

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 36-8413
Exam Date: 6/13/2012

1. Current Owner: JOHN T THAIN
580 E 700 N
RUPERT ID 83350
(208)532-4107
2. Accompanied by: Greg Thain
Phone No: 208-431-4466
Address: same as above
Relationship to Permit Holder: son

3. **SOURCE**

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: Overlapping acres from 36-16699 and 36-16701 are recommended removed from this license.
2. Other water rights with the same point of diversion: 36-16699 and 36-16701

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

GROUND WATER SE1/4SW1/4 Sec. 17, Twp 08S, Rge 25E, B.M.
MINIDOKA County

Method of Determination: A GPS point collected by staff on 6/13/2012.

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	
08S 25E 17									18.3			28.2	.2	10.6	33.5	1.4	92.2
									L 98			L 98	L 98	L 98	L 98	L 98	
08S 25E 20	25.5	.4	9.1		9.7			4									48.7
	L 99	L 98	L 99		L 99			L 99									
08S 25E 20		35.2		7.4													42.6
		L 99		L 99													

Total Acres: 183.5

Method of Determination: 2011 aerial photography and acres verified by owner at time of field exam.

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

<u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No.</u>
A0003379	General Electric	50 hp	APJ131312		45146

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

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
Portaflow	Sonic	Fuji		240332		3/2012

2. Measurements: A measurement of 685.6 gpm was taken on 6/13/2012 but this exceed the limits (1.0 cfs) of the permit
Recommended 1.0 cfs for this licensed.

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method:

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 183.5 \text{ acres} \times 4 \text{ af} = 734 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 1.0 \text{ cfs} \times 246 \text{ days} \times 1.9835 = 488 \text{ AF}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 488 \text{ AF}$$

Recommended volume for irrigation is 488 AF.

2. Volume Calculations for Other Uses:
- N/A**

G. NARRATIVE/REMARKS/COMMENTS:

Application for permit 36-8413 was filed on March 2, 1989 to appropriate up to 1.0 cfs of groundwater for the irrigation of up to 201 acres on an existing farm. Proof of Beneficial use was filed on May 5, 1992.

The system consists of one existing well (A0003379), a 50 HP pump and a 50 HP booster. The acres of the farm in Section 17 are irrigated with a set of hand lines and ground water from the well. The acres in Section 20 are irrigated with MID surface water and the ground water is supplemental. (It is recommended that a condition be placed on license 36-8595 indicating that surface water always be used first when available.) The system has not changed since proof was filed as per Greg Thain during the field exam on 6/13/2012.

A measurement of 685.6 gpm or 1.53 cfs was taken on 6/13/2012 but this exceed the limits (1.0 cfs) of the permit. Recommended 1.0 cfs for this licensed. Volume was also limited by the flow of the permit and calculated by rate and irrigation days not the IDWR standard of 4 AF/acre. Recommended volume of 488 AF.

Research of IDWR records indicate water rights 36-16699 and 36-16701 are also diverted from this well so a combined limits condition is necessary. This license and 36-16699 and 36-16701 should be limited to the measured rate capacity (1.53 cfs) of the well. The combined volume for all three rights should be limited to the measured capacity of the diversion rate for the season. (1.53 cfs x 488 vol/cfs = 746.6 afa) Water right 36-16699 had 11.9 overlapping acres and 36-16701 had 5.4 overlapping acres. Both of these rights were recognized to the full 4 AF per acre and the overlapping acres are recommended to be removed from this license. The acre limit for the condition is recommended 241.5 acres. (183.5 acres+ 43 acres+15 acres =241.5 acre limit)

Note that the place of use shifted slightly to cover actual irrigated acres and is located in an area where sections are divided up by tracts rather than quarter-quarter descriptions. However, the place of use needs to be identified by quarter-quarter descriptions for the Department's various Workflow processes. Michael Ciscell of the IDWR Geospatial Technology Section provided estimated quarter-quarter lines within the place of use so that acre amounts could be determined. Also note that the tracts within the place of use have been identified as government lots with a corresponding condition that identifies the government lot with its corresponding tract designation.

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	1.000 CFS	488.00 AF
	<u>Totals:</u>	1.000 CFS	488.00 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 Sara Reeder Date _____

Reviewer [Signature] Date 7/16/12

Handlines

PPP

Well

36-8413

MID Surface Water

groundwater
Supplemental

36-16699

36-16701



36-8413

LOG NAME:A0003379
START :06-13 12:38
END :06-13 12:48
INTERVAL:00:01:00

6/13/2012 12:38

+4.506E+0 ft/s
+6.793E+2 gal/m
+TOTAL 0000000 gal
NORMAL

6/13/2012 12:39

+4.591E+0 ft/s
+6.923E+2 gal/m
+TOTAL 0000674 gal
NORMAL

6/13/2012 12:40

+4.559E+0 ft/s
+6.873E+2 gal/m
+TOTAL 0001360 gal
NORMAL

6/13/2012 12:41

+4.522E+0 ft/s
+6.818E+2 gal/m
+TOTAL 0002045 gal
NORMAL

6/13/2012 12:42

+4.517E+0 ft/s
+6.810E+2 gal/m
+TOTAL 0002732 gal
NORMAL

6/13/2012 12:43

+4.614E+0 ft/s
+6.958E+2 gal/m
+TOTAL 0003415 gal
NORMAL

6/13/2012 12:44

+4.591E+0 ft/s
+6.923E+2 gal/m
+TOTAL 0004107 gal
NORMAL

6/13/2012 12:45

+4.629E+0 ft/s
+6.979E+2 gal/m
+TOTAL 0004793 gal
NORMAL

6/13/2012 12:46

+4.442E+0 ft/s
+6.697E+2 gal/m
+TOTAL 0005478 gal
NORMAL

6/13/2012 12:47

+4.558E+0 ft/s
+6.873E+2 gal/m
+TOTAL 0006164 gal
NORMAL

6/13/2012 12:48

+4.491E+0 ft/s
+6.772E+2 gal/m
+TOTAL 0006856 gal
NORMAL

685.6 GPM

NWNW

SWNW

NWSW

SWSW

NENE

NWSE

SESE

SESW

Sec 17

Sec 20

per Michael Cissell
State Office (GIS)

6/25/12

18.3
NESW LOT 98
TRACT B

10.6
TRACT B
LOT 98

NESE
LOT 98

28.2
SESW LOT 98
TRACT B

33.5
SWSE LOT 98
TRACT B

SESE
LOT 98

TRACT B
LOT 98

NENW

9.7
LOT 99

12.3
SESW
LOT 99

NWNE
LOT 99

12.2
SWNE
LOT 99

TRACT A

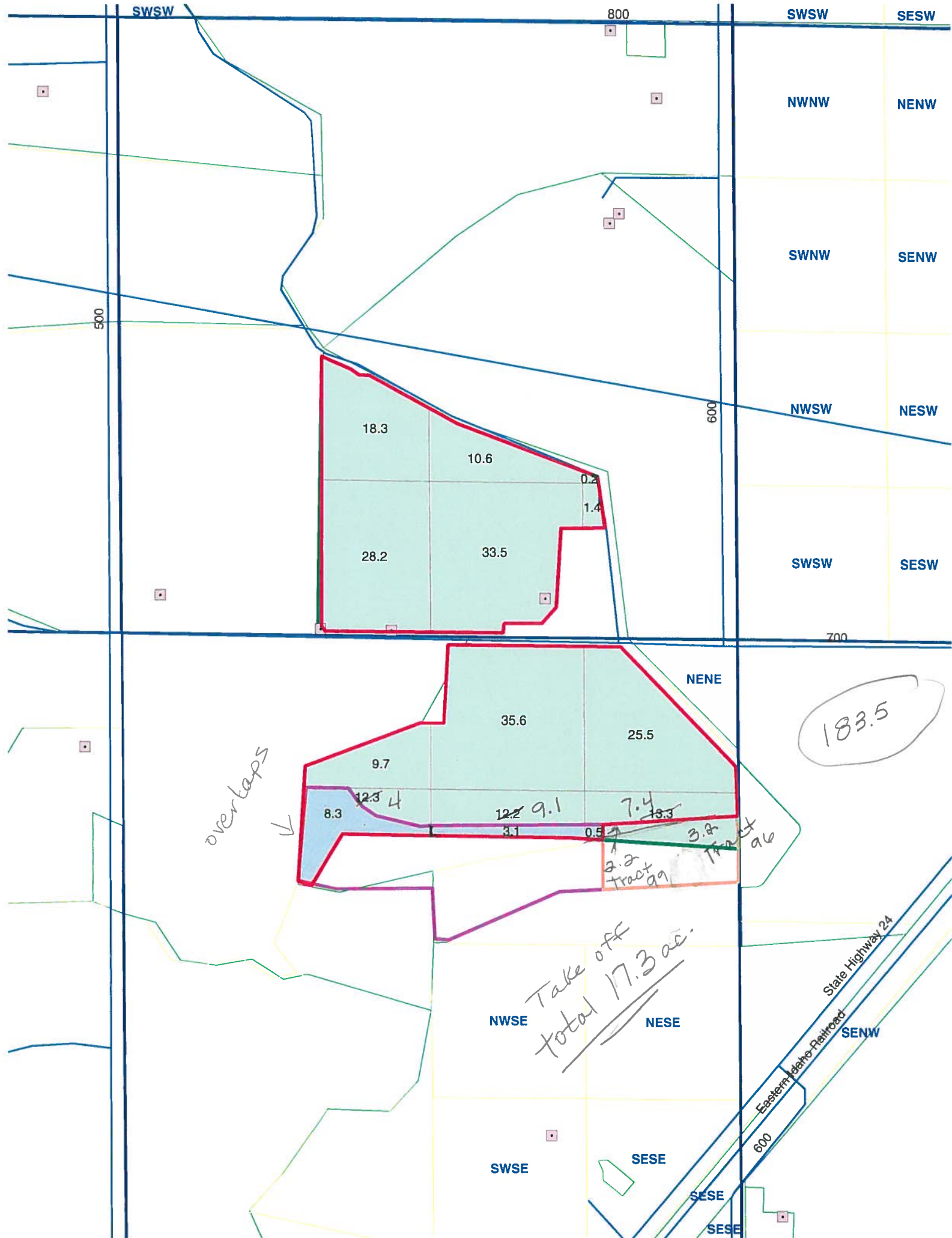
25.5
NENE
LOT 99

TRACT A LOT 99

SENE

TRACT B
LOT 98

State Highway 24
Eastern Idaho Railroad





Thain 36-8413

A0003379

50 HP and 50 HP Booster



Handlines



Out to north field-valve open

Out to south field-valve closed