

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-33358

Exam Date: 9/22/2016

1. Current Owner:

STACY PINTLER 12744 DEER FLAT RD NAMPA ID 83686 (208)465-5390 Or

BRAD PINTLER 12744 DEER FLAT RD NAMPA ID 83686 (208)465-5390

2. Accompanied by: Brad Pintler

Phone No:

Address:

Relationship to Permit Holder:

3. SOURCE:

GROUND WATER

TRIBUTARY:

B. OVERLAP REVIEW

1. Other water rights with the same place of use: Irrigation Company rights

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

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

GROUND WATER NW¼NW¼ Sec. 19, Twp 02N, Rge 02W, B.M. CANYON County

Method of Determination: GPS collected in field matches description in well drillers report.

2.

PLACE OF USE: COMMERCIAL

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
02N	02W	19						X L 1											

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	
02N	02W	19					37.0	31.0 L 1											68.0

Total Acres: 68

Method of Determination: Irrigation use measured using aerial imagery and ArcMap tools.

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

X Indicate weir size/pipe as applicable.X Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.X 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
D0057932	Owner did not have submersible pump information available at exam. He indicated a 30 hp system is installed.				6" PVC pipe for Irrigation 4" Flex tube hose for tanks

*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

2. Measurements: Non taken. Well not operating during exam.

E. FLOW CALCULATIONS

☒ Additional Computation Sheets Attached

Measured Method: Theoretical

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

Efficiency = 0.70

Depth to water = 100 ft.

psi = 10-20

hp = 30

See attached theoretical sheet.

Theoretical = 1.38 cfs

Irrigation Use:

Permit	1.40 cfs
B.U. Standard Allowance	1.36 cfs
B. U. Proof Fee	\$125 → 1.01 to 2.00 cfs
Theoretical Rate	1.38 cfs
License Recommendation	1.36 cfs

Commercial Use:

Permit	1.00 cfs
Commercial use under 63-34321	0.64 cfs
B. U. Proof Fee	\$125 → 1.01 to 2.00 cfs
Theoretical Rate	1.38 cfs
License Recommendation	0.36 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 68 * 4.5 = 306 \text{ af}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 1.36 * 260 * 1.9835 = 701.4 \text{ af}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 306 \text{ af}$$

2. Volume Calculations for Commercial Use:

Mr. Pintler indicated that they fill a 5,000 gal tanker used for spraying mint 3 times a week. The spraying season runs from February through November, 2/1 to 11/31 = 303 day season.

$$3 * 5,000 \text{ gpw} = 15,000 \text{ gpw}$$

$$15,000 \text{ gpw} / 7 \text{ days} = 2,142.9 \text{ gpd}$$

$$2,142.9 \text{ gpd} * 303 \text{ days} = 649,285 \text{ g} = 2.0 \text{ af}$$

G. NARRATIVE/REMARKS/COMMENTS

The field exam was conducted on September 22, 2016 by agents Patrick Kelly and Aaron Skinner. We were accompanied by permit and land owner Brad Pintler. An application to amend permit 63-33358 was made in 2012 to identify commercial beneficial use in Section 16. Water right 63-34321 was created as a result of splitting 63-33358 during the licensing process.

Brad and Stacy Pintler are the current permit owners to 63-33358. Current county taxlot data indicates the Pintlers own the property relevant to the permit. No additional changes are required to be made for licensing at this time.

The POD for 63-33358 was visited during the exam. A GPS coordinate was verified with the well drillers report (43d 30.133, -116d 37.695). A well ID tag D0057932 is welded to the casing. Mr. Pintler had no pump information available other than to suggest a 30 hp pump is installed on the system. No amendments are required to correct the POD for this well.

The commercial POU (tankers) occurs within the NENE L1 ¼. 5,000 gallon trucks are filled using a 4" Flextube hose up to 3 times a week to spray the mint crop. The legal description is verified through our digital PLSS map. Amendments are not required to add the govt. lot to better describe the use.

A diversion rate of 1.00 cfs is permitted for commercial use. The original application for permit was filed for one well and operation facility within Sec 19. The permit was later amended to reflect commercial use within Sec 16. Because he developed two separate systems independent from each other, a combined use limits of the two rights is not practical. It is in the best interest for regulation purposes to split the commercial use between the two rights to total 1.00 cfs. Because 0.64 cfs is being used under 63-34321, 0.36 cfs is available for license under 63-33358. This split of the commercial use is the most practical division based on actual use.

Irrigation use is established totaling 68 acres. Flood irrigation practices are used on the property and well water can enter the ditch system under open discharge. See the attached system diagram and theoretical report for more details regarding the use.

The irrigation and commercial use are not additive in rate because 0.64 cfs of the right was split to 63-34321 and doing so would create enlargement.

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

H. RECOMMENDATIONS

1. Recommended Amounts

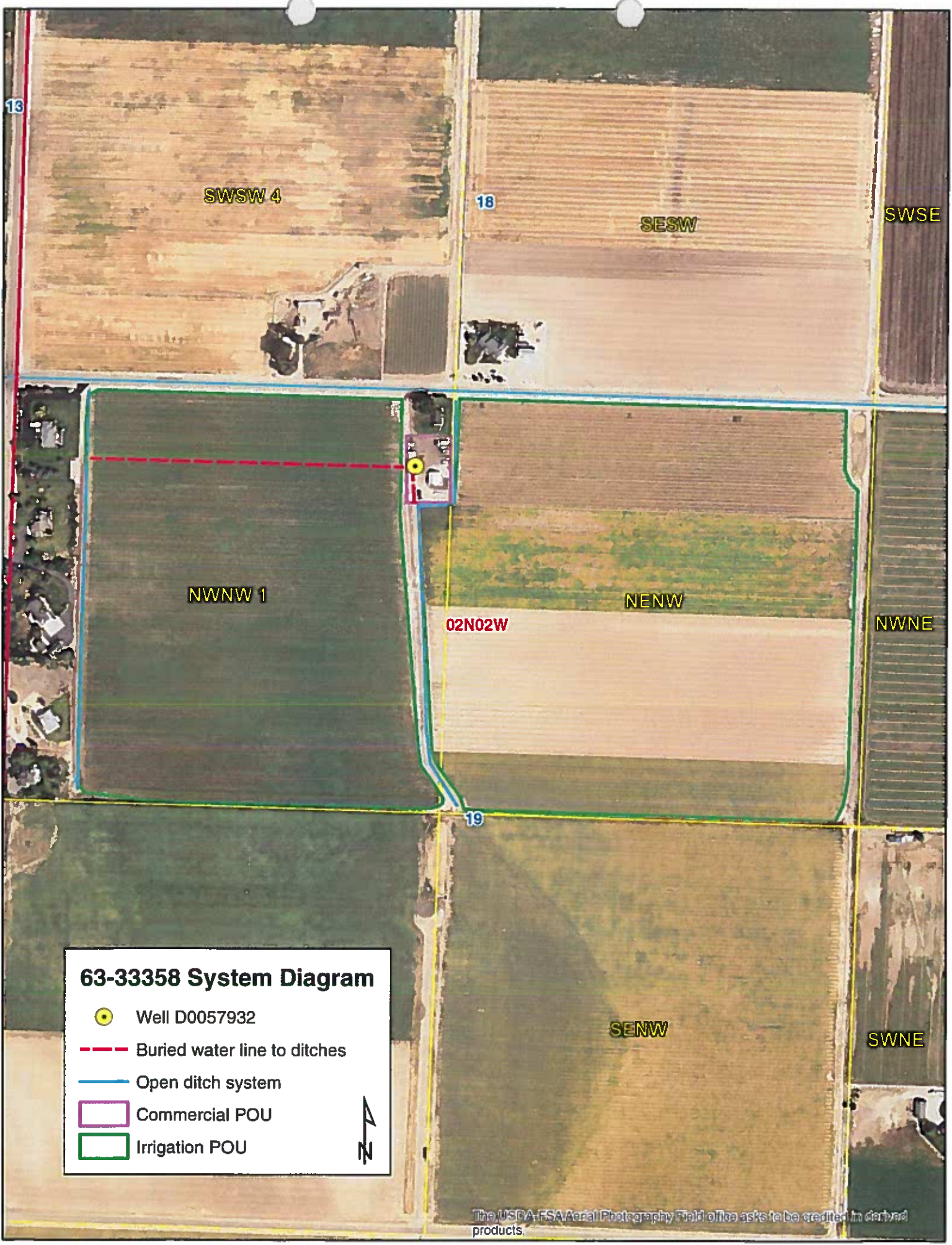
<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
COMMERCIAL	01/01 to 12/31	0.36 CFS	2.0 AF
IRRIGATION	03/01 to 11/15	1.36 CFS	306.0 AF
	<u>Totals:</u>	1.360 CFS	308.00 AF

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 Patrick Kelly Date 12-2-2016
 Reviewer _____ Date _____



63-33358 System Diagram

-  Well D0057932
-  Buried water line to ditches
-  Open ditch system
-  Commercial POU
-  Irrigation POU



THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 63-33358
 Reviewer: Patrick Kelly
 Date of Review: 9/22/2016

P/D No.:	Scenario 1	Scenario 2	Scenario 3
PUMP HORSEPOWER	30	30	30
BOOSTER HORSEPOWER			
PUMPING LEVEL	80	100	120
DISCHARGE PRESSURE	15	15	15
RATE OF FLOW (cfs)	1.61	1.37	1.19 1.39

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 hp was described by the well owner. A range of lift was estimated based on well drillers report looking at static water level vs. confining layers vs. well depth. Discharge pressure was assumed based on average open discharge use. Average theoretical flow rate is 1.39 cfs.



POD

Well tag:
D0057932



Well diverts to both
tankers for
commercial use
(top valve /
flextube) or to open
ditch for irrigation
use (left valve).



Open ditch delivers water for flood irrigation practices.



Tanker used for spraying mint crop.