

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 85-15791
Exam Date: 03/14/2024

1. Current Owner:
VERL LONG 15319 GRAY CHUCKAR DR LEWISTON ID 83501-6296
2. Accompanied by: VERL LONG
Phone No: (208) 751-9330
Address: 15319 GRAY CHUCKAR DR LEWISTON ID 83501-6296
Relationship to permit Holder: Applicant

3. **SOURCE:**
GROUND WATER

Method of Determination: ArcMap and DRG layer.

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NO Overlap
2. Other water rights with the same point-of-diversion: NO Overlap

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

GROUND WATER NE¼ NW¼, Sec. 15, Twp 34N, Rge 05W, B.M. NEZ PERCE County

Method of Determination:

PLACE OF USE: DOMESTIC

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
34N	05W	15					X	X											

Method of Determination: GPS; POD located at -116°57.147, 46°17.669 well D0078941.

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.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
D0078941	Pentair	7.5 HP	Model #P43B0075A4		

D. FLOW MEASUREMENTS

1.

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

2. **Measurements:** I was unable to perform flow measurements due to inadequate pipe requirements. Groundwater from one well, second well was not developed, is piped directly to five 2,000-gal storage reservoirs and one 4,000-gal storage reservoir, all with booster pumps prior to distribution to water uses. I spoke with Jason, at Fords Creek Pump, who stated that the pump was at about 1100 ft deep. Theoretic pump equations were calculated during licensing review gives a maximum diversion rate of 20 gpm or 0.04 cfs considering department rounding standards.

E. FLOW CALCULATIONS

 X Additional Computation Sheets Attached

Measured Method: Theoretic Pump Equation = 7.5 HP Pentair pump installed at a depth of 1100 feet with operating pressure of 45 psi derives a flow rate of 20 gpm or **0.04 cfs** considering department rounding standards. Department standard diversion rate for 10 homes = 0.15 cfs, but applicant is limited by pump performance derived at time of field exam which is 0.04 cfs as recommended for licensing.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A – irrigation occurring under domestic use only.
2. Volume Calculations for Other Uses: domestic maximum diversion volume = 10 homes x 1.2 af per home = **12 af**.

G. NARRATIVE/REMARKS/COMMENTS

Field exam was performed on 3/14/2024 with the applicant, Verl Long, which showed a groundwater well providing domestic use for 5 homes and 5 additional stub-ins for Lots 2, 6-8, & 11. At the POD, well D0078941 has a 7.5 hp Pentair pump installed diverting water through a 2.5 inch pipe directly to 5 storage tanks and each home has their own booster pump. I was unable to perform flow measurements due to inadequate pipe requirements. I did a theoretic pump equation and derived the diversion rate of **0.04 cfs** based on the 7.5 hp pump depth of 1100 feet with an estimated 45 psi operating pressure.

Mr. Long and I walked the properties to locate the 5 stub-ins and verify 5 homes to include their irrigation. There is a line that goes the length of the parcels which provides water to each of the parcels with the exception of Lot 5, Block 1 which is the applicant's and he does not intend to build anything on it. The 2.5-inch main service line, which serves 10 lots includes minor irrigation. I captured photographs and field maps sketches to illustrate the domestic use occurring on each lot. I'm recommending domestic use for 1 home per lot, with the exception of Lot 5, to calculate annual volume recommendations for licensing, which equals 10 service connections x 1.2 af (includes irrigation) = **12 af** considering department rounding standards.

Following the exam each beneficial use was validated with recommended diversion rates of 0.04 cfs for domestic use for 10 homes due to the capacity of the pump by doing a theoretical pump equation. I called the applicant to find out information about the pump installed. It is a Pentair 7.5 hp, 460 volts and is model #P43B005A4 and that Fords Creek Pump installed it. I spoke with Jason from Fords Creek Pump who confirmed the pump size and hp and he stated the depth of the pump was approximately 1100 feet.

I've removed condition 046 & 26A from the permit during licensing review. All other conditions from the permit shall be carried forward to licensing. There are no overlapping water right concerns toward licensing Permit 85-15791. ArcMap aerial imagery was used during licensing review to accurately trace out the domestic POU.

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

H. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	
DOMESTIC	01/01 to 12/31	0.04 CFS	

Totals: 0.04 CFS

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 ☒ None

I. AUTHENTICATION Tammy Alleman -

Field Examiner's Name Tammy Alle Date 3/27/24

Reviewer Chris Bell Date 2/5/2025

THEORETICAL PUMPING EQUATION(S) FOR WR# 85-15791

Theoretical Pumping Equation is estimated to lift 1092 ft, and running at 45 psi.					
<u>PUMP EQUATION</u>					
WATER RIGHT No. 85-15791					
Pump in River	HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q = HP*8.8*Eff/H	7.5	1196.082	0.8	1092	45
Q = 0.044 cfs 19.8 gpm					



70 GPM Series

P43B0075A4

4" Multi-Stage Cast Iron Submersible Pumps



APPLICATIONS

Water Systems... for residential, industrial, commercial, multiple housing, and farm use.

SPECIFICATIONS

Discharge: Cast iron, ASTM A48 Class 30

Pump Bowls: Cast iron, ASTM A48 Class 30

Impellers: Noryl

Upthrust Bearing: Nylatron

Discharge Bearing: Nylatron

Bowl and Intake Bearings: Nitrile (proprietary spec.)

Pump Shaft: 300 Series Stainless steel

Lead Guard: 300 Series Stainless steel

Intake Bracket: Cast iron, ASTM A48 Class 30

Intake Screen: 300 Series Stainless steel

Pump/Motor Coupling: 300 Series Stainless steel

FEATURES

Discharge: Heavy-duty cast iron construction provides smooth water passage to column pipe. NPT threads standard.

Pump Bowls: Highly efficient hydraulic design...threaded bowl design in gray cast iron.

Impellers: 20% glass-reinforced Noryl to resist abrasives and provide smooth water passage for minimal friction loss.

Upthrust Bearing: Nylatron upthrust bearing provides positive momentary upthrust protection during start-up.

Diffuser Bearing: Bearings at each stage provide radial protection and stability, and excellent resistance to sand damage.

Bowl and Intake Bearings: Fluted, cutless rubber type assures superior abrasive-handling characteristics, located at each stage.

Stainless Steel Pump Shaft: Stainless Steel Pump Shaft: 300 grade "treated" stainless steel pump shaft is corrosion-resistant. The hex shape offers generous impeller drive surfaces.

Intake Screen: Stainless steel material offers maximum corrosion resistance... protects against damaging solids entering the pump assembly.

Motor Bracket: Incorporates an efficient hydraulic design for maximum volume and access to motor mounting nuts.

Pump/Motor Coupling: Pressed-on, sintered 300 grade stainless steel for maximum corrosion resistance provides trouble-free transfer of power between motor and pump shaft.

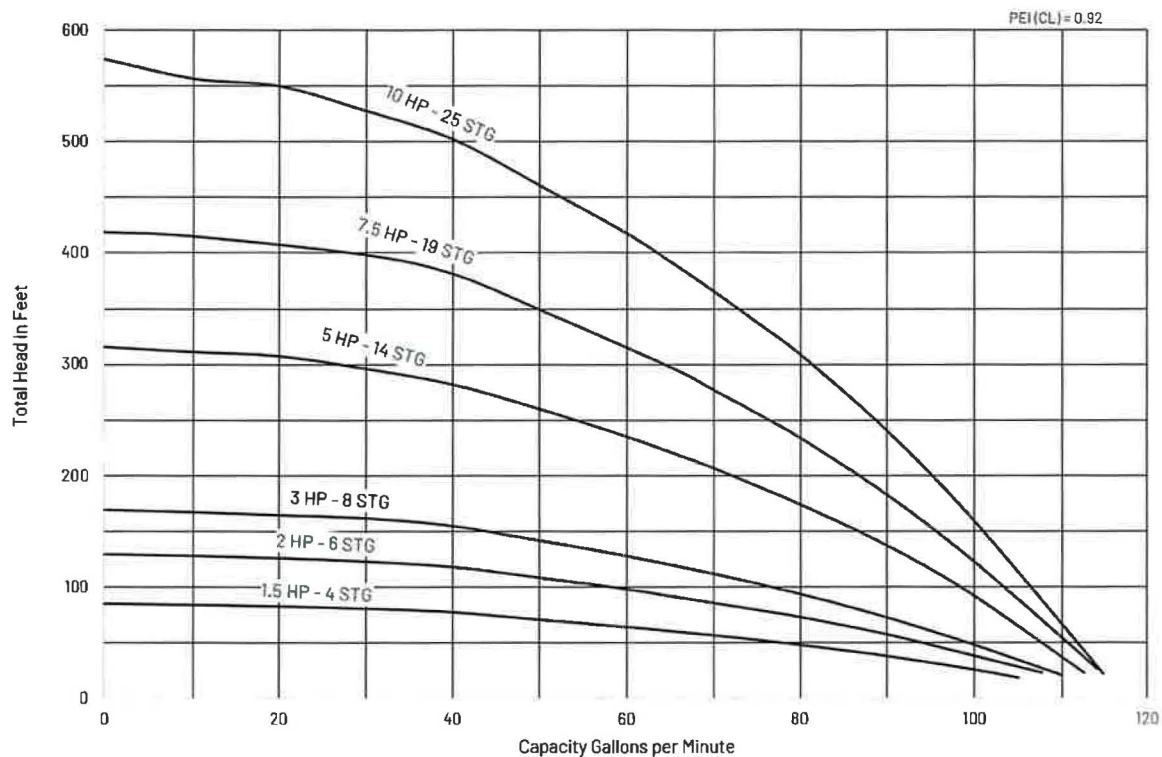
Fords Creek Pump
Jason 208-476-3982
7.5 HP
Static 1100
Pipe 1092
460 volts

Precision-engineered, quality-built and rugged 70 GPM Series submersibles may be used in wells 4" or larger. Maximum outside diameter 3-7/8".

70 GPM Series

4" Multi-Stage Cast Iron Submersible Pumps

PUMP PERFORMANCE



Tested and rated in accordance with Water Systems Council Standards.

Pumps installed with a Pro-Source[™] tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

Check valve sold separately.

70 GPM Series

4" Multi-Stage Cast Iron Submersible Pumps

70 GALLONS PER MINUTE		PUMP PERFORMANCE (Capacity in gallons per minute)																									
HP	PSI	PUMPING DEPTH IN FEET																									
		20	40	60	80	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550			
1-1/2	0	105	88	66	33																						
	20	58	15																								
	30																										
	40																										
	50																										
	60																										
2	0		99	88	75	59	26																				
	20	84	70	53	23																						
	30	68	49	13																							
	40	46																									
	50																										
	60																										
3	0		103	95	86	77	63	43																			
	20	93	84	74	62	47																					
	30	82	72	60	44																						
	40	71	58	41																							
	50	56	37																								
	60	35																									
5	0		110	106	102	98	93	87	80	72	64	54	42	27													
	20	105	101	97	92	88	81	74	65	56	45	30															
	30	100	96	92	87	81	74	66	57	46	31																
	40	96	91	86	81	74	67	58	47	32																	
	50	90	85	80	74	67	58	48	34																		
	60	84	79	73	66	59	48	35																			
7-1/2	0			109	106	103	100	96	91	87	82	76	71	65	58	50	41	29									
	20		106	103	100	96	92	87	82	77	71	65	59	52	42	31											
	30	105	102	99	96	92	88	83	78	72	66	59	52	43	32												
	40	102	98	95	92	88	83	78	73	67	60	53	44	33													
	50	98	95	91	87	84	78	73	67	61	53	44	34														
	60	94	90	87	83	79	73	68	61	54	46	35															
10	0				109	107	104	101	98	95	92	88	85	81	77	73	69	64	59	53	46	39	30				
	20			106	104	101	98	96	92	89	85	82	78	74	69	64	59	54	48	40							
	30		105	103	101	99	96	92	89	86	82	78	74	70	65	60	54	48	41	33							
	40	105	103	101	98	96	93	89	86	82	78	74	70	65	60	55	49	41	34								
	50	103	100	98	96	93	90	86	83	78	75	70	66	61	55	49	42	34									
	60	100	98	95	93	90	86	83	79	75	71	66	61	56	49	43	35										

CAUTION: DO NOT use pump at flow rates indicated by the symbol '—'. To do so can cause premature failure of unit. Pump warranty void when failure occurs under these conditions.

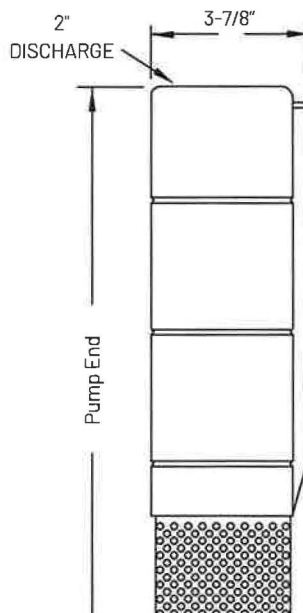


ORDERING INFORMATION

MOTOR TYPE	HP	STGS.	PH	VOLT	PUMP END			MOTOR		CONTROL BOX	
					CATALOG NUMBER	LENGTH INCHES*	WEIGHT POUNDS*	CATALOG NUMBER	WEIGHT POUNDS*	CATALOG NUMBER	WEIGHT POUNDS*
2 WIRE	1-1/2	4	1	230	L70F4-05 / SL70F4-05	21	28	P42B0015A2	29		
	1-1/2	4	1	230	L70F4-05	21	28	P42B0015A2	29	SMC-CR1521	7
	1-1/2	4	3	230	L70F4-05	21	28	P42B0015A3	23		
	1-1/2	4	3	460	L70F4-05	21	28	P42B0015A4	23		
	2	6	1	230	L70G4-05	27-3/8	32	P43B0020A2	31	SMC-CR2021	7
	2	6	3	230	L70G4-05	27-3/8	32	P43B0020A3	31		
3 WIRE	2	6	3	460	L70G4-05	27-3/8	32	P43B0020A4	31		
	3	8	1	230	L70H4-05	34	42	P43B0030A2	40	SMC-CR3021	7
	3	8	3	230	L70H4-05	34	42	P43B0030A3	32		
	3	8	3	460	L70H4-05	34	42	P43B0030A4	32		
	5	14	1	230	L70J4-05	54	68	P43B0050A2	70	SMC-CR5021	8
	5	14	3	230	L70J4-05	54	68	P43B0050A3	55		
	5	14	3	460	L70J4-05	54	68	P43B0050A4	55		
	7-1/2	19	3	230	L70K4-05	70	116	P43B0075A3	70		
	7-1/2	19	3	460	L70K4-05	70	116	P43B0075A4	70		
	10	25	3	460	L70L4-05	90	156	P43B0100A4	78		

*Length and Weight are approximate. NOTE: Pump end and motor purchased separately. Check valve sold separately.

OUTLINE DIMENSIONS



Dimensions (in inches) are for estimating purposes only.

For lengths, refer to Ordering Information table.



293 Wright Street,
Delavan, WI 53115
USA
Ph: 888.782.7483
Orders Fax: 800.426.9446

490 Pinebush Road
Unit 4
Cambridge, Ontario N1T 0A5
Canada
Ph: 800.363.7867
Orders Fax: 888.606.5484

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Nylatron® is a registered trademark of Mitsubishi Chemical Advanced Materials Inc.

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IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT1. WELL TAG NO. D D0078941Drilling Permit No. 888061

Water right or injection well # _____

2. OWNER: Verl Long

Name _____

Address 3115 21st StreetCity Clarkston State WA Zip 99403

3. WELL LOCATION:

Twp. 34 North ☒ or South ☐ Rge. 5 East ☐ or West ☒Sec. 15 _____ 1/4 NE 1/4 NW 1/4Gov't Lot _____ County NezperceLat. 46° 17' 68" (Deg. and Decimal minutes)Long. 116° 57' 120" (Deg. and Decimal minutes)Address of Well Site Lot A Gray Chukar Run RdCity Lewiston

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

Lot. _____ Blk. _____ Sub. Name _____

4. USE:

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

5. TYPE OF WORK:

☒ 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/procedureBentonite 0 503 13,000 overbore(granular)

8. CASING/LINER:

Diameter (nominal) From (ft) To (ft) Gauge/Schedule Material Casing Liner Threaded Welded

6" +2 503 250 steel ☒ ☐ ☐ ☒4 1/2" -8 1145 Sch 40 pvc ☐ ☒ ☐ ☒☐ ☐ ☐ ☐☐ ☐ ☐ ☐Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 503'

9. PERFORATIONS/SCREENS:

Perforations ☒ Y ☐ N Method SawManufactured screen ☐ Y ☐ N Type _____

Method of installation _____

From (ft) To (ft) Slot size Number/ft Diameter (nominal) Material Gauge or Schedule

1105 1145 1/4x6 77 4 1/2" pvc Sch 40☐ ☐ ☐ ☐☐ ☐ ☐ ☐

Length of Headpipe _____ Length of Tailpipe _____

Packer ☐ Y ☐ N Type _____

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) 1040' Static water level (ft) 950'Water temp. (°F) 62° Bottom hole temp. (°F) _____Describe access port well cap

Well test: _____ Test method: _____

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Pump	Bailer	Air	Flowing artesian
<u>1145'</u>	<u>20 + est.</u>	<u>1 HR</u>	☐	☐	☒	☐

Water quality test or comments: Good

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	N
<u>10</u>	<u>0</u>	<u>3</u>	<u>overburden</u>		<u>+</u>
<u>10</u>	<u>3</u>	<u>50</u>	<u>Basalt</u>		<u>+</u>
<u>10</u>	<u>50</u>	<u>64</u>	<u>Tan Shale</u>		<u>+</u>
<u>10</u>	<u>64</u>	<u>170</u>	<u>Basalt</u>		<u>+</u>
<u>10</u>	<u>170</u>	<u>240</u>	<u>Soft Lava</u>		<u>+</u>
<u>10</u>	<u>240</u>	<u>280</u>	<u>Tan Sandy clay</u>		<u>+</u>
<u>10</u>	<u>280</u>	<u>337</u>	<u>Green Shale</u>		<u>+</u>
<u>10</u>	<u>337</u>	<u>370</u>	<u>Basalt</u>		<u>+</u>
<u>10</u>	<u>370</u>	<u>415</u>	<u>Lava</u>		<u>+</u>
<u>10</u>	<u>415</u>	<u>425</u>	<u>Grey clay</u>		<u>+</u>
<u>10</u>	<u>425</u>	<u>450</u>	<u>Basalt</u>		<u>+</u>
<u>10</u>	<u>450</u>	<u>483</u>	<u>Red Lava</u>		<u>+</u>
<u>10-6</u>	<u>483</u>	<u>510</u>	<u>Hard Basalt</u>		<u>+</u>
<u>6</u>	<u>510</u>	<u>600</u>	<u>Red Lava</u>		<u>+</u>
<u>6</u>	<u>600</u>	<u>640</u>	<u>Basalt</u>		<u>+</u>
<u>6</u>	<u>640</u>	<u>700</u>	<u>Red Lava</u>		<u>+</u>
<u>6</u>	<u>700</u>	<u>760</u>	<u>Basalt</u>		<u>+</u>
<u>6</u>	<u>760</u>	<u>840</u>	<u>Red Lava</u>		<u>+</u>
<u>6</u>	<u>840</u>	<u>920</u>	<u>Fractured Basalt</u>		<u>+</u>
<u>6</u>	<u>920</u>	<u>960</u>	<u>Basalt</u>		<u>+</u>
<u>6</u>	<u>960</u>	<u>1000</u>	<u>Red Lava</u>		<u>+</u>
<u>6</u>	<u>1000</u>	<u>1040</u>	<u>Basalt</u>		<u>+</u>
<u>6</u>	<u>1040</u>	<u>1080</u>	<u>Red Lava</u>	<u>x</u>	
<u>6</u>	<u>1080</u>	<u>1140</u>	<u>Basalt</u>		<u>x</u>
<u>6</u>	<u>1140</u>	<u>1145</u>	<u>Red Lava</u>		<u>x</u>

RECEIVED

DEC 13 2018

IDWR / NORTH

Completed Depth (Measurable): 1145'Date Started: 11-5-18 Date Completed: 11-14-18

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 Nail & Sons Well Drilling LLC Co. No. 616*Principal Driller [Signature] Date 11-14-18

*Driller _____ Date _____

*Operator II [Signature] Date 11-14-18

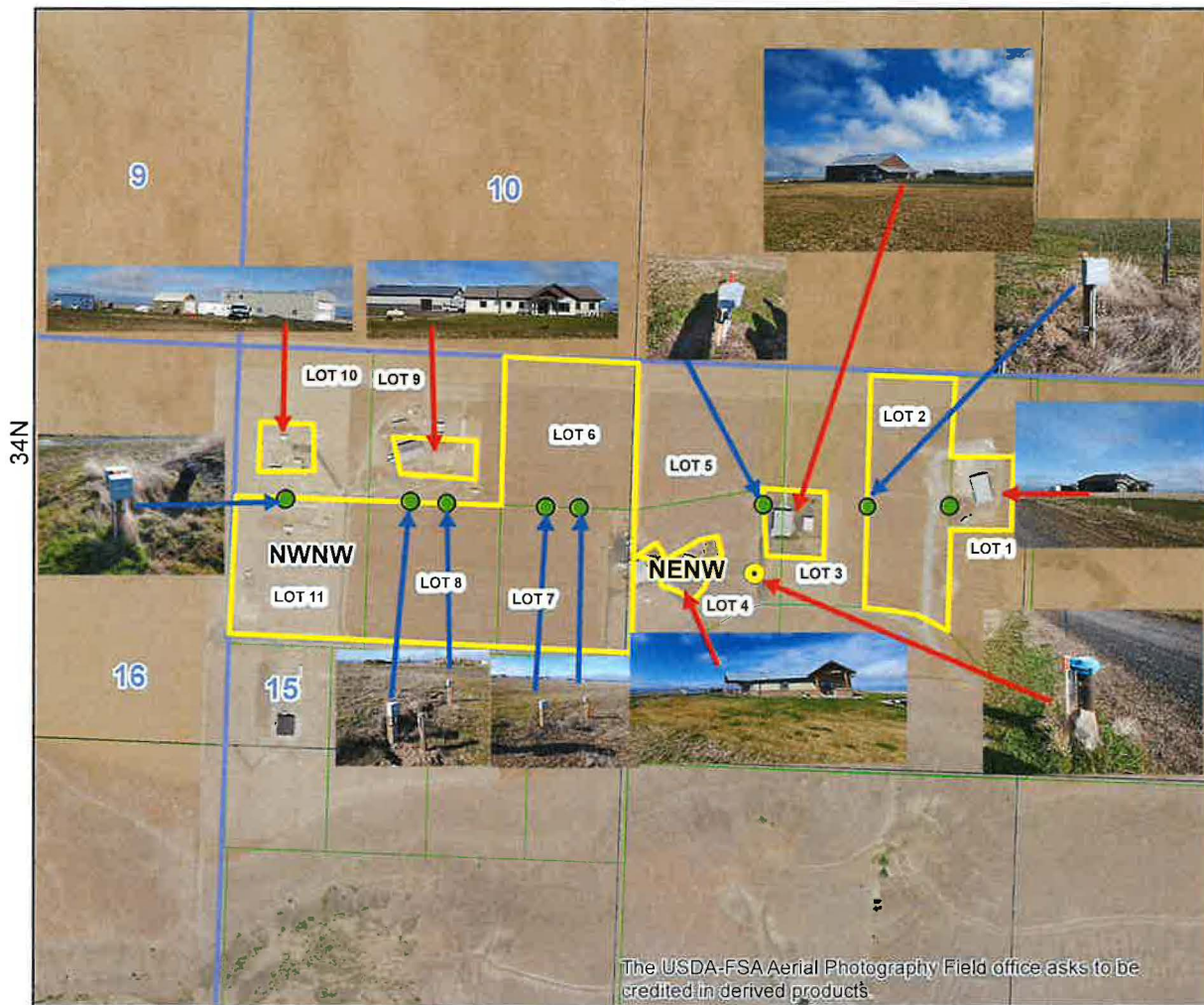
Operator I _____ Date _____

* Signature of Principal Driller and rig operator are required.

State of Idaho
Department of Water Resources
Attachment to Field Exam
85-15791

This map depicts the DOMESTIC place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.

05W



0 0.075 0.15 0.3 Miles

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



85-15791



WELL, WELL METER AND WELL TAG D0078941



HOUSE/SHOP LOT 1 BLK 1 CHUKAR RUN SUBDIVISION WITH 4,000 GAL STORAGE TANK



VACANT LOT 2 BLK 1 CHUKAR RUN SUBDIVISION WITH STUB IN CIRCLED



HOUSE/SHOP LOT 3 BLK 1 CHUKAR RUN SUBDIVISION WITH 2,000 GAL STORAGE TANK



HOUSE/SHOP LOT 4 BLK 1 CHUKAR RUN SUBDIVISION WITH 2,000 GAL STORAGE TANK



VACANT LOTS 6 & 7 BLK 1 CHUKAR RUN SUBDIVISION WITH STUB INS



VACANT LOT 8, BLK 1 STUB IN & LOT 9 BLK 1 WITH HOME CHUKAR RUN SUBDIVISION
PICTURE DEPICTS VACANT LOTS #8 BEFORE DRIVEWAY & #11 IN THE BACKGROUND



HOUSE/SHOP LOT 9 BLK 1 CHUKAR RUN SUBDIVISION WITH 2,000 GAL STORAGE TANK



HOUSE/SHOP LOT 10 BLK 1 CHUKAR RUN SUBDIVISION WITH 2,000 GAL STORAGE TANK



VACANT LOT 11, BLK 1 STUB IN & LOT 10 BLK 1 WITH HOME/SHOP CHUKAR RUN SUB