

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 57-7664

Exam Date: 6/25/2012

1. Current Owner: SUSIE ALEXANDER
And
MARK ALEXANDER
HC 79 BOX 123
MELBA ID 83641
(208)896-4593
2. Accompanied by: Jason Christenson
Phone No: 941-4815
Address:
Relationship to Permit Holder: rents from permit holder
3. SOURCE TRIBUTARY
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 57-7540
2. Other water rights with the same point of diversion: none

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

GROUND WATER L3 NE1/4NW1/4 Sec. 13, Twp 01N, Rge 04W, B.M. OWYHEE County

Method of Determination: GPS and visual inspection

2.

PLACE OF USE:

<u>PLACE OF USE:</u>			IRRIGATION																
Twp	Rge	Sec	NE				NW				SW				SE				<u>Totals</u>
			<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
01N	04W	12																31.0	31.0
01N	04W	13						.1											.1
Total Acres:			31.1				L 3												

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 or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Site Tag # A0018585	Franklin Electric	10	226 1129 020	Baldore Reliance Paco Pump	10-20709-040001-1 761

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

D. FLOW MEASUREMENTS

1. Unable to take a measurement with the Thyme Flyte
2. Measurements: None taken

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method:

Diversion rate per acre $0.02 \times 31.1 = .62$ cfs

Theoretical 0.65 cfs

___X___ Additional Computation Sheets Attached

Recommended diversion rate: 0.62 cfs**F. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 31.1 \times 4.5 = 139.9 \text{ annual acre feet}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = .62 \times 260 \times 1.9835 = 319.7$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 139.9$$

2. Volume Calculations for Other Uses: none

G. NARRATIVE/REMARKS/COMMENTS

The water that supplies the system is diverted through a well in Township 1 North, Range 4 West, Section 13 NENW. From the well a buried pipe transports water first to the east and north and then almost directly north to the pivot which is in Township 1 North, Range 4 West, Section 12, SESW, roughly 1/3 of a mile from the pump.

Have conditions of permit approval been met? ___X___ 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	0.62 CFS	140.00 AF
	<u>Totals:</u>	0.62 CFS	140.00 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

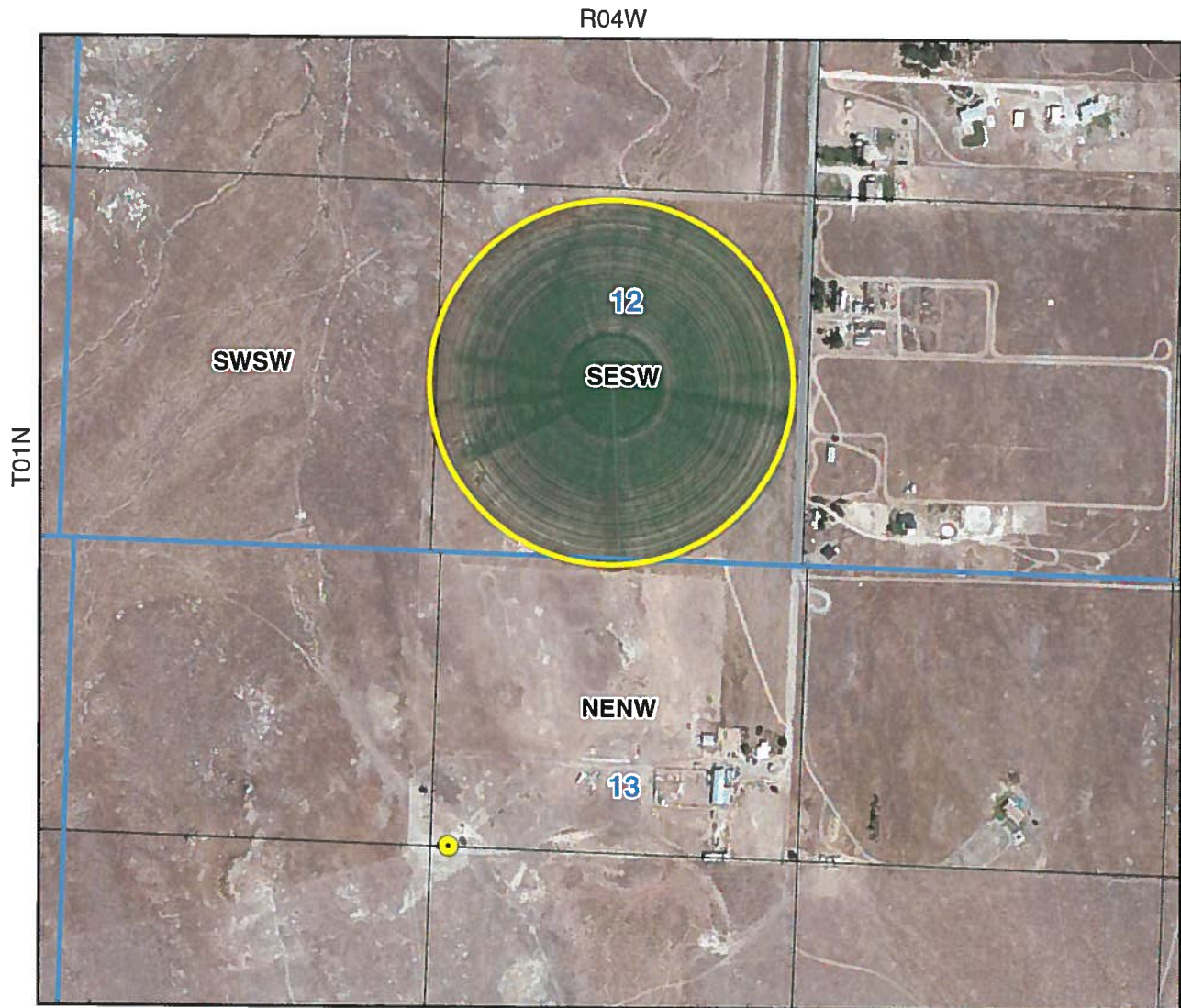
I. AUTHENTICATION

Field Examiner's Name Sandra Thiel Date 4/4/2013

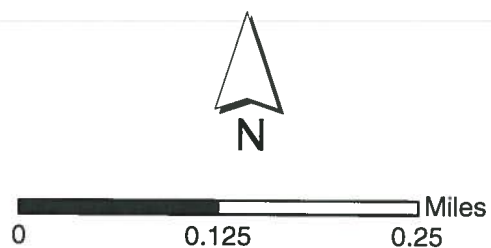
Reviewer _____ Date _____

State of Idaho
Department of Water Resources
Attachment To Water Right License
57-7664

This map depicts the IRRIGATION place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.

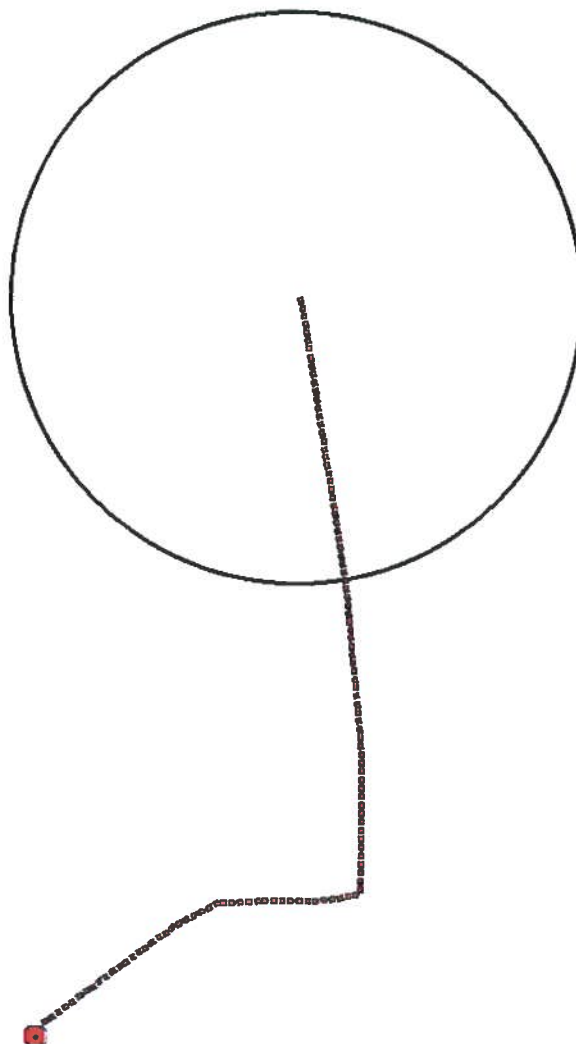


-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters



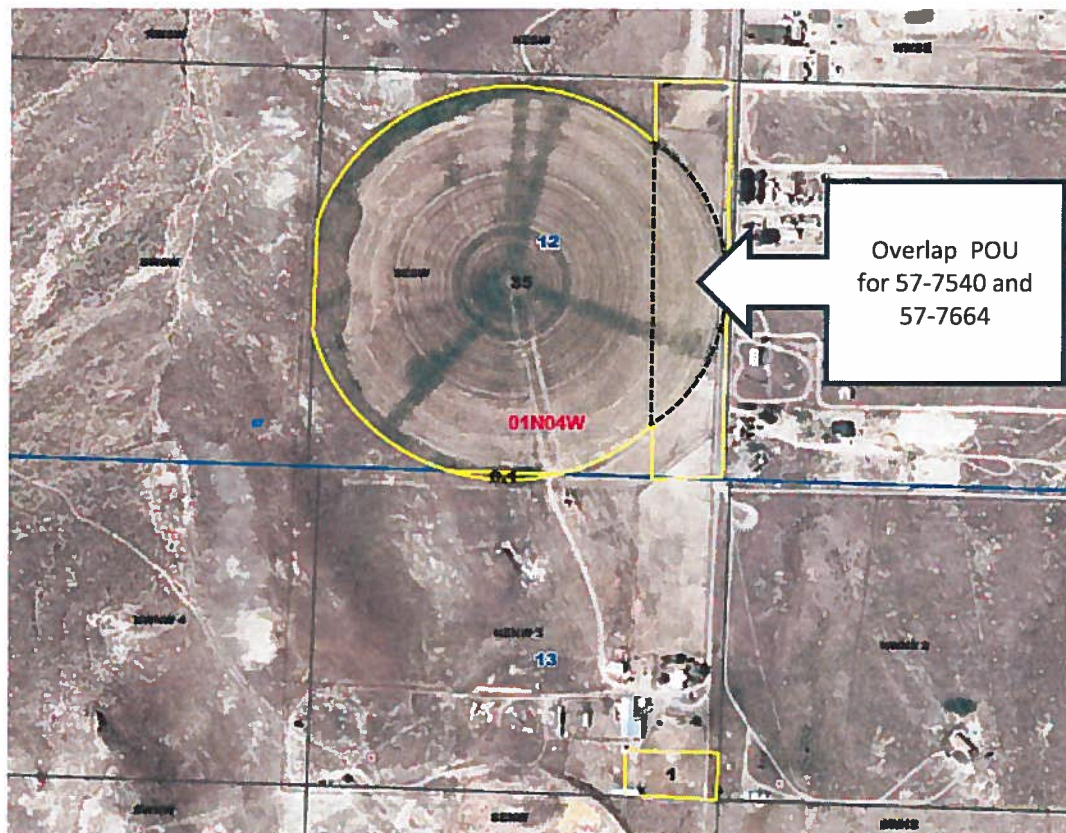
Water Distribution System

Permit Number 57-7664



The water that supplies the system is diverted through a well shown on the above diagram as a dark red dot in Township 1 North, Range 4 West, Section 13 NENW. From the well a buried pipe transports water first to the east and north and then almost directly north to the pivot which is in Township 1 North, Range 4 West, Section 12, SESW.

Basin	Sequence	Suffix	Process	Basis	Status	Draft	Priority	Date	Diversion	Rate	Total Acres	Volume	Source	List	Water Use List	Current Owner
57	7540		Water Right	License	Active	N	9/30/1991		0.160		8.0	36.0	GROUND WATER	IRRIGATION	ALEXANDER, MARK; ALEXANDER, SUS	
57	7664		Water Right	License	Active	Y	5/28/1998		0.550		31.1	140.0	GROUND WATER	IRRIGATION	ALEXANDER, MARK; ALEXANDER, SUS	
Total if summed together =									0.710		39.1	176.0				
Combined use Limits =									0.722		36.1	162.5				



C. Saxton 4-30-13

MODE SELECT
INPUT

OUTER DIAMETER
3.5300 IN

PIPE MATERIAL
? CS.35

WALL THICKNESS
0.1250 IN

INNER LINING
? NO LING.

KIND OF FLUID
? WATER

SENSOR MOUNTING
?

TYPE OF SENSOR
? SMALL

DATA CHANGE
? NO

SPACING
1.977 IN U

ZERO MODE

ZERO MODE
AUT ZERO

ZERO MODE
AUT ZERO

ZERO MODE
ZERO OFF

06-25 11:3800 *R
+003.10 % AI2

012358 0M450

06-25 11:5000 *H
+ 275525 26PM

MODE SELECT
INPUT

OUTER DIAMETER
3.5300 IN

PIPE MATERIAL
? CS.35

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? NO LING.

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ZERO MODE
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ZERO MODE
AUT ZERO

ZERO MODE
ZERO OFF

06-25 11:3800 *R
+003.10 % AI2

012358 0M450

06-25 11:5000 *H
+ 275525 26PM

Unable to get measurement

State of Idaho
Department of Water Resources

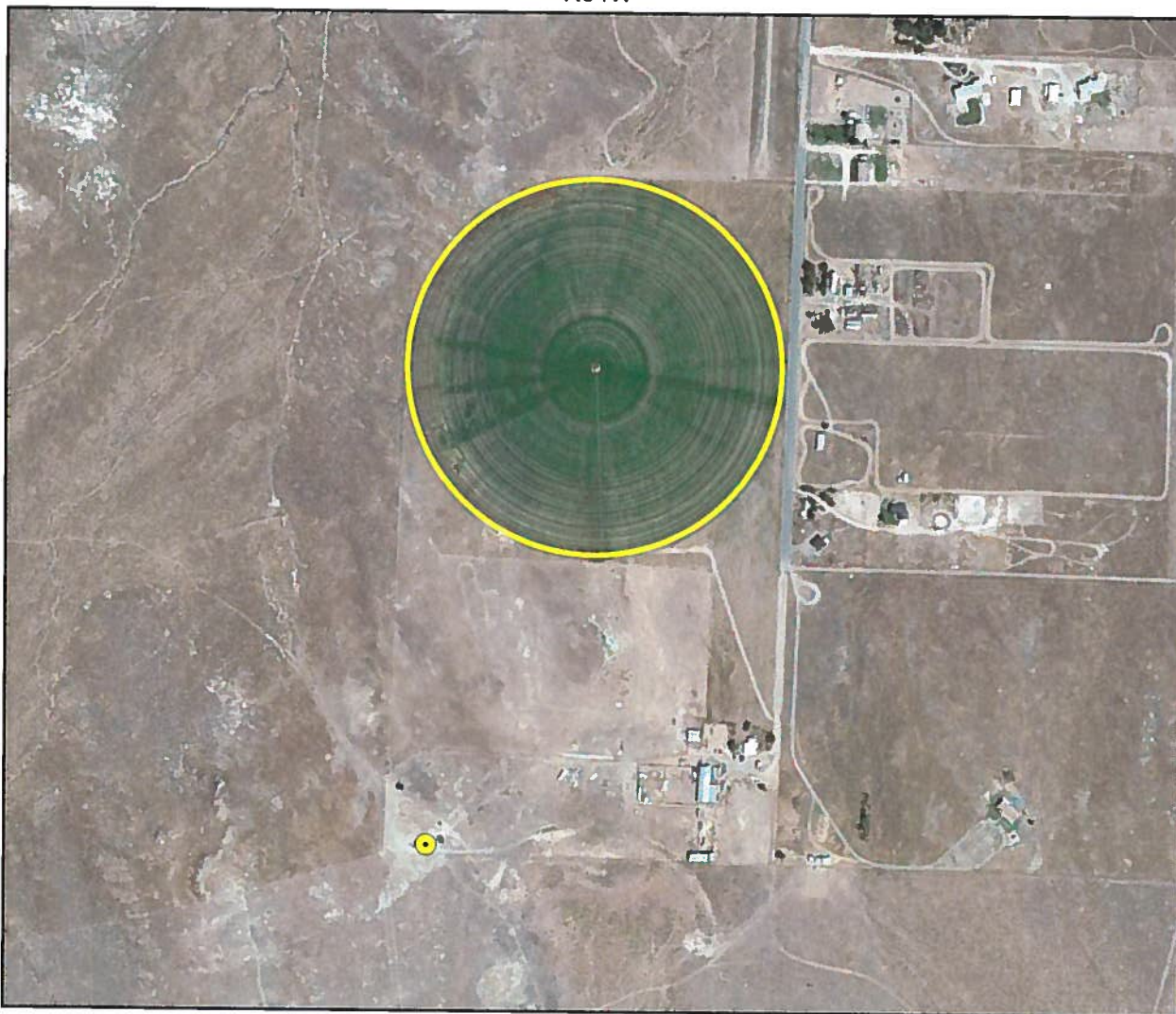
Attachment To Water Right License

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R04W

T01N



-  Point of Diversion
-  Place Of Use Boundary

0 0.125 0.25 Miles

GROUNDWATER THEORETICAL ANALYSIS

FILE: 57-7664

DATE: June 20, 2012

BY: Sandy Thiel and Dan Nelson

THEORETICAL RATE OF FLOW: $Q = \frac{(8.8 \times (\text{HP}) \times (\text{EFF.}))}{\text{TDH}}$

Q = CFS

HP = Total Brake Horsepower of pumping plant (including booster)

Eff. = Pumping plant efficiency (assume 70% or 0.70)

TDH = Total dynamic head = [(LIFT) + (PSI X 2.31)]

LIFT = Depth to water in FEET from land surface to pumping water level

PSI = Pumping pressure measured in PSI near pump (if open discharge assume [0])

$$(8.8) \times (20) \times (0.70) = 123.2$$

Q = 0.31 with 296 (total depth) 0.65 with 94 – static water

$$[(94) + (40 \times 2.31)] = 186.4 \text{ (static)} \quad 388 \text{ (total depth)}$$

LIFT FROM:

Measurement ()

Owner ()

Area estimate (x)

Well Logs ()

PSI FROM:

Measurement ()

Owner (x)

Estimate ()

Owner Gage ()

Booster (Y) (N)

NOTES ON PUMP:

Motor Make, Serial or ID

Marathon Electric 4C284TTDP707288L

Pump Make, Serial or ID, rating

Burkeley Pumps

M4543

REMARKS:

PHOTOGRAPHER AID DATE OF PHOTOS Sandy Thiel, June 20, 2012

FILE NUMBER 57-7664



Well configuration in the southwest corner of the property



Tag: A0018585

