IN-OFFICE BENEFICIAL USE FIELD REPORT

**Permit No. 63-33112 Date 11-17-16 Examiner: A. Grimm**

**Name/Address** Same Taxlot / S.O.S. record: Taxlot

**Source** Same Does change clarify original intended source? If not, void permit.

**Nature of Use** Irrigation, domestic

**Season of Use** 3/1 to 11/15, 1/1 to 12/31

**Point of Diversion** T01N R01W Sec 5 Lt 2(NWNE)

**Place of Use** T01N R01W Sec 5 Lt 2(NWNE)

**Overlap Review** POD Right(s) 63-33111, 63-33113, 63-33114, 63-33645 (permit).

Worksheet Attached ☐ POU Right(s) None. Other records different lots.

**Diversion Rate** Permitted Rate 0.11 cfs BU Standard Limit 0.09 cfs (2.9 ac x 0.03 cfs)

BU Fee Limit 0.20 cfs Permit Combo Cond. Limit 0.08 cfs (2.9 ac x 0.029 cfs)

**Recommended Total Div Rate 0.08 cfs**

**Annual Volume**

for Irrigation:

0.08 cfs x 1.9835 x 260 days = 41.3 af

2.9 acres x 4.5 af/ac (FHR) = 13.1 af

Smaller of two volumes = 13.1 af

for other uses:

Domestic: No homes constructed or hook ups installed - only irrigation use is recommended for license.

**Recommended Amounts**

| Beneficial Use | Season of Use | Diversion Rate | Annual Volume |
|---|---|---|---|
| Irrigation | 3/1 to 11/15 | 0.08 cfs | 13.1 af |
| | Totals | 0.08 cfs | 13.1 af |

**Amendments Required** ☐Change P.D. ☐Add P.D ☒None ☐Change P.U. ☐Add P.U. ☐Other:

**Conditions:**

Specific POU developed on Lot 5 & 6 Waldvogel Acres Subdivision (PPU permitted not developed - recommending a specific POU). Owner requested flexibility to move right anywhere within the 40 acre-tract. Considering this is allowed by statue, recommend removing condition X60 specifying POU lot and block information in case use is moved in the future. Permits 63-33111 thru 63-33114 included combined use limit condition and a condition limiting the total number of wells to be constructed to four. The individual uses recommended for licensing will not exceed the permit combined limits, therefore no combined use limit is recommended on the license. Only one well was constructed during the development period of the four permits. There is no administrative reason to carry forward a restriction on the number of wells authorized for construction. Recommend this condition is removed at licensing. Well upgrade fee received 9/8/16 (receipt W044604) for pod well D0069038.

**Remarks:**

Electricity meter #12 096 385. 63-33111 thru 63-33114 use same irrigation system. Irrigates with 4 lines at a time, one sprinkler head every 40 feet. Sprinklers are 30 WS 1/8 inch nozzles est. 60 psi. See exam in 63-33111 for system diagram. Sprinkler system est. total system flow rate 0.29 cfs. Well can pump 120 gpm (0.27 cfs) according to owner. Pump curve est. 100 gpm (0.22 cfs) capacity. HP equation (worksheet attached) est. 0.24 cfs capacity. Did not run the pump during exam because of electrical issue. Est. 60-

IN-OFFICE BENEFICIAL USE FIELD REPORT

80% grass cover on lots 5 & 6 during site visit, but taking info submitted with proof statement (receipts for seed & power records) into account, appears system operated a sufficient length of time to germinate seed and grow grass. If use system flow rate of 0.29 cfs for 11 acres irrigated under rights 63-33111 thru 63-33114, arrive at 0.026 cfs/ac which rounds up to 0.03 cfs (standard for irrigation less than 5 acres, which each right is). Likely each permit will use own well in future (according to owner). Considering each permit individually qualifies for no diversion rate measurement per IDAPA 37.03.02.035.r, could recommend 0.03 cfs/ac. However, need to take combined use limit condition into account as described above. Therefore, recommending 0.029 cfs/ac for total rate calculation on each permit.

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**Workflow**

| | |
|---|---|
| Exam Date Entered | X |
| POU/POD shapes | X |
| Combined Rights Entry | N/A |
| Wild & Scenic Entry | N/A |
| Draft License and Map | X |

**Supporting Documents**

| | | | |
|---|---|---|---|
| Historical Imagery | N/A | Well Log | X |
| Photographs | X | Diagrams | X |
| LandSat | N/A | Theoretical | N/A |

Other: See 63-33111 exam for photos & system diagram

State of Idaho
Department of Water Resources

# Beneficial Use Field Report Map

63-33112

0 0.035 0.07 0.14 Miles

- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections

N

# 63-33112 thru 63-33114 Beneficial Use Field Report Imagery

**63-33112 thru 63-33114 Field Exam:** Google Earth April 2016 aerial image of POU.

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 63-33111 thru 63-33114
Examiner: Angie G. & Danie M.
Date of Field Exam: 7/22/2016

| P/D No.: | Option 1 | OPTION 2 | OPTION 3 | |
|---|---|---|---|---|
| PUMP HORSEPOWER | 15 | 15 | 15 | |
| BOOSTER HORSEPOWER | 0 | 0 | 0 | |
| PUMPING LEVEL | 255 | 255 | 255 | |
| DISCHARGE PRESSURE | 60 | 50 | 40 | |
| FRICTION | 0 | 8 | 8 | |
| | | | | AVE |
| RATE OF FLOW (cfs) | 0.23 | 0.24 | 0.26 | 0.25 |
| (gpm) | 105.4 | 109.6 | 116.7 | |

The above calculates the formula =

$$Q = \frac{8.8 * (\text{Efficiency}) * hp}{\text{depth to water} + 2.31*(\text{psi}) + \text{friction}}$$

Assumptions: %70 efficiency.

**Examiners Notes:** Pump set at 270 ft. Static water level 240 ft.

# SPRINKLER DISCHARGE IN GPM

# NOZZLE SIZE (INCHES) & PRESSURE (PSI)

**GPM = 29.82 x DIAMETER SQUARED x SQUARE ROOT OF PRESSURE**

Table 1. Sprinkler discharge gpm (gallons per minute) for nozzle size (inches) and pressures (psi) (pounds per square inch)

| | Nozzle Size (in) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| psi | 3/32 | 7/64 | 1/8 | 9/64 | 5/32 | 11/64 | 3/16 | 13/64 | 7/32 | 15/64 | 1/4 |
| 20 | 1.17 | 1.60 | 2.09 | 2.65 | 3.26 | 3.92 | 4.69 | 5.51 | 6.37 | 7.32 | 8.34 |
| 25 | 1.31 | 1.78 | 2.34 | 2.96 | 3.64 | 4.38 | 5.25 | 6.16 | 7.13 | 8.19 | 9.32 |
| 30 | 1.44 | 1.95 | 2.56 | 3.26 | 4.01 | 4.83 | 5.75 | 6.80 | 7.86 | 8.97 | 10.21 |
| 35 | 1.55 | 2.11 | 2.77 | 3.50 | 4.31 | 5.18 | 6.21 | 7.30 | 8.43 | 9.69 | 11.03 |
| 40 | 1.66 | 2.26 | 2.96 | 3.74 | 4.61 | 5.54 | 6.64 | 7.80 | 9.02 | 10.35 | 11.79 |
| 45 | 1.76 | 2.39 | 3.13 | 3.99 | 4.91 | 5.91 | 7.03 | 8.30 | 9.60 | 10.99 | 12.50 |
| 50 | 1.85 | 2.52 | 3.30 | 4.18 | 5.15 | 6.19 | 7.41 | 8.71 | 10.10 | 11.58 | 13.18 |
| 55 | 1.94 | 2.64 | 3.46 | 4.37 | 5.39 | 6.48 | 7.77 | 9.12 | 10.50 | 12.15 | 13.82 |
| 60 | 2.03 | 2.76 | 3.62 | 4.50 | 5.65 | 6.80 | 8.12 | 9.56 | 11.05 | 12.68 | 14.44 |
| 65 | 2.11 | 2.88 | 3.77 | 4.76 | 5.87 | 7.06 | 8.45 | 9.92 | 11.45 | 13.21 | 15.03 |
| 70 | 2.19 | 2.99 | 3.91 | 4.96 | 6.10 | 7.34 | 8.78 | 10.32 | 11.95 | 13.70 | 15.59 |
| 75 | 2.27 | 3.09 | 4.05 | 5.12 | 6.30 | 7.58 | 9.08 | 10.66 | 12.32 | 14.19 | 16.14 |
| 80 | 2.35 | 3.19 | 4.18 | 5.29 | 6.52 | 7.84 | 9.39 | 11.02 | 12.74 | 14.64 | 16.67 |
| 85 | 2.42 | 3.29 | 4.31 | 5.45 | 6.71 | 8.07 | 9.67 | 11.35 | 13.11 | 15.10 | 17.18 |
| 90 | 2.49 | 3.38 | 4.43 | 5.61 | 6.91 | 8.31 | 9.95 | 11.69 | 13.51 | 15.53 | 17.68 |
| 100 | 2.62 | 3.57 | 4.67 | 5.91 | 7.29 | 8.76 | 10.50 | 12.32 | 14.23 | 16.37 | 18.64 |
| 110 | 2.75 | 3.74 | 4.89 | 6.19 | 7.63 | 9.24 | 11.00 | 12.90 | 14.97 | 17.17 | 19.55 |
| 120 | 2.87 | 3.91 | 5.10 | 6.46 | 7.97 | 9.65 | 11.48 | 13.47 | 15.63 | 17.93 | 20.42 |
| 130 | 2.99 | 4.07 | 5.31 | 6.72 | 8.30 | 10.04 | 11.95 | 14.02 | 16.27 | 18.66 | 21.25 |

Note: Figures given are approximate maximum discharge rates for given nozzle size and pressure.

- **USE DRILL BITS OR TAPE MEASURE TO CHECK NOZZLE SIZE**
- **USE SPRINKLER GAGE TO CHECK PSI**
- **PSI FOR SPRINKLER LINE:**
  - **CHECK NEAR START, MID & END OF LINE, TAKE AVERAGE**
  - **OR -- CHECK 1 HEAD ABOUT 1/3 FROM START OF LINE**

– SL 8/20/07

c SCAN "Sprinkler ..."

Form 238-7
6/07

63

# IDAHO DEPARTMENT OF WATER RESOURCES
# WELL DRILLER'S REPORT

**1. WELL TAG NO.** D 0069038
Drilling Permit No 9168900-874957
Water right or injection well #

**2. OWNER**
Name Flood, Robert
Address 126 W. Thornberry Ct.
City Boise State ID Zip 83702

**3. WELL LOCATION:**
Twp 1 North ☒ or South ☐ Rge 1 East ☐ or West ☒
Sec 5 NW 1/4 (10 acres) NE 1/4 (40 acres) 1/4 (160 acres)
Gov't Lot County Ada
Lat 43 ° 27.550 (Deg and Decimal minutes)
Long 116 ° 28.788 (Deg and Decimal minutes)
Address of Well Site 3/4 of Mile E. on Murphy Rd.
City Kuna
Lot 1 Blk 1 Sub Name

**4. USE:**
☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection
☐ Other

**5. TYPE OF WORK** check all that apply (Replacement etc.)
☒ 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 ft³) | Placement method/procedure |
|---|---|---|---|---|
| Chips | 0 | 50 | 1500 lbs | Poured |
| | | | | |

**8. CASING/LINER:**

| Diameter (nominal) | From (ft) | To (ft) | Gauge/ Schedule | Material | Casing | Liner | Threaded | Welded |
|---|---|---|---|---|---|---|---|---|
| 6" | +2 | 418 | .250 | Steel | ☒ | ☐ | ☐ | ☒ |
| | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | ☐ | ☐ | ☐ | ☐ |

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 418

**9. PERFORATIONS/SCREENS:**
Perforations ☐ Y ☒ N Method
Manufactured screen ☒ Y ☐ N Type Johnson
Method of installation Washed in

| From (ft) | To (ft) | Slot size | Number/ft | Diameter (nominal) | Material | Gauge or Schedule |
|---|---|---|---|---|---|---|
| 420' | 430' | .20 | | 5" | Stainless | .304 |
| 430 | 440 | .25 | | 5" | Stainless | .304 |
| | | | | | | |

Length of Headpipe 17' Length of Tailpipe Plate w/valve
Packer ☒ Y ☐ N Type Western Rubber fig. K double rubber

**10. FILTER PACK:**

| Filter Material | From (ft) | To (ft) | Quantity (lbs or ft³) | Placement method |
|---|---|---|---|---|
| | | | | |
| | | | | |

**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) 230' Static water level (ft) 240'
Water temp (°F) 61 Bottom hole temp (°F) 61
Describe access port Sanitary Well Cap

Well test: Test method:

| Drawdown (feet) | Discharge or yield (gpm) | Test duration (minutes) | Pump | Bailer | Air | Flowing artesian |
|---|---|---|---|---|---|---|
| 410' | 80 | 60 | ☐ | ☐ | ☒ | ☐ |
| | | | | | | |
| | | | | | | |

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 | Water N |
|---|---|---|---|---|---|
| 10" | 0 | 2 | Top Soil | | X |
| 10 | 2 | 5 | Hard Pan | | X |
| 10 | 5 | 8 | Clay | | X |
| 10 | 8 | 33 | Lava Rock | | X |
| 10 | 33 | 36 | Cinders | | X |
| 10 | 36 | 50 | Lava Rock | | X |
| 8" | 50 | 56 | Soft Lava | | X |
| 8 | 56 | 102 | Lava Rock | | X |
| 8 | 102 | 104 | Soft Lava | | X |
| 8 | 104 | 140 | Lava Rock | | X |
| 8 | 140 | 150 | Cinders | | X |
| 8 | 150 | 165 | Clay & Sandstone Strips | | X |
| 8 | 165 | 168 | Cemented Gravel | | X |
| 6" | 168 | 185 | Cemented Gravel | | X |
| 6 | 185 | 215 | Sticky Brown Clay | | X |
| 6 | 215 | 230 | Sand/Strips of Clay | | X |
| 6 | 230 | 260 | Sand/clay strips | X | |
| 6 | 260 | 320 | Sand | X | |
| 6 | 320 | 325 | Sticky Brown Clay | | X |
| 6 | 325 | 330 | Coarse Sand | X | |
| 6 | 330 | 332 | Sticky Clay | | X |
| 6 | 332 | 335 | Sandstone | | X |
| 6 | 335 | 340 | Coarse Sand | X | |
| 6 | 340 | 385 | Sand & clay Strips | X | |
| 6 | 385 | 393 | Sand 40 GPM | X | |
| 6 | 393 | 397 | Brown Clay | | X |
| 6 | 397 | 405 | Sand 60 GPM | X | |
| 6 | 405 | 407 | Clay | | X |
| 6 | 407 | 410 | Sand 70 GPM | X | |
| 6 | 410 | 420 | Brown Clay | | X |
| 6 | 420 | 440 | Sand(Screen 20 slot /25 slot 80 GPM | | |
| | | | | | |

Completed Depth (Measurable) 440'
Date Started 4/10/2015 Completed 5/5/2015

**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 Can-Ada Well Drilling & Pump Co No 304
*Principal Driller Earl Skinner Earl Skinner Date 6/2/2015
*Driller Date
*Operator II Brad Skinner Date 6/2/2015
Operator I Date
* Signature of Principal Driller and rig operator are required

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WESTERN REGION

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