

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 57-11617

Exam Date: 12/8/2017

1. Current Owner:

SUNRISE PUMPHOUSE TWO ASSN, INC C/O JACK BLACKWELL 10286 AIRPARK LP MELBA ID 83641

2. Accompanied by: Kathrynne McPherson (current owner of the POU), and several other members of the Sunrise Pumphouse Two Association, Inc. including Douglas P Owens, (former president of the association), and Jack Blackwell (current president of the association).

Also accompanied by: Daniel Nelson, IDWR

Phone No:

Address:

Relationship to Permit Holder: members of the association which is the permit holder

3. SOURCE:

GROUND WATER

TRIBUTARY:

NA

B. OVERLAP REVIEW

1. Other water rights with the same place of use: none

2. Other water rights with the same point-of-diversion: 57-7236Q

The POU is within Opaline Irrigation District.

C. DIVERSION AND DELIVERY SYSTEM1. LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER L2 (NE¼NW¼) Sec. 21, Twp 01N, Rge 03W, B.M. OWYHEE County

Method of Determination: aerial photography, the taxlot layer and the PLS layers

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	
01N	03W	21					X L 2												
01N	03W	16											X L 1						

PLACE OF USE: HEATING

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
01N	03W	21					X L 2												
01N	03W	16											X L 1						

Method of Determination: aerial photography, the taxlot layer and the PLS layers

An amendment is needed to add section 16, L1(SESW) to the POU

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.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
A0003118	unknown	3 Hp		unknown submersible	

*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
GE	panasonic	Panametrics			403 transducers	March 2017

2. Measurements:

Measured 32.3 gpm (or ~0.07 cfs)

Gage pressures 59 psig

E. FLOW☒ Additional Computation Sheets Attached**CALCULATIONS**

Measured Method:

Measured 32.3 gpm or 0.07 cfs as the total diversion from the well

The heating system uses the same diversion system as the domestic use. A combined limit on the rate will apply.

The theoretical horsepower calculation yields a significantly higher rate than the measurement.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: Not applicable; irrigation is not authorized by this right

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

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

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

2. Volume Calculations for Other Uses:

Domestic: for internal use only is limited to 0.6 AF

Heating: refer to the attached spreadsheet for heat load and volume calculations.

G. NARRATIVE/REMARKS/COMMENTS**Applicant**

The five homes served by the well-POD are loosely affiliated as the Sunrise Pumphouse Two Association Inc. They are registered with IDSOS as C106000. Some of the street names and zip codes listed for the members on IDSOS are incorrect. The errors made the initial contact with the association difficult. But the association still exists and some of the founding members are among the current members. I encouraged Jack Blackwell, the current president to make corrections to their IDSOS listing.

Source and POD

The source of water is from a low temperature geothermal (LGT) well. The well is housed on a small separate lot within the Sunrise Sky Park subdivision. The well lot abuts the NW corner of the property which contains the home-POU for this right.

Water Use

The well water temperature during the field exam was ~105 °F which is consistent with the well driller's log for the well. Kathrynne McPherson (owner of the POU) stated that she had measured the temperature of the water entering her house at 105-106 °F. So no additional heat is lost to the soil or surroundings once the system is up and running.

The uses authorized by this right are for the domestic and heating uses in a single home and adjacent air plane hangar.

The same supply pipeline serves all the water to those buildings. The plumbing service room is located near the basement entrance to the home. The room contains a full-sized storage tank, a smaller unused storage tank and its associated but unusable broken pump, and a water filtration system as well as inactive and active plumbing lines. Water dedicated to space heating is either all on or all off. A single valve located in the plumbing service room can cut off the water destined for the heat exchanger, leaving only the domestic water use available.

A spa bath in the home has its own heater, but there is no domestic water heater to boost the temperature of the LGT water to the 120 °F recommended for culinary uses. The temperature of the LGT water is the temperature of the hot water from the faucets.

The domestic and room heating uses did occur simultaneously during the exam. The heat exchange system is a water-to-air system. Two radiator-coil panels, filled with circulating LTG water are located in a closet sized, forced-air duct near the basement entrance of the home. I saw no circulation pump. Adjustments to inside room temperatures are made by changing the air flow (fan speed) across the heat exchanger. During the field exam the internal temperature of the home was 68 °F while the outside temperature was ~22 °F and foggy.

Rate

There was very little variation in the flow rate measured at the well even when one of the members of the association turned on an additional in-house spigot. Therefore the well pump is likely operating at its maximum at the measured flow rate of 0.07 cfs.

Volume

The standard volume for in-house only domestic use is 0.6 AF and is my recommendation for that volume.

For the space heating use I made the following assumptions:

The livable space totaled 9000 square feet. I include the hangar which was heated during the development period

The peak heating load was 32.4 BTU/hr-ft² and based on the heat flux calculated for another well-insulated home in Idaho

The geothermal water is 105 °F which is suitable for space heating but a little low for culinary use.

The space heating water loses 22 °F from entrance to exit. The temperature drop for an indirect use of geothermal water depends on the type of heating equipment installed. The range is 15 to 50 °F.

The HDD for the site is equivalent to HDD for Boise, ID.

The method I used is an adaptation of an ASHRAE heating degree day, energy estimation method. It employs this equation:

$$\text{Vol} = (\text{HL} \times \text{HDD} \times \text{hr/day} \times \text{Cd}) / (\text{deltaT1} \times \text{K} \times \text{C} \times \text{deltaT2})$$

Where:

HL = design heat load (291974.15 BTU/hr = 32.44 BTU/hr-ft² x 9000 ft²)
HDD = heating degree day (7672 is the max annual HDD for Boise and occurred in 1985 which is a year within the 50 years prior to the permit's proof statement)
Hr/day (24)
Cd = correction factor for standard construction and HDD range (0.65)
deltaT1 = design indoor temperature minus design outdoor temperature (70 - 10 = 60 °F)
10 °F is the design temperature that the Geo Heat Center has used for Boise
K = correction factor to account for losses (0.9)
C = constant to correct for units (2.72 x 10⁶ BTU/AF-°F)
deltaT2 = temperature of incoming geothermal water minus temperature of outgoing (105 - 83 = 22 °F and is within the 15 - 25 degree range for deltaT2 in space heating).

The realistic results from the calculations range from 6.66 AF to 20.0 AF. The home was constructed in 2009 and according to a realtor's description dated 2013, is very well insulated. The home's builder lived in the hangar while the home was built. Therefore the space heating volume that I am recommending for this water right is 10.8 AF.

The calculations indicated that the LGT system would supply sufficient heat for the 5 homes in an average heating season, but would not be sufficient in a colder winter or if the other four homes are not well insulated. And it would not be sufficient for 5 homes and 5 airplane hangars. Supplemental heat sources would be required. The home-POU for this right has a small stove in the basement and a least one of the founding member homes now has electric heat as the primary heat source.

Irrigation of the front lawn and a small garden in the back yard is visible in recent aerial photography. That irrigation is not authorized by this right and may not be authorized by any water right. The Sunrise Sky Park is within the service territory of the Opaline Irrigation District and I spoke to their secretary-treasurer, Dan Birmingham on 12/13/2017. He stated that Opaline does have customers in the subdivision, but none of the names that I provided to him were on his list of shareholders. Opaline does not currently have any shares of water available.

POU

The home is located in the Sunrise Sky Park subdivision and is owned by the Kathrynne McPherson Living Trust. According to a recent realtor listing the home is ~4800 ft². It is adjacent to a 4200 ft² airplane hangar that was plumbed for and heated by the geothermal water in the past. The two buildings are constructed on parcel #RP00560002015DA. The plumbing lines to the hangar were inactive and had been severed from the supply system sometime before the exam but I include the hangar in the place-of-use.

Discharge

According to the homeowner, the home-POU is troubled by a high water table and has two French drains and a sump pump to keep the basement dry. The spent water from the heat exchanger is collected into the same piping as is used to collect and dispose of sump and drain water. The discharge pipe is buried under the Airpark Loop Rd and the runway and eventually delivers the water to the Snake River.

Status and Combined Use

The well, a diversion system and the domestic and heating uses associated with homes owned by founding members of Sunrise Pumphouse Two Association Inc., pre-existed this right. The senior uses are authorized by Licensed Right 57-7236Q which is for 0.08 cfs and 22.6 af. No measurement was taken during the licensing effort for 57-7236Q. Based on the measurement for this exam, the well delivers 0.07 cfs and therefore a combined limit on the rate for 57-11617 and 57-7236Q is recommended.

Domestic curve suggests that 0.11 cfs could be utilized for the 5 homes in the Sunrise Pumphouse Two Association, but homeowners appear to successfully manage with less. The members are retired and routinely vacate their homes for weeks at a time. They did state that the rate is lowest in the winter when everyone has their heat on.

The permitted rate of 0.02 cfs, is sufficient to provide some simultaneous heating and domestic use. Additional volume is required for space heating.

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>
HEATING	01/01 to 12/31	0.02 CFS	10.8 AF
DOMESTIC	01/01 to 12/31	0.02 CFS	0.6 AF
	<u>Totals:</u>	0.02 CFS	11.4 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 ☐ None

I. AUTHENTICATION

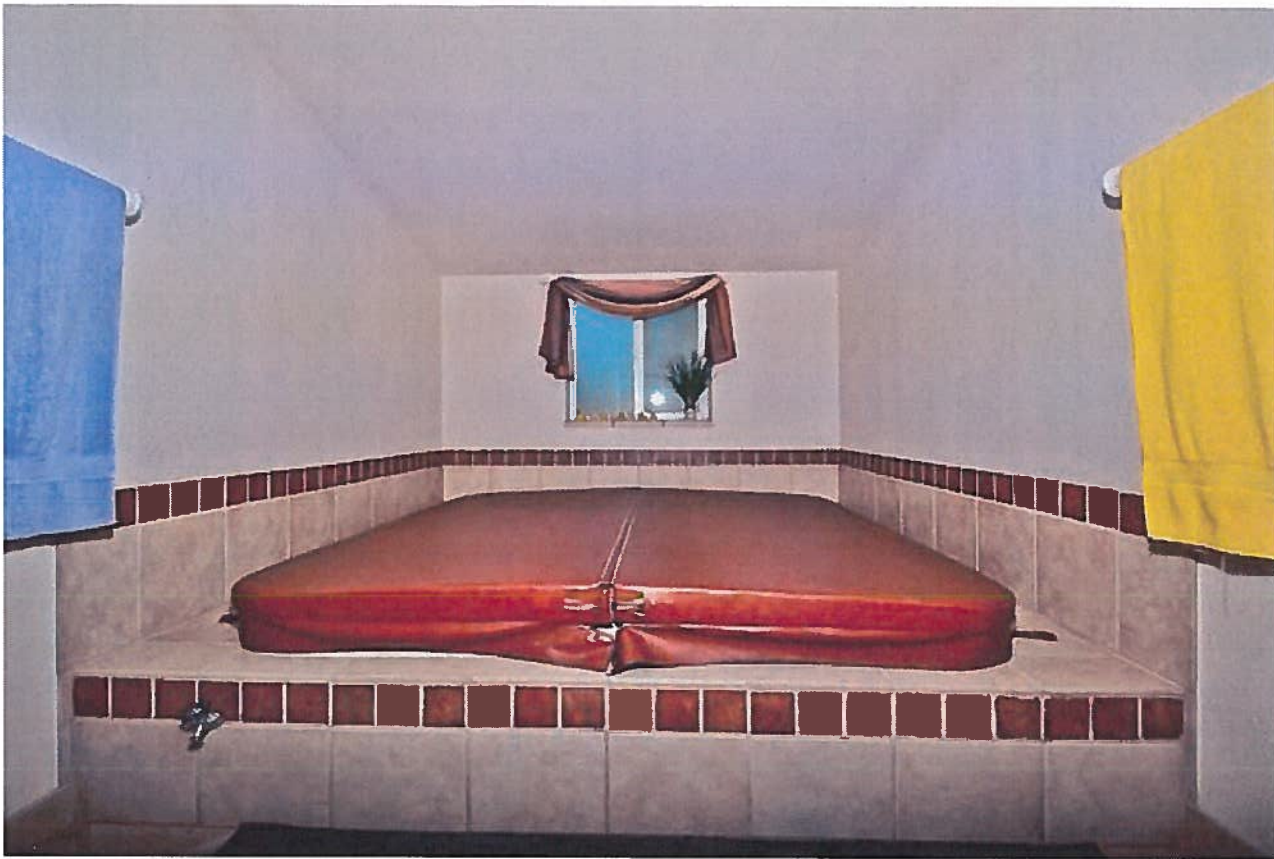
Field Examiner's Name Michelle Edl and Dan Nelson Date 12/14/2017

Reviewer _____ Date _____



POU FRONT YARD

**ATTACHMENT TO FIELD REPORT
WR#57-11617**



SPA ROOM

**ATTACHMENT TO FILED REPORT
WR#57-11617**



**ATTACHMENT TO FIELD REPORT
WR#57-11617**

< Back

Melba, ID

x



Idaho > Owyhee County > Melba > Airpark Loop



Off Market

POU BACK YARD
ATTACHMENT TO FIELD REPORT
WR#57-11617

[Moving? See TV & Inter](#)

No Estimate Avai



2 3 2,040 1.05
beds baths sq ft acres lot

Commute Time 10364 Airpark Loop, Melba, ID 83641

[Track Your Ho](#)

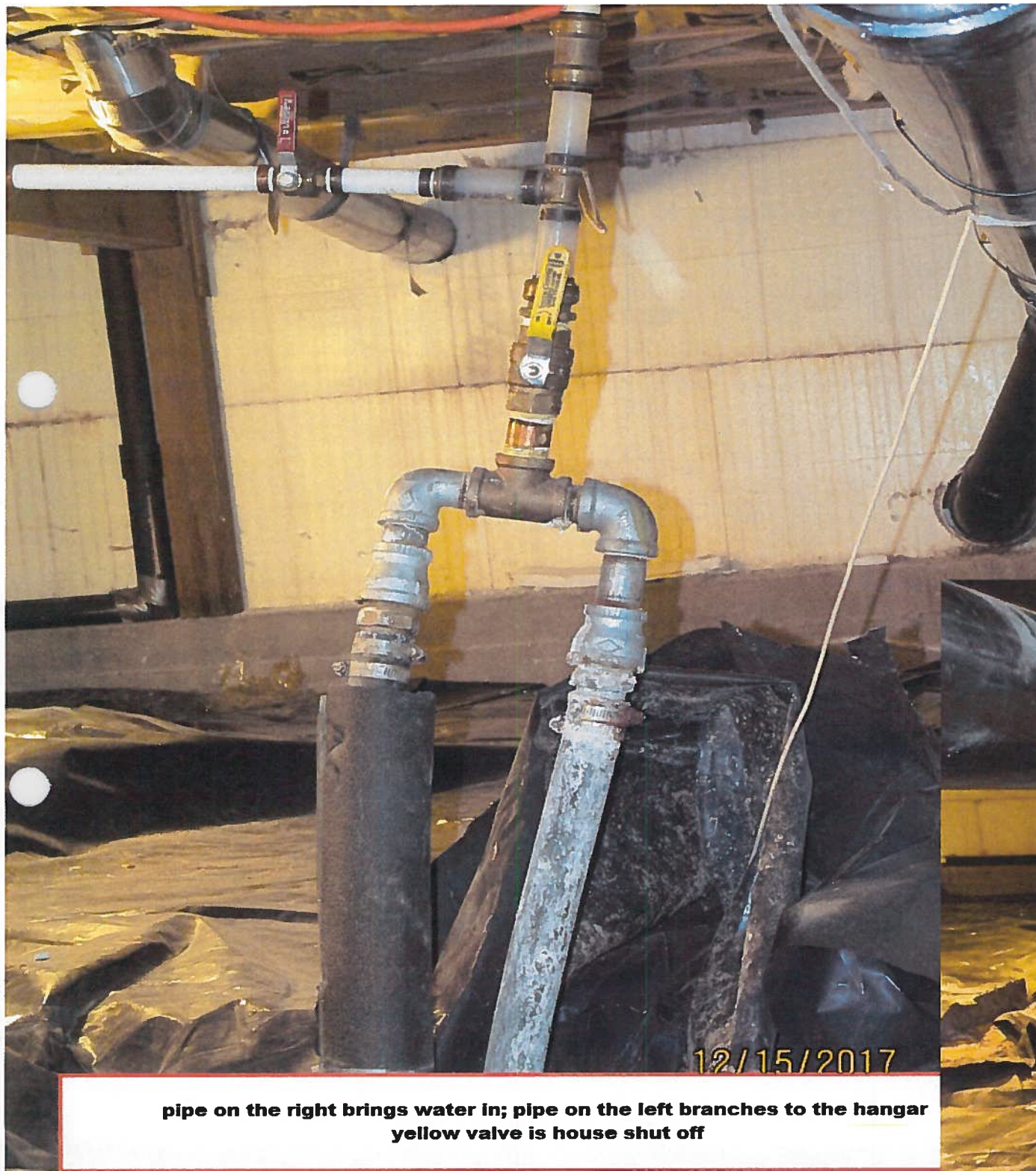
Edl, Michele

From: Kathrynne McPherson <mckathrynne@gmail.com>
Sent: Thursday, December 14, 2017 3:23 PM
To: Edl, Michele
Subject: McPherson Photos
Attachments: Looking Into Distribution Room - Passive Storage Tank in Front.JPG; Where Water Enters Distribution Room.JPG; Branch to Tank for Cold Water Creation.JPG; Cold Water Line Leaving Tank for House - Blue Tank has No Function.JPG; Main Valve & Two Subsequent Branch Valves to Heat Exchangers.JPG; Stacked Heat Exchangers Under Fan Box.JPG

Michele,

Here are the photos I think you requested. Please LMK if you need any additional ones, or explanations.

Kathy



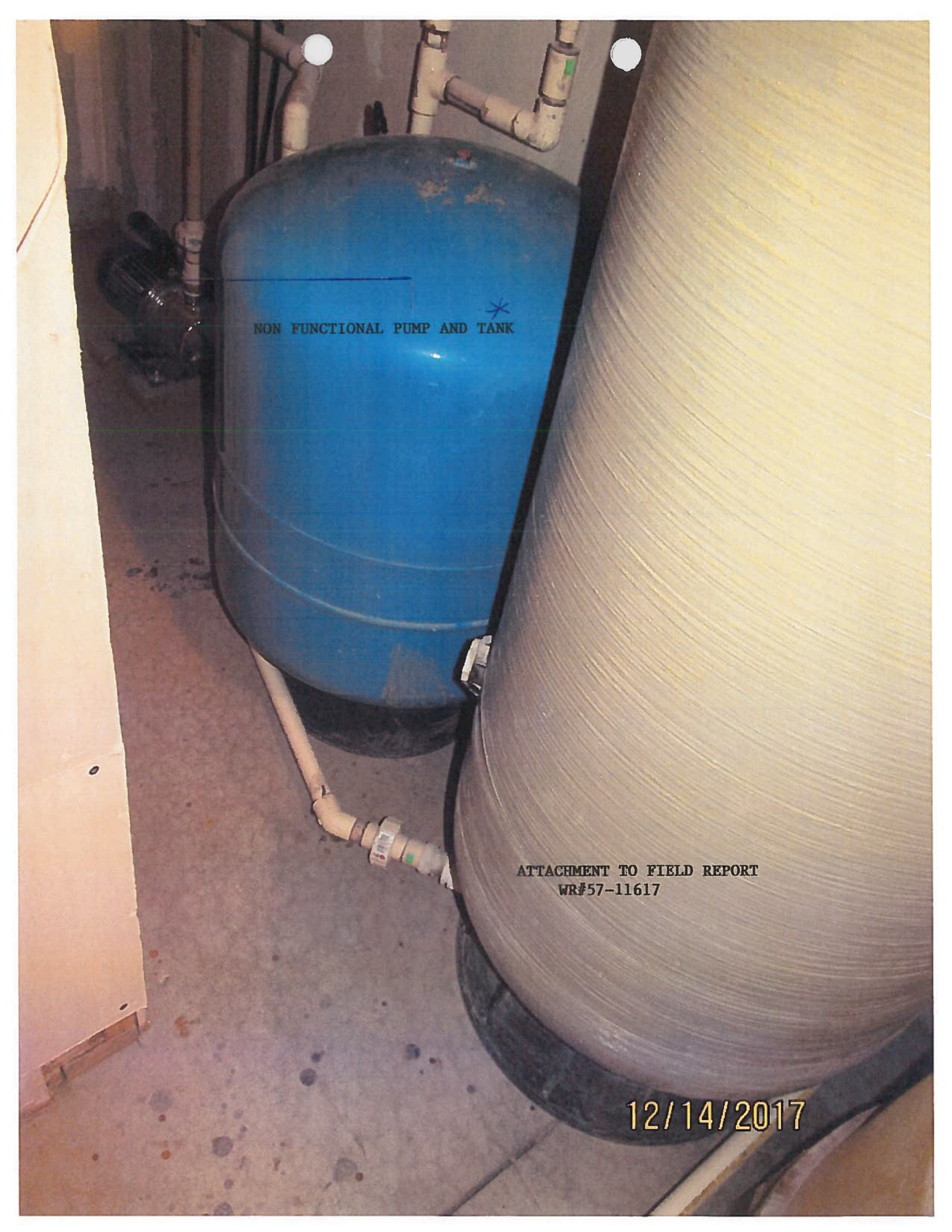
**VIEW OF CRAWLSPACE
LOOKING TOWARD HANGAR**

**ATTACHMENT TO FIELD REPORT
WR#57-11617**

12/15/2017

**pipe on the right brings water in; pipe on the left branches to the hangar
yellow valve is house shut off**

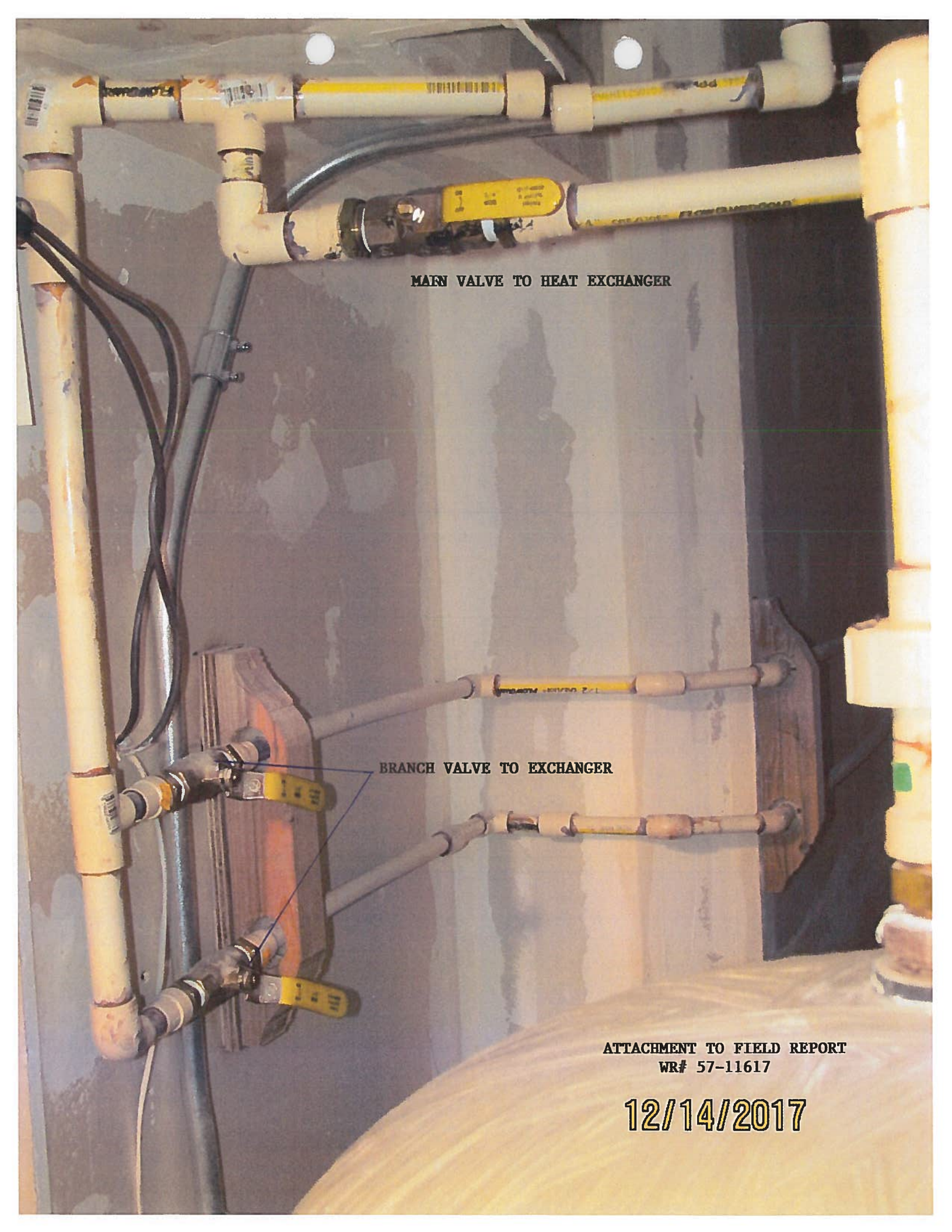




NON FUNCTIONAL PUMP AND TANK

ATTACHMENT TO FIELD REPORT
WR#57-11617

12/14/2017

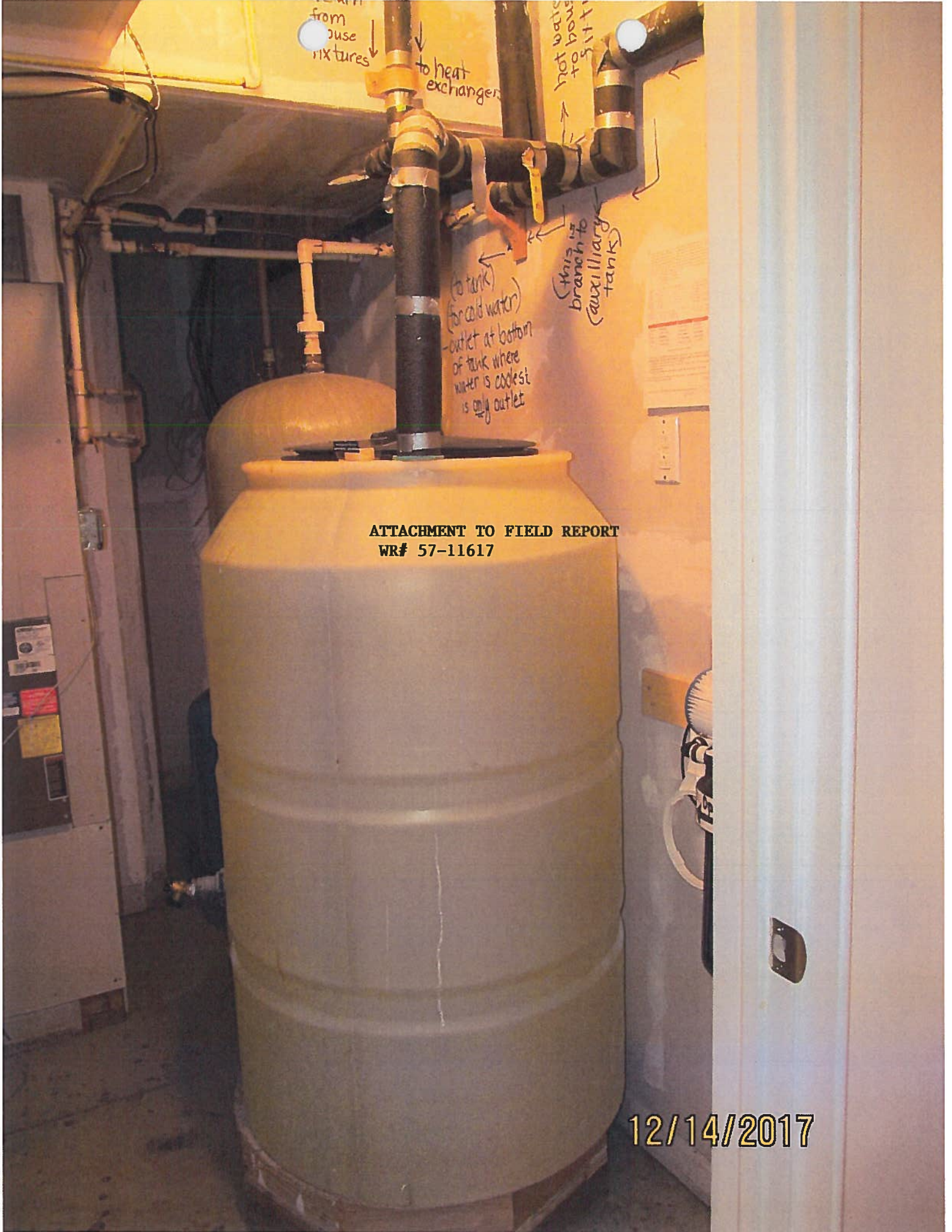


MAIN VALVE TO HEAT EXCHANGER

BRANCH VALVE TO EXCHANGER

**ATTACHMENT TO FIELD REPORT
WR# 57-11617**

12/14/2017



ATTACHMENT TO FIELD REPORT
WR# 57-11617

12/14/2017



Original
Whole-House
Shut-Off

ATTACHMENT TO FIELD REPORT
WR# 57-11617

12/14/2017



7015
700R

HEAT EXCHANGE COILS

ATTACHMENT TO FIELD REPORT
WR#57-11617

12/14/2017



ATTACHMENT TO FIELD REPORT

File Title: C:\Users\dnelson\Desktop\SKY_PARK.LOG
 File Name: C:\Users\dnelson\Desktop\SKY_PARK.LOG
 Start Time: 12/8/2017 10:45
 End Time: 12/8/2017 10:56
 Interval: 60
 Records: 11
 Cyclic Flags: 2
 Error Flags: 8208

Date/Time	Velocity (ft/s)	(+)Total (gal)	Error #
12/8/2017 10:45	3.0362842	596544.4523	0
12/8/2017 10:46	3.002755395	596575.8616	0
12/8/2017 10:47	3.005858953	596607.3091	0
12/8/2017 10:48	3.053857535	596640.5412	0
12/8/2017 10:49	3.077932511	596672.8826	0
12/8/2017 10:50	3.055107948	596704.717	0
12/8/2017 10:51	3.056267202	596738.0912	0
12/8/2017 10:52	3.055697127	596770.2555	0
12/8/2017 10:53	3.050197663	596802.2542	0
12/8/2017 10:54	3.058211823	596834.0597	0
12/8/2017 10:55	3.059927706	596867.7104	0

Total Gallons 323.2581157

Gpm 32.3

ATTACHMENT TO FIELD REPORT

Sterling Method	$V = (HL \times DD \times 24 \times Cd) / (\Delta T_1 \times k \times C \times \Delta T_2)$																				
Parameter	Explanation																				
V	heat value of the fuel ASHRAE or annual volume Sterling																				
HL	peak heating load in BTU/hr																				
DD	generally, design peak load is used; see admin memo app process 23 for estimate																				
24	usually 65 deg F Base																				
Cd	Boise Airport station 101022																				
	POR max HDD 7672																				
	24 hrs/day																				
	correction factor; for standard construction choose from ASHRAE fig 1																				
	for heating DD in range 4000-7000, Cd= 0.6																				
	Cd 0.65 for more DD																				
deltaT1	design indoor temp minus design outdoor temp																				
	delta T1=	60		70		10	design temps for Boise GeoHeat 1986; 70 deg F always														
k	correction factor to account for losses. Use .90																				
	.9 is a fully-condensing boiler																				
	4																				
C	constant to correct for units																				
	for Volume in AF use C = 2.72x10^6 BTU/AF-deg F																				
deltaT2	temp of incoming water minus temp of outgoing																				
	delta T2=	22		in (source)	106	out (spent)	83	heat transfer to within 15-25 deg of space temp													
	Geo heat p 315 1998																				
Area of floor space	liveable floor space in ft ^2 given by assessor																				
	9000	4800 home + 4200 hanger					105	83	22	heat transfer deltaT 15-50 deg F											
Geo-Heat gives 5-20 BTU/hr per square ft of floor space																					
Admin memo 23 suggests range 25-75 BTU/hr-sq.ft.																					
Suggested Range BTU/hr-ft^2	HL(BTU/hr) design or peak heating load																				
	DD	hr/day	Cd	delta t1	k	C	delta t2														
5	45000	7672	24	0.65	60	0.9	2720000	22													
10	90000	7672	24	0.65	60	0.9	2720000	22													
15	135000	7672	24	0.65	60	0.9	2720000	22													
20	180000	7672	24	0.65	60	0.9	2720000	22													
23.58	212,256.00	7672	24	0.65	60	0.9	2720000	22	estimated peak load using correct parameters from admin memo 23												
25	225000	7672	24	0.65	60	0.9	2720000	22													
30	270000	7672	24	0.65	60	0.9	2720000	22													
32.44	291,974.15	7672							extrapolated peak load from Musgrove peak design day												
35	315000	7672	24	0.65	60	0.9	2720000	22													
36	324,000.00	7672	24	0.65	60	0.9	2720000	22	estimated peak load based on R Sterling graph for normal home												
40	360000	7672	24	0.65	60	0.9	2720000	22													
45	405000	7672	24	0.65	60	0.9	2720000	22													
50	450000	7672	24	0.65	60	0.9	2720000	22													
55	495000	7672	24	0.65	60	0.9	2720000	22													
60	540000	7672	24	0.65	60	0.9	2720000	22													
65	585000	7672	24	0.65	60	0.9	2720000	22													
70	630000	7672	24	0.65	60	0.9	2720000	22													
75	675000	7672	25	0.65	60	1.9	2720000	22													
Range of calculated results																					
V (AF)/yr	$V = (HL \times DD \times 24 \times Cd) / (\Delta T_1 \times k \times C \times \Delta T_2)$																				
1.66671123																					
3.33342246																					
5.00013369																					
6.66684492																					
8.33355615																					
	7.86																				
10.00026738																					
	10.81																				
11.66697861	RECOMMENDATION FOR LICENSE VOLUME																				
	12.00																				
13.33368984																					
15.00040107																					
16.6671123																					
18.33382353																					
20.00053476																					
Admin memo 23																					
Required data																					
A	Area of liveable space in ft squared	4800	4200																		
story parameter	2 story (N=1, Y =0.8)	0.8	1																		
e	House efficiency factor (BTU/hr-ft^2-deg F)	0.44	0.44	e*delT is BTU/ft^2-hr	e values	from admin memo 23															
Ti	Inside design temperature in deg F	70	70	26.4	0.28	best															
To	Average outside design temperature in deg F	10	10		0.44	better															
S	Source temperature in deg F	105	105		0.67	avg															
D	Heating or cooling degree days per season	7672	7672		1.11	poor															
H	Hours/day system operates	24	24	e is 1/R	R-factor (ex R-11) of insulation is thermal resistance																
Calculations																					
Ts= 0.3 x (S-Ti)	Temperature drop across the system	10.5	10.5																		
E=[e x (Ti-To)] x A	Design heat load, BTU/hr	101376	110880																		
W=E/(500 x Ts)	Flow rate required at given source temperture, gpm	19.30971	21.12																		
	Flow rate required at given source temperture, cfs	0.043022	0.04705568																		

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 57-11617
 Reviewer: Michele Edl
 Date of Review: 12/14/2017

P/D No.:

PUMP HORSEPOWER 3
 BOOSTER HORSEPOWER 0

PUMPING LEVEL 0.0

DISCHARGE PRESSURE 59

RATE OF FLOW (cfs) 0.14 0.14
 (gpm) 60.86 60.86

The above calculates the formula = $Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$

Assumptions: % 70 efficiency
 No Friction

Examiners Notes:

Pump horsepower was found on the Grunfos control panel in the well house. This well may have been a flowing artesian well when it was inspected by IDWR in 1994 for licensing of the senior right 57-7236Q. It is now being pumped.

GRUNDFOS

ATTACHMENT TO FIELD REPORT
WR# 57-11617

Deluxe Submersible Motor Control

Model 98315259	3 HP	230 VAC	17 SFA	1 Phase	60 Hz	Enclosure Type
----------------	------	---------	--------	---------	-------	----------------



GRUNDFOS



WARNING

Electric shock hazard.
Disconnect power before
opening.

ADVERTISSEMENT

Risque pour choc électrique.
Couper le courant avant l'ouvrir.

ADVER

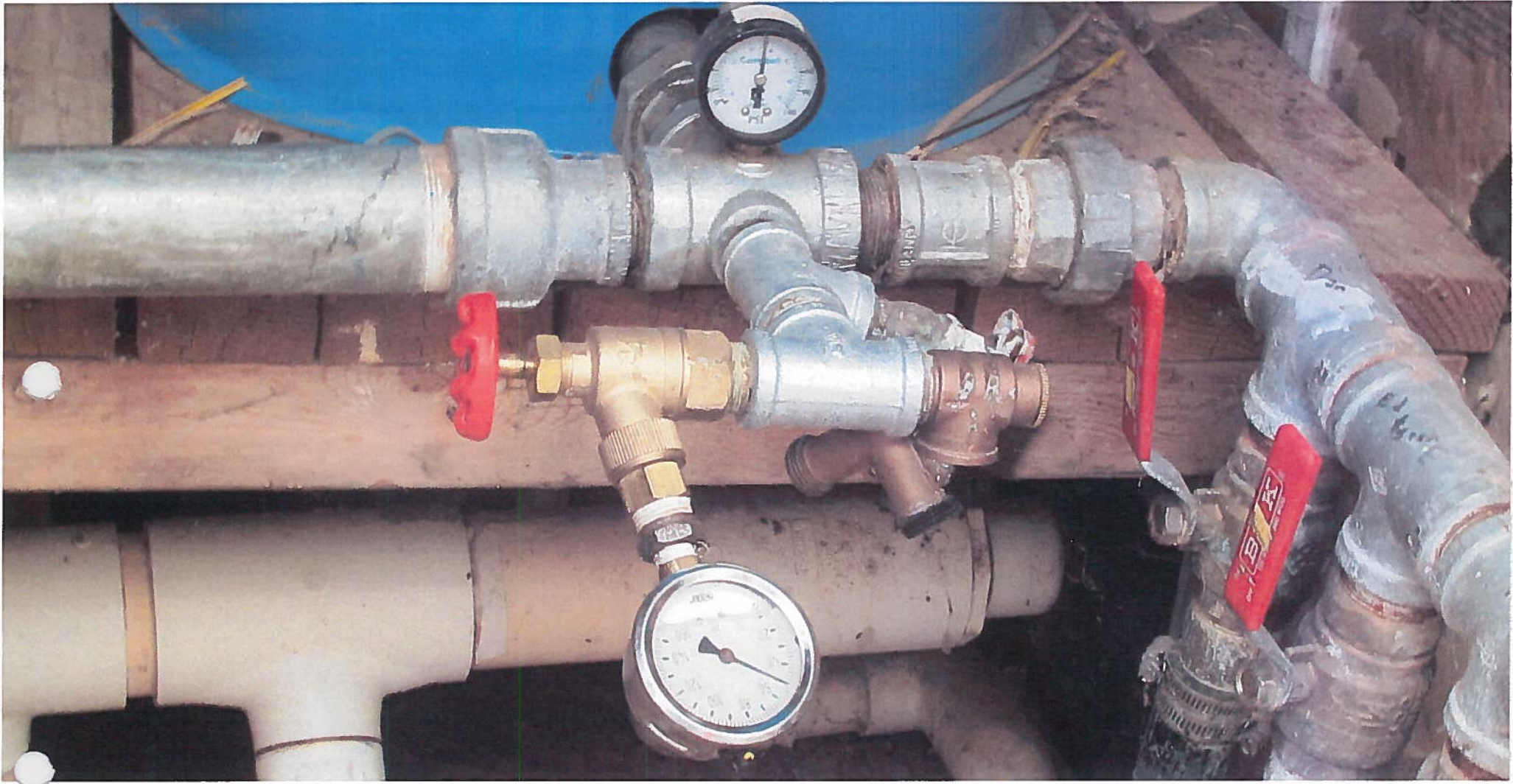
Peligro choq
Desconectar
electrica ante

MADE IN ITALY



Push to Reset





ATTACHMENT TO FIELD REPORT
WR #57-11617

MAP

MAP TOOLS

ADVANCED TOOLS

GEOPROCESSING TOOLS

Print Details

Print Map

SEARCH BY ADDRESS:

Example: 123 1st Ave

Search!

SEARCH BY NAME:

Example: SMITH, JOHN

Mcperson

SEARCH BY PARCEL NUMBER:

Example: RP005600020100

Search

SEARCH BY PARCEL # ONLY

Query

BookMarks

Measure

Clear

Help

LAYERS

UPDATES

Map

Satellite

Parcel labels On

Parcel labels Off

General Layers

PLSS Sections with Labels

PLSS Townships with Labels

Proposed Annexations (updated Nightly)

Cell towers

Wells

All Registered Towers

Ownership

CATEGORIES

Category 32 Parcels

Category 33 Parcels

Taxing Districts

Tax Code Areas

Ambulance

Cemetery

City

Map

Satellite

Marsing Murphy Rd

Airpark Loop Rd

78

Google

THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. LINES SHOWN ARE APPROXIMATE AND SHOULD BE USED TO DETERMINE PROPERTY BOUNDARIES.

DETAIL INFO

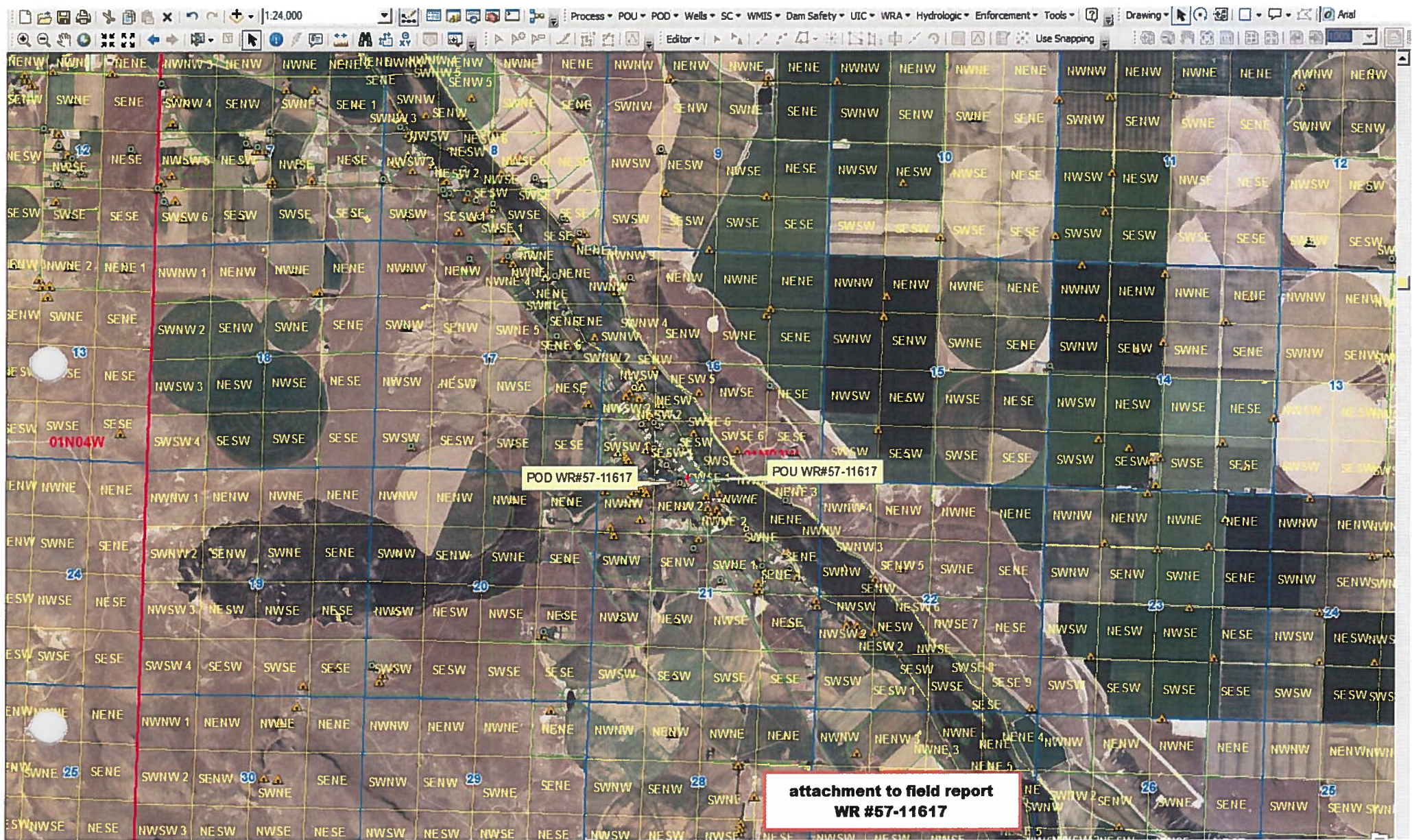
IMPV INFO

TAXING DISTS

Parcel Number RP00560002015DA

Location:	-116.70440178, 43.41542459
Homeowner Name:	MCPHERSON, KATHRYNNE LIVING TRUST
Attention:	NULL
Homeowner Address:	10364 AIRPARK LOOP RD, MELBA, ID 83641
Situs Address:	10364 AIRPARK LOOP RD, MELBA, 83641
Acres:	1.054
Square Footage:	45912
Display Description:	TAX 45 21 1N 3W SUNRISE SKY PARK SUBDIVISION
Land Values:	46331
Improvement Values:	475666
Total Values:	521997

ATTACHMENT TO FIELD REPORT



**attachment to field report
WR #57-11617**

The following photos were provided to me via email during my preliminary review. They were taken by Kathrynne McPherson the current owner of the place-of-use for 57-11617.

Edl, Michele

From: Kathrynne McPherson <mckathrynne@gmail.com>
Sent: Monday, October 23, 2017 4:33 PM
To: Edl, Michele
Subject: McPherson Pumphouse Photos
Attachments: IDWR ID tag.JPG; Pumphouse and Artesian Viewing Pipe.JPG; Well Head.JPG; Pressure Tank.JPG; Valves for Co-Owner Split.JPG

Michele,

Here are my photos. Please call or email me if I can do anything else. Thank you very much for your help!

Kathy

IDAHO DEPT. WATER RESOURCES

STATEHOUSE MAIL

BOISE, ID 83720

GPS SITE ID NO.

A0003118

DO NOT REMOVE

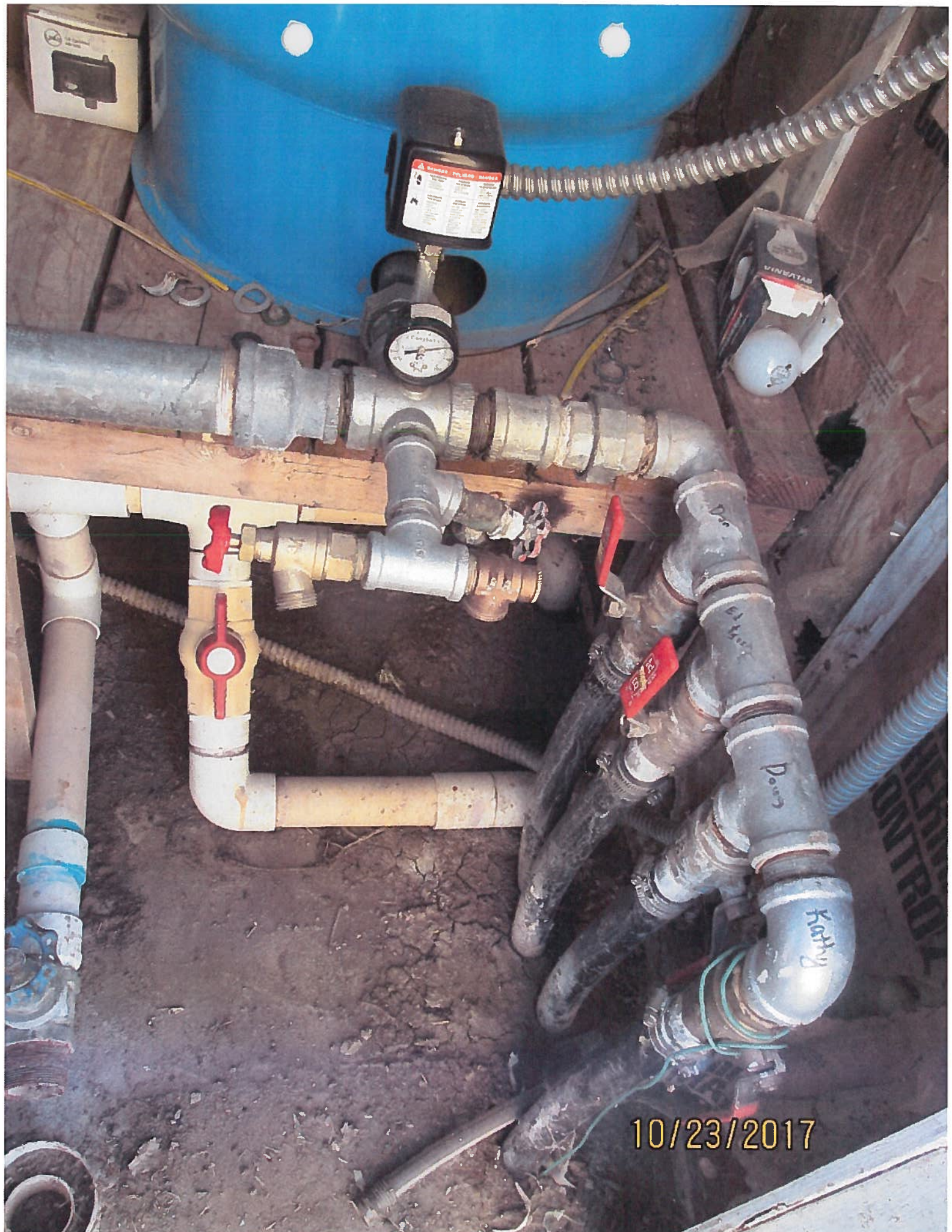
10/23/2017



10/23/2017



10/23/2017





Edl, Michele

From: douglas owens <douglaspowens@live.com>
Sent: Tuesday, November 28, 2017 3:07 PM
To: Edl, Michele
Cc: jandpblackwell@gmail.com
Subject: Permit 57-11617 inspection

Ms. Edl, the members of the Sunrise Pumphouse Two Association has agreed on December 8 2017 for your inspection date. Please provide us with details regarding arrival time.

Sent from my iPad Doug

Edl, Michele

From: Edl, Michele
Sent: Monday, November 27, 2017 3:13 PM
To: 'douglaspowens@live.com'
Subject: potential dates

Douglas Owens,

After our phone conversation, I consulted with Dan Nelson, who will be assisting me with the field inspection for Permit 57-11617. We will need a 2-hour block of time for the measurement-inspection and an additional 1 hour of travel time each direction, or a minimum of 4 hours away from our office.

Given that time requirement,

- Dan and I can be out in the Sunrise subdivision as **early as this coming Thursday, November 30.**
- Another good day would be **Tuesday, December 5.**
- The **afternoon of Friday December 8** is also possible.

Dan is a potential juror for Dec 11-15. So we can't assume that he'll be available any day of that week.

- **Tuesday, December 19** is also available.

Let me know if any of these might work for the Sunrise Pumphouse Two Association. I can also propose dates in January if none of these suit.

Thank you.

Michele Edl
208-287-4946



State of Idaho

DEPARTMENT OF WATER RESOURCES

322 East Front Street • P.O. Box 83720 • Boise, Idaho 83720-0098

Phone: (208) 287-4800 • Fax: (208) 287-6700 • Web Site: www.idwr.idaho.gov

GARY SPACKMAN
Director

C.L. "BUTCH" OTTER
Governor

November 14, 2017

SUNRISE PUMPHOUSE TWO ASSOCIATION
C/O DOUGLAS P OWENS
10286 AIRPARK LOOP
MELBA, ID 83641

RE: Permit No. 57-11617

Dear Permit Holders:

By this letter, I am confirming that I have received your requests to communicate with you in writing. Please note that the Idaho Department of Water Resources (IDWR) has two offices in Boise. The western region office, which is located out by the Boise airport and the state office which is located in downtown Boise. My cubicle is in IDWR's state office at the address shown on the letterhead of this letter. Your letter was sent to the western region office and so it took a couple of extra days to get to me.

As you know, I have been asked to review the water right file documents related to Permit 57-11617 and determine whether a license can be issued. This letter summarizes for you the history and status of Permit 57-11617 and to inform you of the next steps in the process. For your reference, I have enclosed a copy of your permit and a map which shows the area as it appears in recent aerial photography.

First a brief history of this right.

On August 26, 2002, Permit 57-11617 ('permit') was issued to Sunrise Pumphouse Two Association. The permit authorized a total diversion of 0.02 cfs of water for heating and domestic purposes. The water was to be diverted year-round from a low-temperature geothermal well located in Government Lot 2 (NE1/4NW1/4) Section 21, Township 1 North, Range 3 West and used within property located in Government Lot 2 (NE1/4NW1/4) Section 21, Township 1 North, Range 3 West.

(IDWR abbreviates legal addresses. The abbreviated address for the authorized point-of-diversion appears as L2(NE1/4NW1/4) Sec 21, Twp 01N, Rge, 03W on the face of the permit. The authorized place-of-use appears as L2(NE1/4NW1/4) Sec 21, Twp 01N, Rge 03W.)

On July 9, 2003, the Proof of Beneficial Use statement ('proof') for the permit was submitted by then president of the Sunrise Pumphouse Two Association, Richard B.

Callis. The 'proof' statement notifies IDWR that Sunrise Pumphouse Two Association has finished constructing the permitted project and has put water to beneficial use. When 'proof' is submitted, the development period of the permit ends and IDWR puts the permit in a queue for a field inspection/examination. The purpose of the field examination is to confirm that water is in fact being used as described in the permit.

The final step in the water appropriation process is the issuance of a Water Right License. By issuing a license, IDWR recognizes that all the requirements for establishing a water right were met. No water right license can be issued, however, if the development authorized by the permit did not occur or was not consistent with the authorized amounts. For that reason, before issuing a license IDWR must conduct an examination to verify the development.

In an ideal world, the inspection and confirmation would have taken place and a water right license would have been issued for the uses before now. However, that is not the case and Water Right Permit 57-11617 is still a permit. As a permit, it has different and less settled legal status than a license. As a permit, it is still the personal property of Sunrise Pumphouse Two Association rather than real property and an appurtenance to the place-of-use.

To understand the water use well enough to issue a license, I need to confirm all the elements of the right. Only a few of those elements are visible in aerial photography. For example, I can confirm the place-of-use but I can't confirm actual heating use and I can't confirm the rate or volume of water used. However, based on aerial photography, I have found the place-of-use description is incomplete and therefore that the permit needs to be amended before it can be licensed.

Kathrynne McPherson has already confirmed for me that she is a member of the Sunrise Pumphouse Two Association and that she is the current owner of the place-of-use for this water right. The place-of-use (POU) is a home that is easily visible in available aerial photography. The physical address for the home is 10364 Airpark Loop, Melba ID 83641. However, Kathrynne McPherson's home is bisected by the section line which separates section 16 from section 21. The legal address for the home must include both Lot 2 (NE1/4NW1/4) Sec 21, **and** Lot 1 (SE1/4SW1/4) Sec 16. The permit did not authorize the place-of-use to be located in both sections, so the permit must be amended before a license can be issued. Amending a permit to correct a legal address is relatively common but there is an additional fee (\$100) to cover processing and a form which must be signed by a representative of the permit holder. I understand that Kathrynne McPherson has agreed to pay the processing fee but that I am to send the amendment to Mr. Blackwell for signature.

According to Rule 40 Water Measurement of IDWR's Beneficial Use Examination Rules (IDAPA 37.03.02), the rate of water diverted for permit 57-11617 must be measured. Rule 40 states in part:

02. Rate of Diversion. The rate of diversion measurement shall be conducted as close as reasonably possible to the source of supply and shall be measured with the project works fully in place operating at normal capacity....

As I understand the system, only one low-temperature geothermal well serves all the member households for the Sunrise Pumphouse Two Association. That well is located in a lot abutting Kathrynne McPherson's property and she has given IDWR permission to access the well-house. But because the well is not dedicated solely to the McPherson property, IDWR will need the cooperation of the other households in order to make an accurate measurement.

I realize that much of the information contained in this letter will be foreign to most of the members of the association and that you will need time to digest it. If you have any questions about the process, don't hesitate to call me at 208-287-4946 or mail your response to me at the address listed in the heading of this letter or in an email to michele.edl@idwr.idaho.gov.

In summary, I need to confirm all of the elements of the right before I can recommend a license be issued for the uses. And some of the elements require an onsite visit. Without the inspection and measurement, no license can be issued for Permit 57-11617. I would prefer to complete the processing of Permit 57-11617 through the final steps. And with the winter season upon us, it would be a good time to confirm a heating use.

However, Sunrise Pumphouse Two Association has at least two other alternatives. If you are unwilling to coordinate and to set a date for a field exam to confirm the beneficial use, then you can either relinquish the permit or I can take steps to void it.

Please confirm your continued interest in Water Right Permit 57-11617. If I do not hear from you within **thirty days** (on or before Friday, December 15, 2017), I will assume that you no longer have any interest in establishing a water right, and I will take action to void the permit. If you are no longer interested in your permit, you can shorten the voiding process by signing and returning the enclosed relinquishment form.

Respectfully,

A handwritten signature in blue ink, appearing to read 'Michele Edl', written over a horizontal line.

Michele Edl
Water Resource Agent, Sr.

Enclosures