

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 15-7408
Exam Date: 05/04/2015

1. Current Owner: MALAD FARM LLC
16904 JUANITA DR NE STE 269
KENMORE WA 98028

*Permit 15-7192 was split into
licenses 15-7192 and 15-7408 at
licensing.*

2. Accompanied by: LuAnn Thomas
Relationship to Permit Holder: Original permit-holder's wife

3. SOURCE TRIBUTARY
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None. Samaria Irrigation Company's POU overlaps some of this right's POU, but license-holders have no shares in the company.
2. Other water rights with the same point of diversion: 15-7237

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER SW1/4SE1/4 Sec. 28, Twp 14S, Rge 35E, B.M.
ONEIDA County

Method of Determination: GPS and ArcMap

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	
14S	35E	27									7.5	27.0							34.5
14S	35E	28													4.2	1.6	30.0	40.0	75.8
14S	35E	33	40.0	22.0	.5	33.0									10.0				105.5
14S	35E	34					32.0	36.0			9.5	6.0	7.5						91.0

Total Acres: 306.8

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. Well and Point of Diversion Information

400 HP motor, with a VFD.

D. FLOW MEASUREMENTS1. Measurement Equipment

Measured with a Fuji Portaflow ultrasonic meter. The printer was not working, so a watch was used as a timer. Both pipes were measured separately. Pipe two was measured downstream of booster.

2. Measurements: Please see attached "Measurement Calculations" sheet.

E. FLOW CALCULATIONS

_____Additional Computation Sheets Attached

Highest observed rate on the two pipes: 2724 gpm and 2550 gpm.

$$2724 \text{ gpm} + 2550 \text{ gpm} = 5274 \text{ gpm/system}$$

$$5274 \text{ gpm/system} / 448.83 \text{ gpm/cfs} = 11.75 \text{ cfs/system}$$

$$306.8 \text{ acres} * 0.02 \text{ cfs/acre} = 6.14 \text{ cfs for } 306.8 \text{ acres}$$

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 306.8 \text{ acres} \times 3.5 \text{ acre feet/acre} = 1073.8 \text{ acre feet}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 6.14 \times 214 \text{ days} \times 1.9835 = 2606.24 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 1073.8 \text{ acre feet}$$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS

Licensed area based on both 2005 Google Earth imagery and the system as it was set-up in 2013.

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	04/01 to 10/31	6.140 CFS	1,073.80 AF
<u>Totals:</u>		6.140 CFS	1,073.80 AF

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☐ None

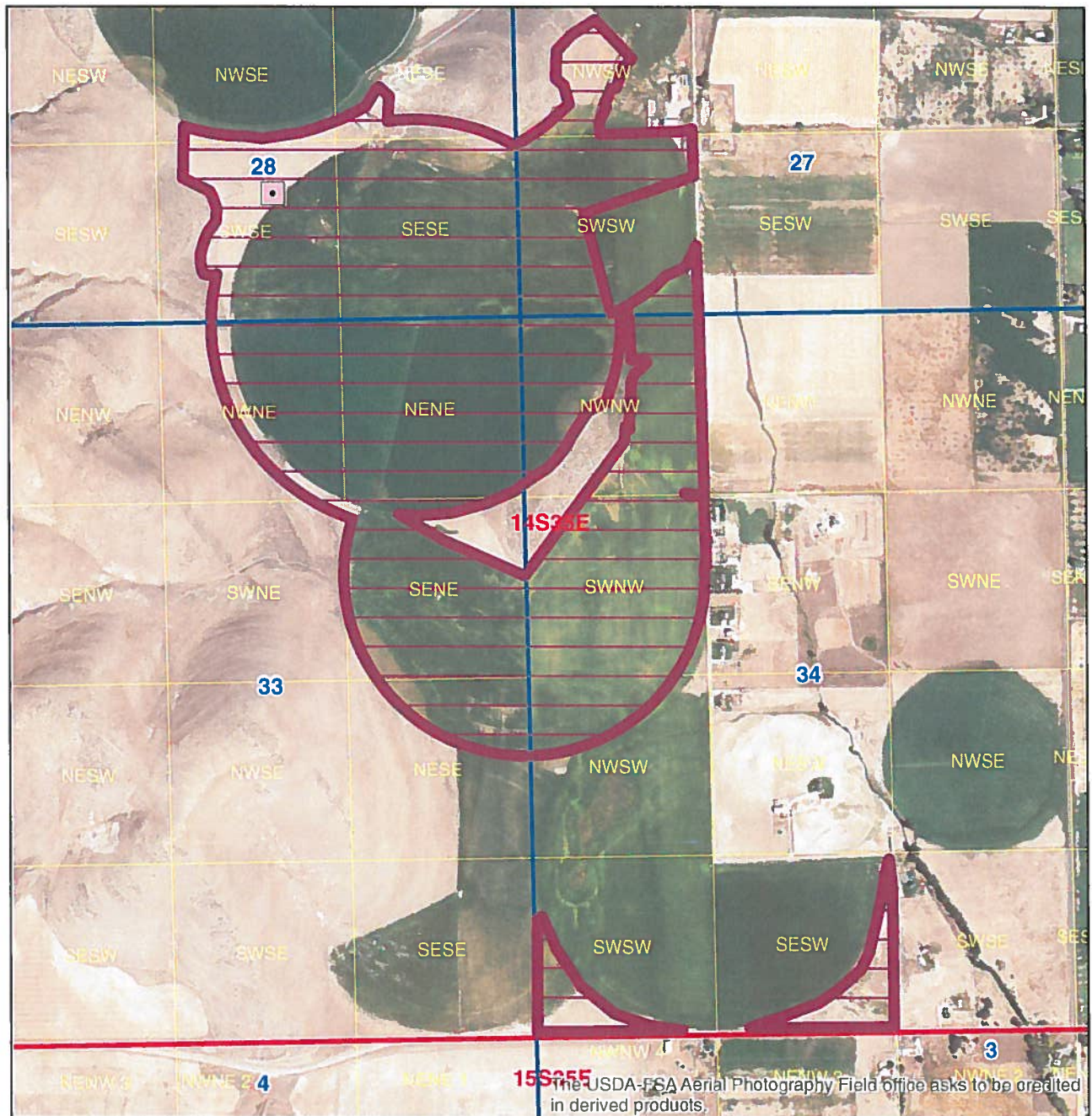
☒ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

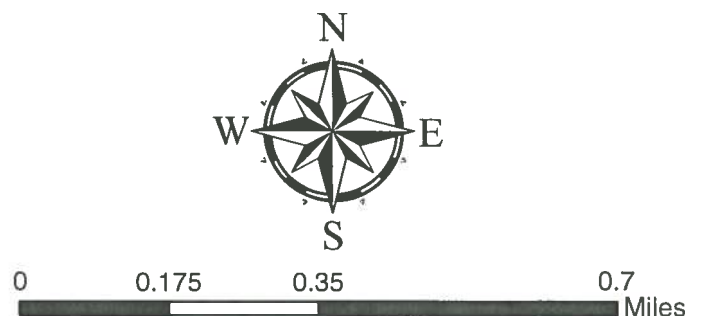
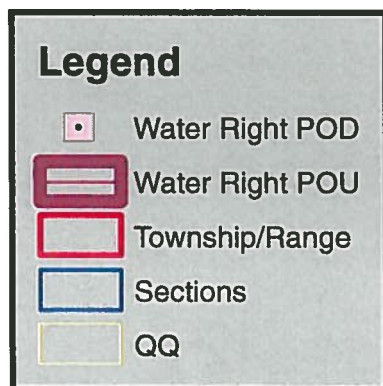
Field Examiner's Name Cooper Fritz Date 5/18/2015

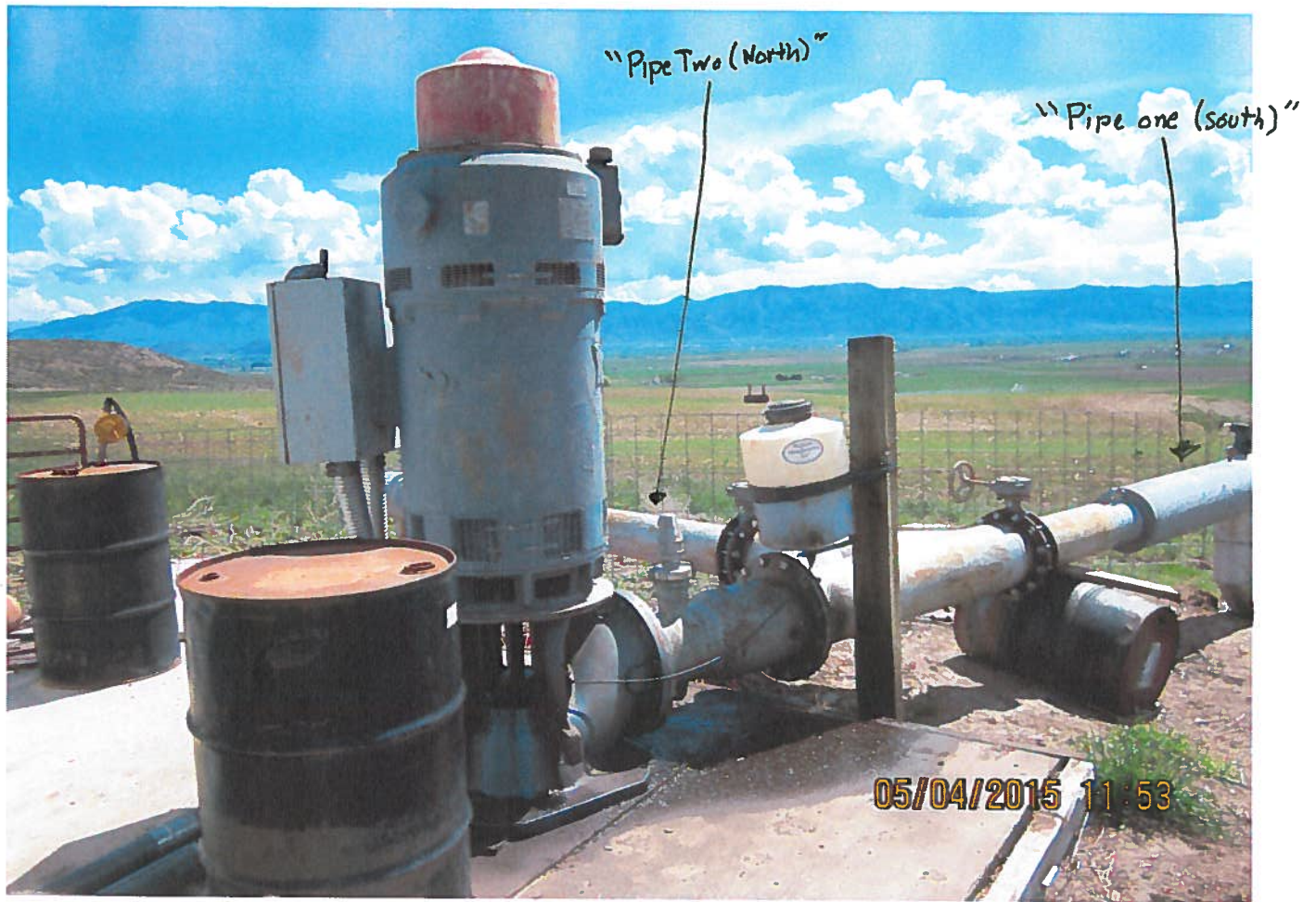
Reviewer _____ Date _____

15-7408 POD and POU



2013 Imagery
Water Right Shape Based on 2005 Aerial Photography





POD for 15-7237 & 15-7408

Measurement calculations

for well in 14S35E 28 SWSE (POD for 15-7408 & 15-7237)

Pipe one: 11:42:04 - 27214 gallons
11:31:38 - 290 gallons
10.567 min - 26924 gallons

$$(10 \text{ minutes} / 10.567 \text{ minutes}) \times 26924 \text{ gpm} = 25479.3 \text{ gpm} / 10 = 2547.9$$

- or -

$$26924 \text{ gpm} / 10.567 \text{ minutes} = 2547.93 \text{ gpm}$$

Highest observed rate: 2724 gpm

Pipe two: 12:36:12 - 24431 gallons
12:26:06 - 00080 gallons
10.10 minutes - 24381 gallons

$$\frac{24381 \text{ gallons}}{10.10 \text{ minutes}} = 2413.96 \text{ gpm average.}$$

Highest observed rate: 2550 gallons per minute.

$$2724 \text{ gpm} + 2550 \text{ gpm} = 5274 \text{ gpm/system} / 448.83 \text{ gpm/cfs} =$$
$$11.75 \text{ cfs/system}$$

$$\begin{aligned}
 & \bar{y} - \bar{y}^* = \bar{y} - \bar{y}^* + \bar{y}^* - \bar{y}^* \\
 & + \bar{y} - \bar{y}^* + \bar{y}^* - \bar{y}^* \\
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 \end{aligned}$$

$$\begin{aligned}
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 \end{aligned}$$

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 \end{aligned}$$

$$\bar{y} - \bar{y}^* = \bar{y} - \bar{y}^* + \bar{y}^* - \bar{y}^*$$

$$\begin{aligned}
 & \bar{y} - \bar{y}^* = \bar{y} - \bar{y}^* + \bar{y}^* - \bar{y}^* \\
 & + \bar{y} - \bar{y}^* + \bar{y}^* - \bar{y}^* \\
 & + \bar{y} - \bar{y}^* + \bar{y}^* - \bar{y}^* \\
 & + \bar{y} - \bar{y}^* + \bar{y}^* - \bar{y}^* \\
 & = \bar{y} - \bar{y}^* + \bar{y}^* - \bar{y}^*
 \end{aligned}$$

15-05-04 11:31:38
+2.537E+3 gal/m
TOTAL 298 gal
NORMAL

Pipe one (south)

15-05-04 11:47:04
+2.631E+3 gal/m
TOTAL 27214 gal
NORMAL

14S 35E 28 SWSE

15-05-04 11:47:04
+2.631E+3 gal/m
TOTAL 27214 gal
NORMAL

15-05-04 11:47:04

15-05-04 11:47:04
+2.631E+3 gal/m
TOTAL 27214 gal
ABNORMAL

Pipe 2 - "Abnormal"
Printer failure

14S 3SE 28 SWSE

Pipe Z (North)

Start: 12:26:06



14S 35E 28 SW SE
Pipe 2 (north)
End: 12:36:12

