

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 94-7394

Exam Date: 8/13/2007

1. Current Owner: KEN SMITH
S 15170 BULL RUN RD
CATALDO ID 83810
(208)682-4558
2. Accompanied by: KEN SMITH
Phone No: (208)682-4558
Address: S 15170 BULL RUN RD, CATALDO, ID 83810
Relationship to Permit Holder: OWNER

3. SOURCETRIBUTARY

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 L11 SW1/4NE1/4, Sec. 4, Twp 48N, Rge 01W, B.M. KOOTENAI County

GROUND WATER L11 SW1/4NE1/4, Sec. 4, Twp 48N, Rge 01W, B.M. KOOTENAI County

Method of Determination:

2.

PLACE OF USE:

DOMESTIC

Twp Rge Sec	NE				NW				SW				SE				Totals
48N 01W 4	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
			X														
			L 11														

PLACE OF USE:

IRRIGATION

Twp Rge Sec	NE				NW				SW				SE				Totals
48N 01W 4	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
			3.1				1.3	.8							1.8		7.0
			L 11				L 11	L 11							L 11		

Total Acres: 7

PLACE OF USE:

RECREATION STORAGE

Twp Rge Sec	NE				NW				SW				SE				Totals
48N 01W 4	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
							X							X			
							L 11							L 11			

DIVERSION TO STORAGE same as RECREATION STORAGE

Method of Determination:

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

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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>
D0033434	Franklin	2	N/A	Franklin	2823018310
D0013652	Franklin	2	N/A	Franklin	2823018310

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

D. FLOW MEASUREMENTS

1.

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

2. Measurements:

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method:

PUMP EQUATIONS	WATER RIGHT No. 94-7394	Well D0013652				
	HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI	
$Q = \frac{HP \cdot 8.8 \cdot \text{Eff}}{H}$	2	67.82313	0.7	10	25	
$Q =$	0.182 cfs					

PUMP EQUATIONS	WATER RIGHT No. 94-7394	Well D0033434				
	HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI	
$Q = \frac{HP \cdot 8.8 \cdot \text{Eff}}{H}$	2	67.82313	0.7	10	25	
$Q =$	0.162 cfs					

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = (7 \text{ acres}) \times (3 \text{ AFA}) = 21 \text{ AF}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = (1.20) \times (246) \times (1.9835) = 92.58 \text{ AF}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 21 \text{ AF} \rightarrow 21 \text{ AF}$$

2. Volume Calculations for Other Uses:

$$\text{Domestic, } 6 + 6 \text{ (lawn/garden)} = 1.2 \text{ AF}$$

$$\text{Recreation Storage} = 9.2 \text{ AF}$$

$$\underline{\quad\quad\quad} = 31.4 \text{ AF}$$

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G. NARRATIVE/REMARKS/COMMENTS

Initial Exam June 2006 by Wayne Baldwin. Completed Aug 2007 by Shaun Maxey. Owner was present for August 2007 exam but not familiar with operation of complex water system electrical controls and unable to operate the system to allow direct measurements of system capacity.

System Points of Diversion (POD) consist of two wells South of Rose Lake, Idaho, on the South bank of the Coeur d'Alene River. The two wells have a combined diversion capacity greater than called for on the Permit due to their proximity to the Coeur d'Alene River, a eight inch casing on the eastern well, and static water level depths 10 feet below ground level. Amendment is needed because only one well is listed on the Permit.

The Western well supplies domestic water and provides irrigation on lawns, landscaping, and part of the grounds near the home on the property. The tag number is D0033434.

The Eastern well (D0013652) discharges below surface level directly into a pond. Water from the pond is withdrawn through a pipe to the top of a large waterfall before falling back into the pond. The pond is used for recreation storage and for irrigation water storage. During irrigation season the waterfall normally operates mostly during daylight and the irrigation system mostly at night. The waterfall and irrigation system can operate simultaneously. A sensor signals the well to start filling the pond before the waterfall withdrawal pipe or the irrigation system Withdrawal pipe are uncovered. A sensor shuts off the well before overflow occurs.

The pond is excavated below ground level and has a surface area of .20 acres with a total storage capacity of .8 acre feet. Depth is 10 feet.

Water from the western well is diverted to pressure tanks in a barn before being used in the residence, a small waterfall, and surrounding landscaped areas.

A timer and zone controls in a box located next to the waterfall control withdrawal from the pond to irrigation water lines used to irrigate the remainder of the property.

The Proof submitted by the owner states only 7 acres are irrigated. This is a reduction from the reduction from the Permit.

Water Right License 94-7102 held by the State of Idaho Department of Fish and Game affects marshland on the North side of the Coeur d'Alene River near Rose Lake. It does not overlap with the place of use with 94-7394 as shown on the GIS at this time.

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	0.040 CFS	1.2
IRRIGATION	03/15 to 11/15	0.200 CFS	21.0
DIVERSION TO STORAGE	01/01 to 12/31	0.200 CFS	
RECREATION STORAGE	01/01 to 12/31		9.20 AF
<u>Totals:</u>		0.200 CFS	<u>31.4 AF</u>

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

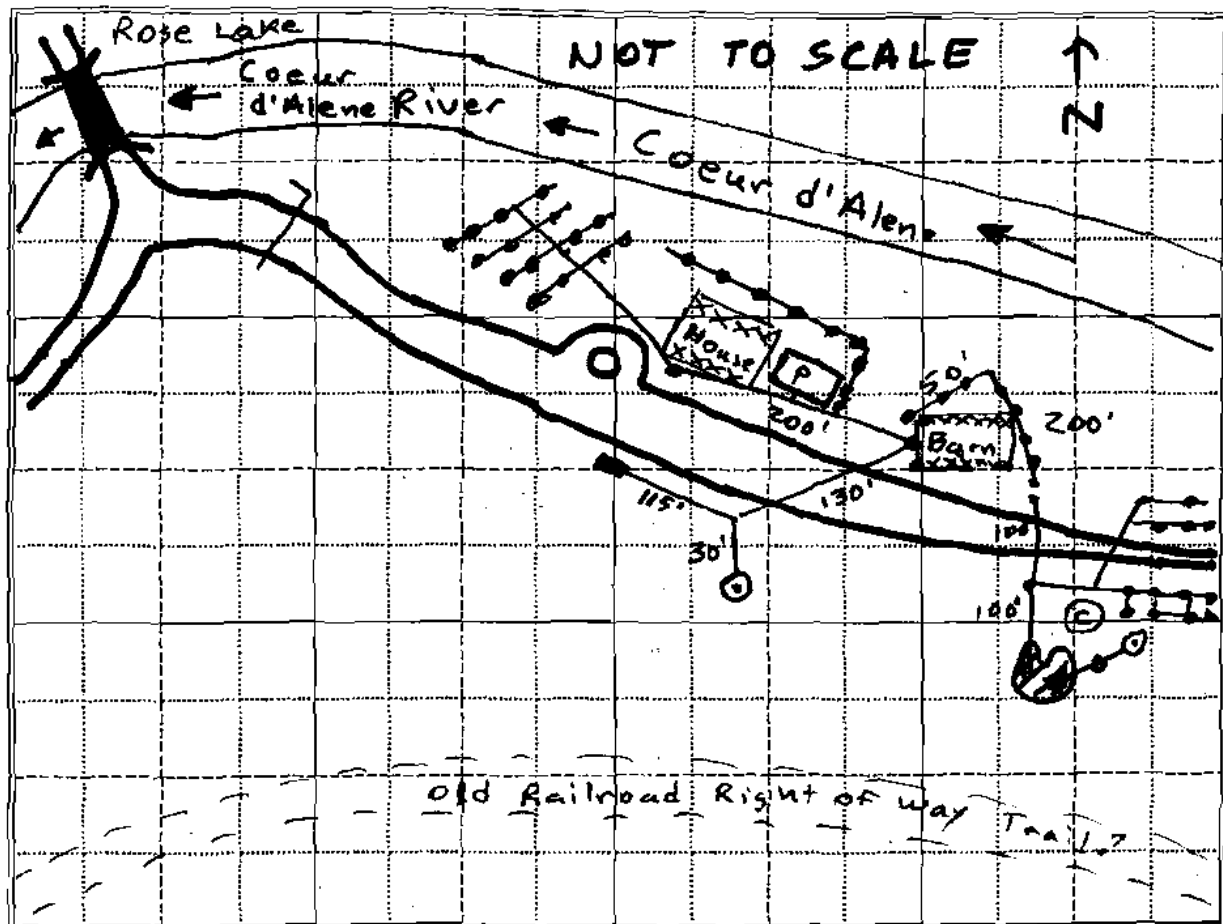
Reviewer

Date

Date

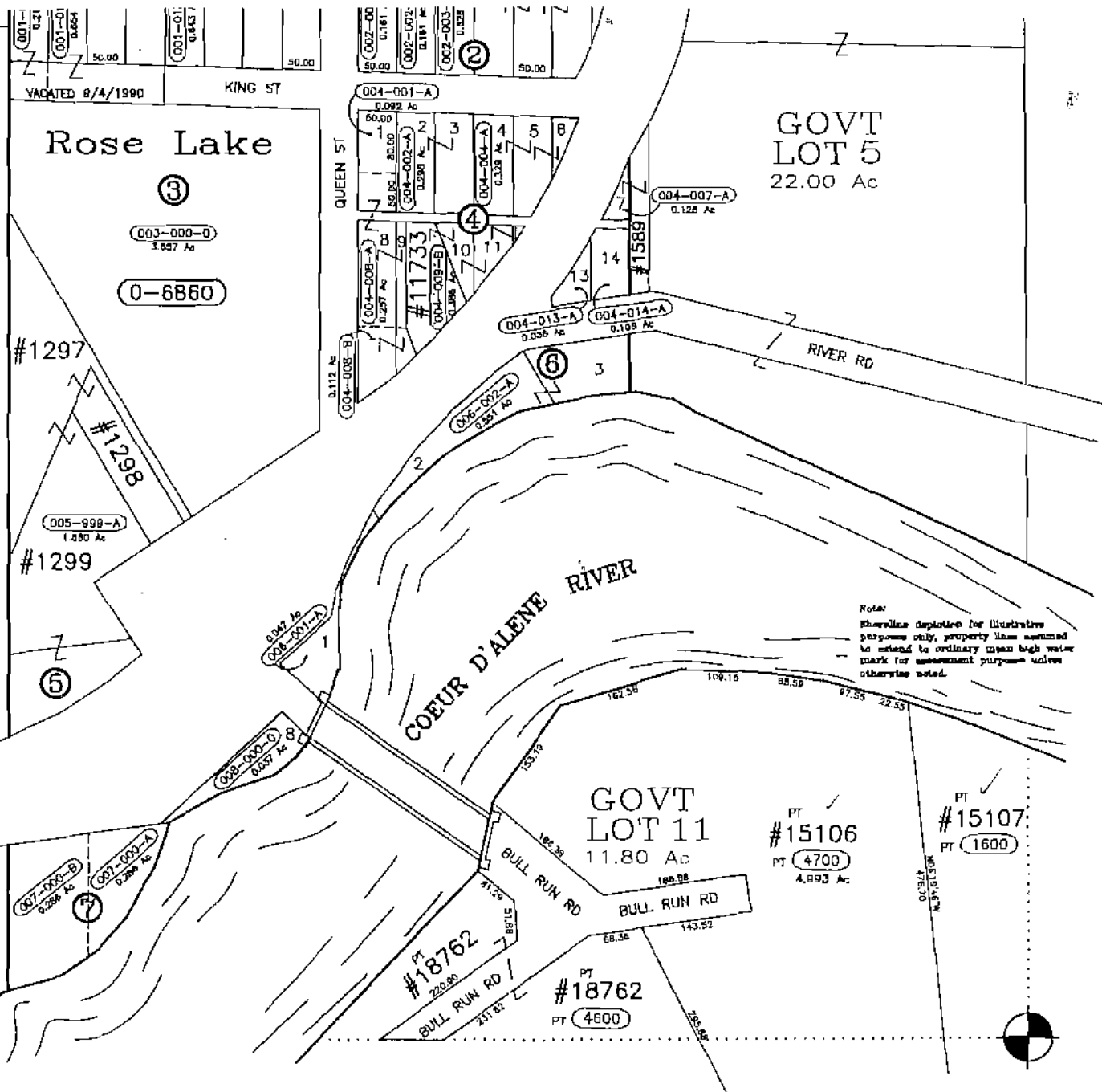
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3. Delivery System Diagram: Indicate all major components and distances between components. Indicate well size/ditch size/pipe i.d. as applicable.



- P Swimming Pool
- O well
- M Pond
- Water Trough
- Buried Sprinklers & Spigot Risers
- water Line
- Pressure Tanks (In Barn)
- C Irrigation Control Box
- Bridge
- Road
- Gate
- XXXX Building

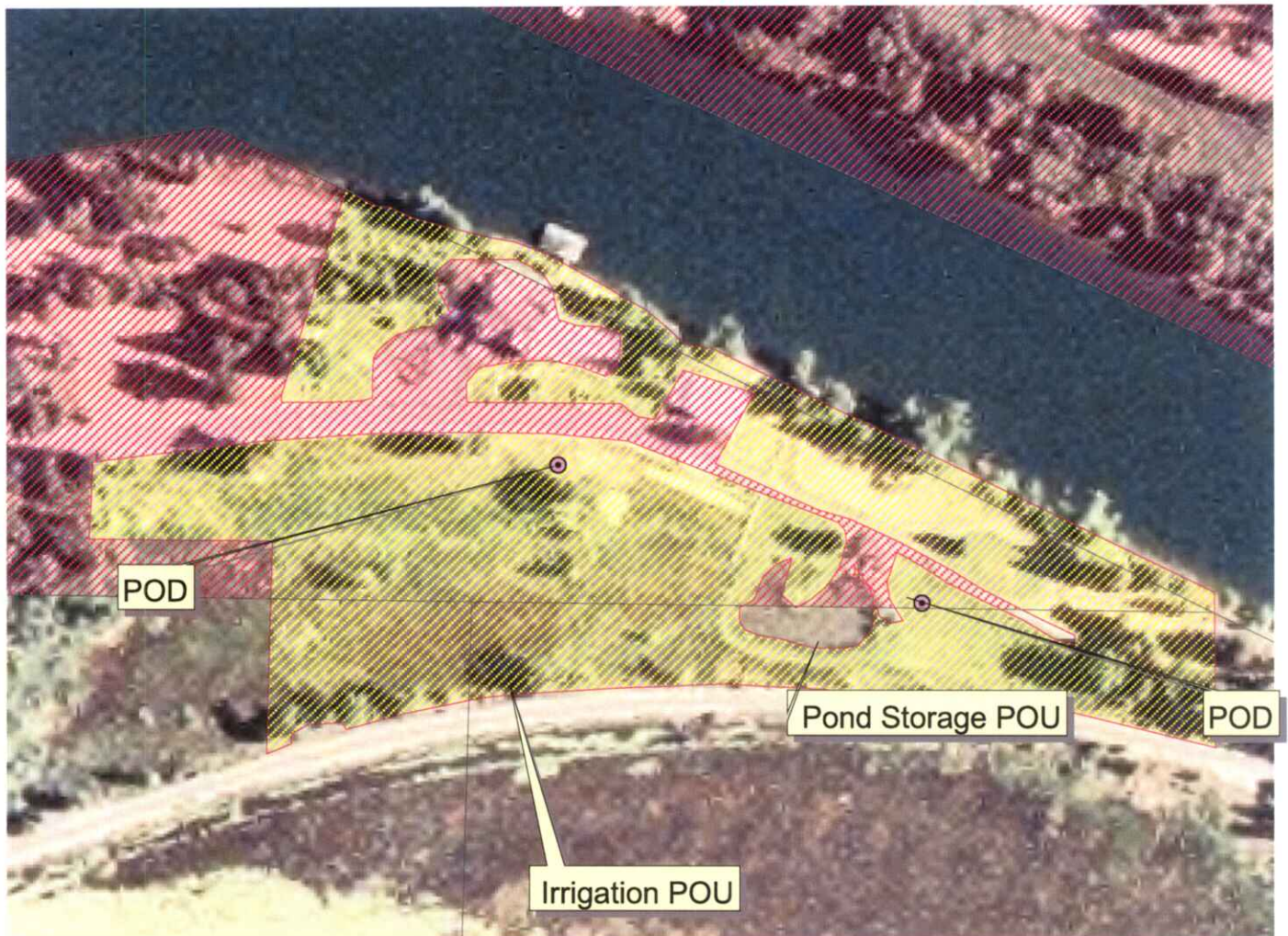
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NW 1/4 Sec.4 Twp.48N. R.1W.B.M.

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0.06 0 0.06 0.12 Miles

-  Kootenai taxlots
-  GCDB48N01W GCDB
-  Right POD
-  Right POU
-  Pod.shp
-  Place of use.shp



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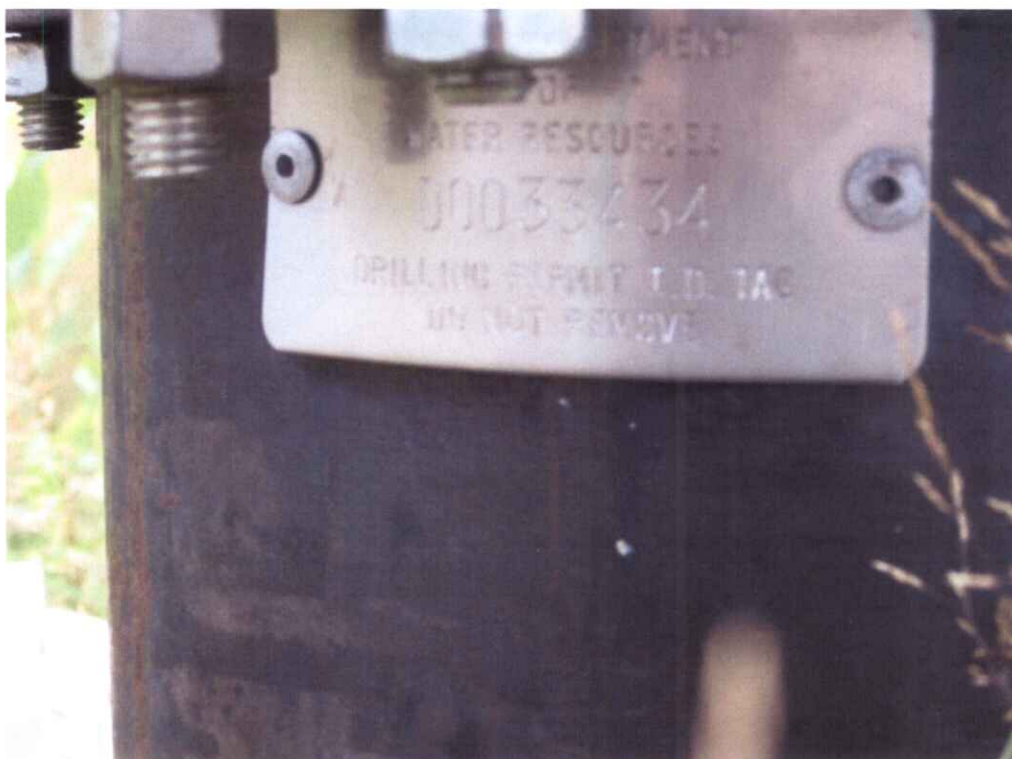


94-7394 Entrance & South West
Point of use



94-7394 Residence & Barn

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94-7394 West Well Number D0033434



94-7394 East Well Number D0013652

94- 7394



94-7394 West Well Partial POU



94-7394 Water Trough and House

94- 7394



94-7394 Domestic Pressure Tank



94-7394 Domestic Pressure Tanks in barn

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94-7394 Mossy Submersible Pump for Irrigation In Pond



94-7394 Background- Well for Waterfall, Falls & Suction Pipe for Waterfall

94-7394



94-7394 Waterfall filling pond and suction pipe for waterfall



94-7394 East Point of Use are and electrical box

94-7394



94-7394 Portion of West place of Use

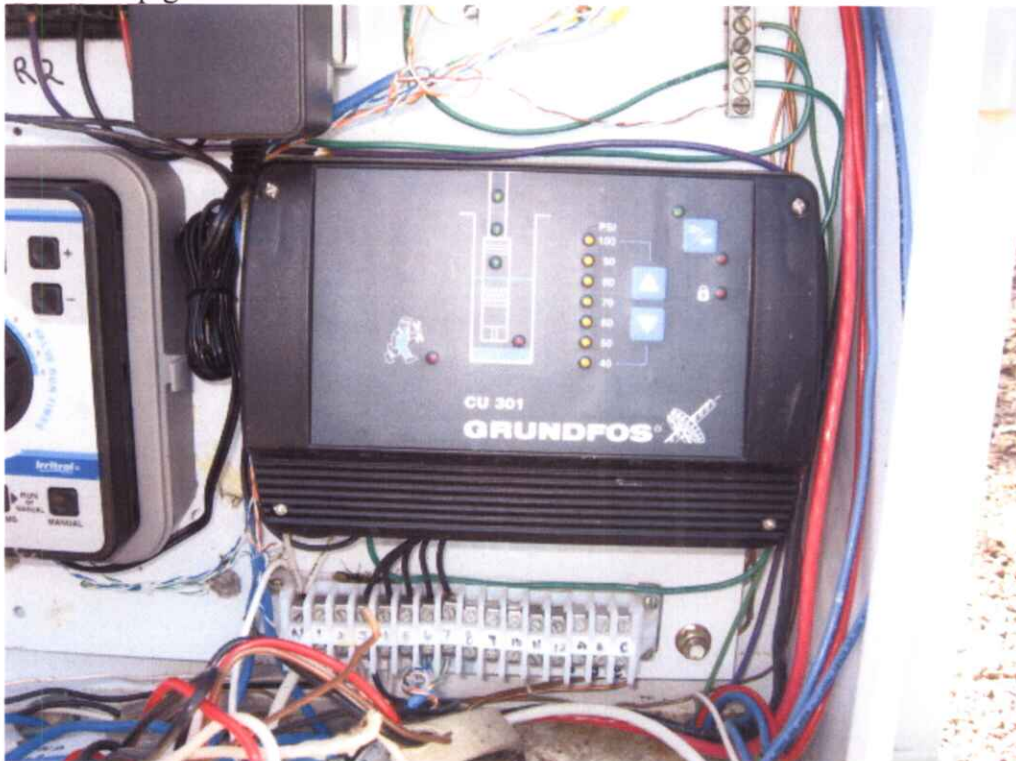


94-7394 Portion of West Place of Use

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94-7394 Spigot near barn



94-7394 Irrigation Controls in Irrigation Control box

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94-7394 Irrigation System Timer Controls



94-7394 Pop-Up Sprinkler

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Survey Details

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Original Survey

• Twp 48N-1W, ID, Boise

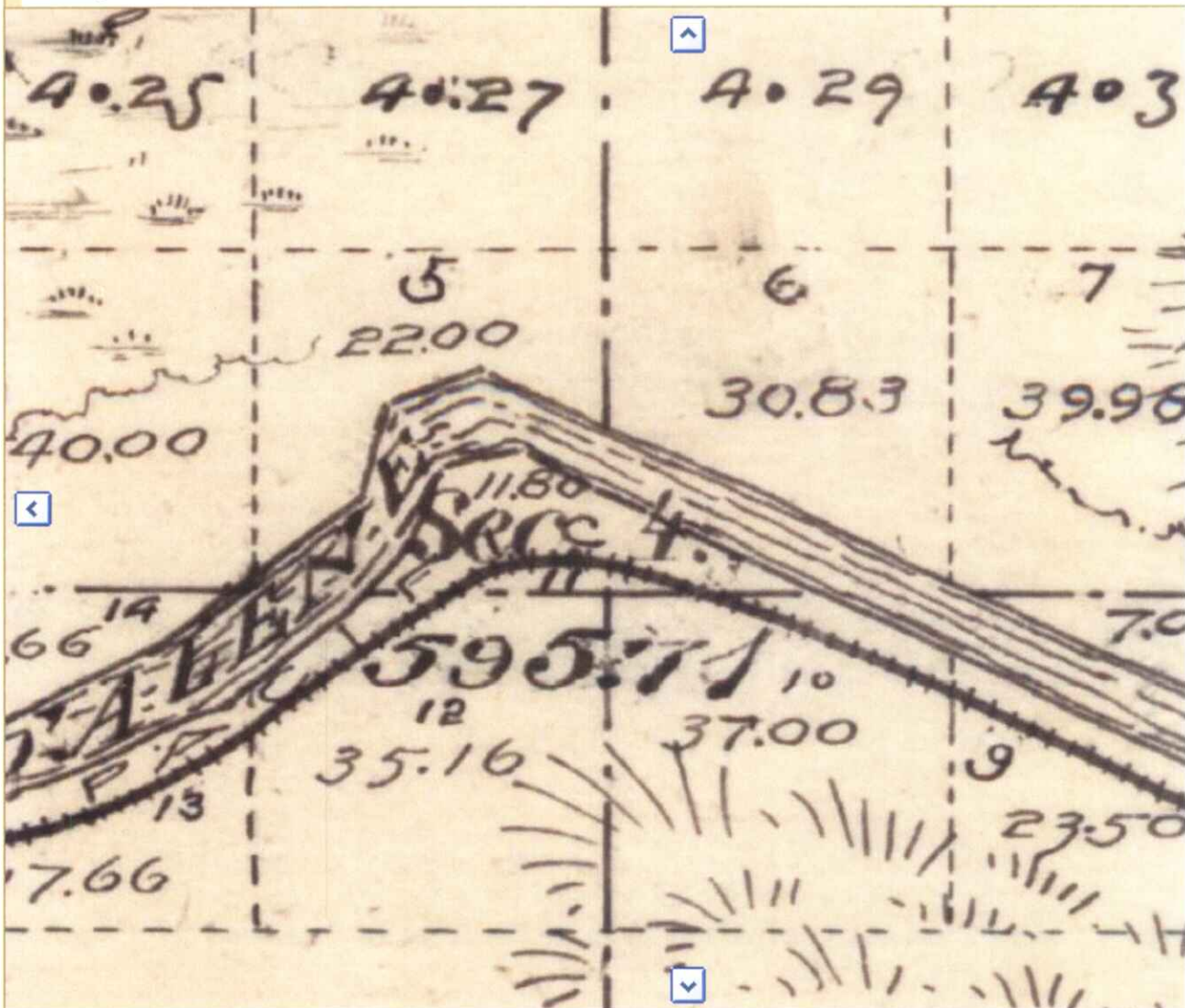
Survey Details

Plat Details

Plat Image

Field Note Images

Description: ---



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