

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 36-16406
Exam Date: 9/8/2017

1. Current Owner:

NORTH RIM FAIRWAYS OWNERS ASSN INC
PO BOX 242
JEROME ID 83338

(208) 324-6726

2. Accompanied by: Ben Neff, Subdivision Water Manager and Ron Stansell
Phone No: 208-324-8037
Address: 140 Seminole Circle, Jerome, ID 83338
Relationship to Permit Holder: Manages Water System for subdivision

3. **SOURCE:**
GROUND WATER

TRIBUTARY:

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 36-8399 serves the 2 homes in Section 18 with in-house domestic use.
2. Other water rights with the same point-of-diversion: 36-8399

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER NE¼NE¼SE¼ Sec. 18, Twp 09S, Rge 17E, B.M. JEROME County
GROUND WATER NE¼NE¼SE¼ Sec. 18, Twp 09S, Rge 17E, B.M. JEROME County

Method of Determination: ArcMap aerial imagery and site visit

2.

PLACE OF USE: DOMESTIC

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
09S	17E	18													X			X	
09S	17E	19			X		X	X L 1											

Method of Determination: ArcMap aerial imagery and site visit

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.
 X 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
 X 1:24,000 or greater.

 X Aerial Photo Attached (required for irrigation of 10+ acres).

 X Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Water Measurement Information System #
A0004283		15			WMIS #400203
A0004282		7.5			WMIS #400202

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

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Flowmeter	Ultrasonic	Fuji				

2. Measurements: I measured the flow from the two wells running simultaneously out of a dump valve near the pump house. The measurement time was 10 minutes and I set the flowmeter to record every 30 seconds. The highest recorded flow was 152 gpm or 0.34 cfs. This was lower than the flow cited in the field exam for right 36-8399 (0.41 cfs). I recommend the permit be licensed at the permitted 0.23 cfs, but 36-8399 and 36-16406 have a combined flow rate of 0.41cfs.

E. FLOW X Additional Computation Sheets Attached**CALCULATIONS**

Measured Method: Flow rate of 152 gpm was measured. $152/448.8 = 0.34$ cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \text{NA}$$

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

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} =$$

2. Volume Calculations for Other Uses: 0.6 AF/home (standard allowed for in-house use), so $0.6 \times 20 = 12.0$ AF plus 0.6 AF/home (standard allowed for irrigation under domestic use), $0.6 \times 2 = 1.2$ AF. Total = 13.2 AF

G. NARRATIVE/REMARKS/COMMENTS

The field exam for permit 36-16406 was completed on September 8, 2017 with Ben Neff, subdivision water manager, and subdivision resident Ron Stansell present. This permit was filed in 2006 with the intent to cover in-house use for subdivision lots which weren't covered by right 36-8399. The application was protested and remained unresolved until 2016 when the protests were withdrawn as a result of the amendment of the application. At that point, the application was further amended to include the ½ acre of irrigation for 2 lots in T09S, R17E, Section 18, SESE and NESE (but not in-house use, which was covered by 36-8399). In addition, several subdivision lots were left off of the original application, so these were added. Irrigation for the subdivision lots is provided by shares in the North Side Canal Company.

Two wells provide water for this permit and right 36-8399, and are located in the NESE of Section 18, T09S, R17E. The water is piped about ½ mile south to the north end of the subdivision and out ½ to ¾ of a mile to the furthest extent of the subdivision. The two homes not in the subdivision that are covered for ½ acre each of irrigation are located adjacent to, and 1/3 mile south of the wells.

The wells, which are generally pumped one-at-a-time, flow into a 10,000 gallon storage tank located in the pump house. From the tank, water is pressurized by two booster pumps and flows on out to the subdivision. A totalizing flowmeter is located downstream of the booster pumps.

On the day of the field exam, I used a Fuji ultrasonic flowmeter to measure the flow from the wells. With only one well pumping, a rate of about 70 gpm was the maximum flow. Mr. Neff turned on both wells, and even then, the highest flow rate recorded by the flowmeter was 152 gpm (0.34 cfs). Since this exceeded the permitted rate for 36-16406 of 0.23 cfs, I recommend that as the licensed flow rate, but the licensed rate for the existing right, 0.41 cfs, should be the combined flow rate for the two rights. Allowing 0.6 AF for each home (whether in-house or ½ acre of irrigation) yields a volume of 13.2 AF.

It appears that a shift in the aerial imagery causes the PLS layer, the tax parcel layer, and therefore the water right and water permit layers to misalign. In permitting and licensing this water right, I have matched the water permit and water right shapes to the tax parcel layer.

Have conditions of permit approval been met? X Yes No

H. RECOMMENDATIONS

1. Recommended Amounts

BENEFICIAL USE
DOMESTIC

PERIOD OF USE
01/01 to 12/31

DIVERSION RATE
0.23 CFS

ANNUAL VOLUME
13.2 AF

Totals:

0.230 CFS

13.20 AF

2. Recommended Amendments

<u> </u> Change P.D. as reflected above	Add P.D. as reflected above	X	None
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Change P.U. as reflected above	Add P.U. as reflected above	X	None
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I. AUTHENTICATION

Field Examiner's Name John S. Stulen Date 9-8-17

Reviewer _____ Date _____

No.01
 LOG NAME:NORTHRIM
 START :09-08 10:20
 0:00:00
 INTERVAL:00:00:30

	ft/s	gal/m	(+TOTAL)	(-TOTAL)	gal	
09-08 10:20:00	3.40E+00	7.42E+01	0	0.00E+00	ABNORMAL	
09-08 10:20:30	3.17E+00	6.90E+01	32	0.00E+00	NORMAL	
09-08 10:21:00	3.21E+00	7.01E+01	67	0.00E+00	NORMAL	
09-08 10:21:30	6.85E+00	1.49E+02	107	0.00E+00	NORMAL	
09-08 10:22:00	6.99E+00	1.52E+02	183	0.00E+00	NORMAL	
09-08 10:22:30	6.88E+00	1.50E+02	259	0.00E+00	NORMAL	
09-08 10:23:00	6.80E+00	1.48E+02	333	0.00E+00	NORMAL	
09-08 10:23:30	6.73E+00	1.47E+02	407	0.00E+00	NORMAL	
09-08 10:24:00	6.69E+00	1.46E+02	478	0.00E+00	NORMAL	
09-08 10:24:30	6.84E+00	1.49E+02	538	0.00E+00	NORMAL	
09-08 10:25:00	6.84E+00	1.49E+02	613	0.00E+00	NORMAL	
09-08 10:25:30	6.85E+00	1.49E+02	688	0.00E+00	NORMAL	
09-08 10:26:00	6.84E+00	1.49E+02	762	0.00E+00	NORMAL	
09-08 10:26:30	6.85E+00	1.49E+02	837	0.00E+00	NORMAL	
09-08 10:27:00	6.81E+00	1.48E+02	912	0.00E+00	NORMAL	
09-08 10:27:30	6.78E+00	1.48E+02	986	0.00E+00	NORMAL	
09-08 10:28:00	6.81E+00	1.48E+02	1060	0.00E+00	NORMAL	
09-08 10:28:30	6.87E+00	1.50E+02	1134	0.00E+00	NORMAL	
09-08 10:29:00	6.78E+00	1.48E+02	1209	0.00E+00	NORMAL	
09-08 10:29:30	6.80E+00	1.48E+02	1283	0.00E+00	NORMAL	
09-08 10:30:00	4.30E-01	9.38E+00	1344	0.00E+00	ABNORMAL	



West well

East Well



Field Exam 36-16406



Flowmeter

Plumbing inside pump house



Field Exam 36-16406



Plumbing inside pump house

Booster pumps



Field Exam 36-16406



Pump house

Residence outside subdivision covered by $\frac{1}{2}$ acre irrigation portion



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Residence outside subdivision covered by ½ acre irrigation portion

Stub-out on undeveloped lot in subdivision



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Typical homes in subdivision covered by 36-16406



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Homes in subdivision covered by 36-16406



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Homes in the North Rim Fairways Subdivision served by 36-16406



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License 36-16406 System Diagram



Legend

- Wells
- Place of Use

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0 0.05 0.1 0.2 Miles



RECEIVED
AUG 14 1991STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORTUSE TYPEWRITER OR
BALLPOINT PENThis report must be filed with the Director, Department of Water Resources
within 30 days after the completion or abandonment of the well.

RECEIVED

1. WELL OWNER Name <u>JUB Engineers/Worth-Rim Fairways</u> Address _____ Drilling Permit No. <u>36 915 024</u> Water Right Permit No. <u>36-8399</u>		7. WATER LEVEL JUL 05 1991 Static water level <u>140</u> feet below land surface Flowing? ☐ Yes ☒ No G.P.M. _____ Artesian closed-in pressure _____ p.s.i. Controlled by: ☐ Valve ☐ Cap ☐ Plug Temperature <u>-85</u> of. Quality <u>Excellent</u> Describe artesian or temperature zones below _____	
2. NATURE OF WORK ☒ New well ☐ Deepened ☐ Replacement ☐ Well diameter increase ☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)		8. WELL TEST DATA ☒ Pump ☐ Bailor ☐ Air ☐ Other _____ Discharge G.P.M. <u>61</u> Pumping Level <u>248</u> Hours Pumped <u>8</u>	
3. PROPOSED USE ☐ Domestic ☐ Irrigation ☐ Test ☒ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection ☐ Other _____ (specify type)		9. LITHOLOGIC LOG JUL 18 1991 Bore Diam. From To Depth Material Water Use No 12 0 3 Top Soil 12 3 6 Brown Clay 12 6 7 Gray w/white Broken Leds 12 7 9 Gray Laver 12 9 24 Gray Laver 24 46 Brown Laver 46 50 Gray Laver 50 58 Brown Laver 58 70 Gray Laver 70 73 Gray Clay 73 78 Gray Laver 78 79 Gray Clay 79 83 Tan Clay 83 85 Crevice 85 90 Gray Laver 90 96 Brown Clay w/ Laver Rock 96 104 Gray Laver 104 114 Brown Clay w/ Gravel 114 141 Gray Laver 141 143 Soft Brown Chy 143 150 Brown Laver 150 179 Gray Laver 179 193 Brown Clay 193 205 Gray Laver Hard 10 205 217 Gray Laver 217 231 Soft Gray Laver 231 232 Crevice 232 236 Soft Laver 236 272 Red Clay w/ Black Laver 272 280 Brown Laver 8 280 312 Black Laver Hard 312 344 Crevice 344 319 Black Laver Hard 319 322 Crevice 322 325 Black Laver Broken	
4. METHOD DRILLED ☐ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary ☐ Cable ☐ Dug ☐ Other _____		10. Work started <u>April 1/91</u> finished <u>6-13-91</u>	
5. WELL CONSTRUCTION Casing schedule: ☐ Steel ☐ Concrete ☐ Other _____ Thickness <u>250</u> inches Diameter <u>10</u> inches From <u>1</u> feet To <u>205</u> feet Was casing drive shoe used? ☐ Yes ☒ No Was a packer or seal used? ☐ Yes ☒ No Perforated? ☐ Yes ☒ No How perforated? ☐ Factory ☐ Knife ☐ Torch ☐ Gun Size of perforation _____ inches by _____ inches Number _____ From _____ To _____ _____ perforations _____ feet _____ feet _____ perforations _____ feet _____ feet _____ perforations _____ feet _____ feet Well screen installed? ☐ Yes ☒ No Manufacturer's name _____ Type _____ Model No. _____ Diameter _____ Slot size _____ Set from _____ feet to _____ feet Diameter _____ Slot size _____ Set from _____ feet to _____ feet Gravel packed? ☐ Yes ☐ No ☐ Size of gravel _____ Placed from _____ feet to _____ feet Surface seal depth <u>21</u> Material used in seal: ☒ Cement grout ☒ Bentonite ☐ Puddling clay ☐ _____ Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☒ Overbore to seal depth Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent-Weld ☐ Cemented between strata Describe access port <u>Sanitary Well Cap</u>		11. DRILLERS CERTIFICATION <u>RP</u> I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Firm Name <u>Eaton Drilling</u> Firm No. <u>26</u> Address <u>Woodell</u> Date <u>6-14-91</u> Signed by (Firm Official) <u>Larry Walker</u> and (Operator) <u>Harold Cupert</u>	
6. LOCATION OF WELL Sketch map location must agree with written location. N W 18 E S County <u>Perome</u> Subdivision Name <u>Map</u> Lot No. _____ Block No. <u>14</u> NE 1/4 SE 1/4 Sec. 18, T. 9, S. 17, E. 17			

USE ADDITIONAL SHEETS IF NECESSARY - FORWARD THE WHITE COPY TO THE DEPARTMENT

Field Exam 36-16406