

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-13639

Exam Date: 9/12/2016

1. Current Owner:
PAUL E BERGER PO BOX 639 COEUR D ALENE ID 83816 (208)771-0641

2. Accompanied by: Paul Berger

3. **SOURCE:**
COEUR D ALENE LAKE

TRIBUTARY:
SPOKANE RIVER

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:**

COEUR D ALENE LAKE SE¼NE¼ Sec. 4, Twp 49N, Rge 03W, B.M. KOOTENAI County

Method of Determination: GPS and maps. POD location at 47° 37.493, 116° 43.408

2.

PLACE OF USE: RECREATION STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
49N	03W	4				X													

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	
49N	03W	4				X													

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
49N	03W	4	0.1 L 1			0.8													.9

Total Acres: 0.9

Method of Determination: Google Earth and Arc map.

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

☒ X Indicate weir size/pipe as applicable.☒ X Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.☒ X Aerial Photo Attached (required for irrigation of 10+ acres).☒ X Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
		3			

*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: IDWR CONTACTED PUMP INSTALLERS AND THEY VERIFIED THEY INSTALLED A 3 PHASE 3 HP PUMP WITH MAXIMUM DIVERSION RATE AT 33 GPM OR 0.07 CFS.

E. FLOW CALCULATIONS

Measured Method:

_____ Additional Computation Sheets Attached

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.9 \text{ AC} \times 3 \text{ AF} = 2.7 \text{ AF}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.03 \text{ CFS} \times 246 \times 1.9835 = 14.6 \text{ AF}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 2.7 \text{ AF}$$

2. Volume Calculations for Other Uses: DOMESTIC USE FOR 1 HOME = 0.6 AF

$$\text{INDOOR SWIMMING POOL} = 20 \text{ FT} \times 60 \text{ FT} \times 6 \text{ FT} = 7200 \text{ FT}^3$$

$$7200 \text{ FT}^3 \times 7.48 \text{ GALLONS} = 53,860 \text{ GALLONS}$$

$$53,860 \times 3 \text{ FILLS} = 161580 \text{ GALLONS}$$

$$161850 \text{ GAL} / 325850 \text{ GAL/AF} = 0.5 \text{ AF}$$

G. NARRATIVE/REMARKS/COMMENTS

Field exam with Mr. Berger showed two points of diversion. Applicant was unsure what size pumps were on system. On 12-15-2016, it was verified through United Pump and Drilling that a 3 phase 3 hp pump was installed with maximum capacity of 33 gpm. System had 2 inch poly pipes coming from lake heading underground towards home. During exam applicant said only 1 home was served water and 2nd home was not built as planned. There was a 20 foot by 60 foot by 6 foot deep indoor swimming pool in house. Applicant said they would fill pool and drain it 3 times a year for cleaning purposes. Automatic sprinkler system supplied water to all of the irrigation. There were some frost free hydrants around for various other uses of water. Tracing out irrigation on Arc Map equaled 0.9 acres of irrigation.

Have conditions of permit approval been met? X Yes No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
RECREATION STORAGE	01/01 to 12/31		0.5 AF
DOMESTIC	01/01 to 12/31	0.04 CFS	0.6 AF
IRRIGATION	03/15 to 11/15	0.03 CFS	2.7 AF
DIVERSION TO STORAGE	01/01 to 12/31	0.03 CFS	
<u>Totals:</u>		0.070 CFS	3.80 AF

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 X None

I. AUTHENTICATION

Field Examiner's Name

Adam Funderwill

Date

12-16-2016

Reviewer

Morgan Case

Date

2/24/2017

State of Idaho
Department of Water Resources
Water Right License
95-13639

RECREATION STORAGE - INDOOR POOL

03W



-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections

0 0.035 0.07 0.14 Miles



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DOMESTIC

03W



-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections

0 0.035 0.07 0.14 Miles



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IRRIGATION

03W



● Point of Diversion

Place Of Use Boundary

Townships

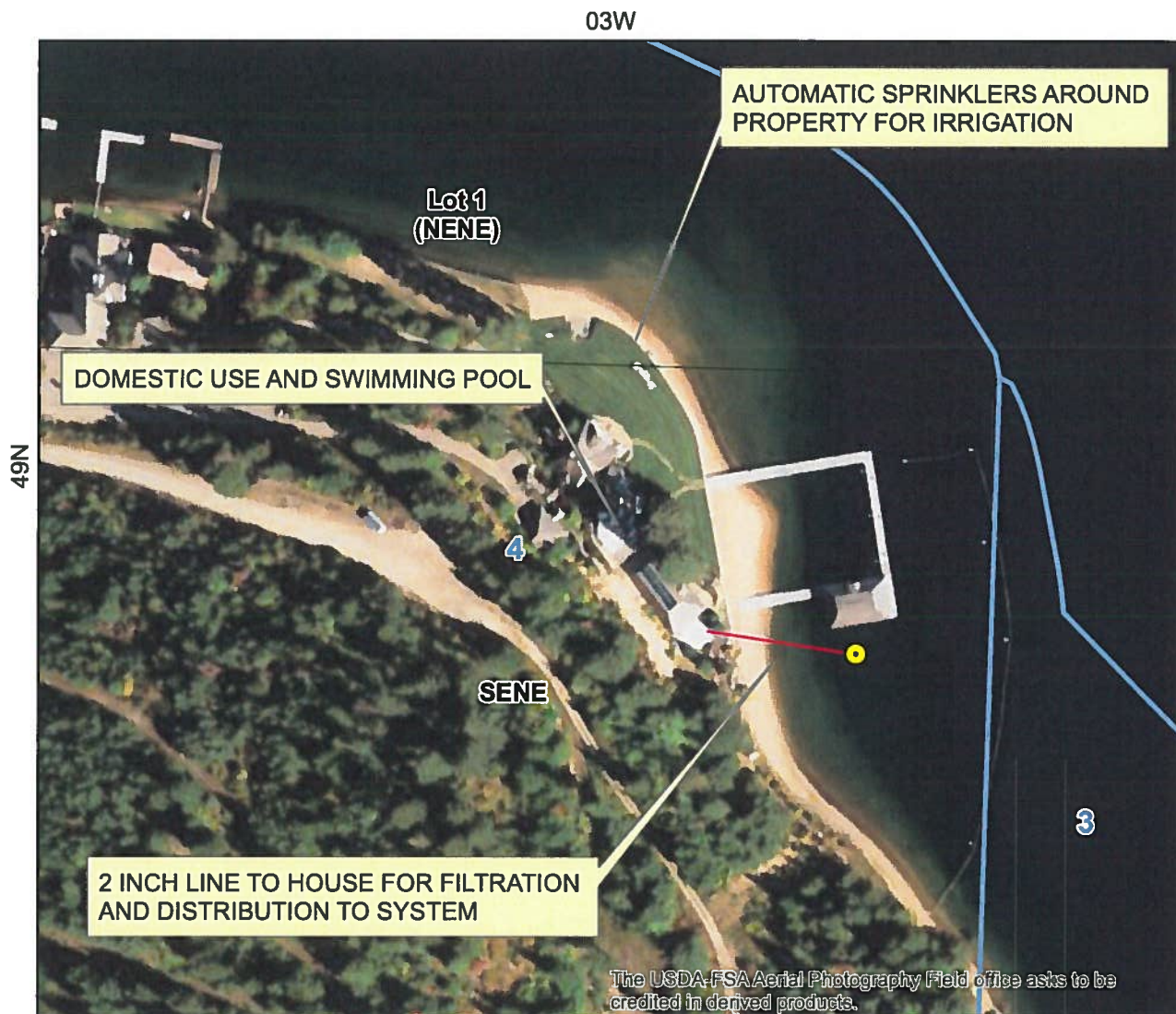
PLS Sections

0 0.035 0.07 0.14 Miles



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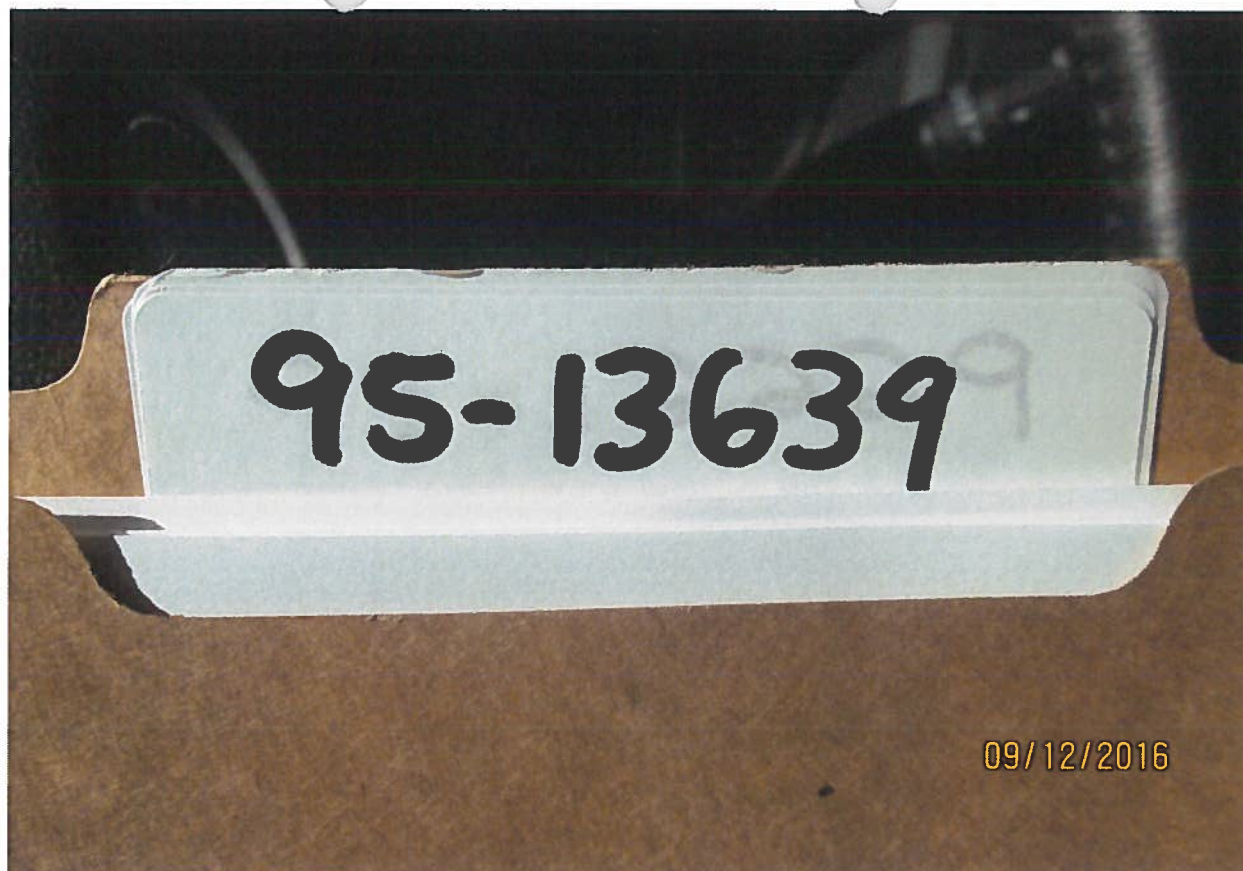
DESCRIPTION OF SYSTEM



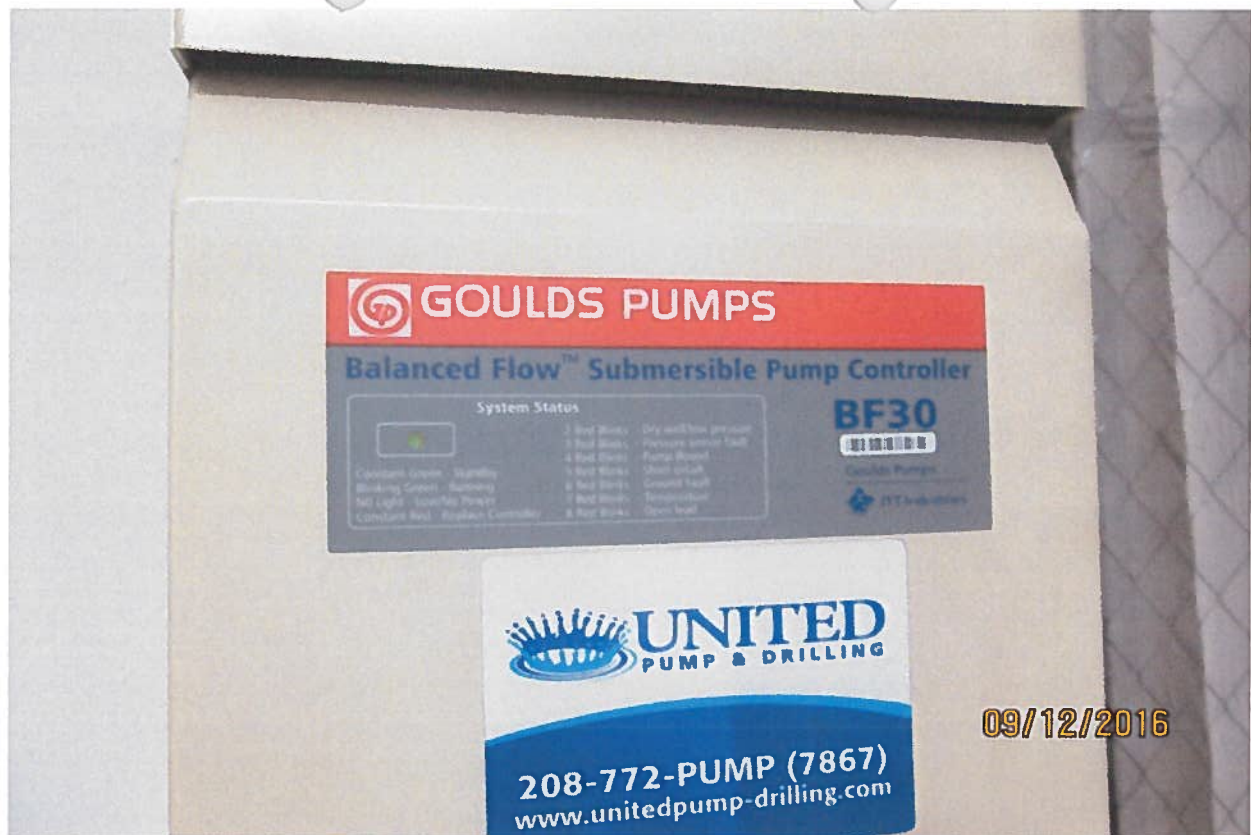
0 0.02 0.04 0.08 Miles

- Point of Diversion
- ▭ Townships
- ▭ PLS Sections





POD. 2 inch poly pipe.



Verified system components with United Pump. 3 phase 3 hp pump set at 33 gpm.

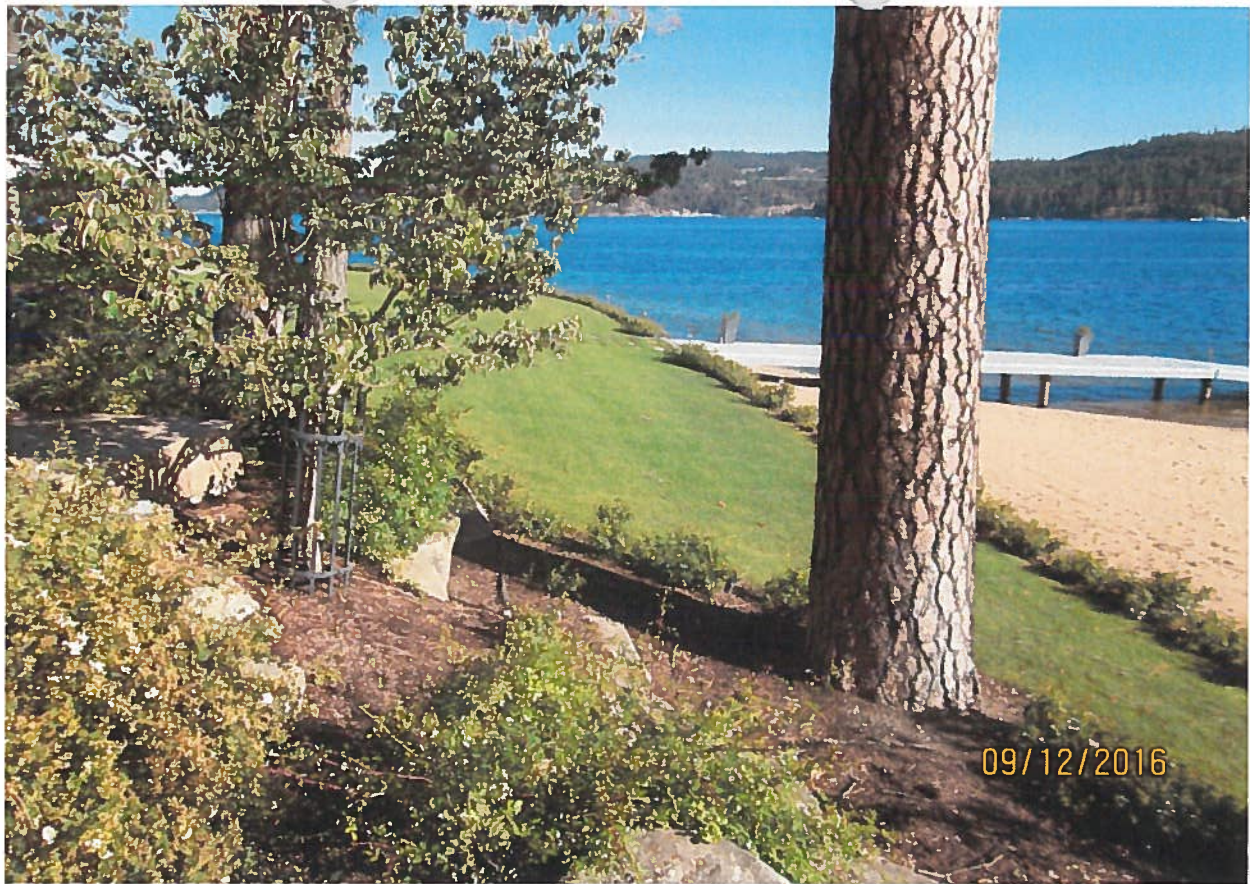




Indoor swimming that 20 feet by 60 feet by 6 feet deep. Pool has initial fill with 2 additional drain and fills for cleaning purposes per year.



Looking at home from lake. Only 1 home using water.



Irrigation mainly by automatic sprinklers, but hydrants located around property as well.





Irrigation along driveway.



Irrigation along garage and front of house.