

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-35053
Exam Date: 08/23/2024

1. Current Owner:
WILLIAM R COX 5418 N BOGUS BASIN RD BOISE ID 83702-1548
HEATHER S COX 5418 N BOGUS BASIN RD BOISE ID 83702-1548
2. Accompanied by: Heather Cox
Phone No: (208) 863-6301
Address: Same as above
Relationship to permit Holder: Permit Holder

3. SOURCE:
GROUND WATER

Method of Determination: GARMINmap76, GIS, and Ada County tax parcel map.

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
63-3841, 3843, et. al.	GROUNDWATER	MUNICIPAL-CITY OF BOISE	LICENSE (DECREEED 2009)

Comments: Only City of Boise municipal rights service areas overlap the permitted place of use (POU).

2. Other water rights with the same point-of-diversion: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
63-35622	GROUNDWATER	DOMESTIC	LICENSE
63-35623	GROUNDWATER	DOMESTIC	LICENSE

Comments: The permitted well point of diversion (POD) is shared with 2 other domestic homes on the same system. The other rights were split from this right in an ownership change. The shared system is limited to the system specifications provided by the permit holders.

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:** GPS N 43°39.977 W 116°10.998

GROUND WATER NW¼ SE¼, Sec. 23, Twp 04N, Rge 02E, B.M. ADA County

Method of Determination: GARMINmap76, GIS, and Ada County tax parcel map.

PLACE OF USE: DOMESTIC

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
04N	02E	23									X			X					

Method of Determination: GIS, and Ada County tax parcel map.

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-Metal Tag #	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
D0048115	Unknown	7 ½	Unknown	Unknown	39 GPM at static level

Comment: System discharge provided in the system estimate from Burgess Pump (figure 2) provided by the original permit holder. The original permit holder Jason Carnahan stated that the proposed system detailed on the estimate was installed at the POU.

D. FLOW MEASUREMENTS

1.

Measurement	Type	Make	Model No.	Serial No.	Size	Calib. Date
-------------	------	------	-----------	------------	------	-------------

Equipment						
NONE	NA	NA	NA	NA	NA	NA

2. Measurements: At the time of the field examination the system was installed and operational, but it was not possible to take a field measurement at the well head or manifold for the entire system. Beneficial Use Rule 035.01.r.iii. states that a direct measurement is not necessary for uses other than irrigation or storage if the total combined diversion rate for all the uses does not exceed 0.24cfs. The original permit holder provided system details including the discharge rate of the system installed.

E. FLOW CALCULATIONS

Measured Method: The system components and _____ Additional Computation Sheets Attached

At static level = 39 GPM / 448.83 Gal/cfs = 0.09cfs (max instantaneous rate)

At pump level (540ft) = 31 GPM/ 448.83 Gal/cfs = 0.07cfs

$$Q = (7 \frac{1}{2} \text{ Hp})(8.8)(.90 \text{ eff})/(540 \text{ lift in ft}) + (2.31)*(60 \text{ pressure psi}) = 0.09\text{cfs}$$

Comments: According to Administrative memo #22, a rate of 0.04cfs is acceptable for domestic use in 1 home. At optimum conditions the initial instantaneous rate for the system installed is 0.09cfs. I inquired with the permit holders if there had been any improvements made to the system since installation, such as a booster pump installation. Heather Cox, the escort for the field examination stated that there were no other pumps installed or additions made to the original system as far as she is aware. No booster pump or system improvements were observed through the field examination. An additional theoretical calculation was ran using the pump info (Hp and set depth) and assuming a 90% efficiency a peak instantaneous rate of 0.09cfs is possible. As the rate is limited by the shared system, I recommend the license be issued with a rate of 0.04cfs, and a combined limit for all 3 domestic rights of 0.09cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: NA
2. Volume Calculations for Other Uses: Domestic use standard annual volume used.

Comments: According to Administrative memo #22 up to 1.2 AF annually is acceptable for domestic use in 1 home with up to ½ an acre of irrigation. I recommend the license be issued with an annual volume of 1.2 AF.

G. NARRATIVE/REMARKS/COMMENTS

The original application for permit 63-35053 was processed for domestic use in 3 homes. However, when statement of completion was reviewed the parcel information for the POU indicated it was divided into 3 different parcels with different owners. A phone conversation the original permit holder, Jason Carnahan, confirmed that an ownership change would be necessary. Heather Cox, one of the property owners escorted WRAs Bob Howe and Kate Englund. Heather stated that 3 ownership forms with supporting documents were submitted for a split of the permit. The ownership change was processed splitting the permit into 63-35622, 63-35623, and 63-35053 representing each appurtenant parcel.

All the domestic uses are supplied by the same system and well source. A 7 ½ Hp submersible pump diverts water through a 2" outlet to a manifold and 81-Gal pressure in the pump house located within the POU for right 63-35053 (photos 1-8). From the manifold water is delivered through 1 ½" poly lines to the three domestic homes and the 4-zone irrigation system north of the private drive (figure 1). The permitted home has a 16-zone sprinkler system (Photos 9-16). The original permit holder, Jason Carnahan provided the system details on the detailed estimate for the system installed by Burgess Pump (Figure 2). The pump system design delivers 0.09cfs (39GPM) at optimum well level conditions and 0.07cfs (31 GPM) when at the set depth of 540 ft. As all areas within the 3 permitted POUs are within parcels privately held by the permit holders, there were not any common areas of irrigation.

I recommend that the license be issued with conditions X01, 073, 071, 070, 930, 020, X35, and 103. Condition 046 and 058 should be removed as per current guidance. Condition 121 should be replaced by 103 at licensing as per current guidance. A modified X35 condition due to the shared systems limitation confirmed by field examination and system specifications should be added at licensing.

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

H. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
DOMESTIC	01/01 to 12/31	0.04 CFS	1.2 AF
<u>Totals:</u>		0.04 CFS	1.2 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

Bob Howe - Water Resource Agent

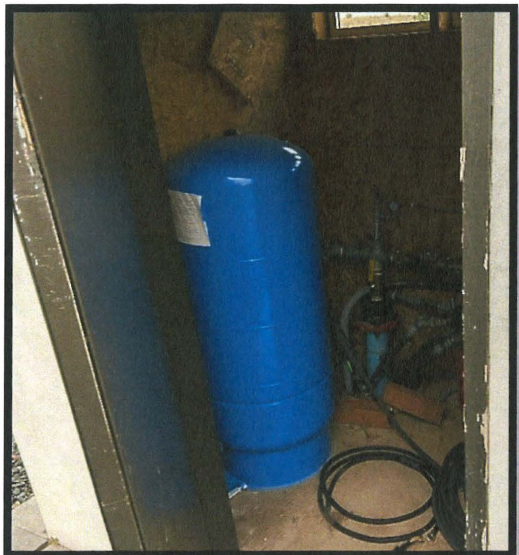
Field Examiner's Name _____ Date _____

Reviewer Cody R Date 12/15/2025



Photo 1- (Left) Standing in the driveway of 5496 N Bogus Basin Rd. facing east. White structure is the pump house with the shared well head (circled in red) on the west side of the structure. Photo 2- (Right) Standing in the gated approach facing

northeast.



Photos 3 & 4- (Left and right respectively) View through pump house door of pressure tank and manifold. A 2" main is distributed from the manifold into 4- 1 1/2 inch poly lines diverting water to the 3 homes and a swimming pool.

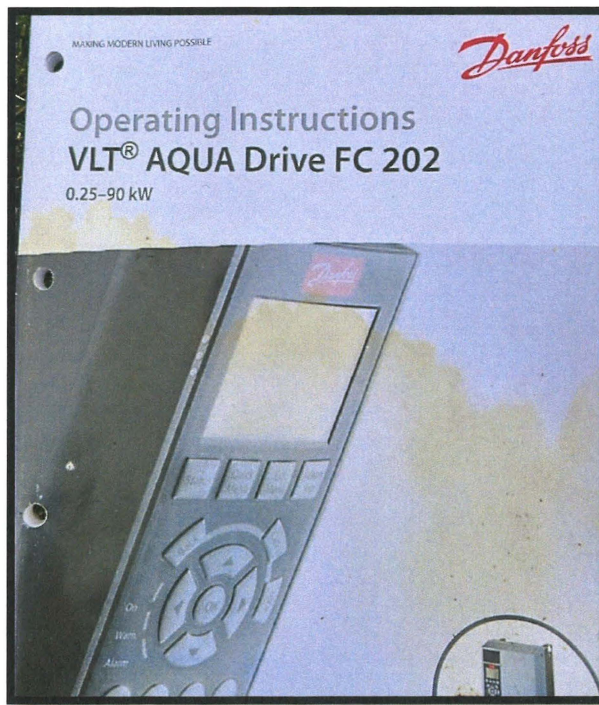


Photo 5 & 6- VLT (variable speed motor control) Control panel (Left) set to maintain 60 PSI in the system. Operation manual (Right) for the controller found in the pump house.

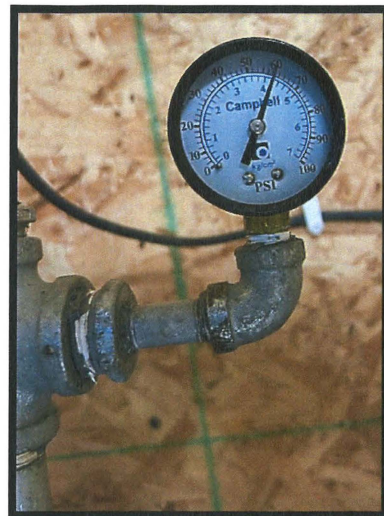
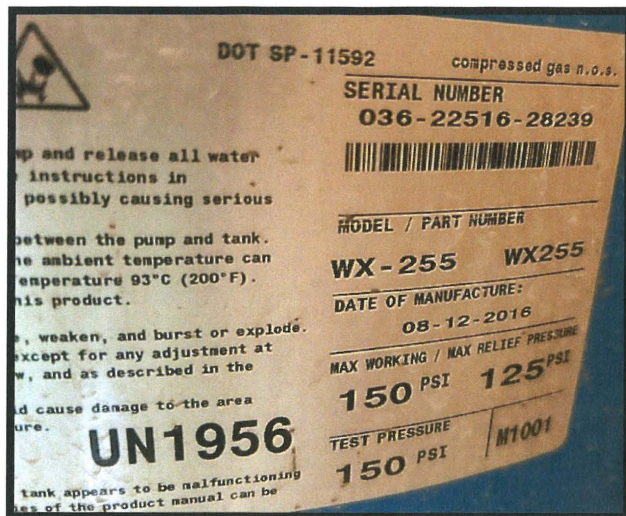


Photo 7- (left) Pressure tank- model: WX-255, 81-Gal Well-x-trol Well Tank. Photo 8 (Right)- Pressure gauge on manifold.



Photo 9- Controller for front Island irrigation with 4 zones, driplines for trees and small umbrella popups for small bushes in landscaped beds



1	Front lawn
2	North side slope
3	NE side slope G drives
4	Dog area
5	Pop ups
6	G drives by house
7	G drives Full
8	G drives South along fence
9	G drives Full
10	G drives SW along fence
11	G drives below house by A/C
12	G drives front by the gate
13	MP Pop ups Front strip
14	Front drip raised planter beds
15	Front drip courtyard
16	Back drip raised planter beds

Photo 10 -(Left) Controller for irrigation surrounding home in garage. Photo 11. (Right) Table of zones taped inside the cover for the controller -16 zones with the largest in the southeast (6 rotary heads).



Photo 12 (Left) Rainbird 5000 series rotary sprinklers found through out larger areas. Photo 13 (Right) Small umbrella pop up sprinklers found in areas bordering structures and in landscaped beds.

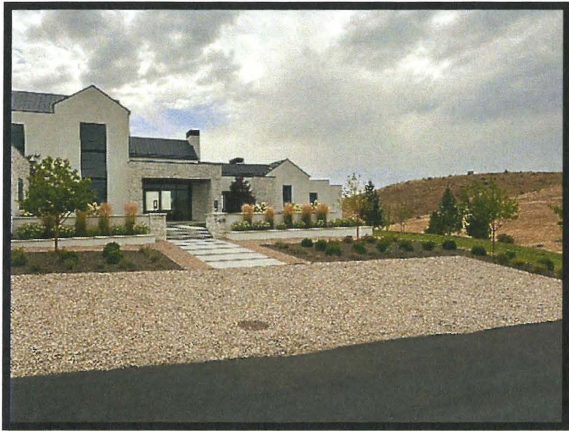


Photo 14.-(Left) Facing west standing in private driveway. Photo 15.-(Right) Facing north standing in approach to garage.



Figure 1- Ada County GIS 2022 Imagery- System Diagram Irrigated areas home with pool on the west side and landscaping surrounding home. The well and pump house are between the home and gate to the east of the home.

 Burgess Pump & Supply / MVI 706 East Main Street Middleton, ID 83644 PH: (208) 585-6202 FAX (208) 524-1685 EMAIL: service@burgesspump.com		 ESTIMATE DATE 8/31/2016 ESTIMATE NO: 493	
BILLING ADDRESS Jason Carnahan Mundaka Mendi Lane Boise, ID		PROJECT ADDRESS off Bogus Basin Rd	
TERMS: 50% Down / 50% Upon Completion			
Description	Qty	Cost	Total
Estimate to Install: 7.5HP Motor w/ 25GPM pump end (39GPM @ static level / 31GPM @ pump level) on Drive System. Cost is based on pump set @ \$40'. Price includes Pump, Motor & Drive, sub cable & pipe down well, electrical & plumbing parts; (1) WX-255 Pressure Tank; Sprinkler Timer w/ 4 control valves & plumbing		13,984.65	13,984.65T
SERVICE LABOR - Labor to install, set up system, connect to tie in at Pump House. 2" discharge stubbed out for main line connection.		1,600.00	1,600.00
Permit Fees for Electrical and Plumbing associated with job		130.00	130.00
For NEMA 3 Drive add: \$1,558.80 + tax Each additional WX-255 Pressure Tank add: \$600.00 + tax			
ESTIMATE TERMS AND CONDITIONS Burgess Pump strives to provide timely and accurate estimates. The accuracy of this estimate largely depends upon the inspection of the current state of the system and any observations relayed by the customer. It is impossible to accurately estimate what cannot be seen at the time of this estimate, therefore, if any overages are expected, you will be notified of these overages PRIOR to the continuation of any work performed. Any alteration or deviation from this estimate which involves an increase in costs will be executed ONLY UPON WRITTEN ORDERS and will become an extra charge over and above the estimated price. All work will be completed in accordance with the manufacturers specifications and per standard installation practices in accordance with all commercial building codes. Estimates are VOID after 30 Days unless approved by Burgess Pump and Supply Burgess Pump WILL NOT match prices found on the internet, however, we may, at our discretion, match any competitors written offer should the offer be valid within 30 Days of this offer. Burgess Pump and Supply WARRANTS all installations for 1 year from the date of installation. Certain manufacture warranties on materials expire well beyond our labor warranty and in those cases, Burgess Pump will honor the material warranties, but will charge for any labor and non-warrantee'd material necessary for the re-installation.			
ACCEPTANCE This estimate assumes immediate payment by CASH, CHECK OR CREDIT CARD. Any discounts received are based on these terms. Holders of prearranged accounts are bound by the conditions of those accounts. Accounts overdue beyond 30 days of billing will be assessed an interest charge at the rate of 18% per Annum on all balances overdue. Customer is also liable for additional collection costs including lien and attorney's fees. Burgess Pump and Supply will retain its rights of ownership to ALL material.		Sales Tax (6.0%)	\$839.08
		Total	\$16,553.73

Figure 2- System estimate provided by Jason Carnahan. The original permit holder stated that the proposed system detailed on the estimate is what was installed at the POU.



Burgess Pump & Supply / MVI

706 East Main Street
Middleton, ID 83644

PH: (208) 585-6202 | FAX (208) 514-1685
EMAIL: service@burgesspump.com



ESTIMATE

DATE 8/31/2016

ESTIMATE NO: 493

BILLING ADDRESS

Jason Carnahan
Mundaka Mendi Lane
Boise, ID

PROJECT ADDRESS

off Bogus Basin Rd

TERMS: 50% Down / 50% Upon Completion

Description	Qty	Cost	Total
Estimate to Install: 7.5HP Motor w/ 25GPM pump end (39GPM @ static level / 31GPM @ pump level) on Drive System. Cost is based on pump set @ 540'. Price includes Pump, Motor & Drive; sub cable & pipe down well; electrical & plumbing parts; (1) WX-255 Pressure Tank; Sprinkler Timer w/ 4 control valves & plumbing		13,984.65	13,984.65T
SERVICE LABOR - Labor to install, set up system, connect to tie in at Pump House. 2" discharge stubbed out for main line connection.		1,600.00	1,600.00
Permit Fees for Electrical and Plumbing associated with job		130.00	130.00
For NEMA 3 Drive add: \$1,558.80 + tax Each additional WX-255 Pressure Tank add: \$600.00 + tax			

ESTIMATE TERMS AND CONDITIONS

Burgess Pump strives to provide timely and accurate estimates. The accuracy of this estimate largely depends upon the inspection of the current state of the system and any observations relayed by the customer. It is impossible to accurately estimate what cannot be seen at the time of this estimate, therefore, if any overages are expected, you will be notified of these overages PRIOR to the continuation of any work performed. Any alteration or deviation from this estimate which involves an increase in costs will be executed ONLY UPON WRITTEN ORDERS and will become an extra charge over and above the estimated price.

All work will be completed in accordance with the manufacturers specifications and per standard installation practices in accordance with all commercial building codes.

Estimates are VOID after 30 Days unless approved by Burgess Pump and Supply

Burgess Pump WILL NOT match prices found on the internet, however, we may, at our discretion, match any competitors written offer should the offer be valid within 30 Days of this offer.

Burgess Pump and Supply WARRANTS all installations for 1 year from the date of installation. Certain manufacture warranties on materials expire well beyond our labor warranty and in those cases, Burgess Pump will honor the material warranties, but will charge for any labor and non-warrantee'd material necessary for the re-installation.

ACCEPTANCE

This estimate assumes immediate payment by CASH, CHECK OR CREDIT CARD. Any discounts received are based on these terms. Holders of prearranged accounts are bound by the conditions of those accounts. Accounts overdue beyond 30 days of billing will be assessed an Interest charge at the rate of 18% per Annum on all balances overdue. Customer is also liable for additional collection costs including lien and attorney's fees. Burgess Pump and Supply will retain its rights of ownership to ALL material installed until all charges relating to the invoiced material is paid for in FULL. If either party commences legal action to enforce its rights pursuant to this agreement, the prevailing party in said legal action, shall be entitled to recover its reasonable attorney's fees and costs of litigation relating to said legal action. By your signature below, you accept this proposal, its terms and conditions, and you authorize Burgess Pump and Supply to perform the work as specified.

Sales Tax (6.0%) \$839.08

Total **\$16,553.73**



Signature Authorizing Work _____ Date _____



IDAHO DEPARTMENT OF
WATER RESOURCES

322 E Front Street, Suite 648, Boise ID 83702 • PO Box 83720, Boise ID 83720-0098
Phone: 208-287-4800 • Fax: 208-287-6700 • Email: idwrinfo@idwr.idaho.gov • Website: idwr.idaho.gov

Governor Brad Little

Director Mathew Weaver

August 12, 2024

JASON CARNAHAN
5496 N BOGUS BASIN RD
BOISE, ID 83702-1548

RE: Scheduling Field Exam for Water Right Permit No. 63-35053

Dear Permit Holder:

We are planning to conduct water right examinations in the vicinity of the above-referenced permit **on the weeks of August 14, 2024 through September 13, 2024**. An examination is needed to verify the water use in order to issue a water right license.

The above-referenced permit authorizes **0.12 CFS from Groundwater for Domestic use**. **If you have developed a beneficial use and still own the place of use property, please contact me at your earliest convenience to schedule an examination. Please note that all conditions of the permit must be met before licensing can occur (see attached Permit Proof Report).**

If you did not develop a beneficial use of water under the permit during the beneficial use period, a license cannot be issued and the permit should be relinquished. If that use was developed, but have ceased using the water and you currently carry no interest in it, please relinquish the permit by submitting the enclosed Relinquishment of Permit form (no fee required).

If you did develop a beneficial use of water under the permit, but you no longer own the place of use property identified in the permit, please submit the enclosed Ownership Change form with the applicable \$25 processing fee.

Please contact me within the next thirty (30) days at (208) 605-4628 to either schedule an examination or submit a relinquishment or assignment form. If you no longer own the place of use property and/or do not respond to this letter, the department will work with the current property owner to issue a license or void the permit.

Sincerely,



Bob Howe | Water Resource Agent

2735 W Airport Way, Boise, ID 83705-5082

(208) 334-2190 | www.idwr.idaho.gov

Enclosures: Relinquishment of Permit form
Change of Ownership form
Water Permit Report and Map