

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 17-7065

Exam Date: 10/25/1995

1. Current Owner: CURLEW DEVELOPMENT INC
C/O BRENT BIRD
9830 N ARBON VALLEY RD
HOLBROOK ID 83243
(208)698-3345

2. Accompanied by:

Phone No:

Address:

Relationship to Permit Holder:

Jeff/Brent Bird
698-3340

3. SOURCE

TRIBUTARY

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 17-7026
2. Other water rights with the same point of diversion: 17-7026

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

GROUND WATER	L2 NW1/4NE1/4	Sec. 6,	Twp 15S,	Rge 32E, B.M.	WELL # 3
ONEIDA County					
GROUND WATER	L1 SE1/4NE1/4NE1/4	Sec. 1,	Twp 15S,	Rge 32E, B.M.	WELL # 2
ONEIDA County					
GROUND WATER	L3 NW1/4NE1/4NW1/4	Sec. 6,	Twp 15S,	Rge 33E, B.M.	WELL # 4
ONEIDA County					
GROUND WATER	L1 NE1/4NE1/4NE1/4	Sec. 1,	Twp 15S,	Rge 32E, B.M.	WELL # 1
ONEIDA County					

Method of Determination:

FE/MAPS/GIS

2.

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	
14S	33E	31												12.0	39.0	15.0	26.0	39.0	131.0
15S	32E	1	39.0	39.0	39.0	39.0	38.0	39.0	39.0	40.0									312.0
			L 1	L 2			L 3	L 4											
15S	33E	6	40.0	40.0	40.0	39.0	12.0			9.9									180.9
			L 1	L 2			L 3												

Total Acres: 623.9

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 ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
#1	Detroit Diesel	350	HP	Johnston	200hp pump
#2	GE	200hp			
#3	FAIRBANK MORSE	75 hp			
#4	GE	75 hp			

*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

2. Measurements:

SONIC METER

WELL #1 - 2.40 CFS WELL #4 - 1.64 CFS

WELL #3 - 1.73 CFS WELL #2 - 2.69 CFS (theoretical)

calc

E. FLOW CALCULATIONS☐ Additional Computation Sheets Attached

Measured Method:

SONIC METER / ONE THEOR. CALC.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 400 \times 3.5 = 1400 \text{ AF/A}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 5 \text{ CFS}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 1400 \text{ AF/A}$$

2. Volume Calculations for Other Uses:

ACRE LIMIT 400ac

TOTAL COMBINED USE WITH 17-7026

$$8 \text{ CFS} \rightarrow 623.9 \text{ ACRES} \times 3.5 \text{ AF/A} = 2183.6 \text{ AF/A}$$

G. NARRATIVE/REMARKS/COMMENTS

4 wells/pumps to sprinklers and pivots. Combined use with 17-7026. the four wells measured at 8.46 cfs. this right was for 400 acres 6 cfs. proof submitted for 5.0 CFS. acreage based on 1992 air photos. there have been some changes since then. Totalizing meters on each well.

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	04/01 to 10/31	5.000 CFS	1,400.00 AF
<u>Totals:</u>		5.000 CFS	1,400.00 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 Skip Jones / Don Simpkins Date 10/1995

Reviewer DAVE CARLSON Date 4/10/2007

PRINTER USE
? YES

10-25 15:4800 *R
+002.70 % AI2

MODE SELECT
T0 CHECK

0386.2 MMSEC
100.41 % T0

MODE SELECT
INPUT

OUTER DIAMETER
10.7701 IN

PIPE MATERIAL
? CS,SS

WALL THICKNESS
0.2949 IN

INNER LINING
? NO LING.

KIND OF FLUID
? ANOTHER

SOUND VELOCITY
1460 M/S-

SENSOR MOUNTING
? U

TYPE OF SENSOR
? SMALL

DATA CHANGE
? NO

SPACING
8.340 IN U

ZERO MODE
CLEAR

ZERO MODE
AUT ZERO

ZERO MODE
ZERO OPR

DAMPING SET
25 SEC

10-25 16:0900 *R
+ 1.120E 3GPM

2.4 CFS

PRINTER USE
? YES

10-25 14:4500 *R
+002.20 % AI2

MODE SELECT
T0 CHECK

0385.2 MMSEC
100.65 % T0

ZERO MODE
CLEAR

ZERO MODE
AUT ZERO

MODE SELECT
INPUT

OUTER DIAMETER
10.7902 IN

PIPE MATERIAL
? CS,SS

WALL THICKNESS
0.3311 IN

INNER LINING
? NO LING.

KIND OF FLUID
? ANOTHER

SOUND VELOCITY
1460 M/S-

SENSOR MOUNTING
? U

TYPE OF SENSOR
? SMALL

DATA CHANGE
? NO

SPACING
8.416 IN U

ZERO MODE
ZERO OPR

10-25 14:4800 *R
+927.508E 0GPM

DAMPING SET
25 SEC

10-25 14:5000 *R
+778.251E 0GPM

1.73 CFS

MODE SELECT
-----2014-25

PRINTER USE
? YES

10-25 13:5600 *R
+002.60 % AI2

MODE SELECT
T0 CHECK

0307.9 MMSEC
100.60 % T0

ZERO MODE
CLEAR

ZERO MODE
AUT ZERO

ZERO MODE
CLEAR

ZERO MODE
ZERO OPR

MODE SELECT
T0 CHECK

0308.5 MMSEC
100.79 % T0

10-25 14:0400 *R
+002.30 % AI2

DAMPING SET
10 SEC

10-25 14:0800 *R
+762.664E 0GPM

DAMPING SET
25 SEC

10-25 14:1100 *R
+723.567E 0GPM

10-25 14:2200 *R
+735.719E 0GPM

1.639 CFS

#17-07026/-07065

Well #2

THEORETICAL PUMP FLOW CALCULATIONS

Formula:

$$Q_{cfs} = [(Hp)(8.814)(Eff)] \div [Lift + (psi \times 2.308)]$$

$$Hp = \text{Horsepower} = \underline{200}$$

$$Eff = \text{Efficiency} = \underline{0.70} \quad (\text{Usually } 70\%)$$

$$\text{Lift: (Static Level + Assumed Draw down)}$$

$$(\text{From well log}) \text{ Static Water Level} = \underline{73} \text{ ft.}$$

$$\text{Assumed Draw down} = + \underline{190} \text{ ft.}$$

$$\text{Lift} = \underline{263}$$

OR

$$\text{Measured Dynamic Water Level} = \underline{\hspace{2cm}} \text{ ft.}$$

$$psi = \text{Operating Pressure} = \underline{85} \text{ psi}$$

$$Q_{cfs} = \left[\frac{200}{Hp} \times 8.814 \times \frac{0.7}{Eff} \right] \div \left[\frac{263}{Lift} + \left(\frac{85}{psi} \times 2.308 \right) \right]$$

$$Q_{cfs} = \left[\underline{1233.96} \right] \div \left[\underline{459.18} \right]$$

$$Q_{cfs} = \underline{2.69} \text{ cfs}$$

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