

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 27-07456
Exam Date: 9/5/2017

1. Current Owner:
GERALD BARTAUSKY 310 EAST 200 NORTH BLACKFOOT ID 83221
2. Accompanied by: Gerald Bartauský
Phone No: 208 680 2316
3. **SOURCE:** GROUND WATER **TRIBUTARY:**

B. OVERLAP REVIEW

1. Other water rights with the same place of use: Water user maintains Blackfoot Irrigation Company shares for the pivot and the place of use is within Blackfoot Irrigation Company's service boundary. However, at the time of the licensing examination, the pivot only used groundwater.
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 SW¼NE¼SW¼ Sec. 22, Twp 02S, Rge 36E, B.M. BINGHAM County

Method of Determination: GPS, aerial photography, and ArcMap

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	
02S	36E	22									31	26	23	28					108

Total Acres: 108

Method of Determination: Based on aerial photography from 1992, checked against 6/26/1990 and 7/3/1996 Landsat photography.

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. Pump Information

50 HP turbine pump

D. FLOW MEASUREMENTS

1.71 cfs, measured using a GE PanaMetrics TransPort PT 878.

E. FLOW

_____ Additional Computation Sheets Attached

CALCULATIONS

A 10 minute measurement was performed, with averages recorded every 10 seconds. 1.71 cfs was the highest recorded 10 second average returned.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: 432.0

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 108.0 \text{ acres} \times 4.0 \text{ AFA} = 432.0 \text{ AFA}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 1.71 \text{ cfs} \times 1.9835 \times 215 \text{ days} = 729.2 \text{ AFA}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 432.0 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS

One pump to one pivot with an end gun.

1992 aerial photography was used because the development period for the permit was between June 20, 1991, and June 1, 1994.

No suitable Landsat imagery from the development period was available. According to the Application for Permit, the system had been in place since 1981. As such, aerial photography from before the development period (6/26/1990) and after the development period (7/3/1996) was used to check against the 1992 aerial photograph. The permit lapsed on June 7, 1994.

Proof of beneficial use was received 3/28/2005, and the permit was reinstated on 10/7/2005.

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	04/01 to 10/31	1.71 CFS	432.0 AF
	<u>Totals:</u>	1.710 CFS	432.00 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

Field Examiner's Name _____ Cooper Fritz _____ Date _____ 9/12/2017 _____

Reviewer James Cefalo Date 9/21/17

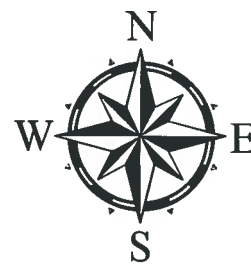
27-7456 Place of Use and Point of Diversion at Licensing



1992 Imagery

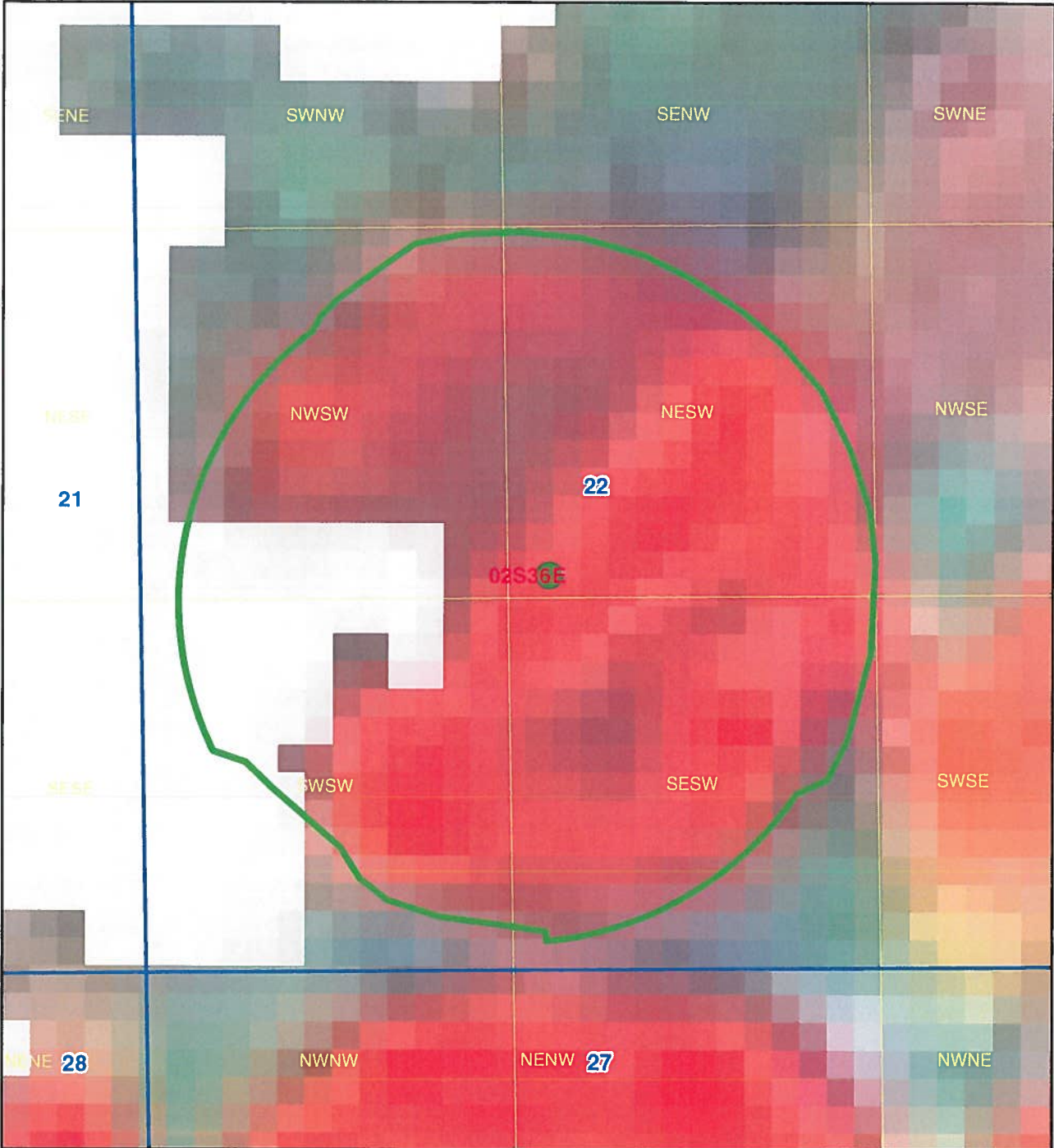
Legend

- Water Right Point of Diversion
- Water Right Place of Use
- Township/Range
- Sections
- QQ



0 0.075 0.15 0.3 Miles

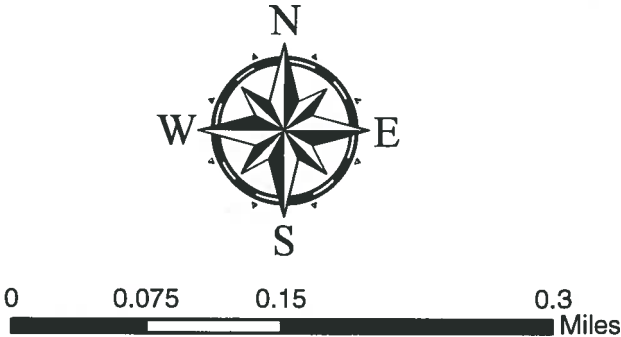
27-7456 Place of Use and Point of Diversion at Licensing



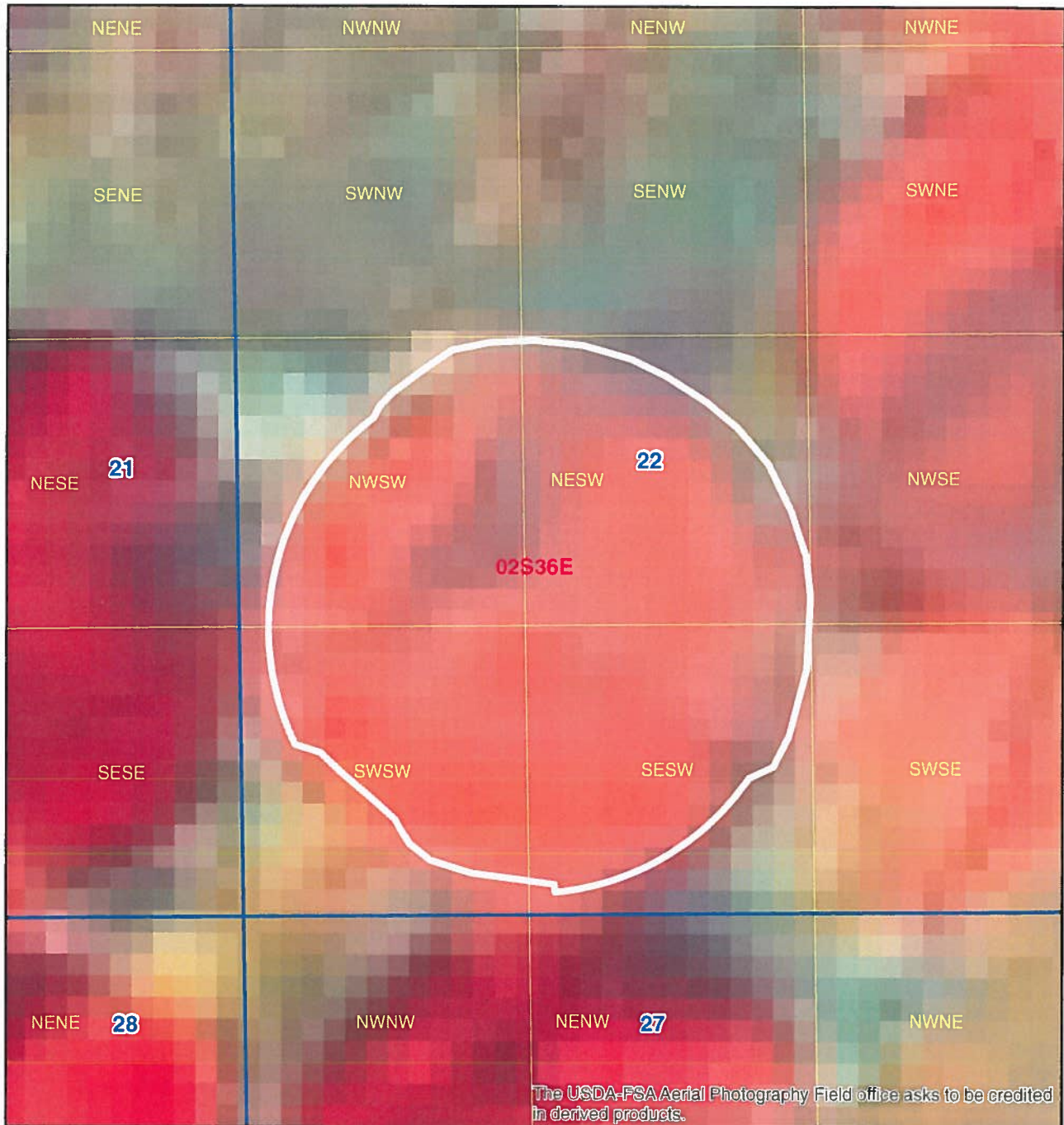
6/26/1990 Landsat Imagery

Legend

- Water Right Point of Diversion
- Water Right Place of Use
- Township/Range
- Sections
- QQ



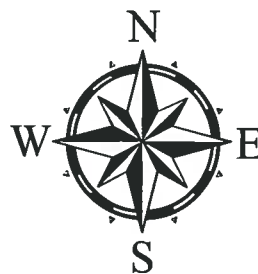
27-7456 Place of Use at Licensing



7/3/1996 Landsat Imagery

Legend

-  Water Right POU
-  Township/Range
-  Sections
-  QQ



0 0.125 0.25 0.5 Miles



Date/Time	Delila Ch 1 Velocity ft/s	Error	Delila Ch 1 Volume gal/m	Error	Delila Ch 1 Volume ft³/s	Error
9/5/2017 12:06	5.072767898	0	762.5187377	0	1.698898821	0
9/5/2017 12:06	5.077717265	0	763.2627073	0	1.700556393	0
9/5/2017 12:06	5.074536193	0	762.7845409	0	1.699491033	0
9/5/2017 12:06	5.083919222	0	764.1949613	0	1.702633463	0
9/5/2017 12:06	5.084590158	0	764.2958138	0	1.702858163	0
9/5/2017 12:06	5.074300852	0	762.7491653	0	1.699412216	0
9/5/2017 12:07	5.070234785	0	762.13797	0	1.698050467	0
9/5/2017 12:07	5.066634493	0	761.596788	0	1.696844709	0
9/5/2017 12:07	5.060711362	0	760.7064461	0	1.694861019	0
9/5/2017 12:07	5.060118312	0	760.6173011	0	1.694662403	0
9/5/2017 12:07	5.066882644	0	761.6340891	0	1.696927816	0
9/5/2017 12:07	5.074353644	0	762.7571007	0	1.699429896	0
9/5/2017 12:08	5.065860306	0	761.4804153	0	1.696585429	0
9/5/2017 12:08	5.068901955	0	761.9376241	0	1.697604095	0
9/5/2017 12:08	5.07776687	0	763.2701636	0	1.700573005	0
9/5/2017 12:08	5.084277575	0	764.2488275	0	1.702753477	0
9/5/2017 12:08	5.098971088	0	766.4574992	0	1.707674418	0
9/5/2017 12:08	5.092564011	0	765.4944123	0	1.705528652	0
9/5/2017 12:09	5.096079365	0	766.0228267	0	1.706705964	0
9/5/2017 12:09	5.080598583	0	763.6958158	0	1.701521362	0
9/5/2017 12:09	5.0888669	0	764.938677	0	1.704290469	0
9/5/2017 12:09	5.095102409	0	765.8759745	0	1.706378776	0
9/5/2017 12:09	5.106091164	0	767.5277613	0	1.710058973	0
9/5/2017 12:10	5.095908917	0	765.9972056	0	1.70664888	0
9/5/2017 12:10	5.106374742	0	767.5703877	0	1.710153945	0
9/5/2017 12:10	5.116744966	0	769.1291995	0	1.713626992	0
9/5/2017 12:10	5.119247223	0	769.505329	0	1.714465012	0
9/5/2017 12:10	5.118550112	0	769.4005419	0	1.714231545	0
9/5/2017 12:10	5.106216003	0	767.5465266	0	1.710100782	0
9/5/2017 12:11	5.116329623	0	769.0667667	0	1.713487891	0
9/5/2017 12:11	5.097683581	0	766.2639662	0	1.707243225	0
9/5/2017 12:11	5.09172672	0	765.3685541	0	1.705248239	0
9/5/2017 12:11	5.087549044	0	764.7405821	0	1.703849111	0

9/5/2017 12:11	5.0924147	0	765.4719685	0	1.705478647	0
9/5/2017 12:11	5.094277306	0	765.7519481	0	1.706102444	0
9/5/2017 12:11	5.099031791	0	766.4666238	0	1.707694748	0
9/5/2017 12:12	5.09897993	0	766.4588284	0	1.70767738	0
9/5/2017 12:12	5.09061977	0	765.2021615	0	1.704877515	0
9/5/2017 12:12	5.086315566	0	764.5551704	0	1.703436012	0
9/5/2017 12:12	5.072211551	0	762.4351097	0	1.698712497	0
9/5/2017 12:12	5.077154184	0	763.1780672	0	1.700367814	0
9/5/2017 12:12	5.076417257	0	763.067295	0	1.700121012	0
9/5/2017 12:13	5.072720905	0	762.5116739	0	1.698883083	0
9/5/2017 12:13	5.066713486	0	761.608662	0	1.696871164	0
9/5/2017 12:13	5.069751627	0	762.0653435	0	1.697888655	0
9/5/2017 12:13	5.074396271	0	762.7635083	0	1.699444173	0
9/5/2017 12:13	5.070400651	0	762.1629023	0	1.698106017	0
9/5/2017 12:13	5.071752752	0	762.3661448	0	1.698558843	0
9/5/2017 12:14	5.08233489	0	763.9568106	0	1.702102861	0
9/5/2017 12:14	5.071233207	0	762.2880489	0	1.698384845	0
9/5/2017 12:14	5.074477867	0	762.7757735	0	1.699471499	0
9/5/2017 12:14	5.08320417	0	764.0874774	0	1.702393988	0
9/5/2017 12:14	5.081744528	0	763.8680697	0	1.701905146	0
9/5/2017 12:14	5.07745091	0	763.2226698	0	1.700467189	0
9/5/2017 12:15	5.073543997	0	762.6353978	0	1.699158741	0
9/5/2017 12:15	5.07778787	0	763.2733202	0	1.700580038	0
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9/5/2017 12:15	5.09868932	0	766.415145	0	1.707580053	0
9/5/2017 12:16	5.09992399	0	766.6007357	0	1.707993551	0
9/5/2017 12:16	5.09789473	0	766.2957054	0	1.70731394	0
9/5/2017 12:16	5.094488182	0	765.7836463	0	1.706173068	0
9/5/2017 12:16	5.104860882	0	767.3428301	0	1.709646944	0
9/5/2017 12:16	5.097556754	0	766.244902	0	1.70720075	0
9/5/2017 12:16	5.09903083	0	766.4664794	0	1.707694427	0
9/5/2017 12:17	5.088673664	0	764.9096305	0	1.704225753	0
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