STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 74-16069
Exam Date: 2/13/20

1. Current Owner:
SANDE K GREBE 179 LEMHI RD SALMON ID 83467-5140
2. **SOURCE:**
GROUND WATER

Method of Determination: Permit application, ArcMap, aerial imagery, USGS topography

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NO Overlap

Water Right No.	Source	Purpose of Use	Basis
N/A	N/A	N/A	N/A

Comments: Overlap review found overlapping rights pertinent to neighboring properties

2. Other water rights with the same point-of-diversion: NO Overlap

Water Right No.	Source	Purpose of Use	Basis
N/A	N/A	N/A	N/A

Comments: Overlap review found no overlapping point of diversion water rights.

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**
GROUND WATER NW¼ NW¼, Sec. 10, Twp 21N, Rge 22E, B.M. LEMHI County
Method of Determination:

PLACE OF USE: IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
21N	22E	10						4.1											4.1

Total Acres: 4.1

Method of Determination:

3.

N/A 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).

N/A Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
N/A	N/A	N/A	N/A	N/A	N/A

D. FLOW MEASUREMENTS

Measurements: None taken

E. FLOW CALCULATIONS

Irrigation Permit:	0.12 cfs
B.U. Standard Allowance:	0.03 cfs x 4.1 ac= .12 cfs
B.U. Proof Fee:	$50 → 0.00 cfs to 0.20 cfs
License Recommendation	**0.12 cfs**

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$V_{I.R.}$ = (Acres Irrigated) x (Irrigation Requirement) =(4.1 ac) x (3.5 afa) = 14.35 AF

$V_{D.R.}$ = [Diversion Rate (cfs)] x (Days in Irrigation season) x 1.9835 = (0.12 cfs) x (123 days) x 1.9835 = 29.3 AF

V = Smaller of $V_{I.R.}$ and $V_{D.R.}$ = 14.4 AF

G. NARRATIVE/REMARKS/COMMENTS

The field exam was conducted in-office February 13, 2020 by Kate Huelse.
Permit 74-16069 authorized the diversion of 0.12 cfs to irrigate 4.1 acres from an existing well in Section 10, Township 21 North, Range 22 East, NW 1/4, NW 1/4. Based on the information provided in the water right file, this qualifies for an in office field exam. Sande Grebe proposes to divert water from an existing well that is not being used in order to irrigate the dry portion of his property.

The proof of beneficial use was submitted on Sande K Grebe on January 27, 2020. Current Bonner County tax lot data represent Sande K Grebe as the land owners pertinent to the place of use and point of diversion. The permit specifies that the use is for irrigation purposes. A review of aerial imagery depict the total area irrigated to be 4.1 acres. Climate Engine Remote Sensing was used to confirm vegetation growth during the beneficial use period, see attached map.

The diversion rate I have recommended for this license is 0.12 cfs. As stated in the permit the user shall not exceed 0.03 cfs per acre and nor more than 3.5 afa.

Have conditions of permit approval been met? __X__ Yes ____ No

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use	Rate of Diversion	Volume
IRRIGATION	03/15 to 11/15	0.12 CFS	14.4 AF
	Totals:	0.12 CFS	14.4 AF

2. Recommended Amendments

____ Change P.D. as reflected above ____ Add P.D. as reflected above __X__ None

____ Change P.U. as reflected above ____ Add P.U. as reflected above __X__ None

I. AUTHENTICATION

Kate Huelse - Water Resource Agent

Field Examiner's Name Kate Huelse Date 2/20/20

Reviewer Patrick Wilson Date 2-21-2020

GET MAP LAYER

Variable

Remote Sensing

Dataset:

Landsat 8 Surface Reflectance

Variable:

NDVI (Vegetation Index)

Computation Resolution (Scale):

30 m

Processing

Statistic (over day range):

Maximum

Calculation:

Values

Time Period

Period of Record: 2013-04-07 to 2020-02-09

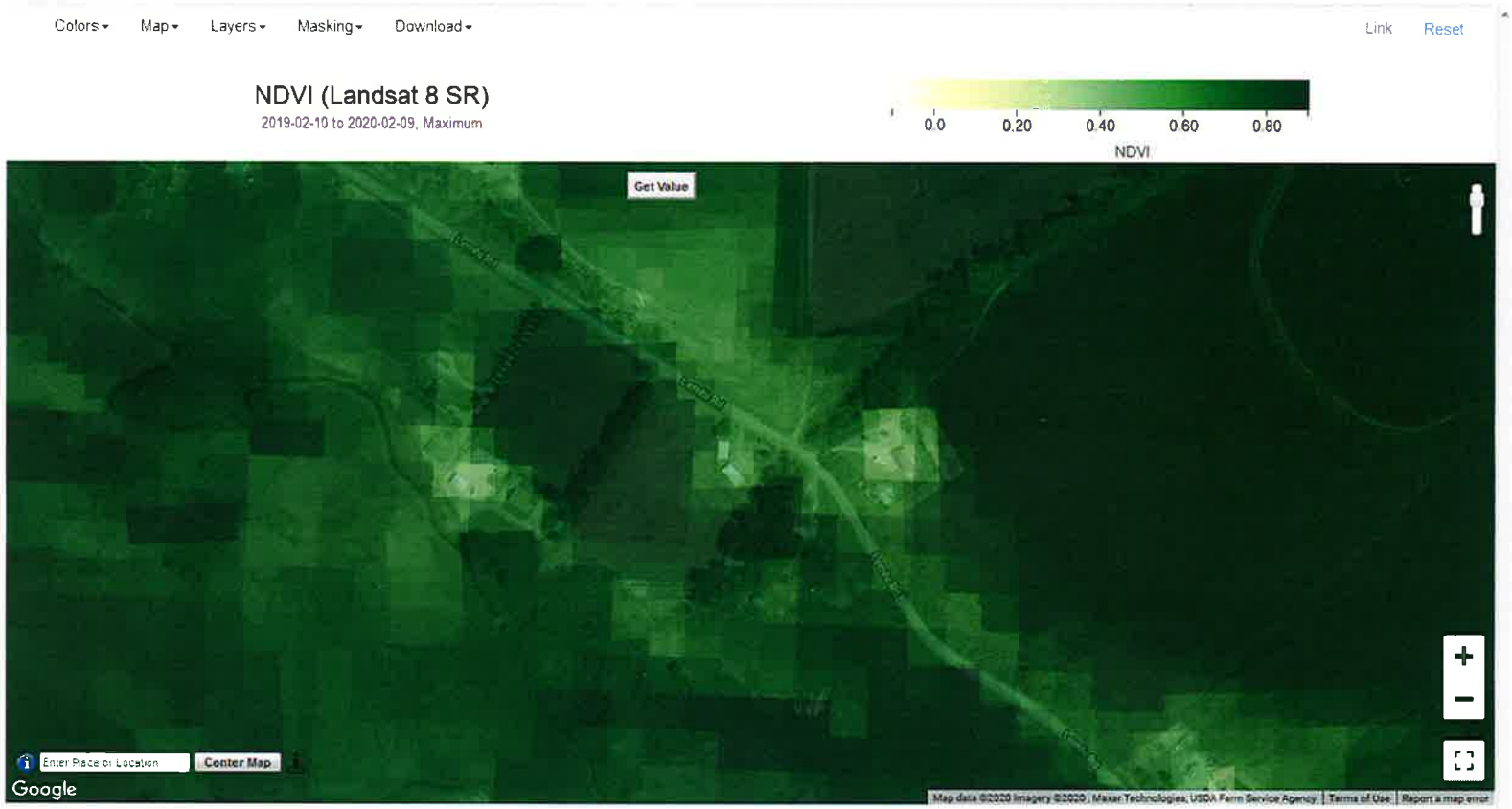
Season:

Year

Start Date: 2019-02-10

End Date: 2020-02-09

GET MAP LAYER



Generated by ClimateEngine.org

State of Idaho
Department of Water Resources

Beneficial Use Exam

74-16069

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

0 0.035 0.07 0.14 Miles

N