

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-34658
Exam Date: 06/04/2024

1. Current Owner:
CITY OF CALDWELL 621 CLEVELAND BLVD CALDWELL ID 83605-4052
2. Accompanied by: Jordan
Phone No: 208-250-8419
Address:
Relationship to permit Holder: Irrigation Froman

3. **SOURCE:**
GROUND WATER

Method of Determination: Aerial photography and site visit

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 SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**
GROUND WATER SE¼ SW¼, Sec. 33, Twp 04N, Rge 03W, B.M. CANYON County

Method of Determination: Site visit, aerial imagery

PLACE OF USE: IRRIGATION

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	03W	33												6.4					6.4

Total Acres: 6.4

Method of Determination: Site visit, aerial imagery

3. Delivery System Diagram Attached (required). Indicate all major components and distances between components.
 x 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
 x 1:24,000 or greater.
- n/a 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
D0089198	Hitachi	10	-	Flowise FW61c	-

D. FLOW MEASUREMENTS

1.

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

2. Measurements: Not able to take measurements due to system set up and supplemental use.

E. FLOW CALCULATIONS

x Additional Computation Sheets Attached

Measured Method: Pump specifications and performance curve information provided by the applicant were used to estimate flow.

Theoretical Irrigation Use 0.18 cfs

Department Standard 0.13 cfs

Permitted Total Rate 0.29 cfs

License Recommendation 0.13 cfs**F. VOLUME CALCULATIONS**

1. Volume Calculations for irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 6.4 \text{ acres} \times 4.5 \text{ AFA} = 28.8 \text{ AF}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.13 \text{ cfs} \times 259 \text{ days} \times 1.9835 = 66.78$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 28.8 \text{ AF}$$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS

A field exam was conducted on June 24, 2024, by Senior Water Right Agent Marcelina Williams and was accompanied by the Irrigation Forman for the City of Caldwell Jordan Busone. The permit was approved on March 1, 2019, and proof of beneficial use was submitted on January 26, 2024.

The point of diversion (POD) location was confirmed as ground water from a well in the SESW of Sec 033, T04N, R03W, and is accurately described by the permit. No overlapping PODs were found. No amendment is required to correct the legal descriptions.

From the POD water is diverted from the well via a 6-inch steel pipe and once the pipe hits Glacier Street it becomes 4-inch pipe. This 4-inch pipe wraps around the whole neighborhood from Glacier Street into Bozman Avenue then to Hyalite Street and lastly, Palisade Avenue. Then each home hooks into the 4-inch main line with a 1-inch pipe that connects to the homes pressurized irrigation system. There are 50 homes that use this system along with an open park area that sits in the middle of the subdivision. This system is the same one used for the irrigation shares that are supplied via Wilder Irrigation. The ground water used in this system is supplemental to Wilder Irrigation. The permit authorizes 0.29 cfs for 16.5 acres of irrigation within the NESE of Sec 33, T01N, R02W. ArcMap tools and aerial imagery, supported by photos taken during the field exam, were used to verify the area of irrigation use. No amendment required to correct the legal description of the POU.

Pump and motor information was provided by the applicant. Using department standards of 0.02 cfs per acre was used to 0.13 calculated which is less than the permitted rate. The recommended license flow rate is 0.13 for irrigation.

Condition 103 replaced condition 121 per department standards, 046 was removed and R61,01M, WB7,943 were carried forward to the license.

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>
IRRIGATION	03/01 to 11/15	0.13 CFS	28.8 AF

Totals: 0.13 CFS 28.8 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 Marcelina Riddle - Water Resource Agent

Field Examiner's Name Marcelina Riddle Date 04.25.25

Reviewer [Signature] Date 4/28/2025

THEORETICAL HORSEPOWER EQUATION WORKSHEET

Water Right No.: 63-34658
 Examiner: Marcelina W.
 Date of Field Exam: 6/4/2024

Irrigation

	OPTION 1	OPTION 2	OPTION 3
P/D No.:			
PUMP HORSEPOWER	10	10	10
BOOSTER HORSEPOWER	0	0	0
PUMPING LEVEL	52	141	316
DISCHARGE PRESSURE	15	10	10
FRICTION	4	5	6
RATE OF FLOW (cfs)	0.68	0.36	0.18
(gpm)	305.0	163.5	80.1

AVE
0.41

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

Examiners Notes:



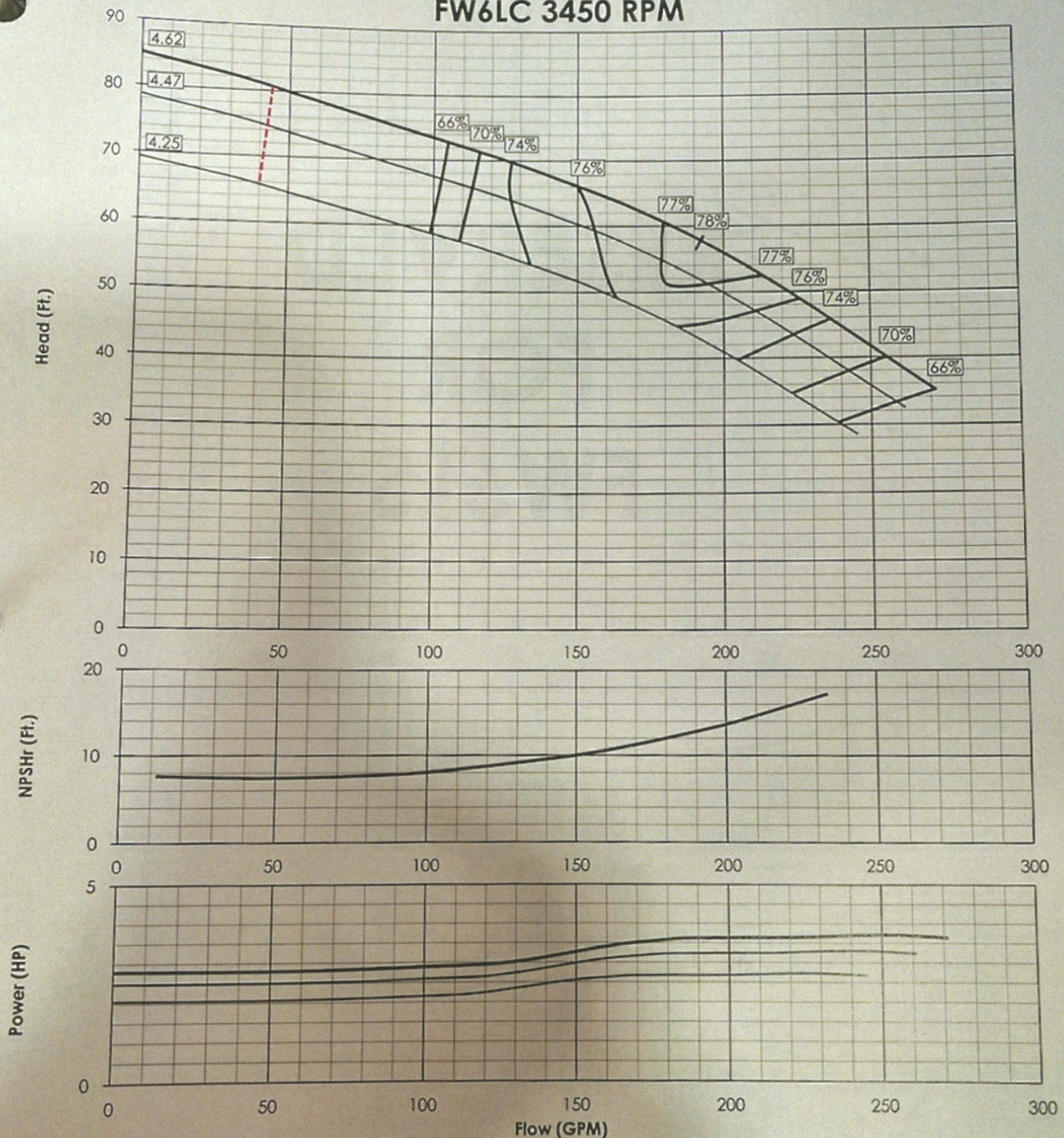
TURBINE PUMP CURVES

SINGLE STAGE PERFORMANCE

Curve No. FT6206LC2

Updated: Oct. 2020

FW6LC 3450 RPM



EFFICIENCY CORRECTION

1 STG.	-3.0
2 STG.	-2.0
3 STG.	-0.5
4 STG.	0

IMPELLER DATA

TYPE	ENCLOSED
MAX SPEED	3600 RPM
Ns	2285
Kt	2.10 LBS/FT

BOWL ASSEMBLY DATA

BOWL O.D.	5.90"	SINGLE STG. WT.	60 LBS
STD. LATERAL	0.38"	ADD. STG. WT.	20 LBS
DISCH. SIZE(S)	4"	MIN. SUBMERGENCE	20"
SHAFT DIA.	1"	MAX WORKING PRES.	420 PSI

Curves represent single stage bowl performance when pumping clear, non-aerated water. Performance is based on laboratory testing of multi-stage pump assembly, and reflective of HI and ISO pump testing tolerance and guidelines. Efficiency corrections are required as noted for fewer stages.



Fig. 1 – Location of POD supplemental well and pump house. View looking NW.

GPS'd at:

43° 38' 2.43" N

116° 42' 28.55" W



Fig. 2 – Location of wet well that controls surface water from Wilder Irrigation . View looking N.

GPS'd at:

43° 38' 2.43" N

116° 42' 28.55" W

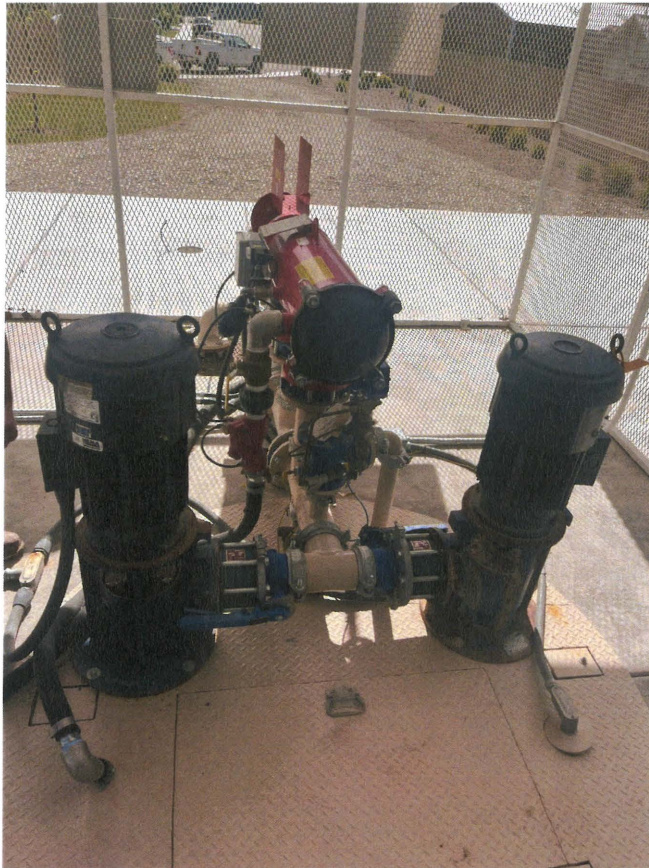


Fig. 3 – Inside pump house at POD supplemental well . View looking E.

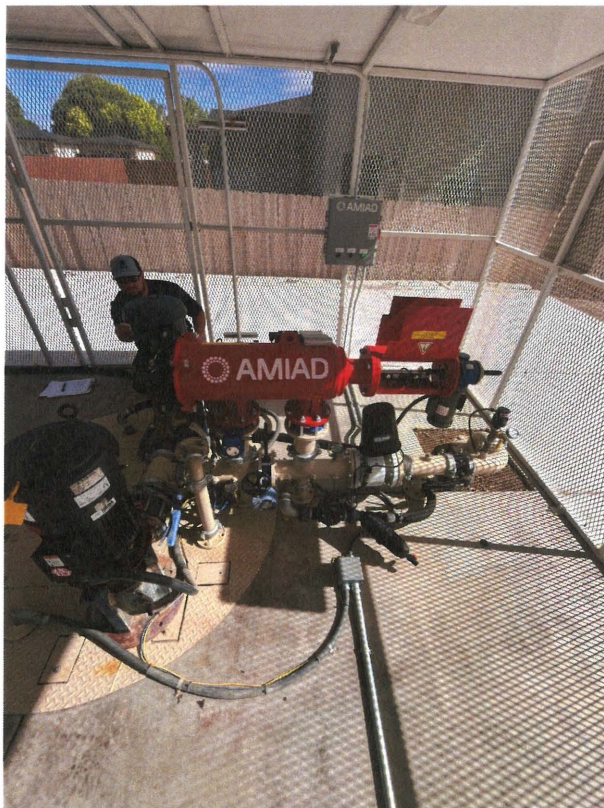


Fig. 4 Inside pump house looking at over all POD system . View looking N.



Fig. 5 – Inside pump house
looking at over all POD system .
View looking E.



Fig. 6 – Community common
ground irrigated acres within the
SESW QQ center of the POU.
View looking N.



Fig. 7 – Community common ground irrigated acres within the SESW QQ center of the POU. View looking E.



Fig. 8 –Community common ground irrigated acres within the SESW QQ center of the POU. View looking S.



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Governor Brad Little

Director Mathew Weaver

April 25, 2024

CITY OF CALDWELL
PO BOX 1179
CALDWELL ID 83705

RE: Scheduling Field Exam for Water Right Permit No. 63-34658

Dear Permit Holder:

We are planning to conduct water right examinations in the vicinity of the above-referenced permit **this season**. An examination is needed to verify the water use to issue a water right license.

The above-referenced permit authorizes **0.29 cfs of ground water for irrigation**. **If you have developed a beneficial use of water and still own the place of use property, please contact me at your earliest convenience to schedule an examination.**

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 you have ceased using the water and currently carry no interest in it, please relinquish the permit by submitting the enclosed Relinquishment of Permit form (no fee required).

Please contact me within the next thirty (30) days at (208) 605-4632 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,

Marcelina M. Williams
Water Resource Agent Sr.

Enclosure: Relinquishment of Permit Form