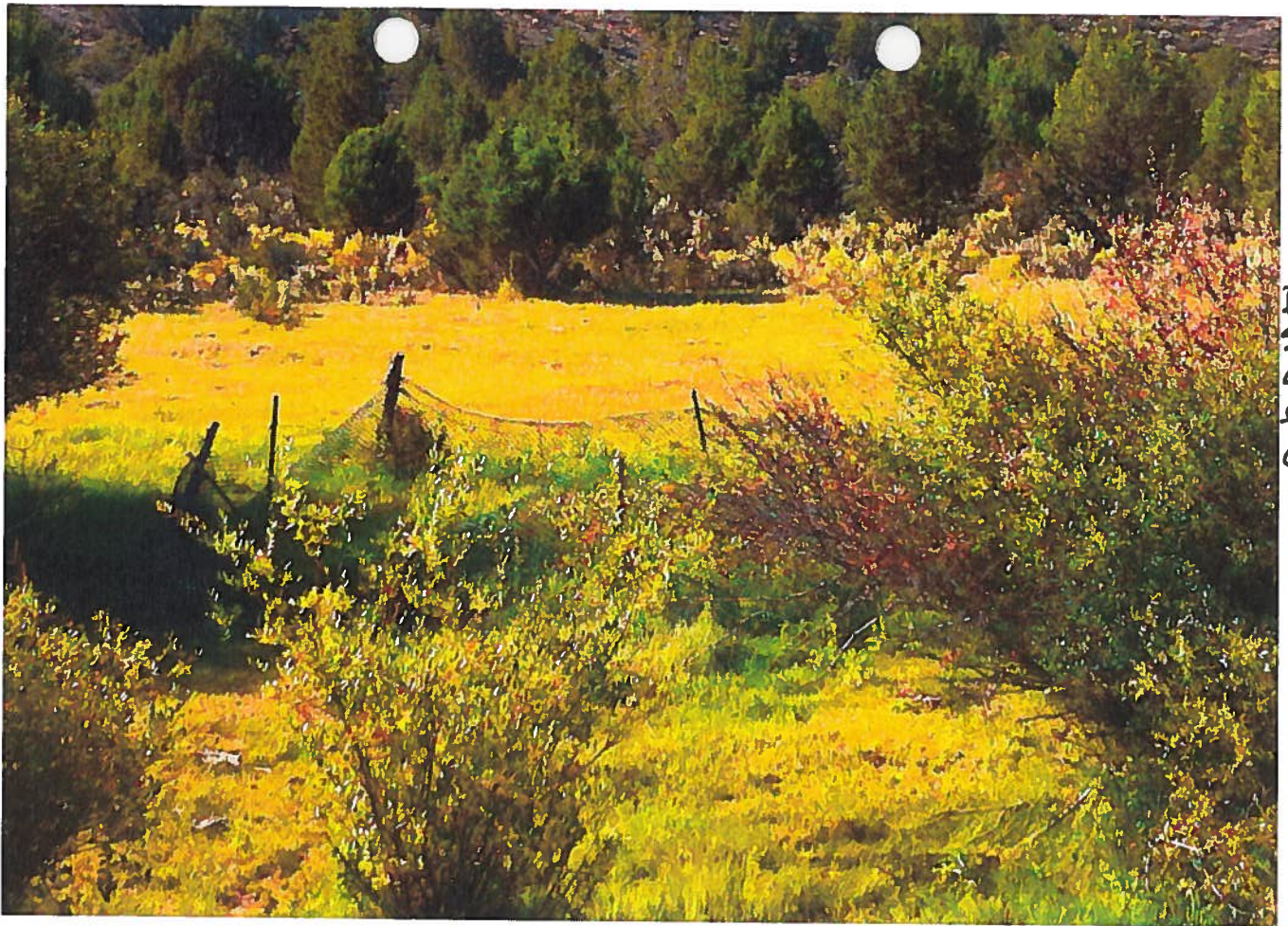


Spring
Area



Stock-
water

Spring
collects
tank
2'x3'
with
1 1/4"
buried
poly to
troughs
(300
gallon
size)



Domestic
Spring
area
fenced
off.



Domestic
spring
collection
tanks
2' x 6'
with
buried
1/4" PVC
that
splits 1
goes to
each of
the 2
cabins



stock-
water
pond



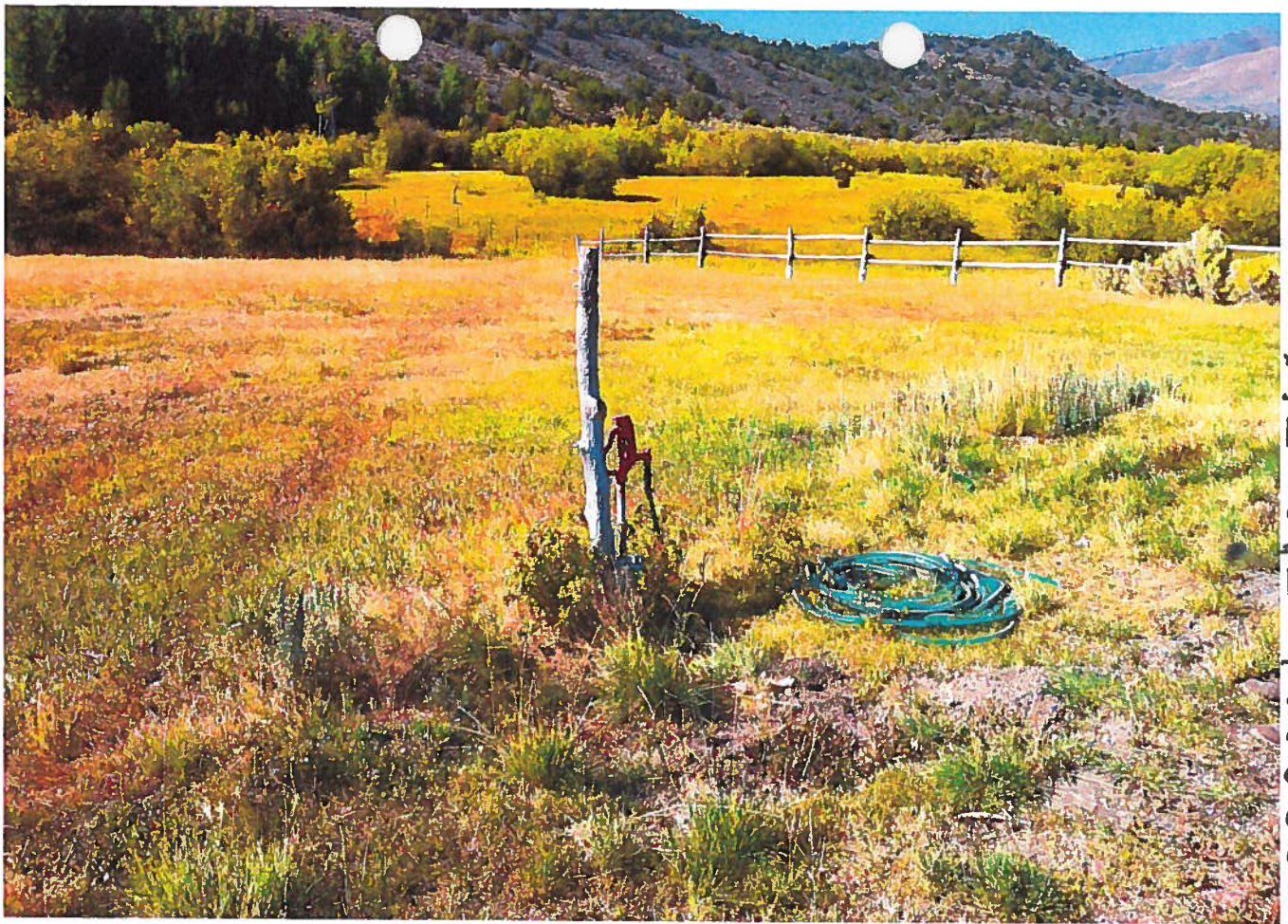
(2)
4"
over-
flow
pipes
off of
the
pond



300
gallon
Troughs



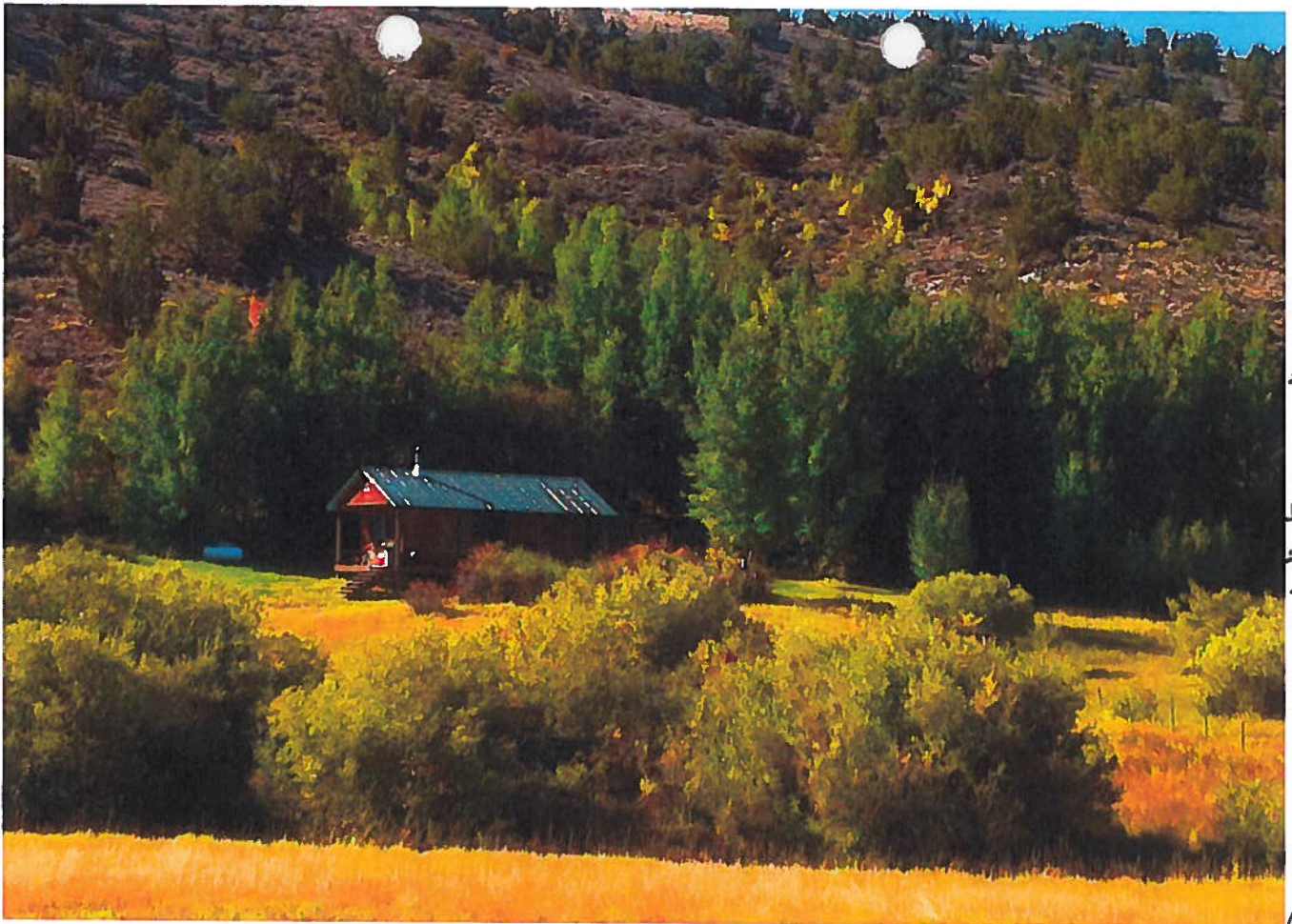
Looking
from
the
stock-
water
pond
to the
Domest
(A-cabi
area



frost-free
 hydrant
 located
 at
 #1
 home
 used
 to water
 area
 around
 cabin
 (if fire
 protect)



30 psi



#2
home
(looking
from
#1 over
to #2)

(Main
home +
guest
home of
his kids)



#1
home