

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 43-07311

Exam Date: 9/20/2016

1. Current Owner:
GW FINANCE CO LLC 22 N YALE RD DECLO ID 83323 (208) 349-5740
2. Accompanied by: Todd Webb and Mike Garner
Phone No: (208) 670-5586
Relationship to Permit Holder: Partners of GW Finance

3. **SOURCE:**
GROUND WATER

TRIBUTARY:**B. OVERLAP REVIEW**

1. Other water rights with the same place of use: None
2. Other water rights with the same point-of-diversion: 43-13551, 43-13563, 43-13565, and 43-13573
Webb rights: 43-13550, 43-13552, 43-13564, 43-13566, 43-13568, 43-13570, 43-13572 and 43-13574

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

GROUND WATER	SW $\frac{1}{4}$ SE $\frac{1}{4}$	Sec. 6, Twp 10S, Rge 28E, B.M. CASSIA County
GROUND WATER	L3 (NE $\frac{1}{4}$ NW $\frac{1}{4}$)	Sec. 6, Twp 10S, Rge 28E, B.M. CASSIA County
GROUND WATER	L3 (NW $\frac{1}{4}$ SW $\frac{1}{4}$)	Sec. 31, Twp 09S, Rge 28E, B.M. CASSIA County

Method of Determination: GPS points were taken at the time of field exam and aerial photography.

2.

PLACE OF USE: IRRIGATION

Tw p	Rg e	Se c	NE				NW				SW				SE				Total s
			N E	N W	S W	S E	N E	N W	S W	S E	N E	N W	S W	S E	N E	N W	S W	S E	
10S	28E	6						3.5 L4	0.5 L5			1.6 L6	1.1 L7				0.3		7.0
10S	28E	7		4.3			14.0	0.9 L1											19.2

Total Acres: 26.2

Method of Determination: Recent aerial photography and imagery.

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 ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
A0002845	U.S. Motor	300	N/A	Veri Line	12 in. pipe
A0002825	G.E.	?			12 in. pipe
A0017795	G.E.	200	5K6278XH2	Layne	12 in. 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
Flowmeter	Polysonic	Panametrics	PT878	PCC1411011		03/16

2. Measurements: A measurement was taken by Corbin Knowles on 09/14/2012. The maximum flow rate for the measurement was recorded at 897.59 gpm. On 09/20/2016 Kent Aasa and I measured the other two wells on the system. A combined maximum flow rate for these two wells was recorded at 3913.3 gpm (1697.29gpm + 2216.01gpm=3913.3 gpm).

Doug Webb pivot (north) A0002845= 2216.01 gpm or 4.94 cfs

GW Finance pivot (Middle) A0017795= 1697.29 gpm or 3.78 cfs

Corbin's measurement A0002825= 897.59 gpm or 2.00 cfs

Additional Computation Sheets
Attached

E. FLOW CALCULATIONS

Measured Method:

Maximum measured capacity of the system is 10.72 cfs

Measured capacity of 10.72 cfs minus existing rights from these three wells total 10.07 cfs equals 0.65 cfs(potential amount that can be licensed)

CFS limit per acre = .02 (cfs)(26.2 acres)=0.52 cfs (less than 0.65 cfs therefore license 0.52 cfs)

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 26.2 \text{ acres} \times 4\text{AF} = 104.8 \text{ AF}$

$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.52 \text{ cfs} \times 246 \text{ days} \times 1.9835 = 253.7 \text{ AF}$

$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 104.8 \text{ AF}$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS

Application for permit 43-7311 was filed on February 21, 1991 in the name of Steadman Brothers LTD for the diversion of up to 0.86 cfs and the irrigation of 43 acres. The permit was approved on December 19, 1991 and proof was filed on December 29, 1993. An amendment was filed to correct the points of diversion and place of use. The field exam was conducted on September 20, 2016.

The application originally consisted of three interconnected wells. Since the original application was filed the property has been split with one well being removed from the interconnected system. However during the field exam the three wells were measured to reflect the original development. A total maximum capacity of 10.72 cfs was recorded (see above measurements). Overlapping water rights on the farm have a combined total of 10.07 cfs (10.72 cfs - 10.07 cfs = 0.65 cfs). The 0.65cfs is the potential flow rate that can be licensed. However the flow rate is limited to the standard IDWR of one inch per acre allowing a flow rate of 0.52 cfs for the new license (.02 cfs x 26.2 acres = 0.52 cfs).

The volume will be based on the 26.2 acres not covered by existing water rights and the IDWR standard of 4 AF/acre (26.2 acres x 4AF = 104.8 AF). Recommend for the new license a flow rate of 0.52 cfs with a volume of 104.8 AF for the irrigation of 26.2 acres.

Note after licensing GW Finance will be filing for a transfer that will describe the farms current irrigation practices better and tie the farms common system together.

Have conditions of permit approval been met? ☒ 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	0.52 CFS	104.8 AF
	<u>Totals:</u>	0.52 CFS	104.8 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 ☐ None

I. AUTHENTICATION

Field Examiner's Name

Jana Reed *JP*

Date 9/23/16

Reviewer _____

Date _____

Water Right 43-7133 Measurement Metal Tag A0002825

Date/Time	Velocity (ft/s)	Volume (gal/m)	(+)Total (gal)	Error #
9/14/2012 12:56:04	3.40	897.59	8649.37	0
9/14/2012 12:57:06	3.40	897.29	9558.03	0
9/14/2012 12:58:06	3.38	891.49	10465.74	0
9/14/2012 12:59:04	3.37	889.67	11314.66	0
9/14/2012 13:00:04	3.39	892.94	12221.08	0
9/14/2012 13:01:05	3.38	891.28	13124.59	0
9/14/2012 13:02:04	3.37	889.07	13989.36	0
9/14/2012 13:03:04	3.36	885.98	14889.34	0
9/14/2012 13:04:05	3.38	891.75	15789.66	0
9/14/2012 13:05:04	3.36	885.29	16649.81	0

Averages 3.379 891.234 888.938 9 min average used

Measurement done on a 10" carbon steel pipe with 1 Mhz transducers 8.5 feet downstream
pump discharge

1.99
or 2 cfs

Log Name A0017795
Log Title F:\LOG05.LOG
Start Time 9/20/2015 12:36
End Time 9/20/2015 12:47
Records 3
Interval 60
Error Flags 8208
Cyclic Flags 2

Item #	Label	Symbol	UnitType	Channel	Comport	Computer
0	Velocity	ft/s	578	0	0	PT878
1	Volume	gal/m	846	0	0	PT878
2	(+)Total	gal	1160	0	0	PT878

Date/Time	Velocity (ft/s)	Volume (gal/m)	(+)Total (gal)	Error #
9/20/2015 12:36:03	4.624570039	1693.303023	145792.5759	0
9/20/2015 12:37:04	4.597255252	1683.301615	147478.029	0
9/20/2015 12:38:03	4.573848661	1674.731207	149150.731	0
9/20/2015 12:39:03	4.607471226	1687.042231	150738.9117	0
9/20/2015 12:40:04	4.612677451	1688.948509	152525.7146	0
9/20/2015 12:41:03	4.607706402	1687.128342	154205.6004	0
9/20/2015 12:42:03	4.582462546	1677.885213	155906.1765	0
9/20/2015 12:43:04	4.331909274	1586.144227	157562.9571	0
9/20/2015 12:44:03	4.635447724	1697.285927	159246.4404	0
9/20/2015 12:45:03	4.588492675	1680.093166	160850.0003	0
9/20/2015 12:46:03	4.615632627	1690.030558	162567.9419	0

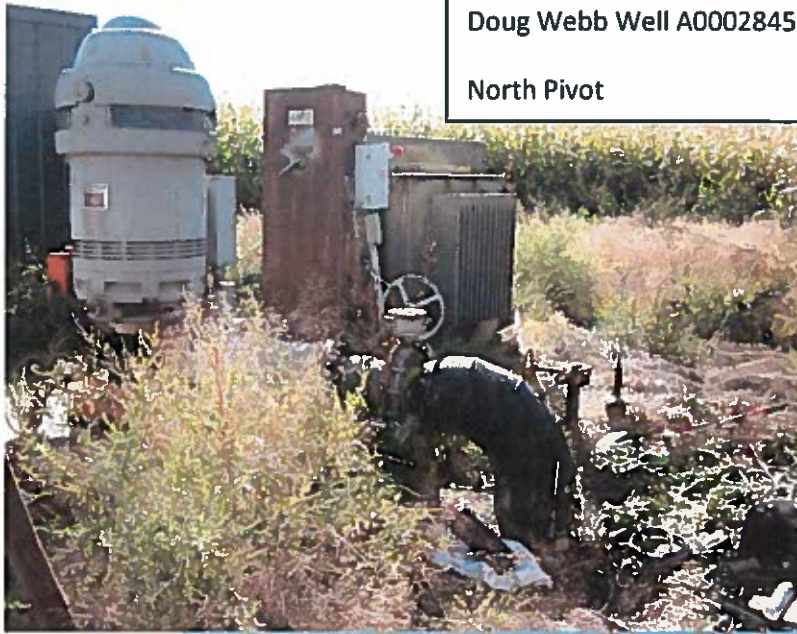
1677.536602
 1677.5gpm

Log Name A0002845
Log Title F:\LOG04.LOG
Start Time 9/20/2015 11:43
End Time 9/20/2015 23:54
Records 3
Interval 60
Error Flags 8208
Cyclic Flags 2

Item #	Label	Symbol	UnitType	Channel	Comport	Computer
0	Velocity	ft/s	578	0	0	PT878
1	Volume	gal/m	846	0	0	PT878
2	(+)Total	gal	1160	0	0	PT878

Date/Time	Velocity (ft/s)	Volume (gal/m)	(+)Total (gal)	Error #
9/20/2015 11:45:31	6.215827504	2179.478185	62724.55784	0
9/20/2015 11:46:31	6.106092447	2141.001384	64894.3452	0
9/20/2015 11:47:31	6.041494196	2118.351064	67012.1591	0
9/20/2015 11:48:32	6.029868734	2114.274786	69153.53964	0
9/20/2015 11:49:31	6.130365842	2149.512452	71192.82725	0
9/20/2015 11:50:31	6.19028093	2170.520697	73396.14297	0
9/20/2015 11:51:31	6.255806502	2193.496166	75595.31104	0
9/20/2015 11:52:32	6.24700018	2190.408374	77813.67922	0
9/20/2015 11:53:31	6.217501987	2180.065315	79915.33034	0
9/20/2015 11:54:32	6.316721683	2214.855078	82165.92024	0
9/20/2015 11:55:31	6.320006233	2216.006752	84371.32268	0

2164.676484
 2164.7gpm

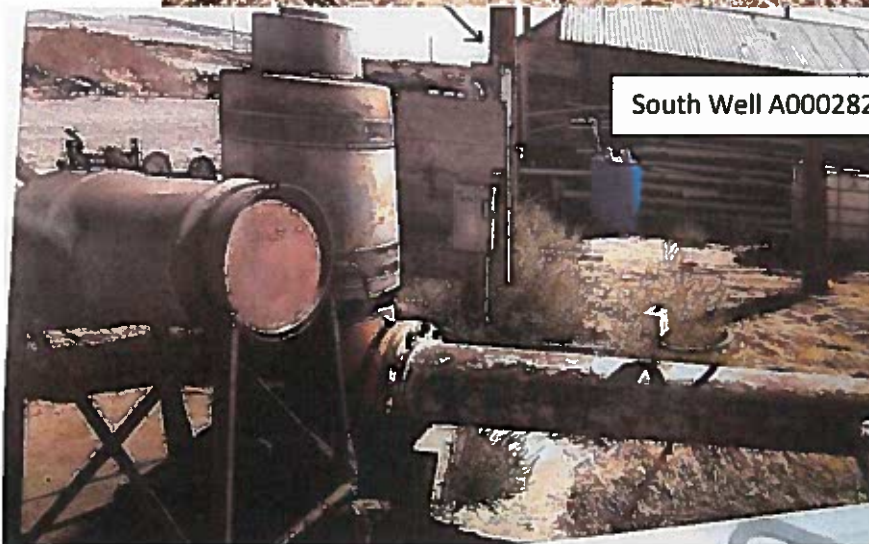


Doug Webb Well A0002845

North Pivot



Middle Pivot A0017795



South Well A0002825

State of Idaho
Department of Water Resources
Attachment to Water Right License
43-7311

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

