

Permit No: 63-11859

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

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Page 1 DEPARTMENT OF
WATER RESOURCES

A. GENERAL INFORMATION

Permit No: 63-11859

Exam Date: 10/01/04

1. Current Owner: JULIA TOMLINSON
2629 TRACK RD
MELBA ID 83641
(208)495-2705

OR

FLOYD TOMLINSON
2629 TRACK RD
MELBA ID 83641
(208)495-2705

2. Accompanied by: Floyd Tomlinson

Phone No:

Address:

Relationship to Permit Holder:

3. SOURCE

TRIBUTARY

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: Boise-Kuna Irrigation District
2. Other water rights with the same point of diversion: 63-11088

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER

NE1/4SW1/4

Sec. 23, Twp 01N, Rge 02W, B.M.

CANYON County

Method of Determination:

2.

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	
01N	02W	23								23.7									23.7

Total Acres: 23.7

Method of Determination: Field Exam, ArcView Photos

3. Y Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.

Y Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be

1:24,000 or greater.

☐ Y ☐ Aerial Photo Attached (required for irrigation of 10+ acres).

☐ Y ☐ Photo of Diversion and System Attached

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>
		30		Submersible	6"/75-500R755TA

*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>
Cipolletti Weir					2 Feet	

2. Measurements: Weir measurement made 5/23/1991 for license 63-11088. Total head measured was .32 feet, which equates to 1.21 cfs. A theoretical measurement of 1.20 cfs supports the weir measurement.

E. FLOW CALCULATIONS

☐ Y ☐ Additional Computation Sheets Attached

Measured Method: See attached field report for license 63-11088 and theoretical flow analysis

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 23.7 \times 4.5 = 106.7$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = .47 \times 246 \times 1.9835 = 229$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 106.7$$

2. Volume Calculations for Other Uses:

G. NARRATIVE/REMARKS/COMMENTS

A 10 inch well equipped with a 30 hp submersible pump provides ground water to 23.7 acres via buried pipe, open discharge, concrete ditch and siphon tubes. Shares from Boise-Kuna Irrigation District are the primary source of water used for irrigation and enter the farm in the NESENW quarter. Please refer to the attached system diagram for further detail. 1994 and 2000 arc view photos were used to determine acreage. The capacity of this well was measured in 1991 for license 63-11088. The examiner used an existing two foot cipolletti weir and measured 1.21 cfs. The attached theoretical pumping rate analysis supports this measurement. License 63-11088 covers 50 adjoining acres to the south of those recommended on this permit. This right, when combined with 63-11088, is limited to 1.21 cfs.

Have conditions of permit approval been met? ☐ Yes ☒ No (The license will need condition 01M. Currently measurement and reporting are not required by IDWR for basin 63 irrigation wells.)

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	3/15 to 11/15	0.47 CFS	106.7
	<u>Totals:</u>	0.47 CFS	106.7

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 _____ Date _____

Reviewer _____ Date _____



T1N R2W S23

SENW
23.7 acres

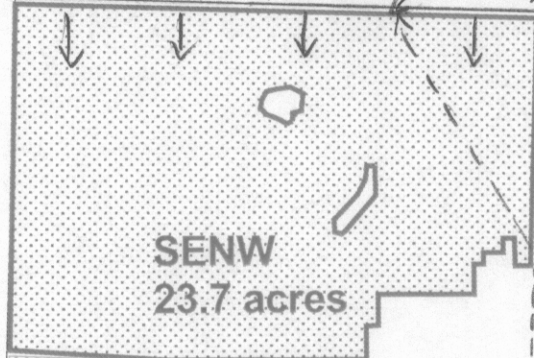
License 63-11088
50 acres (same p/d)

63-11859
SYSTEM
DIAGRAM

T1N R2W S23

CONCRETE
DITCH

surface water delivered
to property via buried
pipe to concrete ditch



SE NW
23.7 acres

CONCRETE
DITCH

License 63-11088
50 acres (same p/d)

P/D

Hatched line = buried pipe
concrete ditches + siphon
tubes used for irri-
gation.

Record ID	Measured Flow:	1.21 cfs	<---Max
Water Right No. 63-11859	Designed Flow:		
Name Floyd Tomlinson	HP/Eff Flow:	1.20 cfs	
pod	Sprinkler Flow:		
year:	Pivot/System Flow:		
Flow Measurement: 543 gpm	=	1.21 cfs	
Curve/Pump Design:	gpm	=	
Horsepower / Efficiency Method			
Horsepower	30 hp		
PWL	160 ft		
Disch Psi	4.33 psi		
PUMP Eff Estimate	0.77 %		
TDH	170 ft		
OHP	23.1 hp		
Flow	538 gpm	=	1.20 cfs
System Method:			
No Lines		Nozzle Equation: $Q=C*A*\sqrt{2*g*h} / \sqrt{1-r^4}$	
Birds per line		C=	1.00 Nozzle coefficient; typical 0.97 to 1.00
Ttl no nozzles	0	r=	0.0000 ft Nozzle radius
Nozzle size	in	A=	0.00000 ft^2 Nozzle area
Nozzle pressure	psi	h=	0 ft Head
Flow per nozzle	0.00 gpm	g=	32.2 ft/sec^2 Gravitational constant
Sprinkler Flow	0 gpm	Q=	0.000 cfs Flow per nozzle
Percent Leaks	%	=	0.000 gpm Flow per nozzle
Total Flow	0 gpm		
Pivot / System rating	gpm	=	

Comments / Data Supplied:

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No. 63-11088

1. Owner: Floyd Tomlinson Phone No. 495-2705
Current Address: 2629 Track Road Melba, ID 83641

2. Accompanied by: Floyd Tomlinson EXAM. DATE: 5-23-91
Address: Same Phone No. Same

Relationship to Permit Holder: OWNER

3. Source: Groundwater tributary to NONE

B. OVERLAP REVIEW

1. Other water rights with same place of use: None

☐ Copies Attached

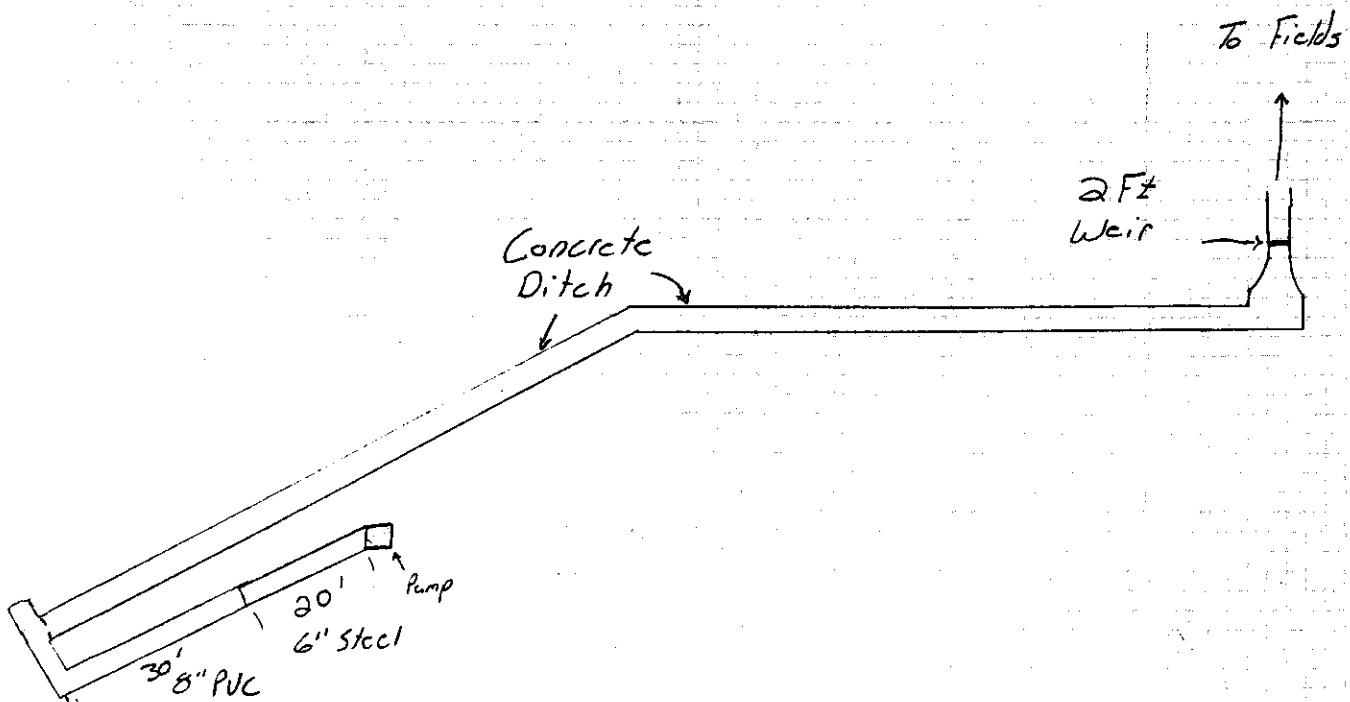
2. Other water rights with same point of diversion: None

☐ Copies Attached

☐ Copies of Field Exam's Attached

C. SYSTEM DESCRIPTION

1. **Diversion System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe i.d. as applicable. ☐ Alternative diagram attached



Scale: 1" = _____

2. ☒ Copy of U.S.G.S. Quadrangle Attached
Showing location(s) of point(s) of diversion and
place(s) of use (required).

☒ Photo of Diversion and System Attached
(required for all but single household domestic groundwater, and stockwater.

☒ Aerial Photo Attached
(required for irrigation of 10 acres or more).

System Description (continued)

3. Narrative: Description (As operating at time of measurement. Indicate pressure, number of sprinklers, etc.)

A 30HP pump with a 6" steel discharge tube led into an 8" PVC pipe, which discharged into a concrete irrigation ditch. A 2 Foot ^{Cipolletti} weir was located approx. 175' from the discharge point. The weir was ~~test~~ and vertical and operating properly. The head measured .32 Feet. The weir was constructed by the owner and in place prior to exam. The weir pool was approx 15' long.

☐ See Remarks on page 4 for continuation

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
	Unknown	30HP	Unknown	Well-Rite	6" / 75-500 R755TA

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

5. Point(s) of Diversion:

Ident. No.	Gov't. Lot	1/4	1/4	1/4	Sec.	Twp.	Rge.	County	Method of Determination/Remarks
			NE	SW	23	1N	2W	Canyon	U.S. Photo Quad / Confirmed by owner

6. Place(s) of Use:

Indicate Method of Determination Aerial Photo / Measurement

Twp.	Rge.	Sec.	NE 1/4				NW 1/4				SW 1/4				SE 1/4				Totals
			NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	
1N	2W	23								12	38								50

D. F. No.

Do not use this space

D. FLOW MEASUREMENTS

☐ Additional Data Sheets Attached

1.

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

2. Measurements:

Head = 3.2 Feet Crest = 2 Feet

E. FLOW CALCULATIONS

☒ Additional Computation Sheets Attached

1. Measured Method:

From Cipolletti Table 1.21 cfs

2. Alternate Method for Checking Purposes:

Theoretical HP 1.32 cfs

F. PUMP EFFICIENCY DATA (Optional)

Discharge Pressure: _____ psi x 2.31 = _____ ft (1); Dynamic pumping level: _____ ft (2)

Total Head: (1) + (2) = _____ (3) ; Flow rate: _____ cfs (4)

Water HP: (3) x (4) ÷ 8.8 = _____ (5)

Meter Input KW: 3.6 x _____ KH x _____ CTR or _____ MULT x _____ PTR x _____ N/ _____ T = _____ (6)

Meter Input HP: (6) x 1.34 = _____ (7)

Panel Input KW: _____ Ave PF x _____ Ave Volts x _____ Ave Amps x .001732 = _____ (6)

Panel Input HP: (6) x 1.34 = _____ (7) Efficiency: (5)/(7) x 100 = _____ %

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 50 \times 4.5 = 225 \text{ aF}$

$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = 1.21 \text{ cfs} \times 2416 \times 1.9835 = 590 \text{ aF}$

$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 225 \text{ aF}$

2. Volume Calculations for Other Uses:

H. REMARKS AND OVERLAP REVIEW ANALYSIS

The owner disagreed with the aerial photos. Based on the owner's own measurements of the land, he calculated 50 acres of irrigated land. We agreed to use 50 acres and confirmed that amount on the aerial photo. He agreed to disregard the 53 acres stated in the permit. Fields watered by supply tubes - Fields were measured for alfalfa seed contract.

No overlaps.

I. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
Irrigation	3/15	11/15	1.00 cfs	225 afa
Totals:			1.00 cfs	225 afa

2. Recommended Amendments

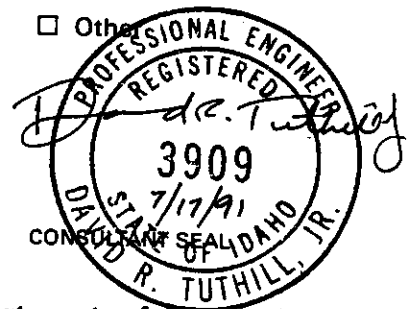
- ☐ Change P.D. as reflected above ☐ Add P.D. as reflected above
☒ Change P.U. as reflected above ☐ Add P.U. as reflected above

☐ None

☐ Other

J. AUTHENTICATION

Field Examiner's Name Mark Sonius
Signature Mark Sonius
Certification Date _____
Field Report Preparation Date 5-28-91



K. Licensing recommendation shall be prepared by an Idaho Department of Water Resources employee on a computer printout attached hereto.

Department of Water Resources

WELL INSPECTION FORM

If well is associated with water right, provide WR# 63-11088
Otherwise provide legal description and a sketch map and/or address
so that the well can be located easily.

1. Legal Description: TWP 1N, Rge 2W, Sec. 23, NE 1/4 SW 1/4
or Lot _____.
2. Owner: Floyd Tomlinson
Address 2629 Track Road, City McKen, St IO
3. Casing $\geq$ 12 inches above ground: Yes X No _____
4. Access Port: Yes X No _____ Static Water Level: 139'
Pressure Gauge: Yes _____ No X Casing Diameter: 6"
Flowing: Yes X No ✓ Temperature: _____
5. Are there any obvious construction problems that may be a
source for contamination or waste of water: Yes _____ No X

If answer to Item 5 is Yes, describe in remarks and attach
photo.

Remarks: _____



10" well, 30 HP submersible
Pump
located in the SENESW
S23 TIN R2W

Ground water
discharge
point in
SESW S23
TIN R2W



Surface
water
culvert
entrance
to property
in SESW
S23 TIN R2W