

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-08682

Exam Date: 5/17/2016

1. Current Owner:
HULTZ FARMS INC ROUTE #5 CALDWELL ID 83605

2. Accompanied by: David Marchbanks
Phone No: 208-880-3649
Address: 27425 Iverson Rd. Parma ID 83660
Relationship to Permit Holder: Current property owner

3. SOURCE: GROUND WATER**B. OVERLAP REVIEW**

1. Other water rights with the same place of use: Black Canyon Irrigation District
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 SW¼NE¼ Sec. 25, Twp 05N, Rge 04W, B.M. CANYON County

Method of Determination: Garmin GPS point collected during exam.

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	
05N	04W	25			33.0	3.0			7.0	37.0	38.0	35.0				37.0	38.0		228.0

Total Acres: 228

Method of Determination: Satellite imagery measured using ArcMap tools.

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 No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
POD	Nidec Motor	75	U 01 7549653-0016 H 0005	Peerless Pumps	233986

*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: No measurement taken.

E. FLOW CALCULATIONS

Measured Method:

 X Additional Computation Sheets Attached

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

Efficiency = 0.70

Depth to water = 60 ft.

psi = 50-60

hp = 75

theoretical flow rate = **2.48 cfs**

See attached theoretical sheet.

7 hand lines * 32 sprinklers/ hand line = 224 sprinklers

@ 55 psi:

1/8" nozzles = 3.45 gpm/sprinkler = 772.8 gpm = **1.72 cfs**7/64" nozzles = 2.64 gpm/sprinkler = 591.4 gpm = **1.32 cfs**

Permit Rate 5.10 cfs

Beneficial Use Fee Limit 5.01 - 6.00 cfs

Measured Rate 2.48 cfs

Recommended Rate for License 2.48 cfs**F. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 228 \text{ acres} \times 4.5 \text{ af/acre} = 1,026.0 \text{ af}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 2.48 \text{ cfs} \times 260 \text{ days} \times 1.9835 = 1,279.0 \text{ af}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 1,026.0 \text{ af}$$

2. Volume Calculations for Other Uses:

None.

G. NARRATIVE/REMARKS/COMMENTS

The field exam was conducted by WRA Patrick Kelly on May 17, 2016 and was accompanied by Angie Grimm of IDWR, property owner David Marchbanks and permit owner Bob Hultz.

Bob Hultz sold the farmland associated with permit 63-8682 POU to David Marchbanks in 2012. There are two other five acre parcels within the described POU owned by a Juan Martinez and Andrew Osmus.

On May 5, 2016 a letter was sent to all property owners requesting a notification of any interest regarding the ground water use for irrigation purposes. A reply was received from Andy Osmus on May 13, 2016 stating that he bought ~6 acres from Hultz Farms and only uses irrigation shares from Black Canyon Irrigation District. Mr. Osmus stated that he does not use the well to irrigate, and this was confirmed during the field exam.

A reply has not been received by Juan Martinez as of the time of this report, however Mr. Martinez does use ground water from the Marchbanks system. David Marchbanks suggested eliminating Andy Osmus from the license, but including Juan Martinez.

An assignment of Permit form was given to David and Bob to sign, notarize and return to my office. This

form will be required to issue a license in the name of the current land owner.

A 12" well was found with Garmin GPS coordinates 43° 44.555, -116° 45.559. This places the well within the SWNE Sec 25, Twp 5N, Rge 4W. The diversion is described accurately on the permit and no amendment is required. Overlap review finds no other water rights divert from the well.

Satellite imagery from 1981 was used to establish beneficial use. There is very little changes in irrigation practices from 1981 to 2013 imagery. A change to sprinkler irrigation occurred with a change in ownership, But delivery of ground water has not changed. ArcMap tools were used to measure an irrigated surface area of 228 acres. All of the ground water use is accurately described by the permit and no amendment is required. Overlap review finds no other ground water rights on the land. Large surface water companies have overlapping water rights that are pertinent to the property, however will not be identified with combined use limits. Black Canyon Irrigation District water is used and comingled with ground water for irrigation.

A well drillers report was found for the Hultz Farm well. The well shape layer was correlated to the GPS point collected. A static water level of 35 feet was recorded in 1977. A pump curve was collected by Mr. Marchbanks from Riverside Well Drilling. A pump set at 80', with a suggested drawdown of 20', calculates a total dynamic head of 60'. The system operates from a 75 hp Nidec Motor and a pressure of 55 psi according to the land owner. This information was used to calculate a theoretical flow rate of 2.48 cfs. Information from the pump curve suggests the pump is rated at 1,100 gpm @ 220 TDH stage 5. This equates to a diversion rate of 2.45 cfs, suggesting a reasonable theoretical flow rate.

During the beneficial use period and up until 2012, the system operated with a 3 cylinder joist diesel motor to open discharge. Horsepower of this motor could not be collected for a theoretical comparison. Bob Hultz recollected a diversion of 900 gpm back in the 70's - 80's when the system was installed. This equates to a diversion rate of 2.01 cfs, however cannot be verified.

Information collected from Mr. Marchbanks indicates that 7 handlines are used at once with 32 sprinklers per line. The system is believed to operate at 55 psi. Calculations shown in Section E of this report finds that the theoretical flow rate calculation grants the highest diversion rate and is the best interest of the user.

A GE Panametrics PT878 ultrasonic measuring device was taken to the field. The system has a sand filter device with an 8' stretch of exposed pipe that could have been a potential measuring location. Power issues with the measuring device complicated this practice and so a measurement was not taken.

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

H. RECOMMENDATIONS

1. Recommended Amounts

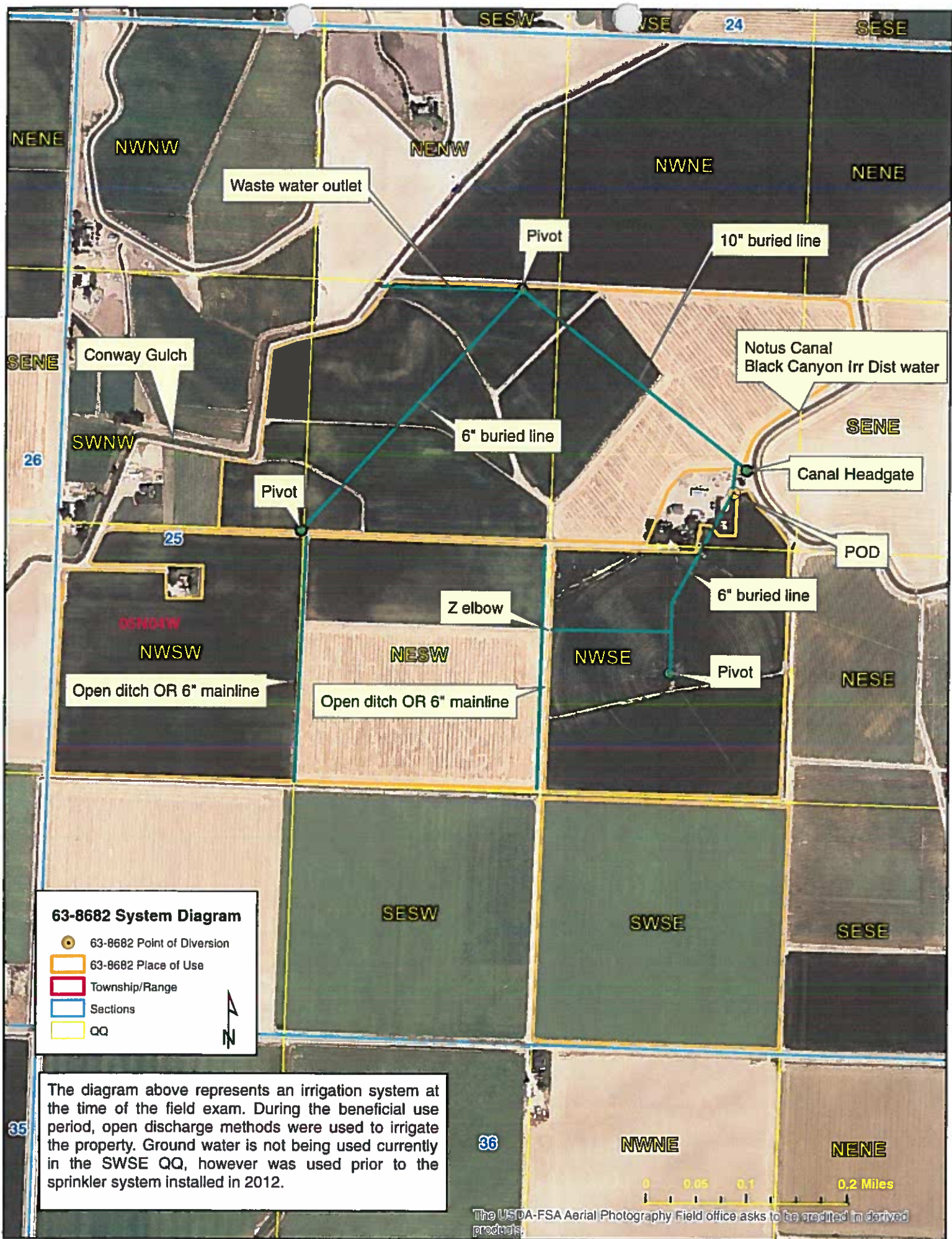
<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/15 to 11/15	2.48 CFS	1,026.0 AF
	<u>Totals:</u>	2.480 CFS	1,026.00 AF

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 5-17-2016
 Reviewer _____ Date _____



63-8682 System Diagram

- 63-8682 Point of Diversion
- 63-8682 Place of Use
- Township/Range
- Sections
- QQ

The diagram above represents an irrigation system at the time of the field exam. During the beneficial use period, open discharge methods were used to irrigate the property. Ground water is not being used currently in the SWSE QQ, however was used prior to the sprinkler system installed in 2012.

75 HP

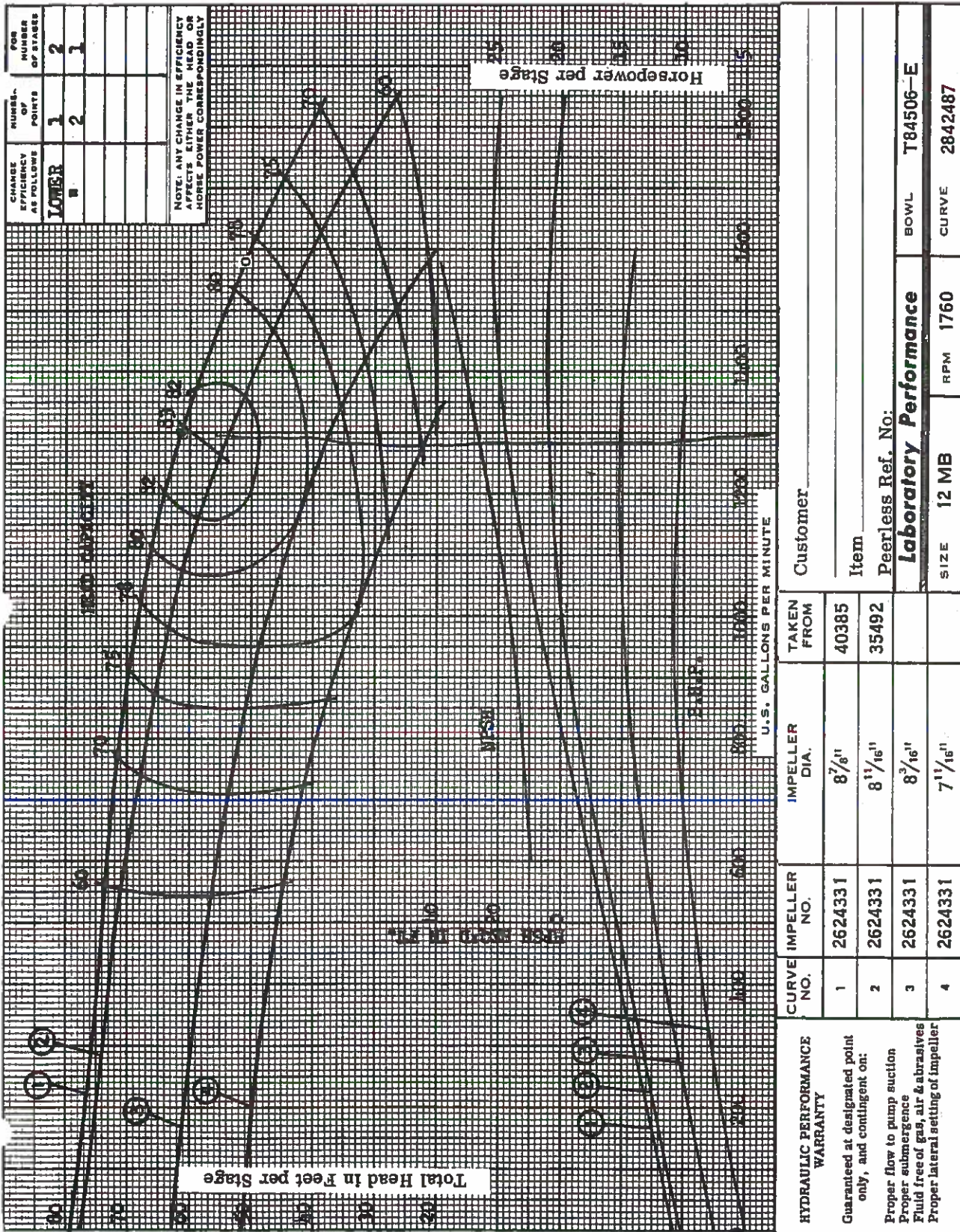
11009A-m
@ 220 TDH
5 stage

VERTICAL TURBINE PUMP

Pump
set @
80'

Section 140
10-74

Horsepower for _____ Stages



Peerless Pumps

PUMP DESCRIPTION: Driver _____; Head _____; Column _____
BOWL ☐ PERFORMANCE: Capacity _____ gpm; Head _____ ft; Eff _____ %; BHP _____
GUARANTEED FIELD ☐

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources, within 130 days after the completion or abandonment of the well. JUN 13 1977

RECEIVED
JUN 13 1977

15-67

[illegible]

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 63-8682
 Reviewer: Patrick Kelly
 Date of Review: 5/17/2016

P/D No.:	Senerio 1	Senerio 2	Senerio 3
PUMP HORSEPOWER	75	75	75
BOOSTER HORSEPOWER	0	0	0
PUMPING LEVEL	60	60	60
DISCHARGE PRESSURE	50	55	60
RATE OF FLOW (cfs)	2.63	2.47	2.33 2.48

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:

A 75 hp motor was installed during time of field exam. A pumping level of 60 ft was obtained from well log / pump records. A range of discharge pressures were used based around where the property owner suggested a pressure of 55 psi. Theoretical average flow rate is 2.48 cfs.

Basin/Seq#	Owner	Source
63-33761	ASUMENDI, DOMINGO; ASUMENDI, RUBE	GROUND WATER
63-34147	DIAMOND S FARMS LLC; SKOGSBERG, MIF	GROUND WATER
63-8682	HULTZ FARMS INC	GROUND WATER
63-2322	UNITED STATES OF AMERICA ACTING THR	ELIJAH SLOUGH
63-2322	UNITED STATES OF AMERICA ACTING THR	WILSON SLOUGH
63-2878	BLACK CANYON IRRIGATION DIST	ELIJAH DRAIN
63-2878	BLACK CANYON IRRIGATION DIST	WILSON DRAIN
65-2433	UNITED STATES OF AMERICA ACTING THR	PAYETTE RIVER
65-2900	BLACK CANYON IRRIGATION DIST	TUNNEL NO 2 DRAIN

[illegible]



Blank Canyon
Irrigation Canal
w/in the SWNE
QQ.

Headgate on
right of photo
where surface
water enters
system.

Ground water
comingles with
surface water
for irrigation
use.



Rainbird Nelson
30H sprinklers
with a 1/8" and
7/64" nozzles

OFFICE DAY REFERRAL

from: DM to: PK
YOUR NAME

5-13-16 @ 2:00
DATE

PROGRAMS - CHECK ALL THAT APPLY

☒ Water Rights ☐ Dams ☐ Wells ☐ Other

QUESTIONS/CONCERNS

Andy Osmus called regarding a letter you sent to him to request a field exam for WR 63-8682.

↳ he purchased $\approx$ 6 acres from Hultz Farms

↳ he only uses irrigation shares, isn't pumping any water

↳ Hultz sold remaining property to unknown party, but they have installed 3 pivots + are pumping.

☐ possibly contact Hultz Farms another way?

☐ he is willing to answer any questions

WATER RIGHT NO. 63-8682

OR
LEGAL DESCRIPTION

CONTACT INFO - check one for best method

Name Andy Osmus

Telephone 208-880-1302

☐ Fax

☐ Mailing Address

☐ E-Mail Address



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

May 5, 2016

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

COPY

HULTZ FARMS INC
ROUTE #5
CALDWELL ID 83605

RE: Scheduling Field Exam for Water Right Permit No. 63-8682

Dear Permit Holder:

The department is conducting water right examinations in the vicinity of the above-referenced permit during the week of May 9 - 20, 2016. An examination is needed to verify the water use in order to issue a water right license.

The above-referenced permit authorizes use of ground water for irrigation of 255 acres. I have enclosed a water permit report and map depicting the permit place of use and point of diversion for your reference.

Canyon County tax lot information indicates you may no longer own the place of use property associated with this permit. A water right permit is personal property of the permit owner. It remains personal property unless it is assigned to a new owner. **If you no longer own the place of use property, I respectfully request you complete and submit the enclosed Assignment of Permit form with the applicable \$25 processing fee within the next 10 days.** If an assignment is not received, we will work with the new land owner(s) to complete licensing process. **Please call me at 208-334-2190 by May 20, 2016 if you have any questions.** I appreciate your attention in this matter.

Sincerely,

Patrick Kelly
Water Resource Agent, Sr.

Enclosure(s): Assignment of Permit form
Water Permit Report and Map



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May 5, 2016

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

COPY

HAROLD HULTZ/
CURRENT RESIDENT
18500 PURPLE SAGE RD
CALDWELL ID 83607

RE: Scheduling Field Exam for Water Right Permit No. 63-8682

Dear Mr. Hultz:

The department is conducting water right examinations in the vicinity of the above-referenced permit during the week of May 9 - 20, 2016. An examination is needed to verify the water use in order to issue a water right license.

The above-referenced permit authorizes a 5.1 cfs diversion from ground water for irrigation of 255 acres. You are being contacted as a potential interested party, since Canyon County tax lot information indicates you own property associated with the permit. I have enclosed a water permit report and map depicting the permit place of use and point of diversion for your reference.

IDWR forms and other information are available on the Internet at www.idwr.idaho.gov. Please contact me at 208-334-2190 by May 20, 2016 to schedule a field exam. No response by this date may lead to further action being taken, including voiding the permit. Thank you for your attention to these matters.

Sincerely,

Patrick Kelly
Water Resource Agent, Sr.

Enclosure(s): Water Permit Report and Map



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C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

COPY

DAVID MARCHBANKS/
CURRENT RESIDENT
27425 IVERSON RD
PARMA ID 83660

RE: Scheduling Field Exam for Water Right Permit No. 63-8682

Dear Mr. Marchbanks:

The department is conducting water right examinations in the vicinity of the above-referenced permit during the week of May 9 - 20, 2016. An examination is needed to verify the water use in order to issue a water right license.

The above-referenced permit authorizes a 5.1 cfs diversion from ground water for irrigation of 255 acres. You are being contacted as a potential interested party, since Canyon County tax lot information indicates you own property associated with the permit. I have enclosed a water permit report and map depicting the permit place of use and point of diversion for your reference.

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May 5, 2016

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

COPY

JUAN MARTINEZ/
CURRENT RESIDENT
25464 HOP RD
CALDWELL ID 83607

RE: Scheduling Field Exam for Water Right Permit No. 63-8682

Dear Mr. Martinez:

The department is conducting water right examinations in the vicinity of the above-referenced permit during the week of May 9 - 20, 2016. An examination is needed to verify the water use in order to issue a water right license.

The above-referenced permit authorizes a 5.1 cfs diversion from ground water for irrigation of 255 acres. You are being contacted as a potential interested party, since Canyon County tax lot information indicates you own property associated with the permit. I have enclosed a water permit report and map depicting the permit place of use and point of diversion for your reference.

IDWR forms and other information are available on the Internet at www.idwr.idaho.gov. **Please contact me at 208-334-2190 by May 20, 2016 to schedule a field exam.** No response by this date may lead to further action being taken, including voiding the permit. Thank you for your attention to these matters.

Sincerely,

Patrick Kelly
Water Resource Agent, Sr.

Enclosure(s): Water Permit Report and Map



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May 5, 2016

COPY

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

ANDREW OSMUS/
CURRENT RESIDENT
25482 HOP RD
CALDWELL ID 83607

RE: Scheduling Field Exam for Water Right Permit No. 63-8682

Dear Mr. Osmus:

The department is conducting water right examinations in the vicinity of the above-referenced permit during the week of May 9 - 20, 2016. An examination is needed to verify the water use in order to issue a water right license.

The above-referenced permit authorizes a 5.1 cfs diversion from ground water for irrigation of 255 acres. You are being contacted as a potential interested party, since Canyon County tax lot information indicates you own property associated with the permit. I have enclosed a water permit report and map depicting the permit place of use and point of diversion for your reference.

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Sincerely,

Patrick Kelly
Water Resource Agent, Sr.

Enclosure(s): Water Permit Report and Map