Permit No 87-11448 Page 1

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

#### A. GENERAL INFORMATION

Permit No: 87-11448 Exam Date: 10/15/2020

1. Current Owner:

ROELEN EVERGREEN PARK LLC 13904 92ND ST SE SNOHOMISH WA 98290-9039

2. Accompanied by: Michael Smith Phone No: 360-521-7865

Address: 609 N. Almon ST SPC#4032, Moscow ID 83843 Relationship to permit Holder: Permit Holder's representative

3. **SOURCE:** GROUND WATER

Method of Determination: Arcmap and DRG.

#### **B. OVERLAP REVIEW**

1. Other water rights with the same place of use:

YES Overlap

Water Right No.	Source	Purpose of Use	Basis
87-4032	GROUNDWATER	DOMESTIC	Statutory Claim (Active) / Beneficial Use Claim, Recommended Active status.
87-7157	GROUNDWATER	DOMESTIC	LICENSE
87-7069	GROUNDWATER	DOMESTIC	LICENSE

Comments: Right 87-4032 is associated with a statutory claim and beneficial use claim that both show active status, which use groundwater from the same well as this right for domestic purposes. Right 87-4032 and this right 87-11448 have the same POU, associated with the Roelen Evergreen Park. Condition 928 was added to this right during licensing review to mitigate any overlap concerns, and if claim 87-4032 is decreed as it is claimed, this right shall be diminished by the amount necessary to avoid any redundancy of water rights.

Rights 87-7157 and 87-7069 both use groundwater from wells not associated with this right, for domestic purposes not associated with this right's POU; overlap results from a large tract POU assigned when the department issued licenses in the past. There is no overlap concerns from rights 87-7157 and 87-7069.

There are multiple recommended claims associated with the City of Moscow, from groundwater sources, for municipal purposes that have large area POUs that overlap this water right, but are not a concern for overlap due to this right being connected to their own well for groundwater use.

Other water rights with the same point-of-diversion:

YES Overlap

Water Right No.	Source	Purpose of Use	Basis
87-4032	GROUNDWATER	DOMESTIC	Statutory Claim (Active) Beneficial Use Claim, Recommended Active status.
			status.

Comments: Rights 87-4032 and 87-11448 have the same groundwater well, permit No. 87-90-N-1. Condition F06 was added to this permit during licensing review to describe the two rights having the same POD.

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#### C. DIVERSION AND DELIVERY SYSTEM

#### 1. LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER SE1/4 SE1/4, Sec. 16, Twp 39N, Rge 05W, B.M. LATAH County

Method of Determination: GPS; POD is a well without tag (87-90-N-1) located at -116°57,732, 46°43.140

PLACE OF USE: DOMESTIC

Turn	Dog	Sec		N	ΙE			N۱	Ν			SI	Ν			SI			Totals
Twp	Rng	Sec	NE	NW	SW	SE													
39N	05W	16						,										Х	

Method of Determination: Field exam and Arcmap aerial imagery.

3.	
X	Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
_x_	Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
_X_	Aerial Photo Attached (required for irrigation of 10+ acres),
X	Photo of Diversion and System Attached

Well or Diversion ID No.*	Motor Make	Нр	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
87-90-N-1		5			

### D. FLOW MEASUREMENTS

Measurement Equipment	Туре	Make	Model No.	Serial No.	Size	Calib. Date
NONE						

2. Measurements: Unable to perform flow measurement because system pumped directly into pressure tank with inadequate pipe requirements for flow measurement.

		120000			
E.	FI	OW	CAL	CHI	ATIONS
			VAL	$\sim$	VIIO140

X	Additional	Computation	Sheets	Attached

Measured Method: Theoretical pumping equation estimates flow at **0.13 cfs** considering department rounding standards, with a 5 hp pump depth of 164 feet, and a system operating pressure of 50 psi.

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#### F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A, right is for domestic in-home use only.

 $V_{LR}=$  (Acres Irrigated) x (Irrigation Requirement) =  $V_{D.R}=$  [Diversion Rate (cfs)] x (Days in Irrigation season) x 1.9835 = V= Smaller of  $V_{LR}=$  and  $V_{D.R}=$ 

#### Volume Calculations for Other Uses:

Domestic annual and maximum diversion volume = 1 home + 34 mobile homes = 35 homes x 0.6 af = 21.0 af.

#### G. NARRATIVE/REMARKS/COMMENTS

Field exam conducted on 10/15/2020 with applicant's representative, Michael Smith, showed a well (87-90-N-1) providing groundwater for domestic purposes at Roelen Evergreen Park. The system includes a 5 HP pump that diverted water by buried water line from the well to a pump house building and 5ea pressure tanks, making flow measurements unattainable. Theoretical pumping equation determined the diversion rate of **0.13 cfs** considering department rounding standards, which will be applied as the maximum diversion rate on license. The pump was estimated to be 164 feet down and the system operating at 50 psi. The domestic component of this right was permit approved for a diversion rate of 0.20 cfs, but the applicant is limited by pump performance at time of field exam.

Right 87-11448 was applied for following an adjudication recommendation for right 87-4032, which provided a diversion rate of 0.03 cfs; the applicant applied for this permit on 8/12/2019 to secure rights for the larger diversion rate from the well and increased number of mobile homes in the Roelen Evergreen Park. A 2020 DEQ Public Drinking Water System Monitoring Schedule Report for water system ID2290013 validates the 35 service connections within the applicant's Domestic POU, which includes 1 home and 34 mobile homes.

During the field exam, photographs were taken to illustrate the beneficial use of water for domestic purposes. During licensing review, Arcmap aerial imagery was used to trace out the domestic POU. The well is located within a small pump house, and the water conveyance system routes underground to a pump house and then water lines route beneath the street in a circular pattern within the mobile home park. Frost free hydrants were observed throughout the POU, but Mr. Smith validated that water consumption was not for irrigation purposes, rather for in-home use only. A walk through the POU validated 34 slips, some empty at time of field exam but service connected, and 1 home. The domestic volume equals (1 home + 34 mobile homes) x 0.6 af = 21.0 af, which is recommended as the annual volume and maximum diversion volume for the license.

Condition 046 and 106 were removed from the permit during licensing review. Condition F06 was added to describe rights 87-4032 and 87-11448 share the same POD (well). Condition 928 was added describing that some of the water use authorized by this right is claimed with an earlier priority date on Palouse River Basin Adjudication Claim No. 87-4032, and that if claim 87-4032 is decreed as it is claimed, this right shall be diminished by the amount necessary to avoid any redundancy of water rights.

Right 87-4032 is associated with a statutory claim and beneficial use claim that both show active status, which use groundwater from the same well as this right for domestic purposes. Right 87-4032 and this right 87-11448 have the same POU, associated with the Roelen Evergreen Park. Condition 928 was added to this right during licensing review to mitigate any overlap concerns, and if claim 87-4032 is decreed as it is claimed, this right shall be diminished by the amount necessary to avoid any redundancy of water rights. Rights 87-7157 and 87-7069 both use groundwater from wells not associated with this right, for domestic purposes not associated with this right's POU; overlap results from a large tract POU assigned when the department issued licenses in the past. There is no overlap concerns from rights 87-7157 and 87-7069. There are multiple recommended claims associated with the City of Moscow, from groundwater sources, for municipal purposes that have large area POUs that overlap this water right, but are not a concern for overlap due to this right being connected to their own well for groundwater use. There are no other overlap concerns for this water right.

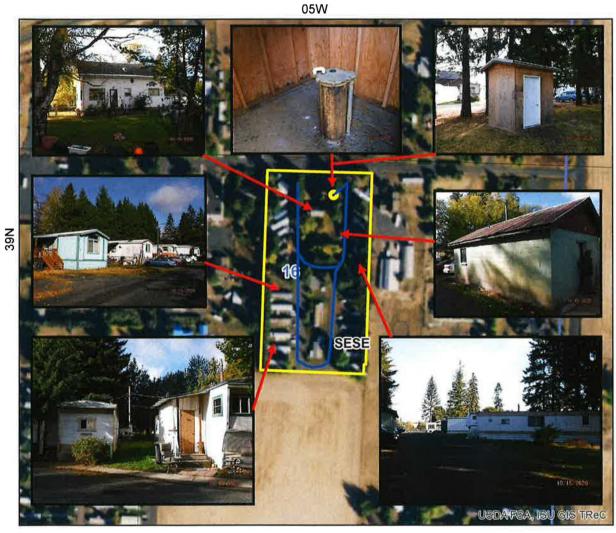
MESTIC  O1/01 to 12/31  O.13 CFS  21.0 AF  Totals:  O.13 CFS  21.0 AF  21.0 AF  Add P.D. as reflected above X None  Change P.D. as reflected above Add P.D. as reflected above X None  Change P.U. as reflected above Add P.U. as reflected above X None  AUTHENTICATION  Luke Bates - Water Resource Agent	RECOMMENDATIONS  I. Recommended Amounts			
Totals: 0.13 CFS 21.0 AF  2. Recommended Amendments  Change P.D. as reflected above Add P.D. as reflected above X None  Change P.U. as reflected above Add P.U. as reflected above X None  AUTHENTICATION Luke Bates - Water Resource Agent	eneficial Use	Period of Use	Rate of Diversion	Annual Volume
2. Recommended Amendments  Change P.D. as reflected above Add P.D. as reflected above X None  Change P.U. as reflected above Add P.U. as reflected above X None  AUTHENTICATION Luke Bates - Water Resource Agent	OMESTIC	01/01 to 12/31	0.13 CFS	21.0 AF
Change P.D. as reflected above Add P.D. as reflected above X None  Change P.U. as reflected above Add P.U. as reflected above X None  AUTHENTICATION Luke Bates - Water Resource Agent		<u>Totals:</u>	0.13 CFS	21.0 AF
Change P.U. as reflected above Add P.U. as reflected above X None  AUTHENTICATION Luke Bates - Water Resource Agent				
AUTHENTICATION Luke Bates - Water Resource Agent	2. Recommended Amendments			
1/2/2	2. Recommended Amendments  Change P.D. as reflected	above Add P.D	as reflected above X	None
T 181)	Change P.D. as reflected			
Field Examiner's Name Date 11/3/20	Change P.D. as reflected Change P.U. as reflected	above Add P.U	as reflected above X	

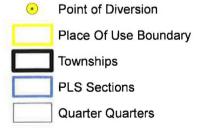
### State of Idaho **Department of Water Resources**

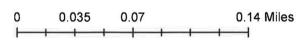
# **Attachment to Field Exam**

87-11448

DOMESTIC system diagram.









# STATE OF IDAHO DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

# **WELL DRILLER'S REPORT**

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

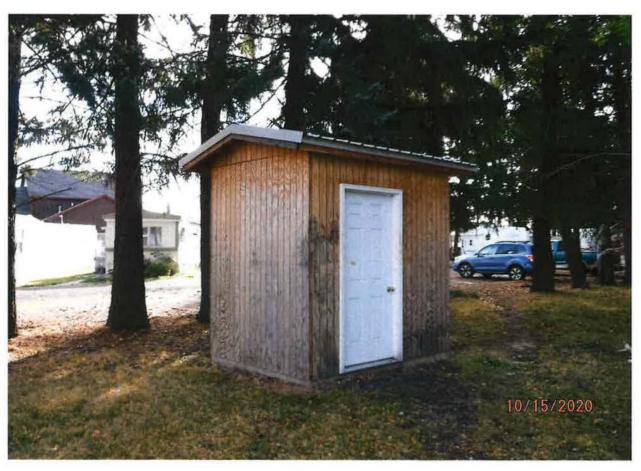
	_			_		1		
1. WELL OWNER	7.	WATE	R LE	/EL	/	<i>'</i> ∨		
Name EverGreen Trailer Court		Static	water	level _	feet below lan	d surface.		- 1
Address 72705Co.C.		Flowi	ng?	Yes	Oressure p.s.i.	v	-	~
		Contr	olled b	y: [	] Valve □ Cap □	Plug		- 1
Owner's Permit No. 3796: N-1		Temp	erature Des	cribe ar	oF. Quality tesian or temperature zones	below.		-
2. NATURE OF WORK	8.	WELL	TEST	DAT	A			
☐ New well ☐ Deepened ☐ Replacement		□ Pu	mp	□В	ailer 🕒 Air 🛘	Other		_
Well diameter increase     Abandoned (describe abandonment procedures such as	- (	Discharg	e G.P,M		Pumping Level	Hours Pu	mped	
materials, plug depths, etc. in lithologic log)	app	roλ.	50_					-
3. PROPOSED USE							- 15	
Property Desiration Desiration								
☐ Tomestic ☐ Irrigation ☐ Test ☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection		LITH	- 3 - 3	C LO	G 		War	
☐ Other (specify type)		From	To		Material		Yes	_
4. METHOD DRILLED	8	0	143	over	burden, clay, sand		V	
	8						-	1
■ Rotary ■ Air □ Hydraulic □ Reverse rotary	8	173	123		T. Firm		-	-
☐ Cable ☐ Dug ☐ Other	•	-12						
5. WELL CONSTRUCTION								
Casing schedule: Steel 🗆 Concrete 🗅 Other							_	
Thickness Diameter From To								
.350 inches 8 inches + 1 feet 123 feet								
inches inches feet feet feet feet feet feet feet fe							_	
inches inches feet feet		-	77195	- CAN				_
Was casing drive shoe used? ☐ Yes ☐ No			14	36				-
Was a packer or seal used? ☐ Yes ☑ No	-	-	1116	satV		_	-	
Perforated?			63				1	
How perforated? ☐ Factory ☐ Knife ☐ Torch ☐ Gun				MAI	1 1990	-		
Size of perforation inches by inches  Number From To							-	
perforations feet feet			Dep	rtmen	t of Water Resources		-	
perforations feet feet						-		
perforations feet feet  perforations feet feet  Well screen installed? ☐ Yes ☐ No  Manufacturer's name								
Manufacturer's name		O 194 D		-				
Type Model No.	11.5	-	H	U	1	N.W. 14 1/25	-	
Manufacturer's name	1034	I WHI			- <del>j</del>		-	
Diameter Slot size Set from feet to feet	ui	N13	1990					
Gravel packed? ☐ Yes ☑ No ☐ Size of gravel Placed from feet to feet	30	10000	7.5		MACO WIND CO. WING 7 to 16	7.8		
Surface soal depth 170 Material used in seal:   Cement grout	-				RECEIV		-	
Bentonite □ Puddling clay □ □ Sealing procedure used: □ Slurry pit □ Temp. surface casing					FEB 2 6 19	636		
Overbore to seal depth		10 1000 2025			NORTHERN RE	1		Н
Method of joining casing: ☐ Threaded ☐ Welded ☐ Solvent Weld					LD.W.R	GIOIV		
☐ Cemented between strata		L					٠	-
Describe access port	10.		rk star	ted	12/2/89 finished	1.2/11/20		
					1000 90-250 1	- IVI III I	<u> </u>	=
6. LOCATION OF WELL	11.				IFICATION		Dr	-
Sketch map location <u>must</u> agree with written location, N					all minimum well constr ne time the rig was remov		ırds w	ere
Subdivision Name		•			- 55		-0	
		Firm	Name/	JITT	Well Orlling F	irm No	8	
W   E		Addre	s 2 15	Ru	ers lew Id. D	ate 1/19/	90	-
Lot No. So Block No.								
S		Signe	א) עם נ	ırm Ul	fficial) Earl X 1 Itor) Roger W	·wu	u	-
County Lather				and Opera	ton P	-74-		
V VS II T IS NOT TELL	1			/~heig	nogen	4		-

## THEORETICAL PUMPING EQUATION FOR WR# 87-11448

Theoretical Pumping Equation is required because system did not allow for a proper measurement. Pump is estimated to be at 164 ft, and running at 50 psi.

	PUMF	EQUATI	<u>ONS</u>		
WAT	ER RIGH	T No.	87-11448		
	НР	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q = HP*8.8*Eff/H	5	279.6463	0.8	164	50
Q = 0.126	cfs	56.6	gpm		

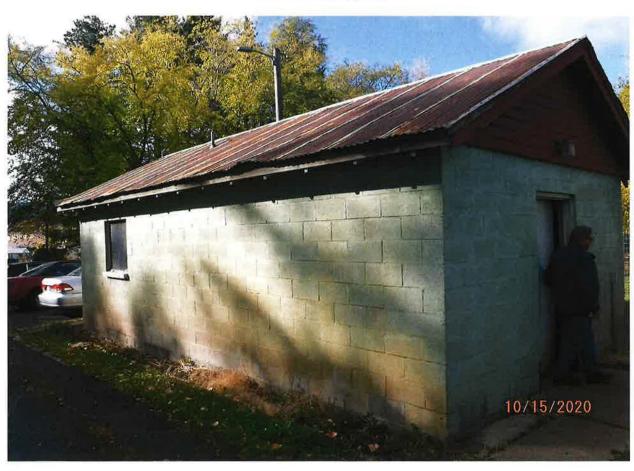




**WELL HOUSE** 



POD - WELL 87-90-N-1



WELL PUMP AND WATER SYSTEM HOUSE



**5 HP WELL PUMP** 



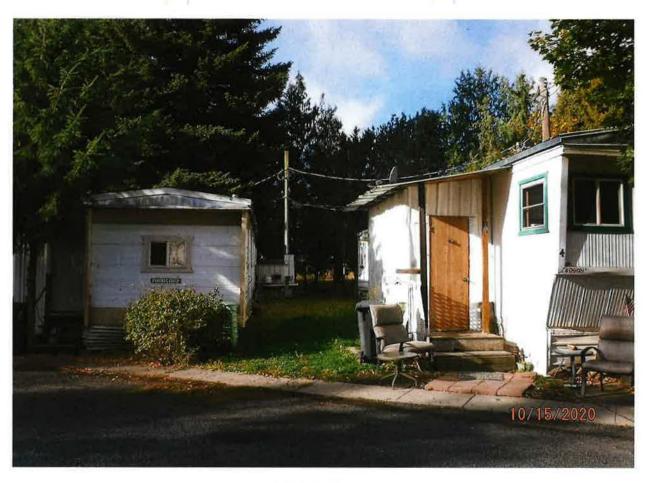
WATER CONVEYANCE SYSTEM



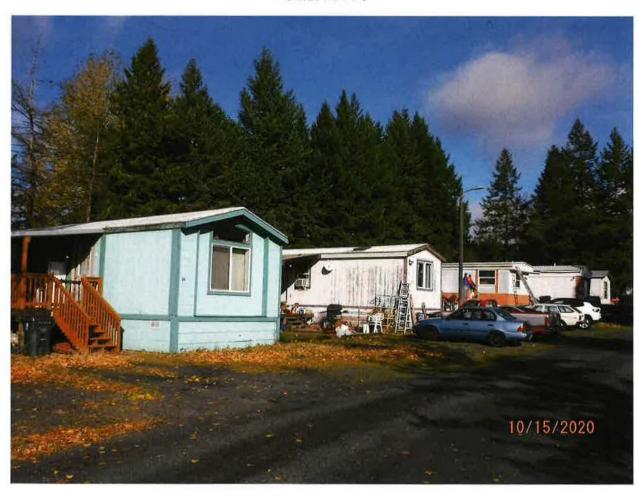
50 PSI OPERATING PRESSURE



DOMESTIC POU – 1 HOME ON WATER SYSTEM



DOMESTIC POU





DOMESTIC POU

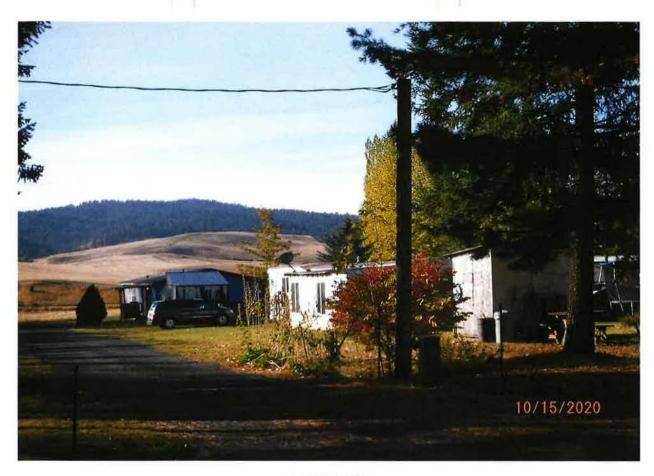


DOMESTIC POU – FROST FREE HYDRANT AT EACH MOBILE HOME SLIP



DOMESTIC POU





DOMESTIC POU

