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AUG 29 2019

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**BENEFICIAL USE FIELD REPORT**

RECEIVED

AUG 26 2019

DEPT OF WATER RESOURCES  
SOUTHERN REGION

## DEPT OF WATER RESOURCES

A Beneficial Use Field Report is prepared by a water right examiner as the result of an examination to clearly confirm and establish the extent of the beneficial use of water established in connection with a permit during the development period authorized by the permit and any extensions of time previously approved.

**A. GENERAL INFORMATION**Permit No. 37-87391. Owner Alvin V Shoemaker DBA Shoemaker Properties c/o Rob Marcroft Phone No. 208-788-2921Current address P.O. Box 1092 Hailey, ID 833332. Examiner's name G. Erick Powell EXAM DATE 5/1/20193. Accompanied by Rob Marcroft Email marcrofthrob@earthlink.netAddress P.O. Box 1092 Hailey, ID 83333Relationship to permit holder Property Manager Phone No. 208-788-29214. Source Seamans Creek tributary to Sinks**B. OVERLAP REVIEW**1. Other water rights with the same place of use 37-22582, 37-227972. Other water rights with the same source and point of diversion 37-22582**C. DIVERSION AND DELIVERY SYSTEM**

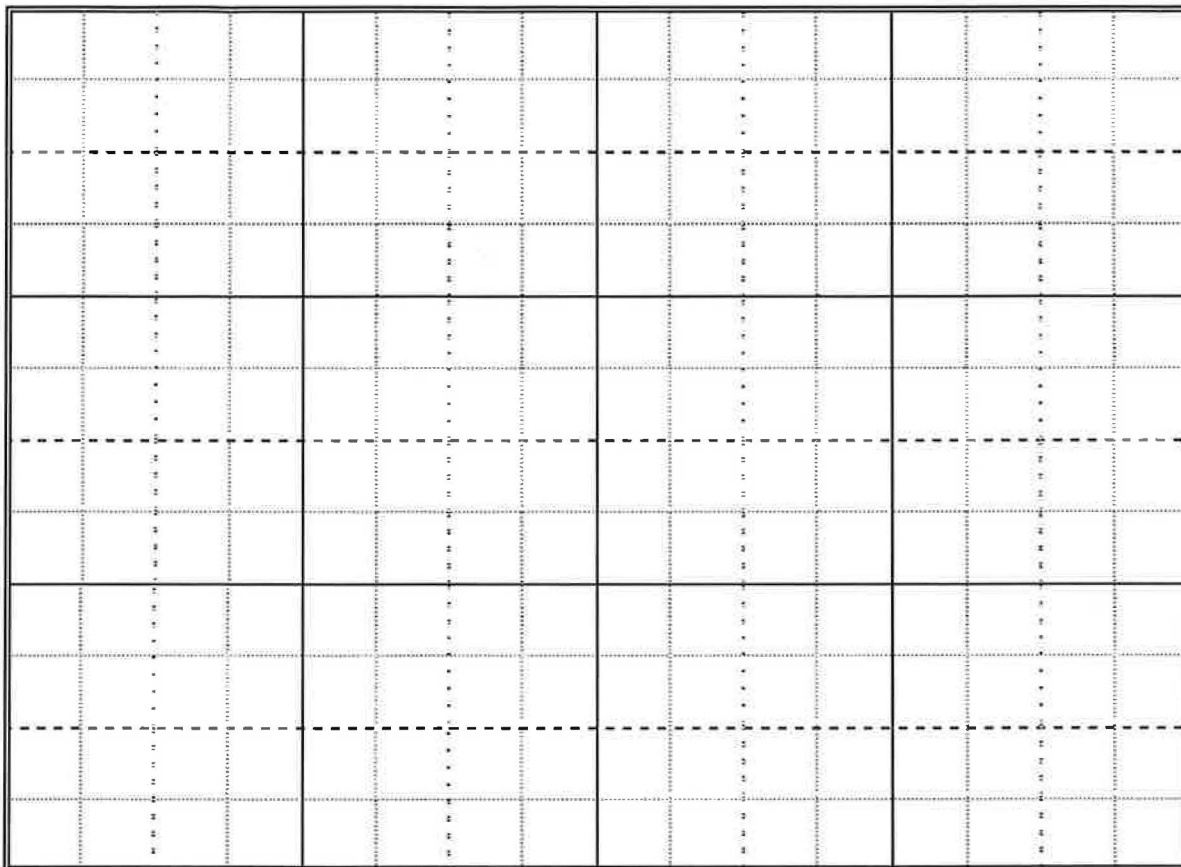
## 1. Point(s) of Diversion:

| Ident. No. | Gov't Lot | ¼  | ¼  | ¼  | Sec | Twp | Rge | County | Method of Determination/Remarks |
|------------|-----------|----|----|----|-----|-----|-----|--------|---------------------------------|
|            |           | SE | NW | NE | 32  | 02N | 19E | BLAINE | IDWR PLSS / Site Inspection     |
|            |           | NE | NE | NW | 33  | 02N | 19E | BLAINE | IDWR PLSS / Site Inspection     |
|            |           |    |    |    |     |     |     |        |                                 |
|            |           |    |    |    |     |     |     |        |                                 |

2. Place(s) of Use: Method of determination Historical and IDWR (NAIP) aerial imagery.

| 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 | 19E | 32  |    | 4.3 | 0.6 |    |    |    |    |    |    |    |    |    |    |    |    |    | 4.9    |
|     |     |     |    |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |        |
|     |     |     |    |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |        |
|     |     |     |    |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |        |
|     |     |     |    |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |        |
|     |     |     |    |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |        |
|     |     |     |    |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |        |

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☒ see attached.



Scale: 1" = \_\_\_\_\_

- ☒ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (required)  
☒ Aerial photo attached (required for irrigation of 10+ acres)  
☒ Photo of diversion and system attached

4.

| Well or Diversion Identification No.* | Motor Make | Hp  | Motor Serial No. | Pump Make | Pump Serial No. or Discharge Size |
|---------------------------------------|------------|-----|------------------|-----------|-----------------------------------|
| North Irrigation Pump                 |            |     |                  |           | 3"                                |
| South Irrigation Pump                 |            |     |                  |           | 3"                                |
| Seamans Creek                         | N/A        | N/A | N/A              | N/A       | N/A                               |

\*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 |
|-------------------------------------|------------|-----------|-----------|------------|--------|-------------|
| North Irrigation Pump In-line Meter | Ultrasonic | Master Me | Octave    | 163026526  | 3 inch | 2016        |
| South Irrigation Pump In-line Meter | Ultrasonic | Master Me | Octave    | 163026517  | 3 inch | 2016        |

2. **Measurements:** \_\_\_\_\_

Existing in-line ultrasonic meters used for measurement purposes at point of re-diversion where irrigation water is diverted from Seamans Creek. See attached narrative for details.



**F. FLOW CALCULATIONS**☐ Additional computation sheets attached

Measured Method:

Two (2) In-line Master Meter Octave Meters (both 3"), See Narrative;

North Meter- 94.9 gpm / 0.21 cfs.

South Meter- 127.7 gpm / 0.28 cfs.

Total Recommended Discharge Rate: 0.50 cfs.

**G. VOLUME CALCULATIONS**

## 1. Volume Calculations for Irrigation:

$$V_{I,R} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 4.9 \text{ acres} \times 3.5 \text{ ac-ft / acre} = 17.2 \text{ acre-feet}$$

$$V_{D,R} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = 0.50 \text{ cfs} \times 200 \text{ days} \times 1.9835 = 198.4 \text{ cfs days}$$

$$V = \text{Smaller of } V_{I,R} \text{ and } V_{D,R} = 17.4 \text{ AFA. Recommend 17.4 AFA for Irrigation Diversion.}$$

## 2. Volume Calculations for Other Uses:

Existing pond dimensions: Average 6ft depth x 1.2 acre surface area = 7.2 AFA.

**H. RECOMMENDATIONS**

## 1. Recommended Amounts

| Beneficial Use          | Period of Use |       | Rate of Diversion<br>Q (cfs) | Annual Volume<br>V (afa) |
|-------------------------|---------------|-------|------------------------------|--------------------------|
|                         | From          | To    |                              |                          |
| Irrigation Storage      | 01/01         | 12/31 |                              | 7.2 AFA                  |
| Irrigation from Storage | 4/15          | 10/15 | 0.50 cfs                     | 17.4 AFA                 |
|                         |               |       |                              |                          |
|                         |               |       |                              |                          |
|                         |               |       |                              |                          |
| <b>Totals:</b>          |               |       | 0.50 cfs                     | 24.6 AFA                 |

## 2. Recommended Amendments

☐ Change P.D. as reflected on page 1☐ Add P.D. as reflected on page 1☐ None☒ Change P.U. as reflected on page 1☐ Add P.U. as reflected on page 1☐ Other**I. AUTHENTICATION**

Field Examiner's Signature

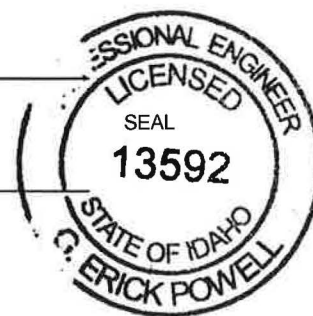


Date

8/19/19

Reviewer

Date



AUG 26 2019

DEPT OF WATER RESOURCES  
SOUTHERN REGION**ALVIN V. SHOEMAKER DBA SHOEMAKER PROPERTIES****Narrative in Support of Beneficial Use Exam; Permit 37-8739**

Brockway Engineering PLLC

August 19<sup>th</sup>, 2019

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Idaho Department of Water Resources (IDWR) water right permit 37-8739 was approved on 9/28/1992, proof was filed on 10/13/1992 ahead of the 11/1/1993 proof due date. The permit sat idle and no action was taken by IDWR until a 7/22/2010 letter to Charles E. Brockway of Brockway Engineering PLLC from Shelly Keen (IDWR) requested that Mr. Brockway perform the beneficial use exam associated with the permit. This narrative explains the beneficial use exam associated with permit 37-8739. For the field exam, two site visits were made to the Shoemaker property by Brockway Engineering staff, one on May 1<sup>st</sup> 2019 and the other on June 19<sup>th</sup> 2019. This exam attempts to substantiate the degree of beneficial use associated with the permit at the time of the proof filing.

On the east side of the property, Seamans Creek flows year round into a small "pump pond" that allows the year round storage of water under the permit for irrigation use, the point of diversion associated with 37-8739 is listed at the outlet of the pond. The pump pond's surface area is approximately 1.2 acres and it has an average depth of approximately 6 feet for a total pond volume of approximately 7.2 acre-feet. The pump pond has an operable outlet as well as an emergency spill way present. The pond stores water which spills over a glory hole at a set elevation if the operable outlet is closed, and out of a standpipe back into the channel of Seamans Creek (Figure 1). The irrigation water is then re-diverted downstream at the point of re-diversion by two submersible pumps used to irrigate lands around the main residence on the property. In the 7/25/92 USGS aerial image, the pond is absent as the permit was approved on 9/28/1992. Direct photographic evidence of the date of the pond construction does not exist although property management has indicated that the pond was constructed prior to the filing of proof for the permit.

During the first site visit, the inlet and the outlet of the pump pond were observed, as well as the existing pumps in Seamans Creek at the pond of re-diversion. At the pump pond (Figure 2), the grade of the land surface at the inlet is very flat and also very wide. Hydraulically, it would be very difficult physically to measure the inflow to the pond and therefore, no inlet measuring device is present (Figure 3). Additionally, the pond is lined and therefore minimal seepage occurs. Irrigation water was not being applied at the time of the first site visit in early May and therefore a second site visit was required to observe the discharge diverted for irrigation use was observed in June. In 2016, the IDWR code 42-1711b<sup>1</sup> changed from requiring oversight on a water impoundments that were ten feet or taller OR greater than 50 acre feet to ten feet or taller AND greater than 50 acre feet. Because the pump pond doesn't have an embankment that is taller than 10 feet and it doesn't store more than 50 acre-feet of water, it is not regulated by IDWR.

During the second site visit, the pump pond was full and irrigation was occurring from the point of re-diversion. Two pumps currently divert water simultaneously for irrigation around the residence from

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<sup>1</sup> "Dam" means any artificial barrier or embankment, together with appurtenant works, constructed for the purpose of storing water or that stores water, which is ten (10) feet or more in height from the natural bed of the stream or watercourse at the downstream toe of the barrier, as determined by the department, or from the lowest elevation of the outside limit of the barrier, if it is not across a stream channel or watercourse, to the maximum water storage elevation, and has or will have an impounding capacity at maximum water storage elevation of fifty (50) acre-feet or more.

Seamans Creek at the point of re-diversion (Figure 4). Two submersible pumps are hung in a vertical corrugated metal pipe sump that has an intake in Seamans Creek (Figure 5). The submersible pump make and models are unknown. Inquiries to local pump companies did not return any information on the pumps themselves. Each pump's discharge line was equipped with a 3" Master Meter Octave flow meter. This meter make and model is approved by IDWR for use on closed conduit diversions.

The northern pump irrigates the northern side of the creek around the residence in 13 zones with each zone containing a differing number of heads. The northern flow meter is a 3" Master Meter Octave S/N: 163026526 (Figure 6) and it measured a maximum discharge rate of 94.9 gallons per minute (gpm) or 0.21 cubic feet per second (cfs) in zone 13 which was comprised of six Rainbird Falcon 6504 sprinkler heads (Figure 7).

The southern pump (Figure 8) irrigates the southern side of the creek around the residence in six zones with each zone containing a differing number of heads. The southern flow meter is also a 3" Master Meter Octave S/N: 163026517 (Figure 9) and it measured a maximum flow rate of 127.7 gpm or 0.28 cfs in zone 2 (Figure 10) which was comprised of eight Rainbird Falcon 6504 sprinkler heads (Figure 11). The combined flow rate being pumped simultaneously from the re-diversion was observed at 223 gpm or 0.50 cfs.

As mentioned, the two submersible pumps allow for simultaneous irrigation from Seamans Creek. The plumping associated with the submersible pumps appears to not have been changed for some time, indicating that the pumps' line sizes at the time of construction and proof filing were likely the same as those existing during the time of the field exam (3"). Because the irrigation around the residence doesn't appear to have changed drastically between the date of the proof filling and the June 2019 site visit, it is reasonable to presume observed diversion rates from the point of re-diversion (0.49 cfs) for irrigation represent those developed during the permits development period prior to the time of the proof filing.

An irrigated area delineation was performed using the USGS 1992 black and white aerial image. The total area irrigated in 1992 leading up to the proof filing date is assumed to be 4.9 acres based on the 7/25/1992 image and observing the extent of the currently irrigated area configuration on the property as seen during the field exam site visit (delineation attached). All of the area irrigated under 37-8739 overlaps with irrigation under IDWR water right license 37-22582's place of use shapefile as shown on the attached IDWR Map.

**Condition Review and Recommendations:**

1. *Proof of construction of works and application of water to beneficial use shall be submitted on or before November 1, 1993.*
  - a. Condition has been met, recommend removing from license.
2. *Subject to all prior water rights.*
  - a. Recommend condition remain on license.
3. *Use of Water under this water right will be regulated by the Watermaster of State Water District No. 37.*
  - a. Recommend condition remain on license.
4. *A measuring device and lockable controlling works of a type acceptable to the Department shall be permanently installed and maintained as part of the diverting works prior to diversion of water under this right.*

- a. Condition has been met, recommend condition remain on license. Permit holder has installed closed conduit measurement device of a type approved by IDWR. Pump outlet piping has valving present that could be locked by Watermaster if necessary.
5. *Any license issued by IDWR pursuant to the right or portion thereof for the use of trust water is subject to a term review of 20 years after the date of this approval to determine availability of water for the use and to re-evaluate the public interest at the end of the term.*
  - a. Recommend removal of this condition prior to license. Field exam is occurring twenty seven years post beneficial use exam filing and is therefore irrelevant.
6. *Diversion and use of water under this right is subject to an annual use fee if rules are subsequently promulgated which provide for the submittal of the fee.*
  - a. Recommend removal of this condition prior to license approval. Water right holder already pays Water District 37 an annual assessment for administration of this water right.
7. *The Director retains jurisdiction of this right and/or subsequent license issued to change, add or remove any requirement as determined to be appropriate.*
  - a. Recommend removal of condition prior license approval.
8. *Permanent measuring devices must be installed in such a manner that the amount of water entering the reservoir and the amount of water released from the reservoir can be measured.*
  - a. Recommend removing condition prior to license. Measurement of Seamans Creek inflow and outflow does not assist in administration of this right as this right is measured at the point of re-diversion. Topographic conditions don't allow accurate measurements to be made.
9. *The storage of water under this right is contingent upon the certification of the dam and authorization of the storage per the dam safety provisions of the Idaho Code.*
  - a. Recommend removal of condition prior to licensing, storage feature does not meet requirement for certification per a recent change to Idaho Code 42-1711b.
10. *This permit does not authorize the development and irrigation of new land not previously irrigated.*
  - a. Condition has been met, recommend condition remain on license. Irrigation place of use under existing water right(s) owned by permit holder overlap (37-22582) with irrigation place of use of use associated with 37-8739.
11. *The point of re-diversion is from a recreational pond back into Seamans Creek.*
  - a. Recommend removal of condition prior to licensing. Condition contradicts the point of re-diversion location as described in "Location of Point(s) of Diversion" descriptor (SEWNNE, Sec. 32, T.02N R.19E). The condition should read, "The point of diversion is from a recreational pond back into Seamans Creek."

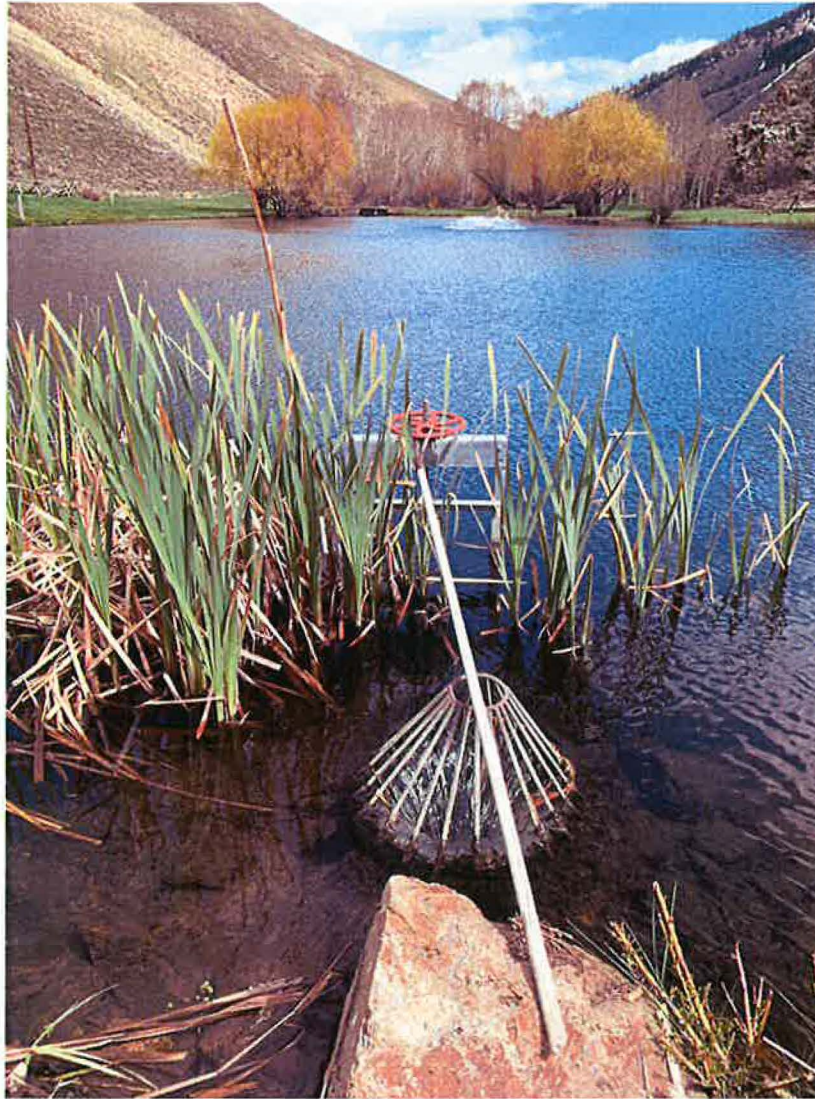


Figure 1: Pump Pond Outlet Looking East.



Figure 2: Pump Pond Panorama Looking Southwest from North Bank.

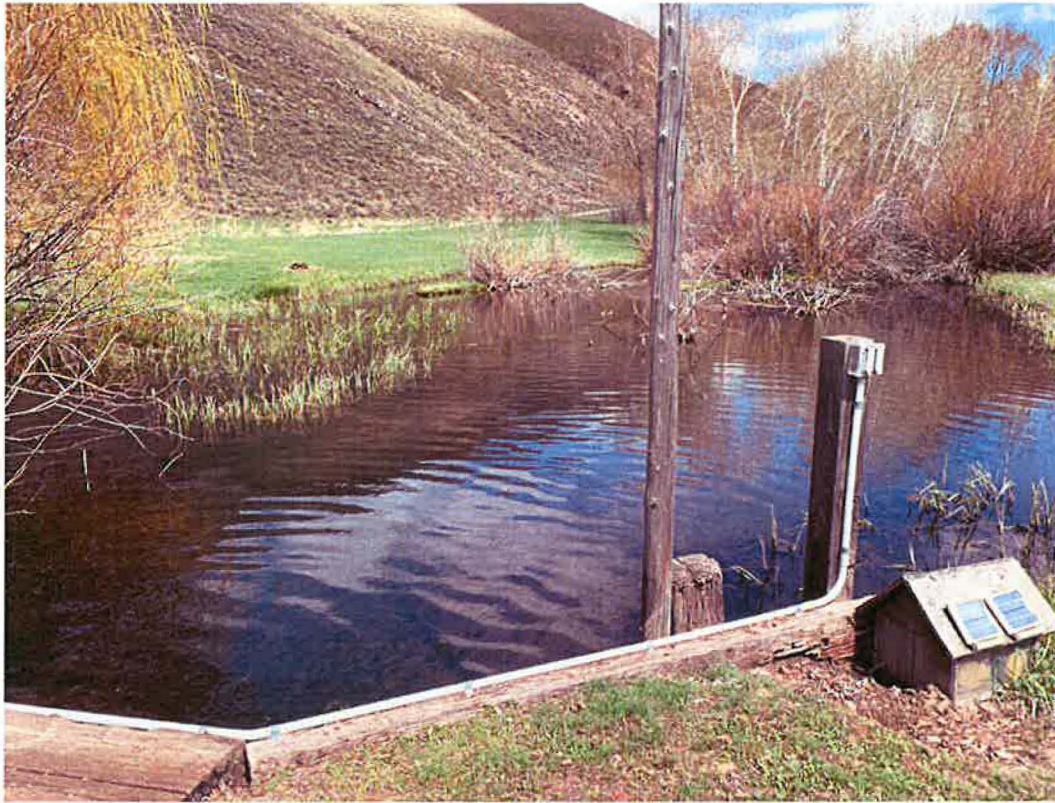


Figure 3: Pump Pond Inlet Looking East.

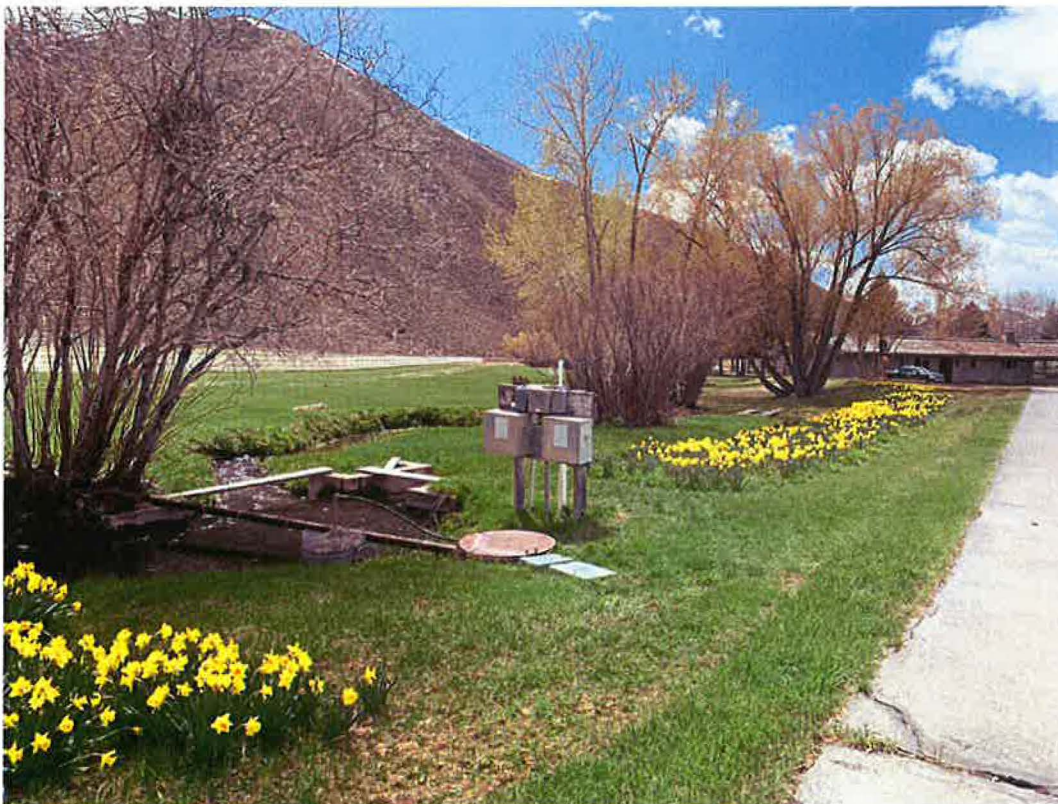


Figure 4: Point of Re-Diversion, Looking West with Residence in Background.



Figure 5: Seamans Creek, Verticle Sump with two Pumps, Power and Irrigation Control Panel and Northern Meter.



Figure 6: Northern Flow Meter.



Figure 7: Northern Pump Irrigation.



Figure 8: Southern Red Pump Meter on South (right side) side of Seamans Creek.



Figure 9: Southern Pump Flow Meter.



Figure 10: Southern Pump Irrigation.



Figure 11: Rainbird Falcon 6504 Sprinkler Head.



USDA FSA, ISU GIS TRC

0 200 400 800 Feet

**SHOEMAKER, ALVIN V. & SALLY P.**

BENEFICIAL USE EXAM  
WATER RIGHT 37-8739

BROCKWAY ENGINEERING, PLLC.  
ICB - Date: 8/19/2019

1992 USGS AERIAL

-  POD
-  Rediversion (pumps)
-  Irrigated area = 4.9 ac.





**SHOEMAKER, ALVIN V. & SALLY P.**

BENEFICIAL USE EXAM  
WATER RIGHT 37-8739

1992 USGS AERIAL

BROCKWAY ENGINEERING, PLLC.  
ICB - Date: 8/19/2019

- Rediversion (pumps)
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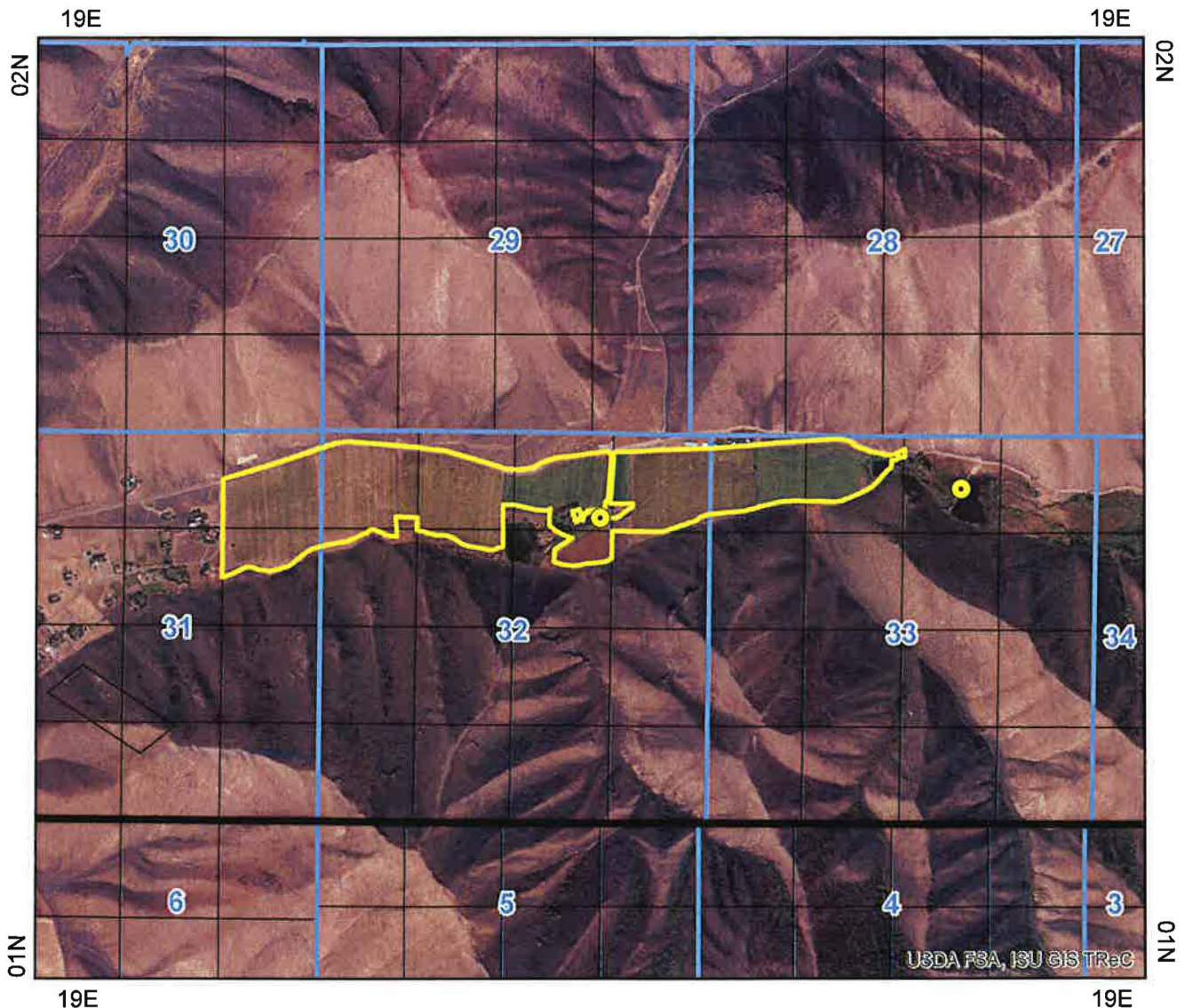


State of Idaho  
Department of Water Resources

**Water Right**  
**37-22582**

IRRIGATION

The map depicts the place of use for the water use listed above and point(s) of diversion of this right as currently derived from interpretations of the paper records and is used solely for illustrative purposes. Discrepancies between the computer representation and the permanent document file will be resolved in favor of the actual water right documents in the water right file.



-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters

State of Idaho  
Department of Water Resources  
**Permit To Appropriate Water**

NO. 37-08739

Proposed Priority: March 4, 1991

Maximum Storage Volume:

12.0 AF

This is to certify, that **ALVIN V SHOEMAKER**  
DBA SHOEMAKER PROPERTIES  
C/O BOB MARCROFT  
PO BOX 1092  
HAILEY ID 83333

has applied for a permit to appropriate water from:

**SEAMANS CREEK**

tributary of **SINKS**

and a permit is **APPROVED** for development of water as follows:

| <u>BENEFICIAL USE</u>   | <u>PERIOD OF USE</u> | <u>RATE OF DIVERSION</u> | <u>ANNUAL VOLUME</u> |
|-------------------------|----------------------|--------------------------|----------------------|
| IRRIGATION STORAGE      | 01/01 to 12/31       |                          | 12.0 AF              |
| IRRIGATION FROM STORAGE | 04/15 to 10/15       |                          | 12.0 AF              |
|                         | <b>Totals</b>        |                          | <b>12.0 AF</b>       |

LOCATION OF POINT(S) OF DIVERSION:  
Rediversion

NENENW , Sec. 33, Township 02N, Range 19E  
SENWNE , Sec. 32, Township 02N, Range 19E  
BLAINE County

PLACE OF USE: IRRIGATION FROM STORAGE  
TWN RGE SEC

|            | <u>ACRES</u> | <u>ACRES</u> | <u>ACRES</u> | <u>TOTAL</u> |
|------------|--------------|--------------|--------------|--------------|
| 02N 19E 32 | NENE 1       | NWNE 2.5     | SWNE 8.8     |              |
|            | SENE 1.5     |              |              | 13.8         |

Total number of acres irrigated: 13.8

CONDITIONS/REMARKS:

1. Proof of construction of works and application of water to beneficial use shall be submitted on or before **November 1, 1993**.
2. Subject to all prior water rights.
3. Use of water under this water right will be regulated by the watermaster of State Water District No. 37.
4. A measuring device and lockable controlling works of a type acceptable to the Department shall be permanently installed and maintained as part of the diverting works prior to diversion of water under this right.
5. Any license issued by IDWR pursuant to the right or portion thereof for the use of trust water is subject to a term review of 20 years after the date of this approval to determine availability of water for the use and to re-evaluate the public interest at the end of the term.

**MICROFILMED**

OCT 26 1992

State of Idaho  
Department of Water Resources**Permit To Appropriate Water**

NO. 37-08739

CONDITIONS/REMARKS:

6. Diversion and use of water under this right is subject to an annual use fee if rules are subsequently promulgated which provide for the submittal of the fee.
7. The Director retains jurisdiction of this right and/or subsequent license issued to change, add or remove any requirement as determined to be appropriate.
8. Permanent measuring devices must be installed in such a manner that the amount of water entering the reservoir and the amount of water released from the reservoir can be measured.
9. The storage of water under this right is contingent upon the certification of the dam and authorization of storage per the dam safety provisions of the Idaho Code.
10. This permit does not authorize the development and irrigation of new land not previously irrigated.
11. The point of rediversion is from a recreational pond back into Seamans Creek.

This permit is issued pursuant to the provisions of Section 42-204, Idaho Code.  
Witness the signature of the Director, affixed at Boise, this

28 day of

September, 1992

*R. Keith Higginson*  
for R. Keith Higginson, Director

MICROFILMED

OCT 26 1992