

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 47-7696

Exam Date: 6/17/2009

1. Current Owner: HERMAN SIEVERS
3466 E 3500 N
KIMBERLY ID 83341
(208)423-5024

2. Accompanied by: *Herman Sievers*
Phone No: *(208) 423-5024*
Address: *3466 E. 3500 N, Kimberly, ID 83341*
Relationship to Permit Holder: *Self*

3. SOURCE

WASTE WATER

TRIBUTARY

SINKS

B. OVERLAP REVIEW

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

2. Other water rights with the same point of diversion:

*Shares owned from Twin Falls Canal Co., and
47-4216 can be irrigated at same time*

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

WASTE WATER

SW1/4SE1/4NE1/4

Sec. 32, Twp 10S, Rge 18E, B.M.

TWIN FALLS County

Method of Determination: *GPS/Garmin*

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	
10S	18E	32									32.0	39.0	40.0	40.0		21.0	40.0		212.0

Total Acres: 212

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 36 \times 4 = 144.0$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.72 \times 246 \times 1.9835 = 351.3$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \boxed{144.0}$$

2. Volume Calculations for Other Uses:

N/A

Note: Season of Use changed to reflect current IDWR standards (See Memo #9 Licensing, used as guidance).

G. NARRATIVE/REMARKS/COMMENTS

The field inspection conducted on 6/17/2009 confirmed only 1 POD, that with the original system had been piped to 2 different ponds and then pumped into 10 inch gated pipe and piped throughout the PPU. The headgate at the POD shows a high water mark of 9 inches height, 18 inches length rectangular weir, to confirm the maximum capacity of the system coming down the waste water ditch to be 3.05 cfs. Measurement taken during the field inspection of 8.4 inches x 18 inches equals 2.76 cfs. Maximum capacity for 10 inch pipe is 2.73 cfs. Wood slats are put in the weir and the entire flow goes to a concrete culvert with a buried 12 inch discharge, reducing to 10 inch buried line to a concrete culvert riser where the flow can be diverted in 3 different directions, at separate times, and then on to 10 inch gated pipe. Before the field was leveled out better, there were 2 ponds where the water was discharged to and then pumped out to the 10 inch gated pipe. The water was moved around the PPU depending on what crops were planted. The gated pipe on the east boundary, running north to south, the gravity flow is east to west. Property currently owned by Beta Seeds Inc, the gravity flow from the gated pipe in areas ran east to west, west to east, and south to north due to the uneven ground. When the waste water is no longer available, the same gated pipe is utilized to irrigate with Twin Falls Canal Co. water. A headgate for the Twin Falls Canal Co. water is located SESWSE.

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

H. RECOMMENDATIONS

1. Recommended Amounts

BENEFICIAL USE	PERIOD OF USE	DIVERSION RATE	ANNUAL VOLUME
IRRIGATION	03/15 to 11/15	0.720 CFS	144.0 AF
Totals:		0.720 CFS	144.0 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

Date

Reviewer

Date

Paul Hemenway 7/7/2009
Paul Hemenway 7/7/2009

Method of Determination:

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. *Gravity flow system from 10" gated pipe*

<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>
<i>N/A</i>					

*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>
<i>N/A</i>						

2. Measurements:

Rectangular Weir: 8.4 inches X 18 inches
U of I. Water Meas. 0.7' H X 1.5' L = 2.76 cfs

10" pipe (full) = 2.73 cfs maximum capacity of 10" pipe

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method:

same as above

PIPE FLOWS -- PUMPING SYSTEMS

[properly designed @ 5 ft. / sec.]

$$Q = 5 \pi r^2 \quad (r \text{ in ft.}) \quad Q = 5 \pi R^2 \quad (R \text{ in ft.})$$

$$R = (\text{diameter}/12) / 2 \quad \left(\frac{\text{dia}}{12} \right) \div 2$$

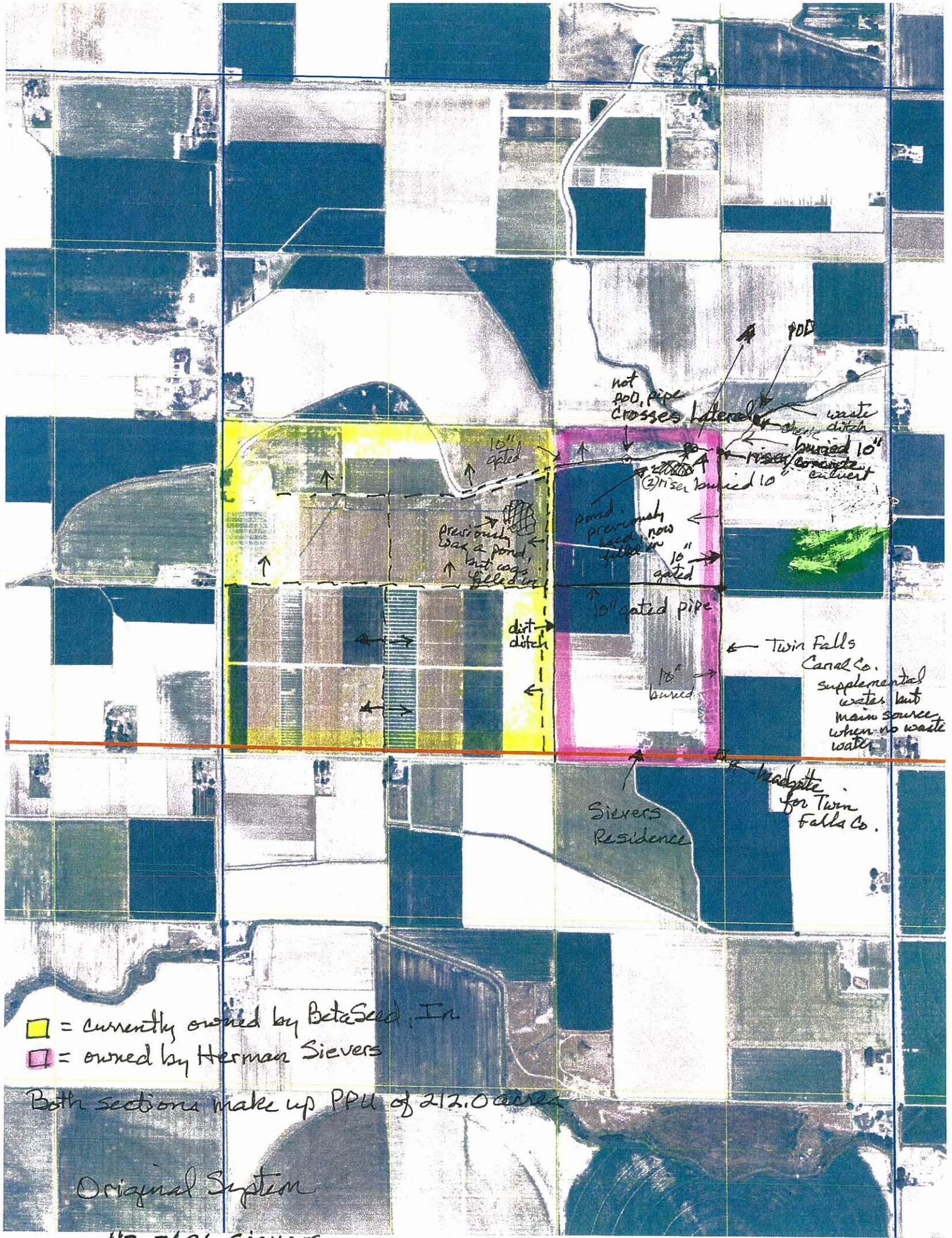
$$\pi = 3.1416$$

<u>PIPE DIAMETER(")</u>	<u>CFS (1/100)</u>	^(1/10) <u>MINER INCH</u>	^(1/10) <u>GALLONS/ MINUTE</u>
1	.03	1.5	13.5
2	.11	5.5	49.4
3	.25	12.5	112.2
4	.44	22.0	197.5
6	.98	49.0	439.8
8	1.74	87.0	780.9
10	2.73	136.5	1225.2
12	3.93	196.5	1763.8
14	5.34	267.0	2396.6
16	6.98	349.0	3132.6
18	8.83	441.5	3962.9
20	10.90	545.0	4891.9
22	13.19	659.5	5919.7
24	15.70	785.0	7046.2

THEORETICAL PSI's

Internal domestic	- 20 psi
Internal/external domestic	- 30 psi
Domestic w/ 5-10 acres	- 40 psi
Medium systems (up to 50 acres)	- 40 psi
Large pivots	- 60 psi

Pipe
Flow



- = currently owned by BetaSeed, Inc.
- = owned by Herman Sievers

Both sections make up PPU of 212.0 acres

Original System

47-7696 Sievers



Coneri
culvert
riser
directly
SE. of
weir



POD
weir

47-7696 Sievers



NWSH
NESH
POU
NWSE

buried
10" pipe
to rise
on south
side of
canal,
then,
10" pipe
crosses
canal
to rise
this
discharge
to 10"
gated
pipe

06/17/2009

concrete
culvert
riser
for
diversion
flow to
10"
buried
line +
10"
gated
pipe in
3
directions



06/17/2009



POU
Property
on north
side of
canal

06/17/2009



10"
gated
pipe.
run
east
to west

06/17/2009

47-7696 Sievers



10"
apex
pipe o
east
border
of prop
runnin
north
south
Grav
flow
east
west

47-7696 Sievers



headgate
or
control
box
for
Twin
Falls
Co.,
where
their
water
comes
on the
property

06/17/2009



headgate
discharge
to
10"
buried
line

06/17/2009

47-7696 Sievers