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AUG 22 2013

DEPARTMENT OF
WATER RESOURCES

Form 219 07/11

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

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 INFORMATIONPermit No. 34-2486

1. Owner Mark Telford Phone No. (208) 527-5956
 Current address PO Box 511, Arco, ID 83213
2. Examiner's name David Shaw EXAM DATE 5/14/2013
3. Accompanied by Mark Telford Email _____
 Address PO Box 511, Arco, ID 83213
 Relationship to permit holder Self Phone No. (208) 587-5956
4. Source Ground Water tributary to _____

B. OVERLAP REVIEW

1. Other water rights with the same place of use 34-13, 10873, 12, 817B, 2507, 810, 10935, 811, 818, 862, 258, 855
2. Other water rights with the same source and point of diversion None

C. DIVERSION AND DELIVERY SYSTEM

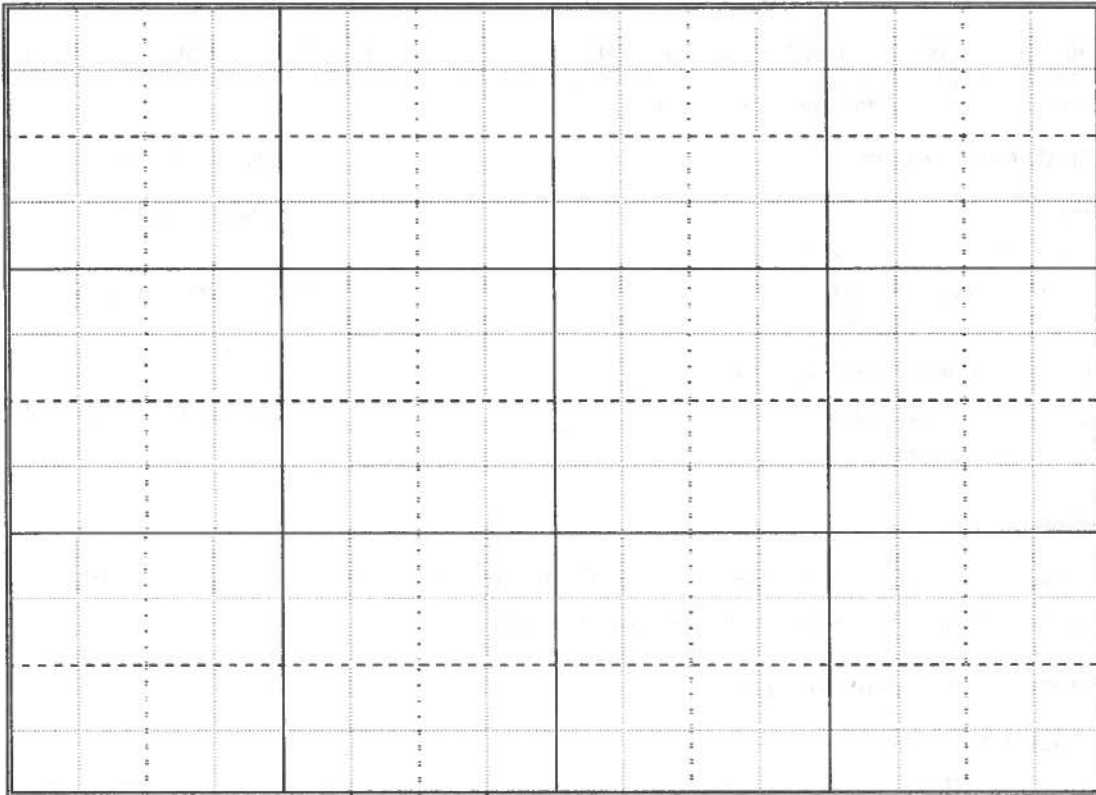
1. Point(s) of Diversion:

Ident. No.	Gov't Lot	1/4	1/4	1/4	Sec	Twp	Rge	County	Method of Determination/Remarks
1		NW	NW	NW	12	3N	26E	Butte	IDWR GPS
2		NW	NW	NW	12	3N	26E	Butte	IDWR GPS

2. Place(s) of Use: Method of determination Aerial Photos - 1978 and 2011 - Figures 1 and 2

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
3N	26E	12					5.3	35.2	38.3	32.5	39.2	37.8							188.3
							1.8	35.8	37.5	33.2	32.8	37.2							178.3

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
Well #2	General Electric	100	ERJ523327	Unknown	Unknown

*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
Ultrasonic	T. Time	Polysonics	DCT-7088	33508		5/13/13

2. **Measurements:** _____

The transducers were installed as shown in Photos 1 and 2. Water began discharging from the pipe when Well #2 was started. The initial discharge was over 2,000 gpm but eventually stabilized at about 1,720 gpm or 3.83 cfs.

F. FLOW CALCULATIONS☐ Additional computation sheets attached

Measured Method:

Transit time meter measured discharge at 3.83 cfs, direct read at 1,720 gpm.

$$188.3 \times 0.02 = 3.77 \text{ cfs}$$

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 188.3 \times 3.5 = 659 \text{ AFA}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = 3.83 \times 214 \times 1.9835 = 1,626 \text{ AFA}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 659 \text{ AFA}$$

2. Volume Calculations for Other Uses:

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
Irrigation	4-1	10-31	3.77	659
Totals:			3.77	659

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

8/19/13

Reviewer

Date



E. NARRATIVE/REMARKS/COMMENTS

This permit has a long history since its approval in 1959. The permit was lapsed and eventually reinstated in 2002.

The original proof of beneficial use was due in 1971 but proof of beneficial use was not submitted until 1989 and was finally accepted in 2002 when the permit was reinstated. Since that time the water right permit and the land being irrigated has changed ownership and is now owned by Mark Telford.

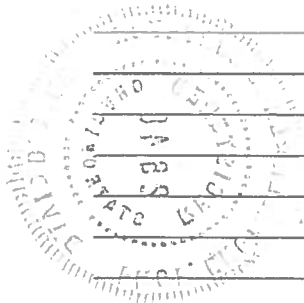
There is evidence in the water right file of ground water being used on the property under the permit prior to the permit being reinstated in 2002 and also prior to the original proof date in 1971. This water right is supplemental to surface water used on this property.

Figure 1 shows the irrigation on the property in 1978. This was the first photo after 1971 that could be located for this property. Figure 2 shows the irrigation on the property in 2011. Given the history of this water right it is not clear which acreage should be recommended for license. Normally it would be the acreage identified as closely as possible with the date proof is due. In this case that acreage is 188.3 acres as shown in the first line of Section C.2. above.

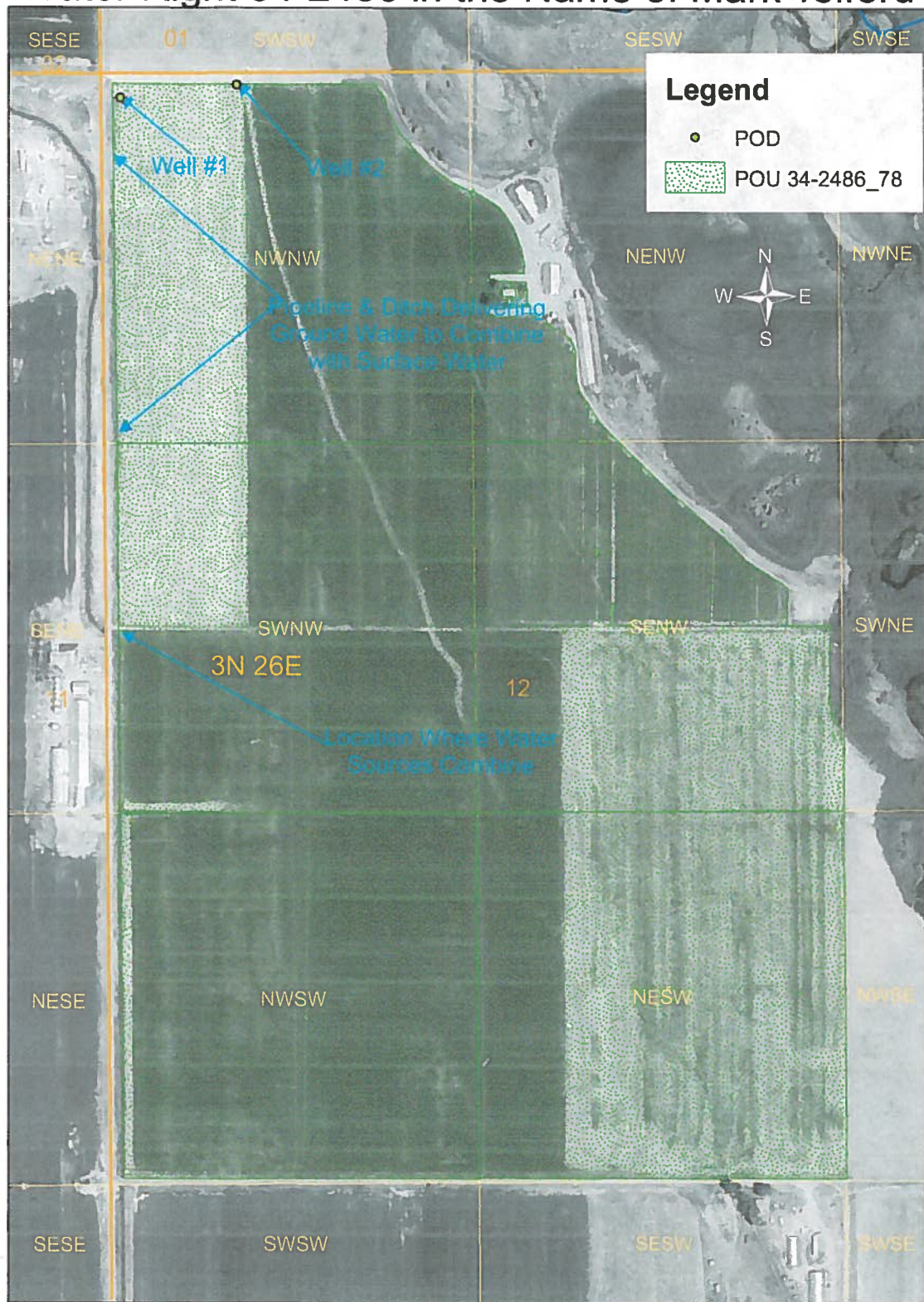
The irrigated acreage taken from 2011 photography is shown in a lower line of Section C.2 above and is 178.3 acres.

Photos 1 and 2 as noted above show the location of the transducers during the time of the flow measurement for the field exam, photos 3 and 4 show the pump motor installation on Well #2. Well #1 is not currently used but is requested to stay on the license as an allowable point of diversion should problems develop with Well #2 that result in reduced or lost production. There is no intent to operate the wells together to increase the diversion rate above the amount allowed by this license.

Has the permit holder met all conditions of permit approval, including any mitigation requirements and/or measuring device installation requirements? ☒ Yes ☐ No If no, what must be done to meet the permit requirements?



Water Right 34-2486 in the Name of Mark Telford



Based on 1978 USDA Photography

Prepared for Mark Telford by ERO July 2013

Figure 1

Legend

- POD
- POU 34-2486-11

Map Labels:

- SESE 02
- 01
- SWSW
- SESW
- SWSE
- NENE
- NENW
- NWNE
- SENE
- SNNW
- SWNE
- NESE
- NWSW
- NESW
- SWSE
- SESW
- SWSE

Map Features:

- Well #1
- Well #2
- Pipeline & Pond Delivering Ground Water to Combine with Surface Water
- 3N 26E
- Location Where Water Sources Combine and Pumping Plant for Sprinklers
- 12

Compass Rose:

- N
- E
- S
- W

Prepared for Mark Telford by ERO July 2013

Figure 2

34-2486 Field Exam Photos



Photo 1 – Transducers installed on pipeline



Photo 2 – Measurement location looking north



Photo 3 – Well #2 looking south



Photo 4 – Well #2 motor name plate