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Department of Water Resources

Form 219
6/86

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No. 51-7276

1. Owner: BLM Phone No. 384-3373
   Current Address: 3948 Development Ave., Boise, ID. 83705
2. Accompanied by: Dana Danzer EXAM. DATE: 5-30-91
   Address: 3948 Development Ave., Boise Phone No. 384-3373
   Relationship to Permit Holder: Soil Conservationist
3. Source: groundwater tributary to —

CURRENT CONTACT:
JOHN ASH, WATER RIGHTS SPECIALIST of THE JARBIDGE FIELD OFFICE, BLM, TWIN FALLS ID 208-736-2353
G 4/26/04

B. OVERLAP REVIEW

1. Other water rights with same place of use: NONE
   ☐ Copies Attached
2. Other water rights with same point of diversion: NONE
   ☐ Copies Attached ☐ Copies of Field Exam's Attached

C. SYSTEM DESCRIPTION

1. **Diversion System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe i.d. as applicable. ☑ Alternative diagram attached See attached system map submitted by BLM 4/23/04.
   P/D + P/U based on BLM gps readings. G 4/26/04

Scale: 1" = _____.

2. ☒ Copy of U.S.G.S. 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 or more).
   ☐ Photo of Diversion and System Attached
   (required for all but single household domestic groundwater, and stockwater.

System Description (continued)

3. **Narrative:** Description (As operating at time of measurement. Indicate pressure, number of sprinklers, etc.)

System consists of a 820 ft. well, with the ~~well~~ PUMP set at 714 ft. Well casing is 8 in. to 60 ft. Well supplies water to a 65,000 gal. steel storage tank, stand-pipes and watering troughs via a 12 mi. system of PVC pipeline by gravity flow. The water supplied is used for stockwater, wildlife and fire-fighting.

☐ See Remarks on page 4 for continuation

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
	Jacuzzi	20	2056B20	Jacuzzi	submersible

**Code to correspond with No. on map and aerial photo*

5. **Point(s) of Diversion:**

Ident. No.	Gov't. Lot	¼	¼	¼	Sec.	Twp.	Rge.	County	Method of Determination/Remarks
			NE	NE	26	8S	9E	Owyhee	7.5' orthophotoquad
									Well located in NENENE
									see BLM map submitted 4/23/04. lg 4/26/04

6. **Place(s) of Use:** * Indicate Method of Determination Same as P/D

Twp.	Rge.	Sec.	NE¼				NW¼				SW¼				SE¼				Totals
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
8S	9E	5						X											
8S	9E	24		X							X	X	X						
8S	10E	21		X															
8S	10E	22								X									
8S	10E	28							X										
8S	10E	29							X										

* See BLM's summary sheet submitted with map 4/23/04 for well, trough and storage tank locations.
lg 4/26/04

Do not use this space

Do not use this space

D. FLOW MEASUREMENTS

☐ Additional Data Sheets Attached

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
N/A						

2. **Measurements:** Static Water level = 575'
Pump set at 714'

E. FLOW CALCULATIONS

☒ Additional Computation Sheets Attached

1. Measured Method:
HP Equation - see attached sheets. allow .20 cfs since HP value is so close to permit limit.
2. Alternate Method for Checking Purposes:

F. PUMP EFFICIENCY DATA (Optional)

Discharge Pressure: _____ psi x 2.31 = _____ ft (1); Dynamic pumping level: _____ ft (2)
Total Head: (1) + (2) = _____ (3) ; Flow rate: _____ cfs (4)

Water HP: (3) x (4) ÷ 8.8 = _____ (5)
Meter Input KW: 3.6 x _____ KH x _____ CTR or _____ MULT x _____ PTR x _____ N/ _____ T = _____ (6)
Meter Input HP: (6) x 1.34 = _____ (7)
Panel Input KW: _____ Ave PF x _____ Ave Volts x _____ Ave Ampsx .001732 = _____ (6)
Panel Input HP: (6) x 1.34 = _____ (7) Efficiency: (5)/(7) x 100 = _____ %

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$V_{I.R.}$ = (Acres Irrigated) x (Irrigation Requirement) = _____

$V_{D.R.}$ = [Diversion Rate (cfs)] x (Days in Irrigation Season) x 1.9835 = _____

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

2. Volume Calculations for Other Uses:

$$V_{req.} = \frac{(1000 \text{ head})(12 \text{ gpd/head})(365 \text{ days})}{325850} = 13.4 \text{ afa}$$

$V_{div.} = (.20)(365)(1.9835) = 144.8$ afa

Since $V_{req.} < V_{div.}$, recommendation is $V_{req.} = 13.4$ afa

H. REMARKS AND OVERLAP REVIEW ANALYSIS

only point of diversion exists. P/U are all different 1/4 1/4's than permit indicated. ~~Was informed that up to 1500 head~~ of cows and/or 10,000 head of sheep (would consist of a mixture of ~~animals~~ but not full amounts ~~of both~~ at any given time) could use this water development. Permit allows ~~1000 head~~ of cows. Remaining amounts would be 500 head cattle and 10,000 head sheep. ~~Excess~~ use per day: (500)(12)+(10,000)(2)= 26,000 gpd. Up to 13,000 gpd of this would be ~~exempted~~ use. Remaining 13,000 gpd require new right? Probably not since it's unlikely that use ~~would~~ exceed 13,000 gpd in excess of permit, ~~therefore~~ excess use considered exempted.

STOCKWATER FOR 1000 HEAD OF CATTLE & WILD HORSES. PER JOHN ASH, WATER RIGHTS SPECIALIST OF THE JARBIDGE FIELD OFFICE. S 4/26/04

I. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use From	Period of Use To	Rate of Diversion Q (cfs)	Annual Volume V (afa)
~~Stockwater/wildlife~~	1-1	12-31	.20	13.4
		Totals:	.20	13.4

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

J. AUTHENTICATION

Field Examiner's Name: SARA West

Signature: S.J. West S 4/26/04

Certification Date:

Field Report Preparation Date: 6/3/91

CONSULTANT SEAL

K. Licensing recommendation shall be prepared by an Idaho Department of Water Resources employee on a computer printout attached hereto.

BLM – Blue Butte Well and Pipeline/Trough System, Project #6710

BLM Water Right Number: **51-07276**

POD: T. 08 S., R. 09 E., Sec. 26, NENE - Well Location - Owyhee Cty.

POUs:

T. 06 S., R. 08 E.,	Sec. 35, NWSE (Trough)	- Elmore Cty.
	Sec. 36, NENW (Trough)	- Elmore Cty.
T. 07 S., R. 09 E.,	Sec. 06, NWSE (Trough)	- Elmore Cty.
	Sec. 07, SWSE (Trough)	- Elmore Cty.
	Sec. 30, NESE (Trough)	- Elmore Cty.
	Sec. 32, NENW (Trough)	- Elmore Cty.
T. 08 S., R. 09 E.,	Sec. 01, SESW (Trough)	- Owyhee Cty.
	Sec. 04, NENW (Trough)	- Owyhee Cty.
	Sec. 10, NWSW (Trough)	- Owyhee Cty.
	Sec. 14, SESW (Trough)	- Owyhee Cty.
	Sec. 24, NWNE (Trough)	- Owyhee Cty.
	Sec. 24, NESW (Trough)	- Owyhee Cty.
	Sec. 26, SENE (Trough)	- Owyhee Cty.
T. 08 S., R. 10 E.,	Sec. 05, NWNW (Trough)	- Owyhee Cty.
	Sec. 06, NWSE (Trough)	- Owyhee Cty.
	Sec. 07, NESW (Trough)	- Owyhee Cty.
	Sec. 19, NENE (Trough)	- Owyhee Cty.
	Sec. 21, NWNE (Trough)	- Owyhee Cty.
	Sec. 22, NESW (Trough)	- Owyhee Cty.
	Sec. 28, NESW (Trough)	- Owyhee Cty.
	Sec. 29, SWNW (Trough)	- Owyhee Cty.
	Sec. 34, NENE (Trough)	- Owyhee Cty.

Other Facilities: (Storage Tanks Locations)

T. 07 S., R. 09 E.,	Sec. 32, SWNE	- Elmore Cty.
T. 08 S., R. 09 E.,	Sec. 24, SWSW	- Owyee Cty.
T. 08 S., R. 10 E.,	Sec. 29, NWNW	- Owyhee Cty.

Water Requirements are for 1000 head of cattle and wild horses.

Submitted by fax to Lori Graves of IDWR, Western Region Office, Boise, ID on April 26, 2004 by John Ash, Water Rights Specialist of the Jarbidge Field Office, Boise District, BLM, Twin Falls, ID.

John R. Ash

Idaho Department of Water Resources
Estimated Pumping Rate Computer
Flow Analysis Performed by:

ed 1/6/2000

Date:

Record ID		Measured Flow:	
Water Right No.		Designed Flow:	
Name		HP/Eff Flow:	0.19 cfs <<--Max
pod		Sprinkler Flow:	
year:		Pivot/System Flow:	

Flow Measurement: gpm =

Curve/Pump Design: gpm =

Horsepower / Efficiency Method

Horsepower	**20**	hp	
PWL	**650**	ft	
Disch Psi	**30**	psi	
PUMP Eff Estimate	0.77	%	
TDH	719	ft	
OHP	15.4	hp	
Flow	85	gpm =	**0.19** cfs

System Method:

No Lines			
Birds per line			
Ttl no nozzles	0		
Nozzle size		in	
Nozzle pressure		psi	
Flow per nozzle	0.00	gpm	
Sprinkler Flow	0	gpm	
Percent Leaks		%	
Total Flow	0	gpm =	

Pivot / System rating gpm =

Nozzle Equation: Q=C*A*sqrt(2*g*h) / sqrt(1-r^4)

C=	1.00		Nozzle coefficient; typical 0.97 to 1.00
r=	0.0000	ft	Nozzle radius
A=	0.00000	ft^2	Nozzle area
h=	0	ft	Head
g=	32.2	ft/sec^2	Gravitational constant
Q=	0.000	cfs	Flow per nozzle
=	0.000	gpm	Flow per nozzle

Comments / Data Supplied:

Idaho Department of Water Resources
Estimated Pumping Rate Computer
Flow Analysis Performed by:

ed 1/6/2000

Date:

Record ID		Measured Flow:	
Water Right No.		Designed Flow:	
Name		HP/Eff Flow:	0.20 cfs <<--Max
pod		Sprinkler Flow:	
year:		Pivot/System Flow:	

Flow Measurement: gpm =

Curve/Pump Design: gpm =

Horsepower / Efficiency Method

Horsepower	20	hp	
PWL	600	ft	
Disch Psi	40	psi	
PUMP Eff Estimate	0.77	%	
TDH	692	ft	
OHP	15.4	hp	
Flow	88	gpm =	**0.20** cfs

System Method:

No Lines			
Birds per line			
Ttl no nozzles	0		
Nozzle size		in	
Nozzle pressure		psi	
Flow per nozzle	0.00	gpm	
Sprinkler Flow	0	gpm	
Percent Leaks		%	
Total Flow	0	gpm =	

Pivot / System rating gpm =

Nozzle Equation: Q=C*A*sqrt(2*g*h) / sqrt(1-r^4)

C=	1.00		Nozzle coefficient; typical 0.97 to 1.00
r=	0.0000	ft	Nozzle radius
A=	0.00000	ft^2	Nozzle area
h=	0	ft	Head
g=	32.2	ft/sec^2	Gravitational constant
Q=	0.000	cfs	Flow per nozzle
=	0.000	gpm	Flow per nozzle

Comments / Data Supplied:

Blue Butte Pipeline

R. 08 E. R. 09 E. R. 10 E.

T. 6S. T. 7S. T. 8S.

Legend

- Blue_Butte_pipeline
- Tanks & Troughs

N

NAME: rsommer

FILE: \\dir3fps1\rgis\Jash\Blue_Butte_Pipeline.mxd

DATE: 4/22/2004

Form 1542–4
(April 1976)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ROUTING AND TRANSMITTAL SLIP

RECEIVED
OCT 18 1991
Department of Water Resources
Western Regional Office

TO				
CODE	NAME	ORGANIZATION	ACTION	ROOM NO.
	STEVE LISTER			
	WATER RESOURCES			

Indicate Action by Number

1. Necessary action
2. Approval
3. Signature
4. Prepare reply
5. Your comment and return
6. Note and surname
7. Note and return
8. Your information
9. See me
10.

From	Date	Room No.
CHUCK JONES	10-15-91	
Office		**Phone**
JARBIDGE R.A. BLM		736-2356

Remarks

BLUE BUTTE WELL TROUGH LOCATIONS

T7S

T8S

ELMORE CO
OWYHEE CO

Dove Spring

Grindstone Butte
VABM 3494

BM 3173

BM 3162

BM 3084

BM 3106

BM 3031

BM 3218

Dove Spring Extension

Blue Butte Extension

Sailor

Blue Butte Well System

WELL - T8S R9E Sec 26 NENE

STORAGE - T8S R9E Sec 24 SW SW

TROUGHS T8S R9E Sec 24 NW SW
Sec 24 NW NE
Sec 12 NE NW
T8S R10E Sec 5 NW NW
Sec 6 SW SE
Sec 7 SW SE
Sec 19 NE NE
Sec 29 SW NW
Sec 21 NW NE
Sec 22 SE NW

T8S R10E Sec 28 SW SE
Sec 34 NW SE

Receive at Pipe?

WELL

1149 1146 1145

2,600 sheep
1,100 cattle
1,500
3,600 sheep

B R U N E A U D E S E R T

Black Butte

The Big Hill

R9E R10E

PRE 2004
EXAM INFO

10/18/91

TOPO Form
Blm
P/D
P/L

THEORETICAL PUMP EFFICIENCY CALCULATIONS

FILE: 51-07276
DATE: 30-MAY-91
COMPLETE BY: SARA

HORSEPOWER = 20

PUMP EFFICIENCY = 70%

DYNAMIC LIFT = 600 FEET

SYSTEM PRESSURE = 40 PSI

QUANITY = 0.18 CFS

THEORETICAL PUMP EFFICIENCY CALCULATIONS

FILE: 51-07276 "B"
DATE: 30-MAY-91
COMPLETE BY: SARA

HORSEPOWER = 20

PUMP EFFICIENCY = 70%

DYNAMIC LIFT = 650 FEET

SYSTEM PRESSURE = 30 PSI

QUANITY = 0.17 CFS

THEORETICAL PUMP EFFICIENCY CALCULATIONS

FILE: 51-07276 "C"
DATE: 30-MAY-91
COMPLETE BY: SARA

HORSEPOWER = 20

PUMP EFFICIENCY = 70%

DYNAMIC LIFT = 675 FEET

SYSTEM PRESSURE = 30 PSI

QUANITY = 0.17 CFS