

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-31416

Exam Date: 6/8/2012

1. Current Owner: WESTWING ESTATES HOMEOWNERS ASSN
C/O SUSAN TAYLOR
6748 N DOUBLE EAGLE
MERIDIAN ID 83646
(208)888-4091
2. Accompanied by: Don Flynn
Phone No: (208) 941-2525
Address: 6640 N. Double Eagle Lane, Meridian, ID 83646
Relationship to Permit Holder: Homeowner/Water System Manager

3. SOURCE

TRIBUTARY

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 63-31314
2. Other water rights with the same point of diversion: 63-31314

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER

SE1/4SE1/4

Sec. 22, Twp 04N, Rge 01W, B.M.

ADA County

Method of Determination: Arc Map (Aerial Photo); GPS – Garmin GPS III Plus – Lat. 43°39.819', Long. 116°26.094'

2.

PLACE OF USE: FIRE PROTECTION STORAGE

[illegible]

PLACE OF USE: FIRE PROTECTION FROM STORAGE

[illegible]

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.

<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>
D0020200	N/A	1	N/A	N/A	(1 1/4")

*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>
N/A						

2. Measurements: No field measurement. Due to location of discharge pipe near pond surface, unable to place 5-gallon bucket beneath discharge pipe.

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method(Theoretical HP):

Hp = 1 (Assumed – No records available)
 Z = 42' (Theoretical based on 32' static level)
 P = 50 psi (Assumed – No pressure gauge)
 V = 5 fps (Assumed open discharge velocity)

$$Q = 8.8 \times 0.7 \times 1/42 + (2.31 \times 50) = 6.16/157.5 = 0.04 \text{ cfs}$$

$$Q(\text{theoretical}) = 0.04 \text{ cfs} > Q(\text{permit}) = 0.02 \text{ cfs}$$

$$Q = VA = 5 \times 0.0085 \text{ ft}^2 = 0.04 \text{ cfs}$$

Conclusion: Well system is capable of attaining the permit beneficial use diversion rate of 0.02 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: N/A

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

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

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

2. Volume Calculations for Other Uses:

Storage Pond:

Surface Area = 0.52 ac.

Average Depth of Pond = 8' (Assumed)

$$V = 0.52 \text{ ac} \times 8' = 4.2 \text{ AF}$$

Storage pond volume = 4.2 AF > 0.40 AF of fire protection storage.

G. NARRATIVE/REMARKS/COMMENTS**GROUND WATER WELL AND STORAGE POND:**

A storage pond is used to store water for the West Wing Estates Subdivision fire protection and irrigation systems. During the irrigation season, the storage pond is filled with surface water from the Settlers Irrigation District. The ground water well is used primarily during the fall and winter to maintain the storage capacity of the storage pond. The well has a 1 ¼" PVC discharge line located near the north end of the storage pond.

FIRE PROTECTION SYSTEM:

The ½ acre storage pond has a maximum depth between 10 and 12 feet. The fire protection system is comprised of a concrete intake structure in the storage pond, and a 12" gravity pipe to three (3) dry fire hydrants within the development. The dry fire hydrants are located between residential Lots 2 & 3, Lots 4 & 5, and Lots 6 & 7. The concrete intake structure keeps the 12" gravity pipe charged for fire suppression needs at each dry fire hydrant.

OVERLAPS:

Water Right Permit No. 63-31314 – West Wing Estates Subdivision: Same point of diversion and place of use. Beneficial Use is fire protection.

PLACE OF USE:

Beneficial use modified for clarification and to conform to use description standards. 'Fire Protection' changed to 'Fire Protection from Storage'.

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.02	&/or	0.40
Beneficial Use Limit	0.02	&/or	0.40
System Measurement	0.04(Theoretical)	&/or	4.2
Proof Fee Amount	0.02	&/or	0.40
Recommended Amount	0.02	&/or	0.40

Have conditions of permit approval been met? ☒ Yes ☐ No

Condition No.1 – Water bearing zone is between 50 and 150 feet, which meets the water bearing Zone requirement of 50 to 250 feet.

Condition No.4 (077) – Water shall only be diverted to fight or repel an existing fire.

Water Right Permit No. 63-31416 and 63-31314, which are diverted from the same point of diversion, shall have a combined rate limit of 0.04 cfs per the estimated well system capacity.

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
DIVERSION TO STORAGE	09/01 to 04/15	0.020 CFS	
FIRE PROTECTION STORAGE	09/15 to 04/15		0.40 AF
FIRE PROTECTION FROM STORAGE	09/01 to 04/15	0.020 CFS	0.40 AF
<u>Totals:</u>		0.020 CFS	0.40 AF

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

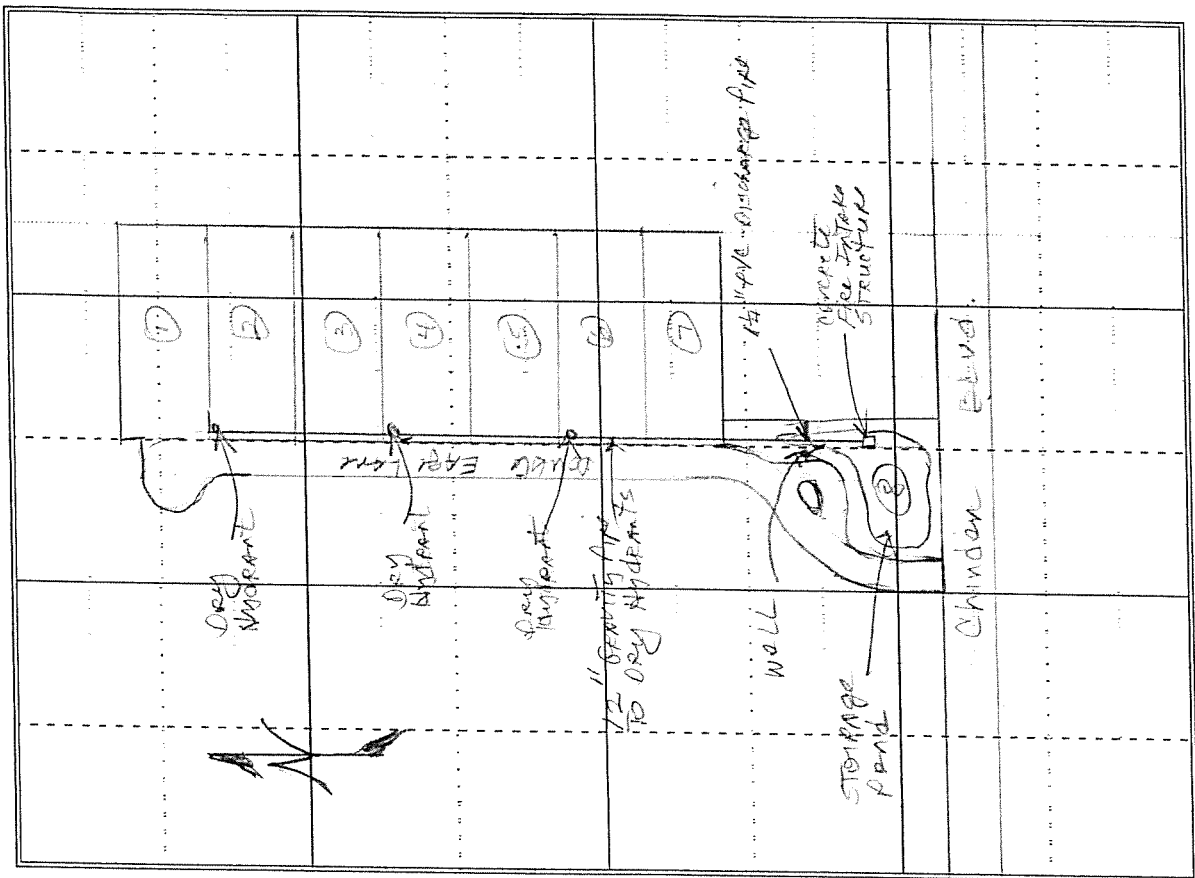
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 8/1/12

Reviewer _____ Date _____

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☐ see attached.



Scale: 1" = 200

- ☐ Copy of USGS 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)
- ☒ Photo of diversion and system attached

63-31416



**IDAHO DEPARTMENT OF WATER RESOURCES
FIELD EXAMINERS
WELL INSPECTION FORM**

1. IDENTIFICATION # D 0020200 (Tag #, etc.)
 OTHER APPLICABLE # 63-31416 (Water right #, etc.)
 2. OWNER Westwing Estates Homeowners Assn. Phone 888-4091/941-2525
 Address 6712 W. Double Eagle Lane City Meridian
 State ID Zip 83646 Email _____

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

Lat. 43° 39.819' Long. 116° 26.094'
 Twp 04N Rge 01W Sec 22 ¼ SE ¼ SE

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
 (Adjacent property well log)

Static water if measured 32' ft. Water temperature if measured _____ °F

Flowing artesian ☐ Yes ☒ No Pressure if measured _____ psi

NOTES

INSPECTED BY Rick Collingwood DATE 6-5-12

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

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

1. WELL TAG NO. D 0020200
DRILLING PERMIT NO. 869782-772487
Water Right or Injection Well No. 63-31314

2. OWNER: West Wing Estates
Name Bowler Construction
Address 9505 N Broadwood Lane
City Eagle State Id Zip 83616

3. LOCATION OF WELL by legal description:

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

Twp. 4 North ☒ or South ☐
Rge. 1 East ☐ or West ☒
Sec. 22 SE 1/4 SE 1/4 SE 1/4
Gov't Lot _____ County Ada

Lat: : : Long: : :
Address of Well Site W. side of pond, corner
of Chinden & 10 mi City Meridian
(Give at least name of road + Distance to Road or Landmark)
Lt. _____ Blk. _____ Sub. Name West Wing
Subdivision

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
<u>bentonite</u>	<u>3</u>	<u>35</u>	<u>650 #</u>	<u>Pour in dry</u>

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 143 ft
Was drive shoe seal tested? ☐ Y ☒ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
<u>6 5/8 + 1 1/2</u>	<u>143</u>	<u>250</u>	<u>250</u>	<u>Steel</u>	☒	☐	☒	☐

Length of Headpipe 5' Length of Tailpipe 0
Packer ☒ Y ☐ N Type K

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method _____
Screen Type & Method of Installation Cont. wire - Pull back

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
<u>145</u>	<u>150</u>	<u>.020</u>		<u>5 5/8</u>	<u>Stainless</u>	☐	☒

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

_____ ft. below ground Artesian pressure _____ lb.
Depth flow encountered 144 ft. Describe access port or control devices: remove well seal

12. WELL TESTS:

☐ Pump ☒ Bailor ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
<u>17</u>		<u>110</u>	<u>2 hr</u>
<u>15</u>		<u>100</u>	<u>2 hr</u>
<u>13</u>		<u>80</u>	<u>2 hr</u>

Water Temp. _____ Bottom hole temp. _____

Water Quality test or comments: _____

Depth first Water Encounter _____

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water
				Y N
<u>10</u>	<u>0</u>	<u>1</u>	<u>clache - fill</u>	☒
<u>"</u>	<u>1</u>	<u>7</u>	<u>dirt</u>	☒
<u>"</u>	<u>7</u>	<u>33</u>	<u>Pit run gravel</u>	☒
<u>6</u>	<u>33</u>	<u>63</u>	<u>silty sand</u>	☒
<u>"</u>	<u>63</u>	<u>74</u>	<u>white clay</u>	☒
<u>"</u>	<u>74</u>	<u>78</u>	<u>fine sand</u>	☒
<u>"</u>	<u>78</u>	<u>118</u>	<u>silty sand clay</u>	☒
	<u>118</u>	<u>131</u>	<u>sand & clay layers</u>	☒
	<u>131</u>	<u>144</u>	<u>silty clay</u>	☒
	<u>144</u>	<u>150</u>	<u>yellow sand</u>	☒

SCANNED

JAN 22 2003

RECEIVED

JAN 17 2003

WATER RESOURCES
WESTERN REGION

Completed Depth 150 ft (Measurable)

Date: Started 9-18-02 Completed 10-25-02

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 Robinson Well Drilling Firm No. 490

Principal Driller Ralph Robinson Date 1-17-03
and

Driller or Operator II Ralph Robinson Date 1-17-03

Operator I _____ Date _____

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

FIELD EXAM PHOTOS

Water Right Permit: 63-31416

Field Exam Date: 6-8-12

PLS: SE1/4, SE1/4 Section 22, T.04N, R.01W.

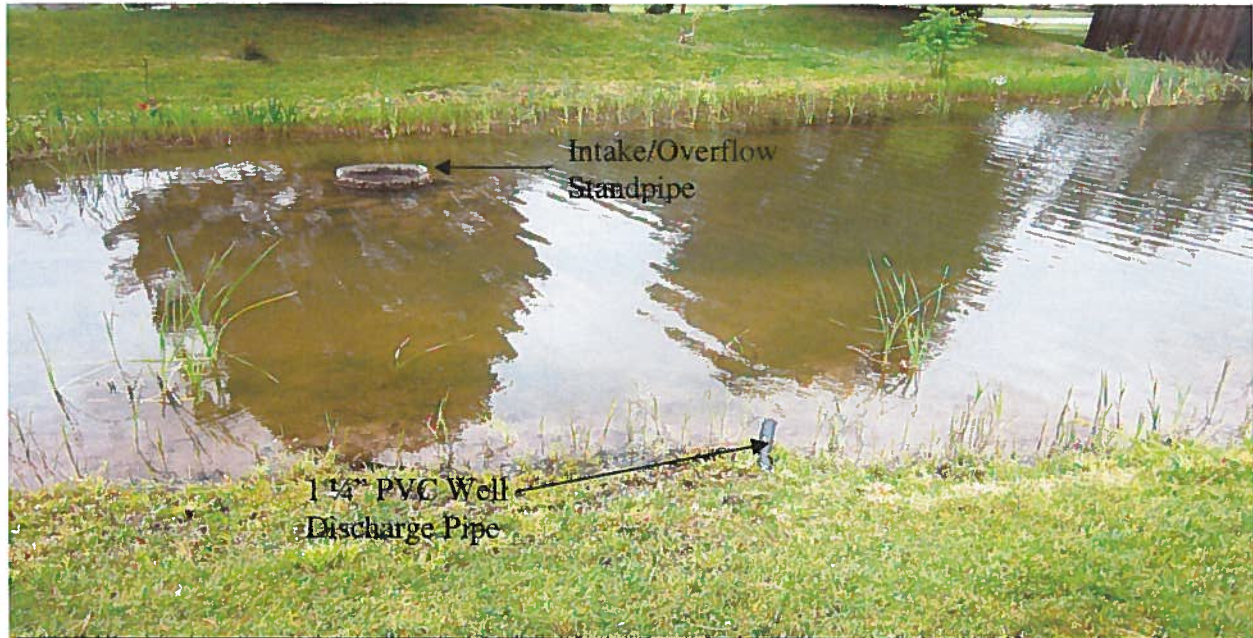
Field Examiner: RC



Point of Diversion: View northwesterly of ground water well. Well is located near the northerly end of storage pond. Well is used during the non-irrigation season to maintain storage pond capacity during the fall and winter.



View southwesterly of storage pond. Storage pond inlet from Settlers Irrigation District system shown at southwesterly end of storage pond. Settlers Irrigation District irrigation water provides water for the storage pond during the irrigation season.



View easterly of 1 1/4" PVC well discharge line to storage pond. Near the far edge of the pond is the irrigation system intake/pond overflow standpipe.



Place of Use: View southeasterly of typical dry fire hydrant between residential lots. The dry fire hydrants are connected to a 12" gravity line, which commence at a concrete intake structure in the storage pond, and extends to the north to the dry fire hydrant serving lots 1 & 2. The 12" gravity line keeps the dry fire hydrants charged for immediate pumping for fire suppression.