

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**BENEFICIAL USE FIELD REPORT**

**A. GENERAL INFORMATION**

Permit No: 65-22913

Exam Date: 7/30/2012

1. Current Owner: JOHN WEYMOUTH  
100 W CLAIRE  
MERIDIAN ID 83646  
208-861-3535

2. Accompanied by: John Weymouth  
Phone No: Same  
Address: Same  
Relationship to Permit Holder: Same

3. **SOURCE**

GROUND WATER

**TRIBUTARY**

N/A

**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

L1 (NW1/4NW1/4)

Sec. 7, Twp 07N, Rge 03E, B.M.

BOISE County

Method of Determination: GPS Location N43.964456° W116.15371° Garmin model GPSmap 76 Datum NAD 83

2. **PLACE OF USE:** IRRIGATION

| Twp | Rge | Sec | NE        |           |           |           | NW        |           |           |           | SW        |           |           |           | SE        |           |           |           | Totals |
|-----|-----|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------|
|     |     |     | <u>NE</u> | <u>NW</u> | <u>SW</u> | <u>SE</u> | <u>NE</u> | <u>NW</u> | <u>SW</u> | <u>SE</u> | <u>NE</u> | <u>NW</u> | <u>SW</u> | <u>SE</u> | <u>NE</u> | <u>NW</u> | <u>SW</u> | <u>SE</u> |        |
| 07N | 03E | 7   |           |           |           |           |           |           | .9        |           |           |           |           |           |           |           |           |           | .9     |
|     |     |     |           |           |           |           |           |           | L 1       |           |           |           |           |           |           |           |           |           |        |

Total Acres: 0.9

**PLACE OF USE:** DIVERSION TO STORAGE

| Twp | Rge | Sec | NE        |           |           |           | NW        |           |           |           | SW        |           |           |           | SE        |           |           |           | Totals |
|-----|-----|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------|
|     |     |     | <u>NE</u> | <u>NW</u> | <u>SW</u> | <u>SE</u> | <u>NE</u> | <u>NW</u> | <u>SW</u> | <u>SE</u> | <u>NE</u> | <u>NW</u> | <u>SW</u> | <u>SE</u> | <u>NE</u> | <u>NW</u> | <u>SW</u> | <u>SE</u> |        |
| 07N | 03E | 7   |           |           |           |           |           |           | X         |           |           |           |           |           |           |           |           |           |        |
|     |     |     |           |           |           |           |           |           | L 1       |           |           |           |           |           |           |           |           |           |        |

**PLACE OF USE:** AESTHETIC STORAGE

| Twp | Rge | Sec | NE        |           |           |           | NW        |           |           |           | SW        |           |           |           | SE        |           |           |           | Totals |
|-----|-----|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------|
|     |     |     | <u>NE</u> | <u>NW</u> | <u>SW</u> | <u>SE</u> | <u>NE</u> | <u>NW</u> | <u>SW</u> | <u>SE</u> | <u>NE</u> | <u>NW</u> | <u>SW</u> | <u>SE</u> | <u>NE</u> | <u>NW</u> | <u>SW</u> | <u>SE</u> |        |
| 07N | 03E | 7   |           |           |           |           |           |           | X         |           |           |           |           |           |           |           |           |           |        |
|     |     |     |           |           |           |           |           |           | L 1       |           |           |           |           |           |           |           |           |           |        |

**PLACE OF USE:** DOMESTIC

| Twp | Rge | Sec | NE        |           |           |           | NW        |           |           |           | SW        |           |           |           | SE        |           |           |           | Totals |
|-----|-----|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------|
|     |     |     | <u>NE</u> | <u>NW</u> | <u>SW</u> | <u>SE</u> | <u>NE</u> | <u>NW</u> | <u>SW</u> | <u>SE</u> | <u>NE</u> | <u>NW</u> | <u>SW</u> | <u>SE</u> | <u>NE</u> | <u>NW</u> | <u>SW</u> | <u>SE</u> |        |
| 07N | 03E | 7   |           |           |           |           |           |           | X         |           |           |           |           |           |           |           |           |           |        |
|     |     |     |           |           |           |           |           |           | L 1       |           |           |           |           |           |           |           |           |           |        |

Method of Determination: Bing (2011) Aerial Photography w/ field verification.

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> |
|-------------------------------------|-------------------|-----------|-------------------------|------------------|------------------------------------------|
| Metal Tag D0031320                  | Franklin          | 1½        | 03L1811-1560            | Jacuzzi          | Pump Model 19NOV03 (?)<br>1½" Discharge  |

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

#### D. FLOW MEASUREMENTS

| 1. <u>Measurement Equipment</u> | <u>Type</u> | <u>Make/Model No.</u> | <u>Serial No.</u> | <u>Size</u> | <u>Calib. Date</u> |
|---------------------------------|-------------|-----------------------|-------------------|-------------|--------------------|
| No physical measurement @ exam  | N/A         | N/A                   | N/A               | N/A         | N/A                |

See Flow Calculations Section below for Theoretical HP Equation, Well Log Pump Test, and Pipe Diameter Flow Estimations.

2. Measurements: None taken. Well discharge piping not suitable (buried) for polysonic measurement.

#### E. FLOW CALCULATIONS

\_\_\_\_\_ Additional Computation Sheets Attached

**Measured Method: Theoretical HP Equation:**

$$HP = 1\frac{1}{2}$$

$$[Z + (2.31 \times \text{PSI})] \text{PSI} = \text{Pumping Level} = 200 \text{ ft per well log (pump set @ 230 ft - 200 ft pumping level reasonable)}$$

$$Q = (8.8 \times 0.7 \times \text{HP}) / [Z + (2.31 \times \text{PSI})] = (8.8 \times 0.7 \times 1.5) / [200] = \mathbf{0.05 \text{ cfs}}$$
 est. capacity of pumping system

**Measured Method: Well Capacity/Well Log Pump Test:**

Well Log Pump Test : Discharge = 20 gpm = **0.04 cfs** when pumped for 2 hours.

**Measured Method: Pipe Diameter Flow Estimation:**

Discharge Pipe Dia = 1½ in

$$A = \pi r^2 = 3.14 \times (1/2 \text{ Dia})^2 = \pi \times 0.56 \text{ in}^2 = \pi \text{ in}^2 \approx 0.0123 \text{ ft}^2$$

V = 5 ft/sec (est. for well designed closed pipe system)

$$Q = AV = 0.0123 \text{ ft}^2 \times 5 \text{ ft/sec} = \mathbf{0.06 \text{ cfs}}$$
 est. flow through discharge pipe

Theoretical HP Equation est. capacity of pumping system = **0.05 cfs**

Well Capacity/Well Log Pump Test = **0.04 cfs**

Pipe diameter flow estimation = **0.06 cfs**

Permitted Rate = **0.10 cfs**

Beneficial Use Limit (Irrigation + Domestic) = **0.03 cfs** (0.9 ac x 0.03 cfs/ac) + **0.04 cfs** (max in-house 1 home) = **0.07 cfs**

Proof of Beneficial Use fee paid = \$50.00 = up to **0.20 cfs**

**Recommend Theoretical HP Equation est. Rate = 0.05 cfs**

Highest rate allowable based on theoretical HP equation estimation 0.05 cfs recommended. Recommended rate is ≤ 75% (71%) of max allowable rate based on beneficial use limit, therefore do not recommend higher rate than calculated capacity value.

**F. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.9 \text{ ac} \times 3.5 \text{ afa/ac} = 3.2 \text{ afa}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.03 \text{ cfs} \times 231 \text{ days} \times 1.9835 = 13.7 \text{ afa}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 3.2 \text{ afa} < 13.7 \text{ afa} = \text{Recommend 3.2 afa}$$

2. Volume Calculations for Aesthetic Storage:

**Pond Capacity:**

General Shape = Flat Bottomed

SA @ normal WL = 0.03 ac

Depth (average) = 1.5 ft

$$0.03 \text{ ac} \times 1.5 \text{ ft} = 0.045 \text{ afa} \approx \mathbf{0.1 \text{ afa}}$$

**Evaporative Losses Associated with the pond:**

SA @ normal WL = 0.03 ac

Evaporation rate  $\approx$  3.0 afa/ac (consumptive use standard for irrigation in area)

$$\text{Evaporative Losses} = 0.03 \text{ ac} \times 3.0 \text{ afa/ac} = 0.09 \text{ afa} \approx \mathbf{0.1 \text{ afa}}$$

Calculated Pond Volume (Capacity + Evaporative Losses) = **0.2 afa**Permitted Volume = **2.0 afa**Proof of Beneficial Use fee paid = \$50.00 = up to **20.0 afa****Recommend Calculated Pond Capacity + Evaporative Losses Volume = 0.2 afa**

3. Volume Calculations for Domestic Use:

$$V_R = \# \text{homes} \times 0.6 \text{ afa/home} = 1 \times 0.6 \text{ afa} = 0.6 \text{ afa}$$

$$V_D = [\text{Diversion Rate (cfs)}] \times (\text{Days in Season of Use}) \times 1.9835 = 0.04 \text{ cfs} \times 365 \text{ days} \times 1.9835 = 29.0 \text{ afa}$$

$$V = \text{Smaller of } V_R \text{ and } V_D = 0.6 \text{ afa} < 29.0 \text{ afa} = \text{Recommend 0.6 afa}$$

Total Volume Recommended = 3.2 afa + 0.2 afa + 0.6 afa = 4.0 afa

Total Volume System Divert @ Total Rate Recommended = 0.05 cfs  $\times$  365 days  $\times$  1.9835 = 36.2 afa

System capable of diverting total volume recommended at maximum total diversion rate recommended.

**G. NARRATIVE/REMARKS/COMMENTS****SYSTEM DESCRIPTION:**

System consists of a 6" dia well with a 1½" buried discharge line piped to pump house with 3 pressure tanks. The pressure tanks kick on when the system drops to 40 psi and kick off when reaches 60 psi. Separate lines for irrigation (Nelson pop-up lawn sprinklers irrigate in sections) and domestic use (1 home) inside pump house. Water is diverted from the faucet next to the well via hose to the lined pond for aesthetic storage.

**P/U SHAPE:**

P/U shape(s) drawn in-line with 2011 aerial imagery. Boise County taxlot data does not line up exactly with aerial imagery. The P/U and P/D are entirely within Lot 2 Blk 1 of Diamond Nickle Estates owned by John Weymouth.

**COMPLIANCE WITH PERMIT CONDITIONS:**

Pond capacity developed does not exceed permitted 0.1 af. All irrigation occurring under irrigation component of this permit, domestic use/line from pump house only for internal use. To the best of my knowledge, owner has complied with all permit conditions.

Have conditions of permit approval been met?  X  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 10/31       | 0.03 CFS              | 3.2 AF               |
| DIVERSION TO STORAGE  | 01/01 to 12/31       | 0.05 CFS              | N/A                  |
| AESTHETIC STORAGE     | 01/01 to 12/31       | N/A                   | 0.2 AF               |
| DOMESTIC              | 01/01 to 12/31       | 0.04 CFS              | 0.6 AF               |
|                       | <u>Totals:</u>       | 0.05 CFS              | 4.0 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 Angela M. Quinn Date 8/14/2012

Reviewer \_\_\_\_\_ Date \_\_\_\_\_

State of Idaho  
Department of Water Resources  
**Beneficial Use Field Report Map**  
65-22913  
Irrigation Use

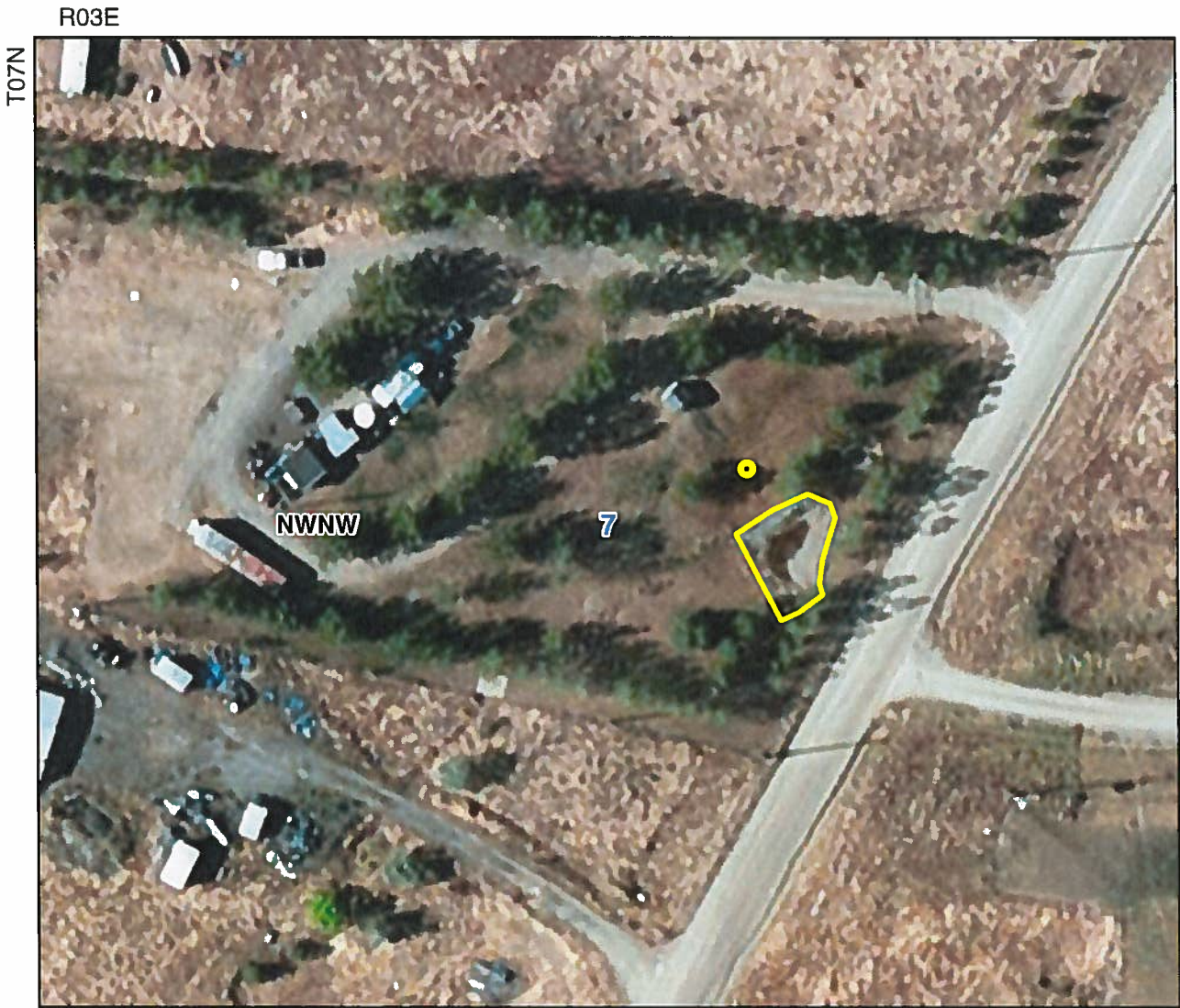


0 0.0175 0.035 0.07 Miles

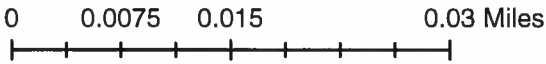
-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters



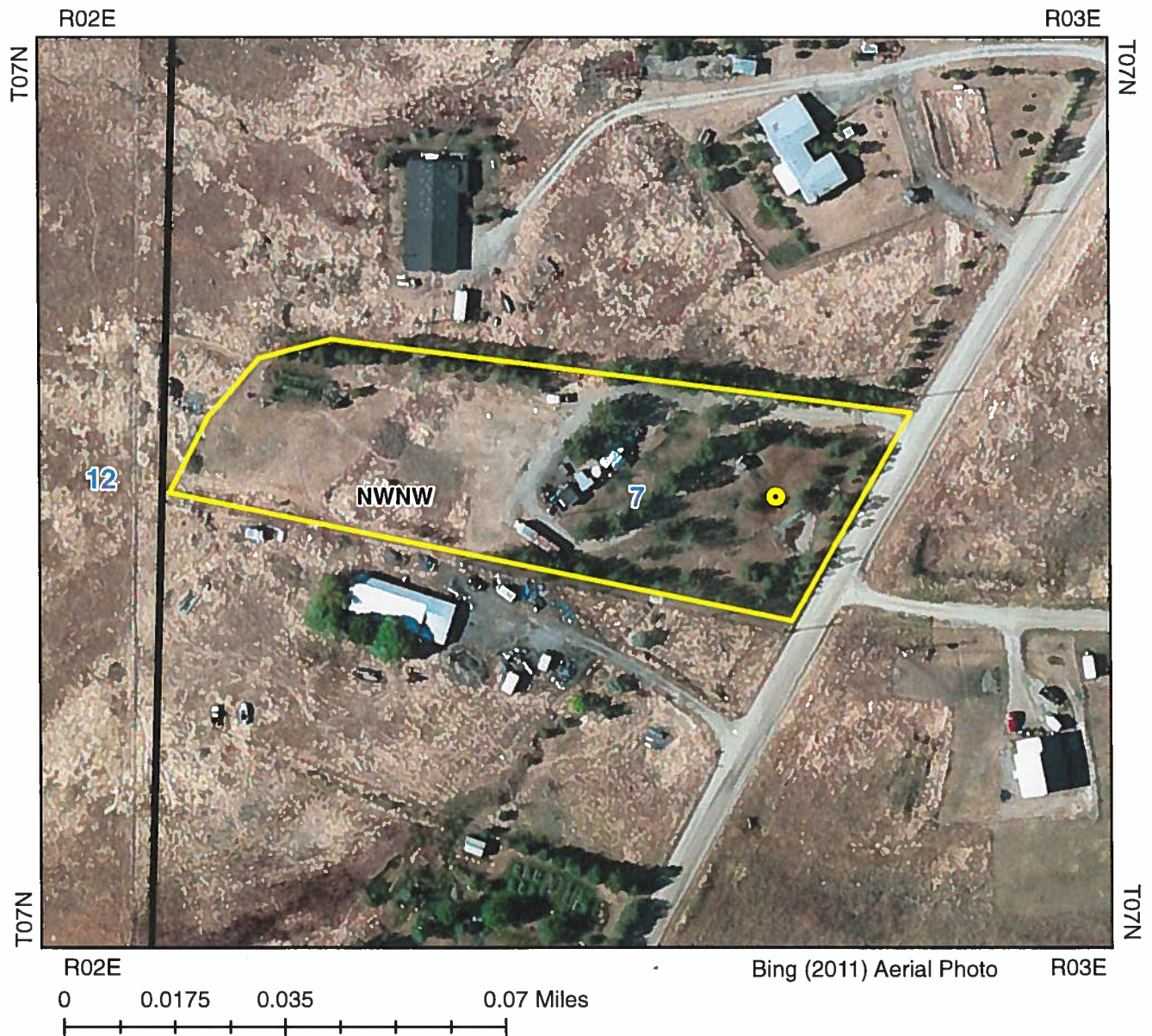
State of Idaho  
Department of Water Resources  
**Beneficial Use Field Report Map**  
65-22913  
Aesthetic Storage Use



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



State of Idaho  
Department of Water Resources  
**Beneficial Use Field Report Map**  
65-22913  
Domestic Use



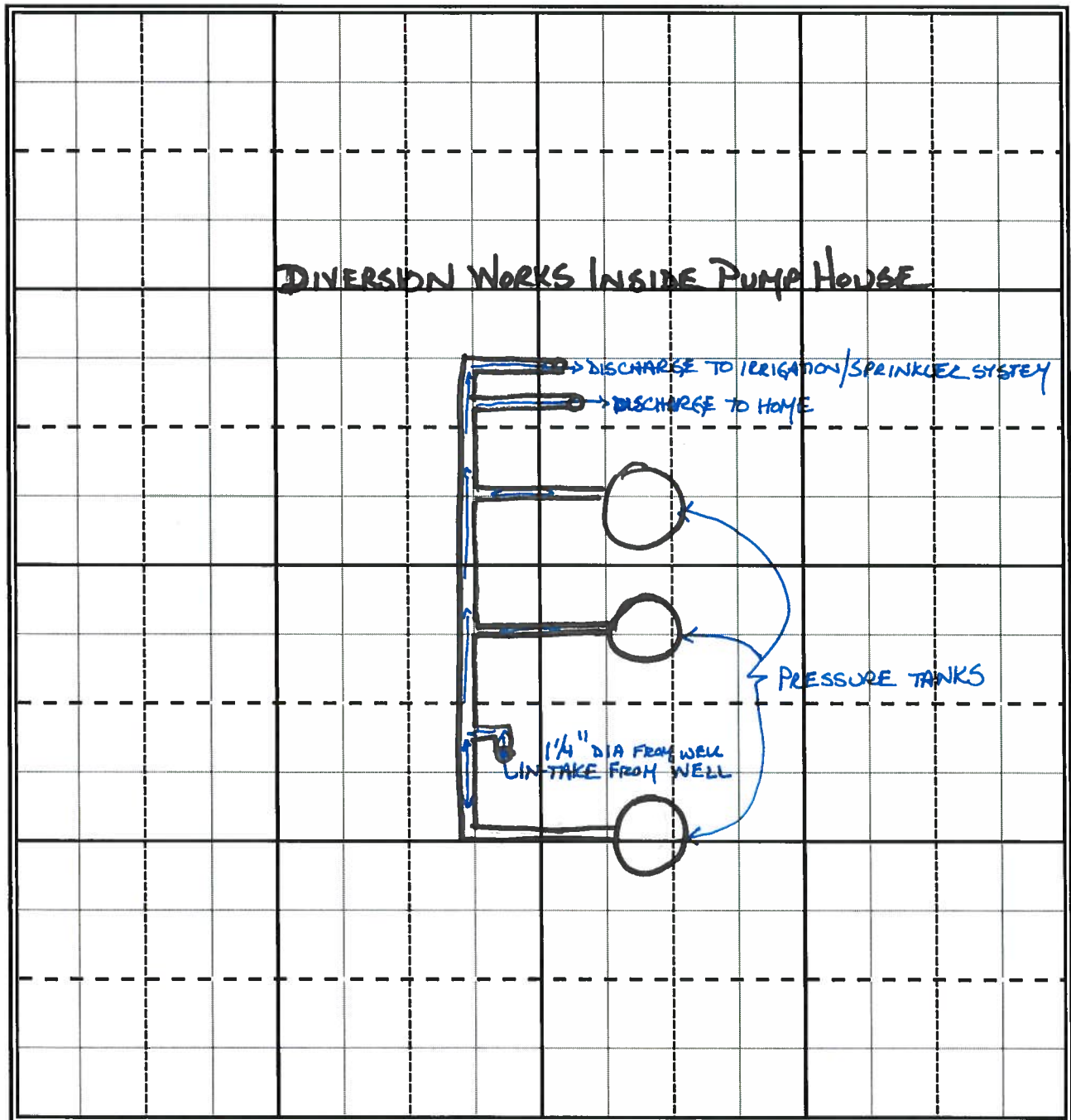
-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters





T 7N R 3E SECTION 7

# 65-22913 Beneficial Use Field Report Diversion System Diagram



Not to Scale

4/2011

IDAHO DEPARTMENT OF WATER RESOURCES  
FIELD EXAMINERS  
WELL INSPECTION FORM

1. IDENTIFICATION # D 0031320 (Tag #, etc.)

OTHER APPLICABLE # WR # 65-22913 (Water right #, etc.)

2. OWNER JOHN WEYMOUTH Phone \_\_\_\_\_

Address 100 W CLAIRE ST. City MERIDIAN

State ID Zip 83646 Email \_\_\_\_\_

3. WELL LOCATION (GPS required in Degrees Decimal Minutes – use PLS if GPS not available)

Lat. N 43.964456° Long. W 116.15371°

Twp 7N Rge 3E Sec 7  $\frac{1}{4}$  (NW  $\frac{1}{4}$  NW) Gov't LOT 1

4. WELL CONSTRUCTION ☒ Well log attached ☐ Well log not found

Any obvious construction problems that may be a source for contamination or waste? ☐ Yes ☒ No

If yes, describe below &/or see attached (list any that apply): ☐ Photos ☐ Diagram ☐ Other

5. HYDROLOGIC INFORMATION

Static water if measured \_\_\_\_\_ ft. Water temperature if measured \_\_\_\_\_ °F

Flowing artesian ☐ Yes ☐ No Pressure if measured \_\_\_\_\_ psi

NOTES NO MEASUREMENTS TAKEN DURING EXAM.

INSPECTED BY

Angela M. Gimm

DATE

7/30/2012

Form 238-7  
6/02

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

|                 |        |     |  |
|-----------------|--------|-----|--|
| Office Use Only |        |     |  |
| Well ID No      | 816195 |     |  |
| Inspected by    |        |     |  |
| Twp             | Rge    | Sec |  |
| 1/4             | 1/4    | 1/4 |  |
| Lat.            | Long:  |     |  |

1. WELL TAG NO. D 0031320

DRILLING PERMIT NO.

Water Right or Injection Well No.

2. OWNER:

Name Hal Gross

Address 44 Jerusalem Valley Rd

City Horseshoe Bend State ID Zip 83629

3. LOCATION OF WELL by legal description:

You must provide address or Lot, Blk, Sub. or Directions to well

Twp 7 North ☒ or South ☐

Rge 3 East ☒ or West ☐

Sec 7 NW 1/4 NW 1/4 1/4

Gov't Lot County Boise

Lat. : : Long: : :

Address of Well Site 44 Jerusalem Valley Rd

City Horseshoe Bend

(Give at least name of road + Distance to Road or Landmark)

Lt. 2 Blk. 1 Sub Name Diamond Nickel Estate

4. USE:

☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation  
☐ Thermal ☐ Injection ☐ Other

5. TYPE OF WORK check all that apply

(Replacement etc)

☒ New Well ☐ Modify ☐ Abandonment ☐ Other

6. DRILL METHOD:

☒ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other

7. SEALING PROCEDURES

| Seal Material | From | To | Weight / Volume | Seal Placement Method |
|---------------|------|----|-----------------|-----------------------|
| Bentonite     | 0    | 50 | 27 bags         | Poured                |

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

Was drive shoe seal tested? ☐ Y ☒ N How?

8. CASING/LINER:

| Diameter | From | To  | Gauge | Material | Casing                              | Liner                    | Welded                              | Threaded                 |
|----------|------|-----|-------|----------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| 5"       | +2   | 230 | 258   | Steel    | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Length of Headpipe 230 Length of Tailpipe 7

Packer ☒ Y ☐ N Type 3/8" Pea Gravel

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method

Screen Type & Method of Installation S/S 025

| From | To  | Slot Size | Number | Diameter | Material | Casing                              | Liner                    |
|------|-----|-----------|--------|----------|----------|-------------------------------------|--------------------------|
| 220  | 240 | 025       |        | 5"       | S/S      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

10. FILTER PACK

| Filter Material | From | To  | Weight / Volume | Placement Method |
|-----------------|------|-----|-----------------|------------------|
| 3/8" Pea Gravel | 50   | 247 | 4 yd            | Poured           |

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

80 ft below ground Artesian pressure ? lb

Depth flow encountered 230ft Describe access port or control devices N/A

12. WELL TESTS:

☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

| Yield gal/min | Drawdown | Pumping Level | Time  |
|---------------|----------|---------------|-------|
| 20            | 230      | 200           | 2 Hr. |

Water Temp 57 Bottom hole temp 57

Water Quality test or comments: good

230 Depth first Water Encounter

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Water

| Bore Dia | From | To  | Remarks: Lithology, Water Quality & Temperature | Y | N |
|----------|------|-----|-------------------------------------------------|---|---|
| 8-5/8"   | 0    | 12  | Boulder Basalt                                  |   | X |
| "        | 12   | 170 | Green Sandstone                                 |   | X |
| "        | 170  | 225 | Clay, brown                                     |   | X |
| "        | 225  | 230 | Brown Sandstone                                 | X |   |
| "        | 230  | 247 | Clay/ Tan Sandstone                             | ? |   |

RECEIVED

JUN 15 2004

WATER RESOURCES  
WESTERN REGION

SCANNED

JUN 28 2004

Completed Depth 247 (Measurable)

Date Started 6/6/04 6/7/04 Completed 6/9/04

14. DRILLER'S CERTIFICATION

We certify that all minimum well construction standards were complied with at the time the rig was removed

Company Name Rauch Drilling Inc Firm No 570

Principal Driller [Signature] Date 6/10/04

Driller or Operator II [Signature] Date

Operator I [Signature] Date

Principal Driller and Rig Operator Required  
Operator I must have signature of Driller/Operator II.

## 65-22913 Beneficial Use Field Report Photos



**65-22913 Exam 7/30/2012:** P/D facing west. Pump house in background. Portion of irrigated land surrounding well. Trailer (domestic use) and more irrigated land in background behind pump house.



**65-22913 Exam 7/30/2012:** P/D facing east/southeast. Lined aesthetic pond (currently not filled – drained to fix liner prior to exam) in background. Irrigated trees and grass surrounding pond.