

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-10698

Exam Date: 7/11/2012

1. Current Owner: GREENLEAF FARMS INC
C/O DAN DIXON
PO BOX 189
GREENLEAF ID 83626
(208)459-7890
2. Accompanied by: **DAN DIXON**
Phone No: **SAME AS ABOVE**
Address:
Relationship to Permit Holder: **SAME**

3. **SOURCE** **TRIBUTARY**
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: **NONE**
2. Other water rights with the same point of diversion: **63-10502**

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

GROUND WATER

NW1/4SE1/4

Sec. 29, Twp 04N, Rge 04W, B.M.

CANYON County

Method of Determination: **GPS 43.65510, -116.84238**2. **PLACE OF USE:** IRRIGATION

TwpRge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
04N04W 30													34.0			25.0	59.0

Total Acres: 59

Method of Determination: **AERIAL PHOTOS**

3. ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable. – **PHOTOS AND AERIAL REPRESENT SYSTEM**
☐ **AERIAL** 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.

<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 Size</u>
WELL		JOHN DEERE	8	T04276D215477	JOHNS ON GEAR CO	SB1103 100 HP RATING

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

D. FLOW MEASUREMENTS1. **Measurement**

<u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
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2. Measurements:

NONE TAKEN. SEE FIELD EXAM 63-10502 OPEN CHANNEL MEASUREMENTS TAKEN – ATTACHED.**E. FLOW CALCULATIONS** _____ Additional Computation Sheets Attached

Measured Method:

SEE THEORETICAL CALCULATION FOR SYSTEM DURING FIELD EXAM 63-10502 – ATTACHED.**F. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = (59) (4.5) = 265.5 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = (1.06)(260)(1.9835) = 546.65 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 265.5 \text{ AFA}$$

2. Volume Calculations for Other Uses: **NO OTHER USES****G. NARRATIVE/REMARKS/COMMENTS**

The permit was issued for an "M" well or drought well. The correct fee was paid. Dan Dixon, Greenleaf Farms owner, accompanied me on the field exam. The well is on property owned by Helen Pasley. Electrical power is not available at the well site. The well is only used when Wilder Irrigation District surface water is not available. It is too expensive to operate otherwise. Hence the well was last used to supplement surface water about 4 to 5 years ago.

An 8 hp, diesel John Deere engine and a Johnson Gear Co. gear head is used to pump water to buried 10" PVC pipe, then to a series of concrete ditches that are also used to convey the Wilder Irrigation District surface water shares appurtenant to the property. The POU is 0.75 mile west of the well and is currently being irrigated with surface water.

The engine is stored in the Greenleaf Farms shop for security and maintenance reasons and moved to the well when needed. It is not practical to leave the engine at the well when it is used infrequently. The engine is currently configured for use with handlines.

There are no POU overlaps but the well is also the POD for right 63-10502 owned by Helen Pasley and licensed for 1.86 cfs for the irrigation of 93 acres. Though the backfile indicates that the Pasley land is irrigated by Wilder Irrigation District surface water, there are no conditions or other comments about 63-10502 being a supplemental use.

Measurements were taken during the 63-10502 field exam. An open discharge channel measurement yielded 2.92 cfs. A theoretical calculation resulted in a diversion rate of 3.52 cfs. The open channel measurement of 2.92 cfs will be used for the system capacity and the combined limit of the 63-10502 and 63-10698 rights. $2.92 \text{ cfs} - 1.86 \text{ cfs} = 1.06 \text{ cfs}$ available for 63-10698.

The permit is for 59 irrigated acres and about 57 acres were found irrigated during the field exam. The numbers are so Close I recommend 59 acres be licensed. The maximum rate for 59 acres is 1.18 cfs as permitted. However, 1.06 cfs is sufficient to irrigate the 59 acres and this is the quantity recommended for licensing.

NOTE about POD: it is very close to the QQ line and may be in the SWSE.

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

Steve Lester approved changing the permit condition 01G to 01M.

- 1) Permit amount 1.18 cfs
- 2) Beneficial use limit 1.18 cfs
- 3) System measurement 1.06 cfs
- 4) Proof fee amount 2 cfs

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/01 to 11/15	1.06 CFS	
<u>Totals:</u>		1.06 CFS	265.50 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 ☐ Other

I. AUTHENTICATION

Field Examiner's Name Walter Chiric Date 8-14-12

Reviewer _____ Date _____

Field Exam - 63-10502
Do not use this space
Calculations

D. FLOW MEASUREMENTS

☐ Additional Data Sheets Attached

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
PIGMY METER		SCIENTIFIC INST. INC		090198		

2. Measurements:

SEE OPEN CHANNEL DISCHARGE MEASUREMENT NOTES.

E. FLOW CALCULATIONS

☐ Additional Computation Sheets Attached

1. Measured Method:

2.92 CFS

2. Alternate Method for Checking Purposes:

100 HP FROM GEAR DRIVE
PUMP RATING

$$\frac{100 \text{ HP} \times 8.8 \times .4 (\text{EFFEC})}{100 \text{ Ft} + (2.31 \times 0 (\text{OPEN DISCHARGE}))} = 3.52 \text{ CFS}$$

F. PUMP EFFICIENCY DATA (Optional) NOT DONE, DIESEL

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:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 93 \times 4.5 = 418.5 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = 1.86 \times 245 \times 1.9835 = 903 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 418.5 \text{ AFA}$$

2. Volume Calculations for Other Uses:

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JUN 05 1990

63-10502
Water Right No.
(if applicable)

.90

1. Name of stream or ditch: PRIVATE DITCH ON PROPERTY IDENTIFIED AS PASLEY .92
2. Location: 4N 4W SEC 29 SE/NE/SE
3. Person conducting measurement: KELLY K. CHRISTENSEN .94
4. Date and time of measurement: 9-5-88 10:00 AM
5. Accompanied by: DAN DIXON .96
6. Measuring device size and ID no.: PIGMY METER 90198
7. Spin test before measurement OK? YES after measurement OK? YES .97
8. Purpose of measurement: DIVERSION RATE DETERMINATION FOR LICENSE EXAM .98

.99

[illegible]

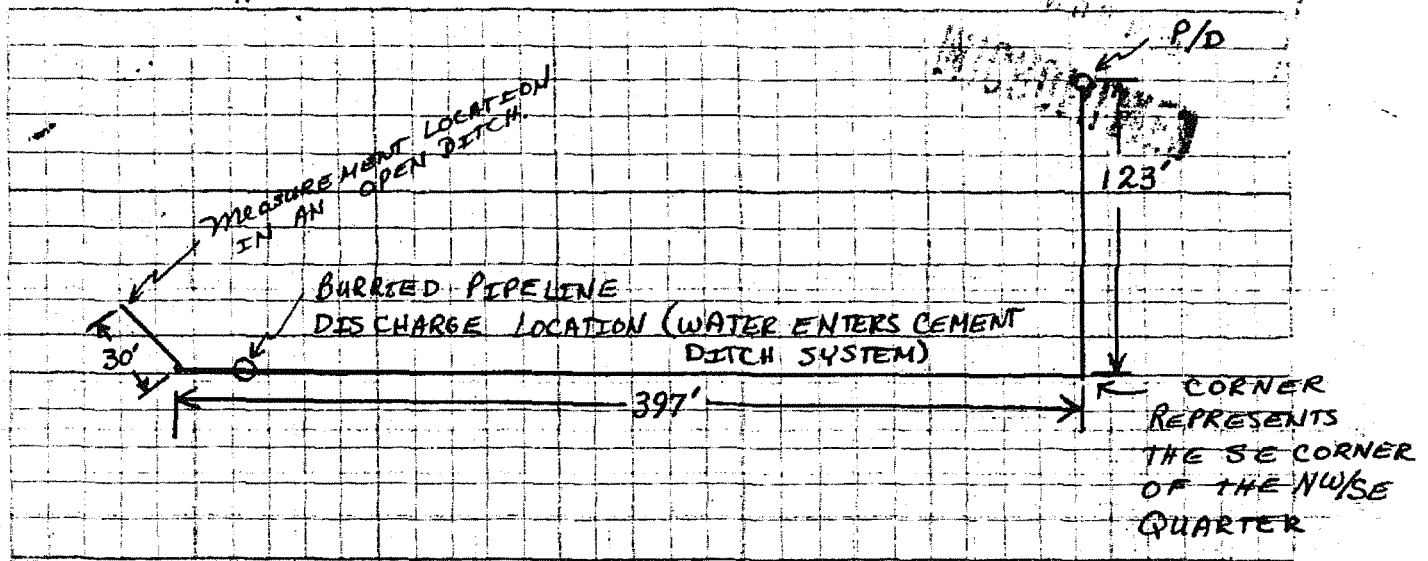
MICROFILMED
JUN 05 1990

C. DIAGRAMS

1. Measurement Location

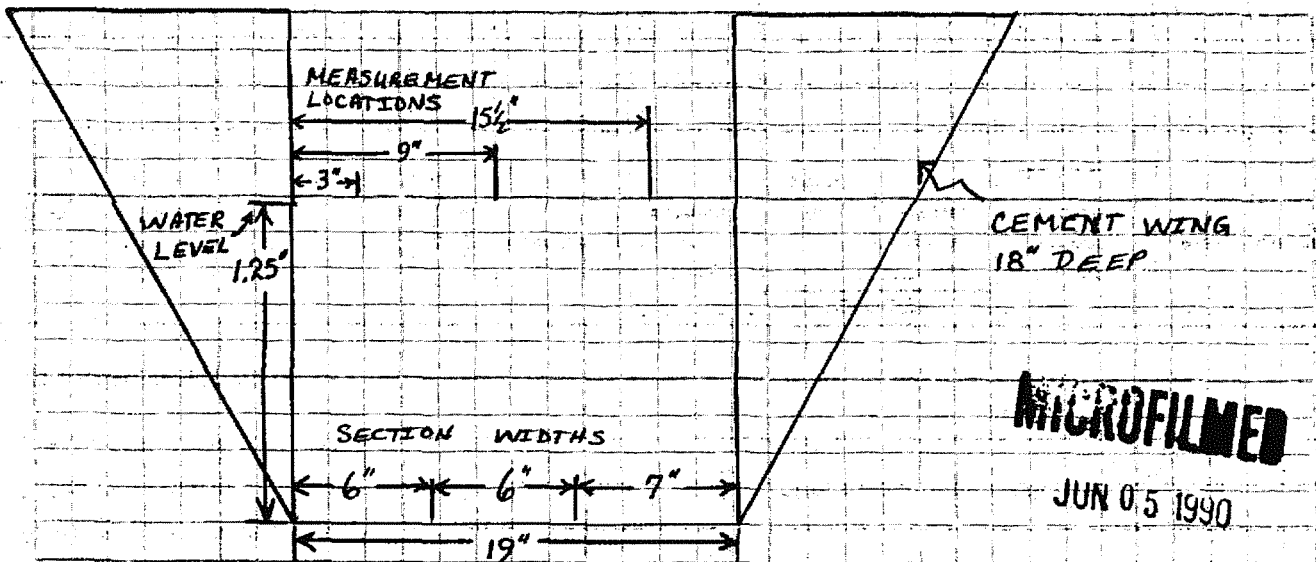
Scale: _____ = _____

FILED EXAM
03-10502



2. Cross-Section of Measurement

Scale _____ = _____



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JUN 05 1990

D. SUMMARY INFORMATION

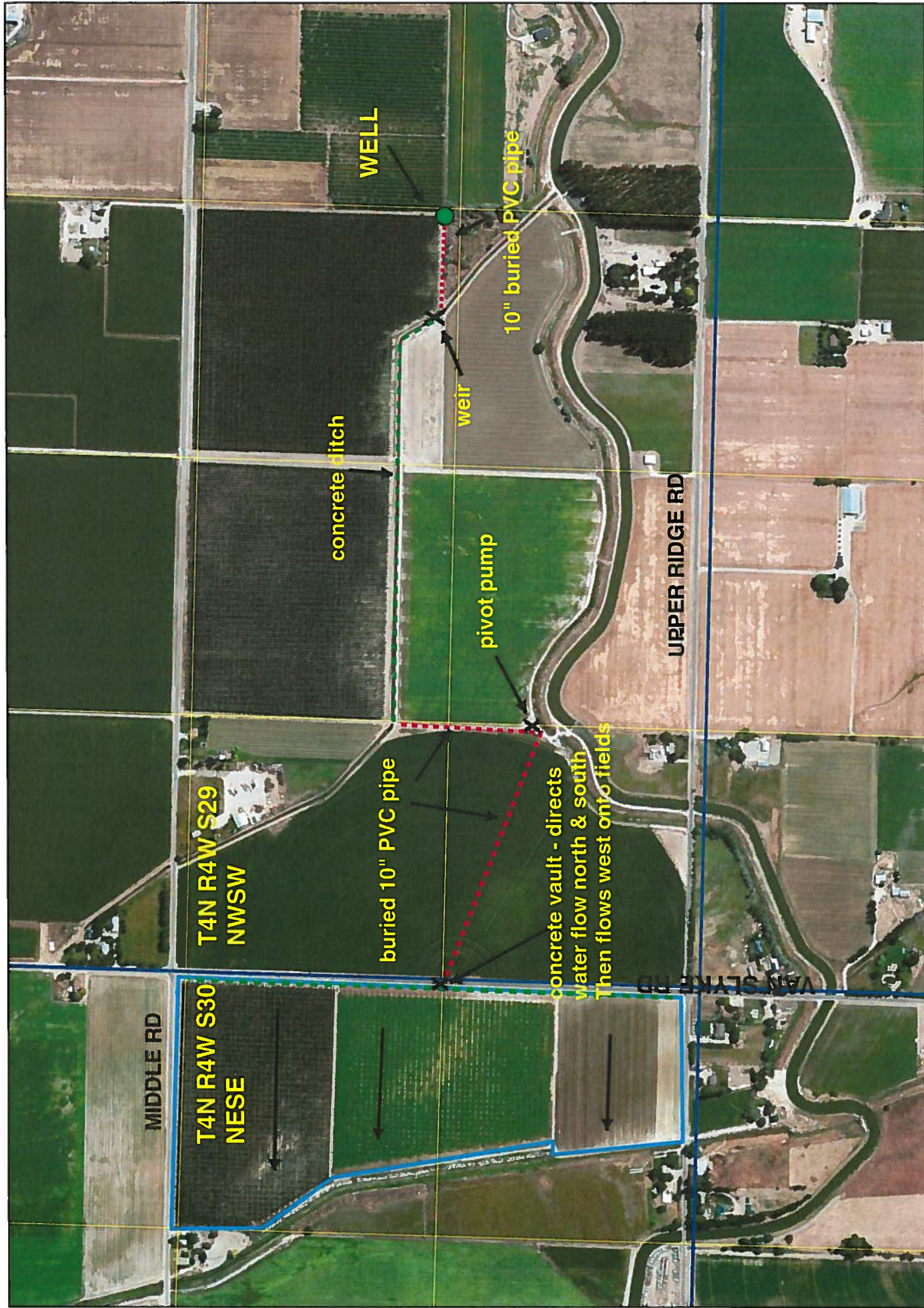
1. Measurement rated _____ excellent ☒ good _____ fair _____ poor

2. Remarks: FLOW THROUGH STRUCTURE UNIFORM

3. Width: 19" Area: 1.99 sq ft Discharge in cubic feet per second: 2.92 cfs

DATE 9-5-88

Kelly K. Christensen
SIGNATURE OF PERSON CONDUCTING MEASUREMENT



63-10698--2011 BING AERIAL. POU shown in light blue, POD & DELIVERY SYSTEM



Well with Johnson gear head.



John Deere diesel motor.



Place of use and portion of concrete ditch delivery system.



Looking south at place of use.