

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 15-7307
Exam Date: 10/4/2012

1. Current Owner: LEX SMITH
1655 E 10500 S
MALAD ID 83252
(801)430-1651

2. Accompanied by: Mrs. Smith
Phone No:
Address:
Relationship to Permit Holder: Spouse

3. SOURCE TRIBUTARY
GROUND WATER

B. OVERLAP REVIEW

- 1. Other water rights with the same place of use: None
- 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 SW1/4SE1/4 Sec. 14, Twp 16S, Rge 36E, B.M. ONEIDA County

Method of Determination: GPS (-112.214298, 42.032345)

2.

<u>PLACE OF USE:</u>			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			
16S	36E	14																	7.0	14.0	21.0
16S	36E	23	9.0	6.0																15.0	
Total Acres:		36																			

Method of Determination: Site Visit, Aerial 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.

<u>Well or Diversion ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge Size</u>
D0051338	Unknown	?	Unknown	Danfuss	HP 15/20

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

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
Ultra Sonic Flow Meter	Porta flow	Fuji	91012	00FY099T		

2. Measurements:

See attached printout = .21 cfs

I am not confident this is a fair representation of the system capacity. Several factors may have influenced this reading, the measurement was taken late in the year, in a drought situation and two large pivots just down slope of this well were running. Based on the factors listed and the calculations found based on system capacity and pumping plant, the permit holder should be allowed .36 cfs

E. FLOW CALCULATIONS

_____Additional Computation Sheets Attached

Measured Method: System Capacity

55 psi, 25 WL sections, 25 sprinklers at 5/32 nozzle size = 5.39 gpm

$$5.39 \times 25 = 134.75 \text{ gpm} / 448.83 \text{ gpm} = .30 \text{ cfs}$$

55 psi, 30 WL sections, 30 sprinklers at 5/32 nozzle size = 5.39 gpm

$$5.39 \times 30 = 161.70 \text{ gpm} / 448.83 \text{ gpm} = .36 \text{ cfs}$$

On August 18, 2012 Clearwater Geosciences did a pumping test on this well and produced a sustained reading of 220 gpm (.49 cfs) see attached. However, this test was conducted by open discharge with a different pump (size unknown) and does not reflect the irrigation system as constructed.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 36 \times 3.5 = 126 \text{ afa}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = .36 \times 214 \times 1.9835 = 152.8$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 126 \text{ afa}$$

2. Volume Calculations for Other Uses: None

G. NARRATIVE/REMARKS/COMMENTS

Exam completed Oct. 4 2012. Irrigation from well using wheel lines. Currently 36 acres under irrigation with one wheel line moved between the 22 risers (15 at bottom 7 at top) in the field. Mainline from the well is 3" going to a 5" aluminum pipe on the ground. The wheel line has 25 sections with 1, 5/32 nozzle sprinkler heads per section at bottom and 30 sections with 1, 5/32 nozzle sprinkler heads per section at top. Pump level inside well is 168 feet with a static water level of 76'. Talked with Lex Smith 12/4/2012, a new pump was placed in the well in the Spring of 2012, doesn't notice a difference from spring to fall in the performance of the irrigation system. Well also provides for domestic/lawn irrigation and stockwater use (5 sheep, 5 cattle, 6 horses).

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	0.36 CFS	126.00 AF
<u>Totals:</u>		0.36 CFS	126.00 AF

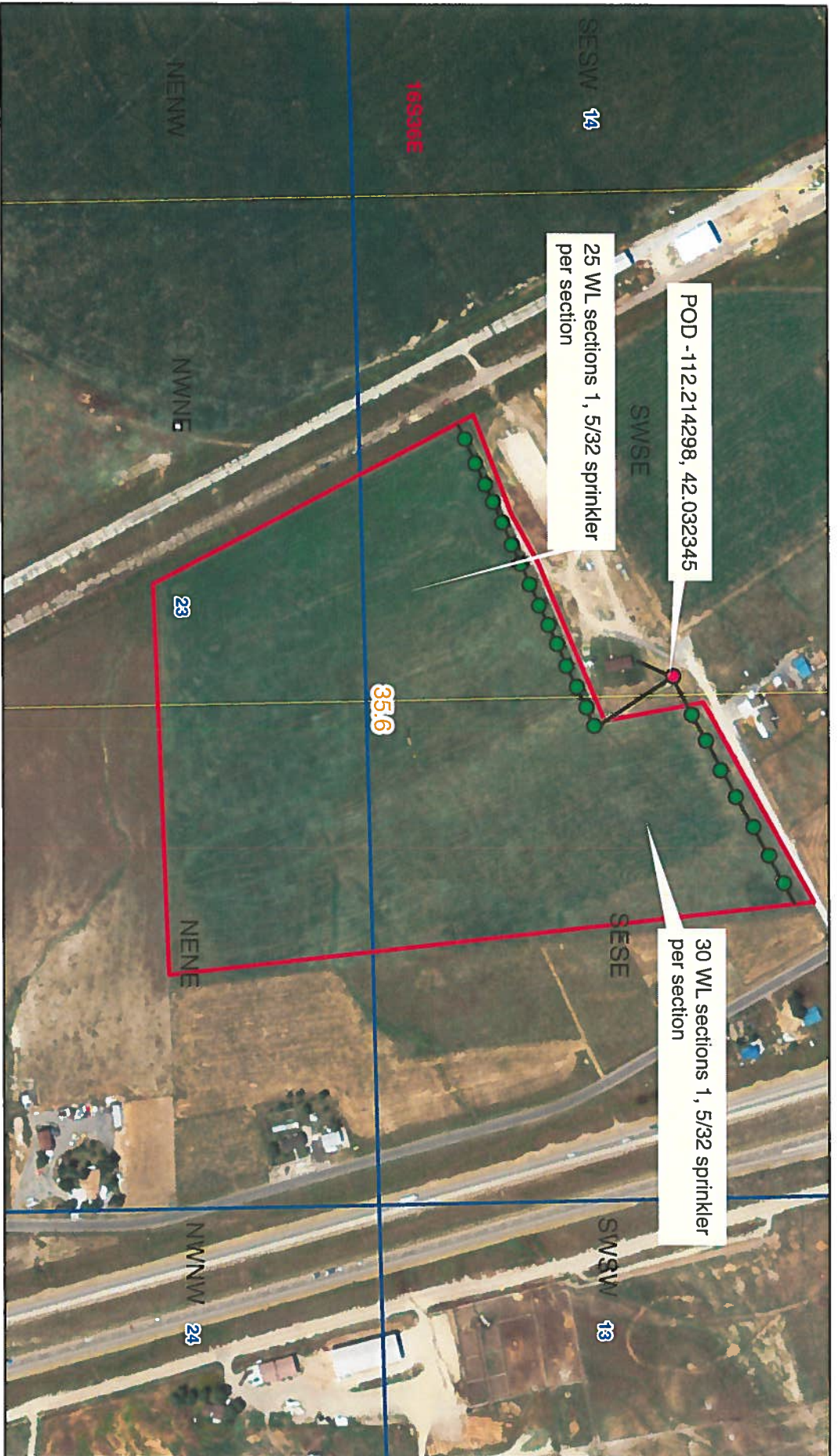
2. Recommended Amendments

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

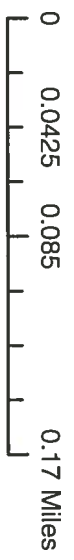
Field Examiner's Name *Kerrie Mathew* Date *10-4-2012*
 Reviewer *James Defalo* Date *12/11/2012*



- Risers
- Distribution Line
- Place_of_Use
- Township/Range
- Sections
- QQ



15-7307 Field Exam October 4, 2012



12

NORMAL

12-10-04 09:18:06
+6.469E+0 ft/s
+9.351E+1 gal/min
0000341 gal +TOTAL
NORMAL

12-10-04 09:19:06
+6.423E+0 ft/s
+9.285E+1 gal/min
0000435 gal +TOTAL
NORMAL

12-10-04 09:20:06
+6.506E+0 ft/s
+9.405E+1 gal/min
0000529 gal +TOTAL
NORMAL

12-10-04 09:21:06
+6.512E+0 ft/s
+9.414E+1 gal/min
0000622 gal +TOTAL
NORMAL

12-10-04 09:22:06
+6.503E+0 ft/s
+9.400E+1 gal/min
0000716 gal +TOTAL
NORMAL

12-10-04 09:23:06
+6.452E+0 ft/s
+9.327E+1 gal/min
0000810 gal +TOTAL
NORMAL

12-10-04 09:24:06
+6.543E+0 ft/s
+9.459E+1 gal/min
0000904 gal +TOTAL
NORMAL

12-10-04 09:25:06
+6.523E+0 ft/s
+9.429E+1 gal/min
0000998 gal +TOTAL
NORMAL

12-10-04 09:26:06

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- 341 gal = 657 gal

12-10-04 09:15

MEASURE	FLOW RATE	UNIT: gal/min
	9.278	x10 ¹
	FLOW RATE	UNIT: ft ³ /s
	2.067	x10 ⁻¹
	+TOTAL	UNIT: gal
	0000106	BOU
		RESET
	-TOTAL	UNIT: gal
	0000000	BOU

92.78 gal/min

657 gal in 7 min
= 93.85 gal/min
= .21 cfs

15-7307

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

15

1. WELL TAG NO. D D0051338

Drilling Permit No. _____

Water right or injection well # _____

2. OWNER: Lex Smith

Name Lex Smith

Address 1696 S 19000 W

City Malad State ID Zip 83252

3. WELL LOCATION:

Twp. 16 North or South Rge. 36 East or West

Sec. 14 SE 1/4 SW 1/4 SE 1/4
10 acres 40 acres 160 acres

Gov't Lot _____ County Oneida

Lat. _____ (Deg. and Decimal minutes)

Long. _____ (Deg. and Decimal minutes)

Address of Well Site 1696 S 19000 W

(Give at least name of road - Distance to Road or Landmark) City M

Lot. _____ Blk. _____ Sub. Name _____

4. USE:

Domestic Municipal Monitor Irrigation Thermal Injection
 Other _____

5. TYPE OF WORK:

New well Replacement well Modify existing well
 Abandonment Other _____

6. DRILL METHOD:

Air Rotary Mud Rotary Cable Other _____

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method/procedure
Bentonite	0	78	27 bags	Overbore

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing	Liner	Threaded	Welded
8"	+2	218	.250	Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Was drive shoe used? Y N Shoe Depth(s) 218

9. PERFORATIONS/SCREENS:

Perforations Y N Method Knife

Manufactured screen Y N Type _____

Method of installation _____

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
155	216	1/4 x 1/4"	1000	8"	steel	.250

Length of Headpipe _____ Length of Tailpipe _____

Packer Y N Type _____

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method
NA				

11. FLOWING ARTESIAN:

Flowing Artesian? Y N Artesian Pressure (PSIG) _____

Describe control device _____

12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered (ft) _____ Static water level (ft) 76'

Water temp. (°F) _____ Bottom hole temp. (°F) _____

Describe access port _____

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)

Test method:

Pump Baller Air Flowing artesian

Water quality test or comments: _____

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water	
				Y	N
10"	0	18	CLAY		X
	18	30	Cemented Gravel		X
	30	55	CLAY		X
	55	60	Cemented Gravel		X
	60	78	CLAY		X
8"	78	88	Cemented Gravel	X	
	88	93	CLAY		X
	93	95	CLAY		X
	95	100	Cemented Gravel	X	
	100	110	CLAY		X
	110	130	Cemented Gravel	X	
	130	145	CLAY		X
	145	218	Cemented Gravel	X	

RECEIVED
SEP 22 2008

Department of Water Resources
Eastern Region

Completed Depth (Measurable) 218'

Date Started: 9-11-08 Date Completed: 9-16-08

14. DRILLER'S CERTIFICATION:
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Volmer Drilling Co. No. 383

*Principal Driller [Signature] Date 9-19-08

*Driller _____ Date _____

*Operator II Joey Villanueva Date 9/19/08

Operator I _____ Date _____

* Signature of Principal Driller and rig operator are required.



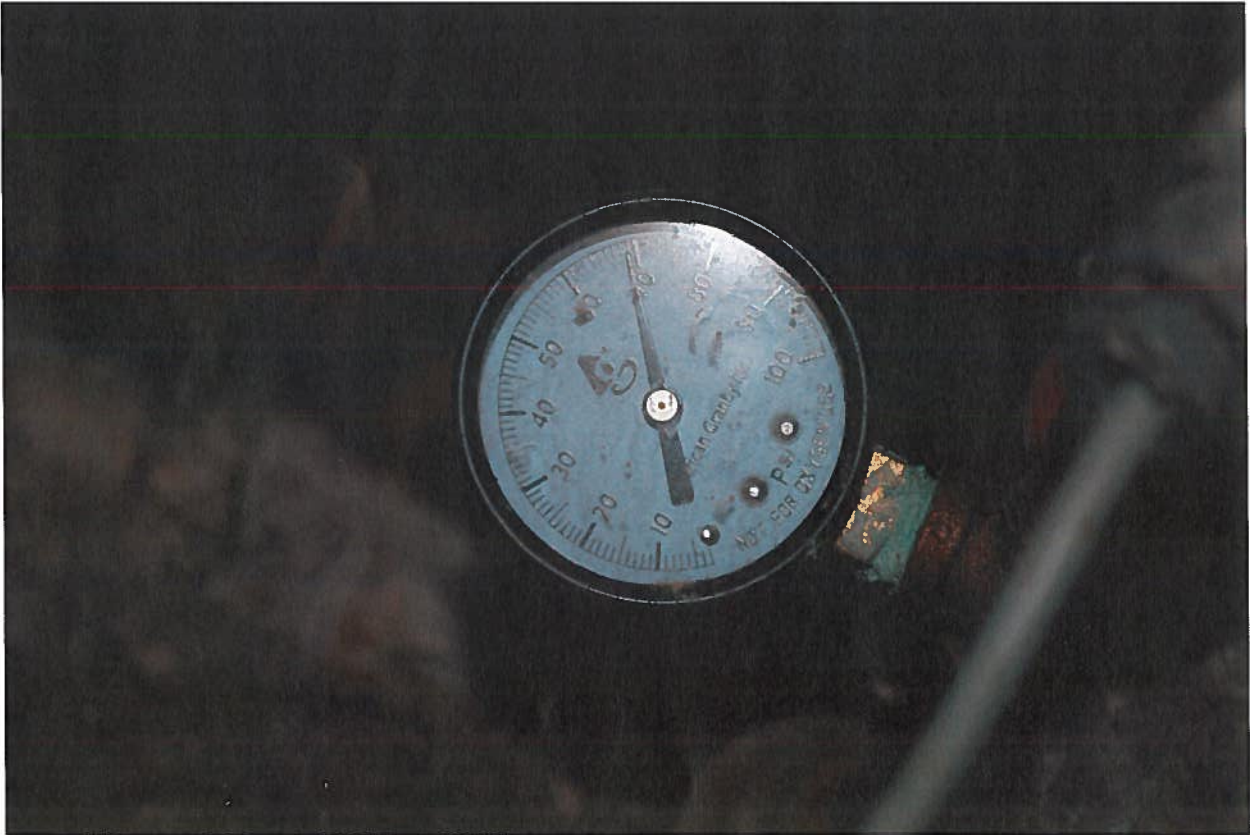
Well & Pump house



Well tag



Inside of Pump House



Close up of Pipe Gage



Electric Box inside of Pump house



Close up of Electric Box



View to the East



View to the SE



View to the South



View to the South West

