

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

RECEIVED

NOV 04 2013

DEPARTMENT OF
WATER RESOURCES

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. 92-100421. Owner Gary and Sandra Sonnen Phone No. 208-762-3147Current address 7447 N Valley St2. Examiner's name Necia Maiani EXAM DATE August 11, 20123. Accompanied by Gary and Sandra Sonnen Email _____Address Same as aboveRelationship to permit holder Owner Phone No. _____4. Source Unnamed Stream tributary to South Fork Santa Creek**B. OVERLAP REVIEW**1. Other water rights with the same place of use NONE2. 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
			SE	SW	3	43N	3W	BENEWAH	Parcel Map

2. Place(s) of Use: Method of determination Parcel Map

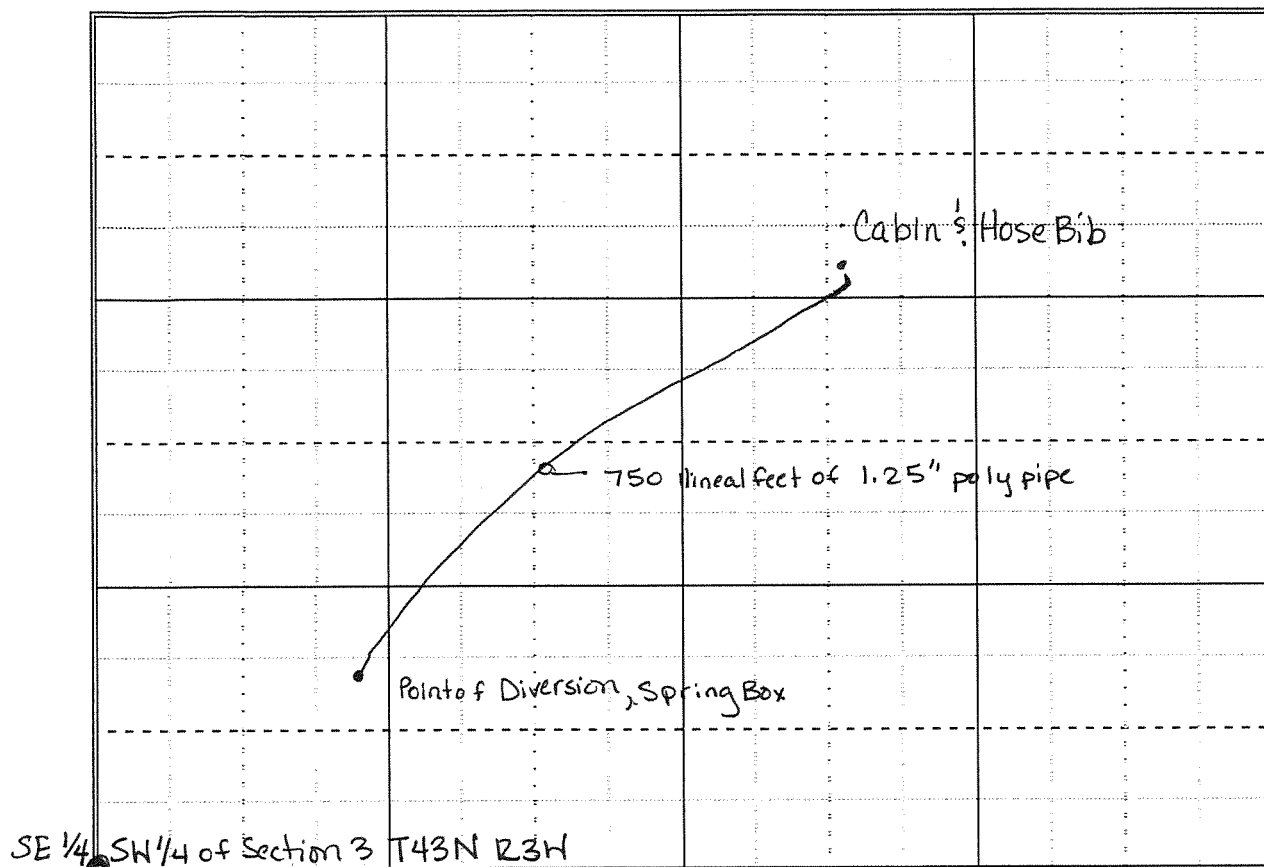
Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
43N	3W	3												D					

E. NARRATIVE/REMARKS/COMMENTS

The diversion consists of a PVC barrel (approximately 24 in diameter) which has been installed in the stream (elevation 3,620 feet). A 1 1/4" poly hose runs from the diversion approximately 750 lineal feet to the northeast. At this location (elevation approximately 3,529 feet), there is a hose bib which is used to serve domestic water to a cabin located on the site. Measurements were taken at the hose bib.

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?

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" = 216'

- ☒ 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
Spring box	N/A	N/A	N/A	N/A	1 1/4" poly pipe

*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
4.5 gallon bucket and stop watch						

2. Measurements: _____

At the location of the hose bib, the valve was turned on and flow was directed into the bucket. The 4.5 gallon bucket was filled in 12.1 seconds, indicating a flow of 21 gpm (0.047 cfs).

F. FLOW CALCULATIONS☐ Additional computation sheets attached

Measured Method:

approximate elevation head: 3620 feet - 3529 feet = 91 feet

Calculate Headloss = use Hazen Williams Equation:

 $10.44 L V^{1.85} / C^{1.85} d^{4.87}$

L (Length of Distribution) = 750 feet V (Flow in pipe) = 21 gpm

C (pipe coefficient) = 140 d (pipe diameter) = 1.27 inches

 $10.44 \times 750 \text{ feet} \times 21 \text{ gpm}^{1.85} / 140^{1.85} \times 1.27^{4.87} = 73 \text{ feet}$ **G. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

N/A

 $V_{I.R} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$ _____ $V_{D.R} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 =$ _____ $V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$ _____

2. Volume Calculations for Other Uses:

N/A

H. RECOMMENDATIONS**1. Recommended Amounts**

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
Domestic	01/01	12/31	0.04	
Totals:			0.04	

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**

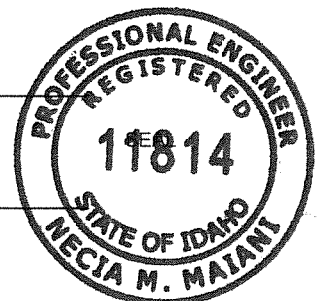
Field Examiner's Signature

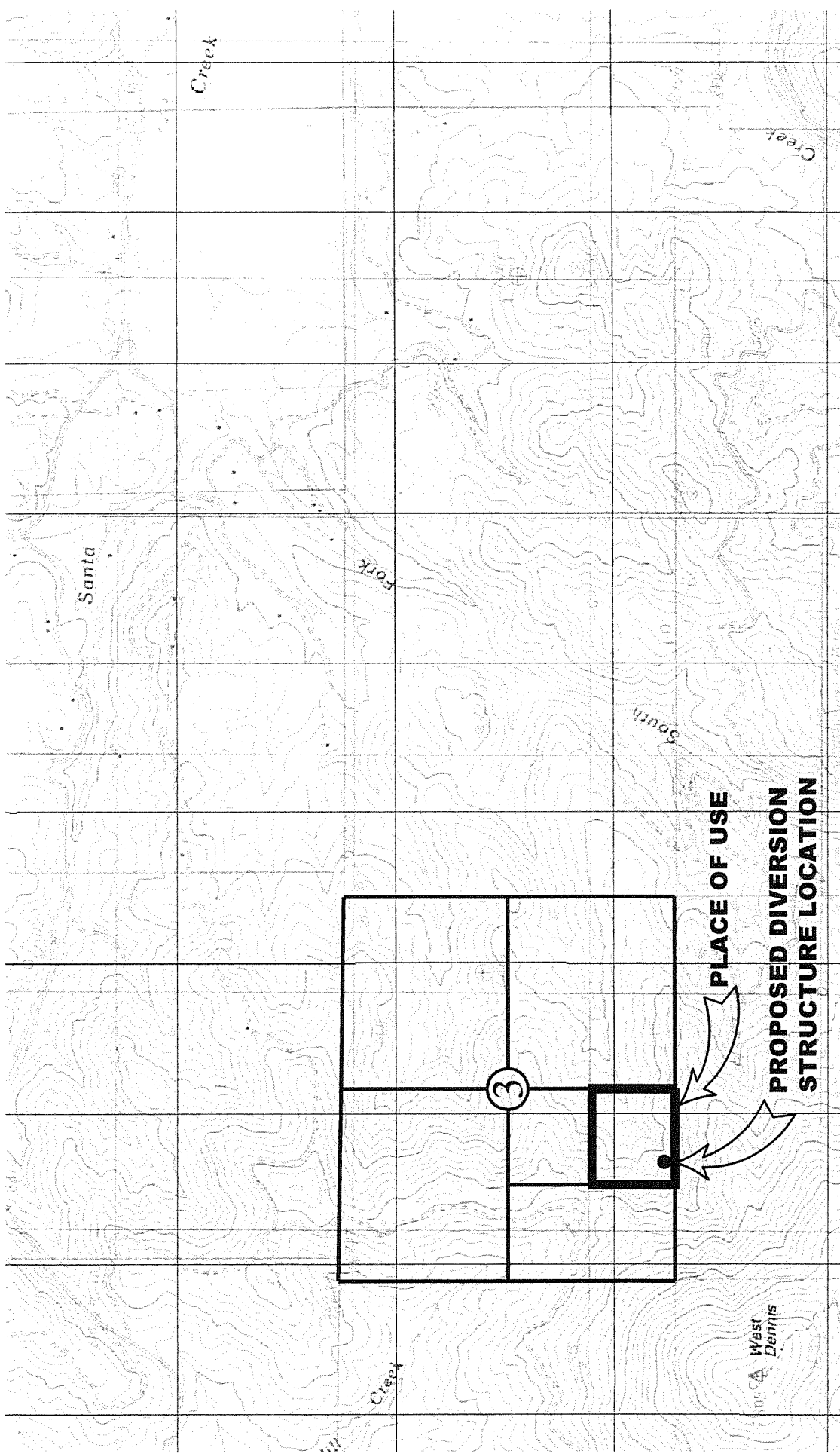
Necia M. Maiani

Date 1/9/13

Reviewer _____

Date _____

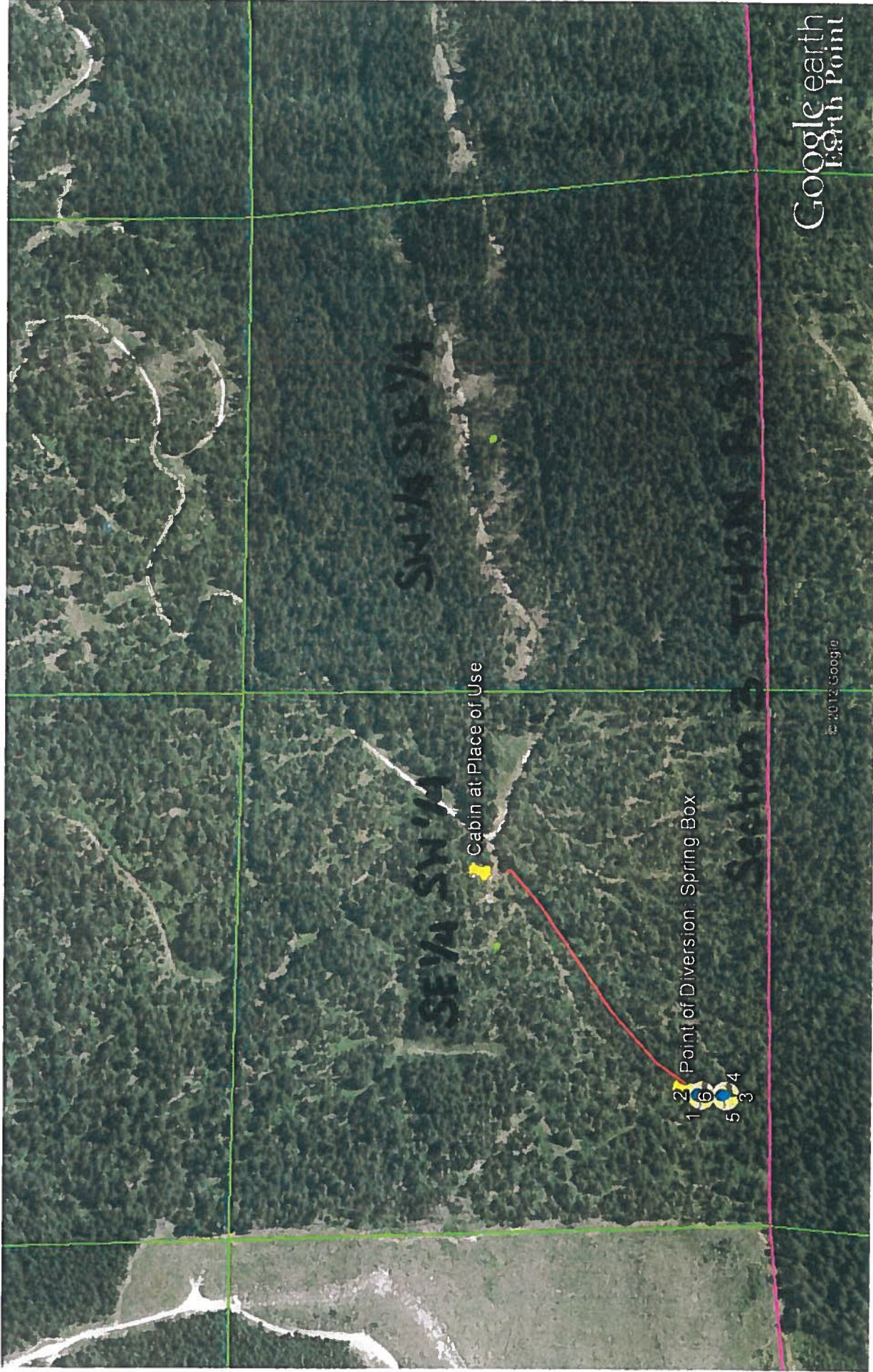




SE 1/4 OF THE SW 1/4 OF SECTION 3, T. 43 N., R. 3 W., B.M.

BENEWAH COUNTY, IDAHO

SCALE: 1" = 2000'



Google earth

feet
meters

2000
600





Spring Box at Point of Diversion





Point of Diversion: 1 1/4 inch poly
exiting Springbox to Distribution



Point of Diversion: 1 1/4 inch poly
exiting Springbox to Distribution



1 1/2 inch poly with hose bib: Test
Location at Place of Use



Cabin at Place of Use