

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-9493

Exam Date: 1/30/2015

1. Current Owner: SPIRIT LAKE INDUSTRIAL PARK
PO BOX 9
SPIRIT LAKE ID 83869
(208)623-5050

2. Accompanied by: Clyde Owens Jr
Relationship to Permit Holder: operator

3. **SOURCE****TRIBUTARY**

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 95-9935
2. Other water rights with the same point of diversion: 95-9935

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

GROUND WATER NW1/4NE1/4 Sec. 31, Twp 54N, Rge 04W, B.M. BONNER County

Method of Determination: GPS and maps. POD location at 47° 59.446, 116° 52.833 (A0003275)

2.

PLACE OF USE: MUNICIPAL

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
54N 04W 30									X	X L 3	X L 4	X			X	X	
54N 04W 31	X	X	X	X	X	X L 1	X L 2	X					X	X	X	X	
54N 04W 32										X							
54N 05W 25																X	
54N 05W 35													X				
54N 05W 36	X	X	X	X			X	X	X	X	X		X	X			

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</u> <u>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</u> <u>Size</u>
96-89-N-11	GOULDS	5			

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

D. FLOW MEASUREMENTS

1.

<u>Measurement</u> <u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
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N/A

2. Measurements:

E. FLOW CALCULATIONS

☐ Additional Computation Sheets Attached

Measured Method: UNABLE TO FIND SECTION OF PIPE SUITABLE TO PERFORM FLOW MEASUREMENT.
THEORETICAL PUMPING EQUATION ESTIMATES FLOW RATE AT 27 GPM OR 0.06 CFS.

F. VOLUME CALCULATIONS**1. Volume Calculations for Irrigation:**

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

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

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

2. Volume Calculations for Other Uses: APPLICANT PROVIDED PUMP USAGE BASED UPON SEASONS SUMMER AND WINTER. ANNUAL VOLUME WILL BE GIVEN BASED UPON PUMPING RATES AT 0.06 CFS AND HOURS OF PUMPING.

WINTER TIME USAGE = 0.06 CFS X 3 HOURS PER DAY

0.06 FT³ X 60 SEC X 60 MIN = 216 FT³

212 DAYS X 3 HOURS = 636 HRS

(216 FT³ X 636 HRS) / 43,560 = 3.2 AF FOR WINTER TIME USAGE

SUMMER TIME USAGE = 0.06 CFS X 6 HOURS PER DAY

153 DAYS X 6 HRS = 918 HRS

(216 FT³ X 918 HRS) / 43,560 = 4.6 AF FOR SUMMER USAGE

WINTER USAGE = 3.2 AF

SUMMER USAGE 4.6 AF

TOTAL = 7.8 AF

G. NARRATIVE/REMARKS/COMMENTS

THEORETICAL PUMP EQUATION REQUIRED DUE TO NO LOCATION TO INSTALL FUJI FLOWMETER. FLOW RATE IS 27GPM OR 0.06CFS. 212,000 GALLON STORAGE TANK. PUMP SET AT 420FT WITH 70PSI. MUNICIPAL USE IS FOR THE SPIRIT LAKE INDUSTRIAL PARK. ANNUAL VOLUME WILL BE BASED ON NUMBER OF HOURS THE PUMP RUNS DURING SUMMER AND WINTER. BENEFICIAL USE FIELD REPORT WILL SHOW HOW ANNUAL VOLUME WAS DETERMINED.

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

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
MUNICIPAL	01/01 to 12/31	0.060 CFS	7.80 AF
<u>Totals:</u>		0.060 CFS	7.80 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 Adam Friedman Date 11-6-2015
Reviewer [Signature] Date 11-6-2015

Annual Volume Calculations

From information supplied by the owner

Winter time use. 0.06 cfs @ 3 hrs / day

$$0.06 \frac{\text{ft}^3}{\text{sec}} \times 60 \frac{\text{sec}}{\text{min}} \times 60 \frac{\text{min}}{\text{hr}} = 216 \frac{\text{ft}^3}{\text{hr}}$$

$$212 \text{ days} \times \frac{3 \text{ hrs}}{\text{day}} = 636 \text{ hrs}$$

$$\left(216 \frac{\text{ft}^3}{\text{hr}} \times 636 \text{ hrs} \right) / 43,560 \frac{\text{ft}^3}{\text{AF}} = 3.2 \text{ AF}$$

Summer time use 0.06 cfs @ 6 hrs / day

$$153 \text{ days} \times \frac{6 \text{ hrs}}{\text{day}} = 918 \text{ hrs}$$

$$\left(216 \frac{\text{ft}^3}{\text{hr}} \times 918 \text{ hrs} \right) / 43,560 \frac{\text{ft}^3}{\text{AF}} = 4.6 \text{ AF}$$

Winter Usage 3.2 AF

Summer Usage 4.6 AF

Total 7.8 AF.

Spirit Lake Industrial Park

Water Right License

95-9493

Service Area



- Water Service Area Boundary
- Townships
- PLS Sections
- Quarter Quarters

0 0.3 0.6 1.2 Miles



95-9493

		HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q =	HP*8.8*Eff/ H	5	581.904 8	0.8	420	70
Q =		0.061 cfs	27.2 gpm			

Spirit Lake Industrial Park

Land Developers

Thomas A. Griffin

Carol S. Griffin

March 10, 2015

State of Idaho
Dept. of Water Resources
7600 Mineral Drive, Suite 100
Coeur d'Alene, ID 83815

RECEIVED
MAR 16 2015
IDWR/NORTH

Gentlemen:

The following is a general plan for water conservation at our water utility.

1. Our water consumed in 2014 was approx. 1,400,000 gal. Several of users don't have meters.
2. Our customers consist of businesses, churches, and homes.
3. Our customers are not permitted to irrigate fields or herds of livestock. They can irrigate their lawns and backyard gardens.
4. Our customers as a whole use less than 10,000 per mo. unless they have several dwellings on their property.
5. We inspect the water meters and their property for leaks or yard flooding, when we read the meters monthly except in the winter. They check for leaks and report it right away.
6. We have a certified caretaker in the park year round.
7. In the well house we have a timer on the well. In winter it will pump for three hours per day and summer for six hours per day, to keep the water storage tank full. It holds 220,000 gal. and is gravity fed to our customers.

If I can be of further assistance, please let me know.

Sincerely,

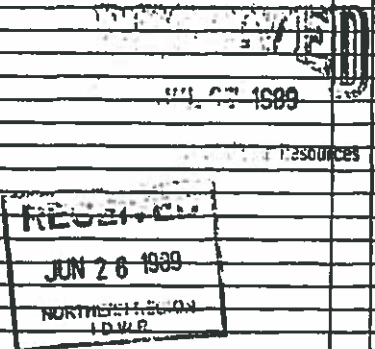
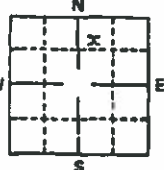


Carol S. Griffin,
Owner
S.L.I.P. Utility

CSG/file

WELL DRILLER'S REPORT

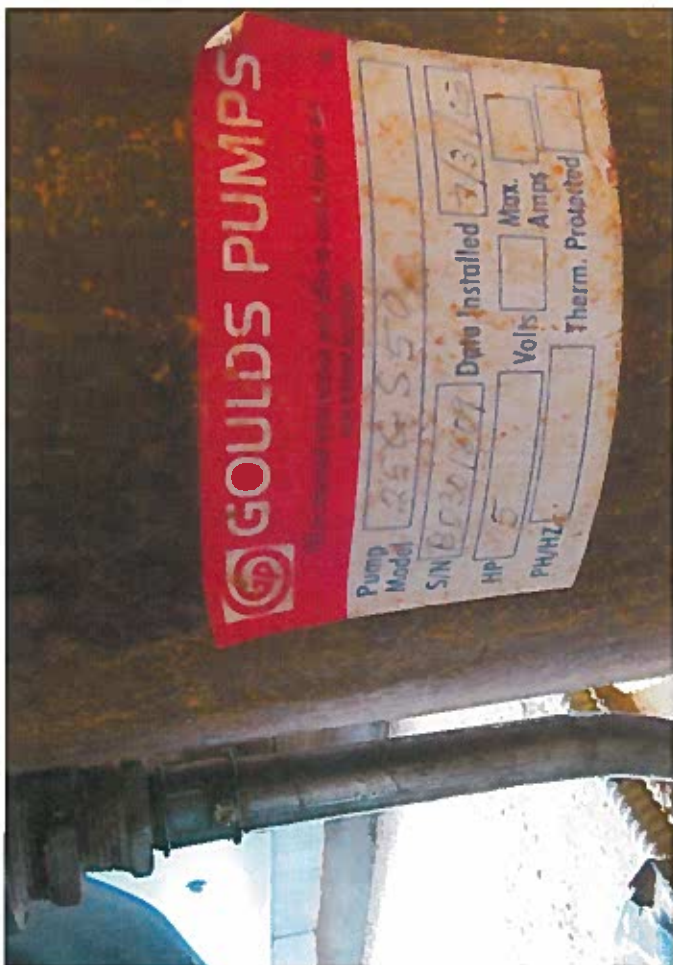
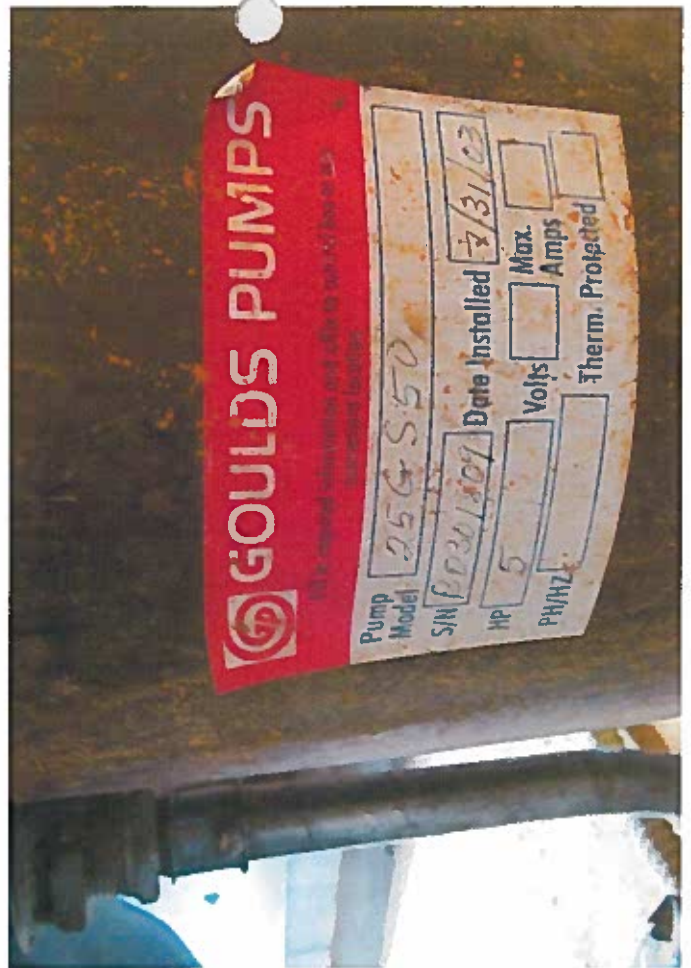
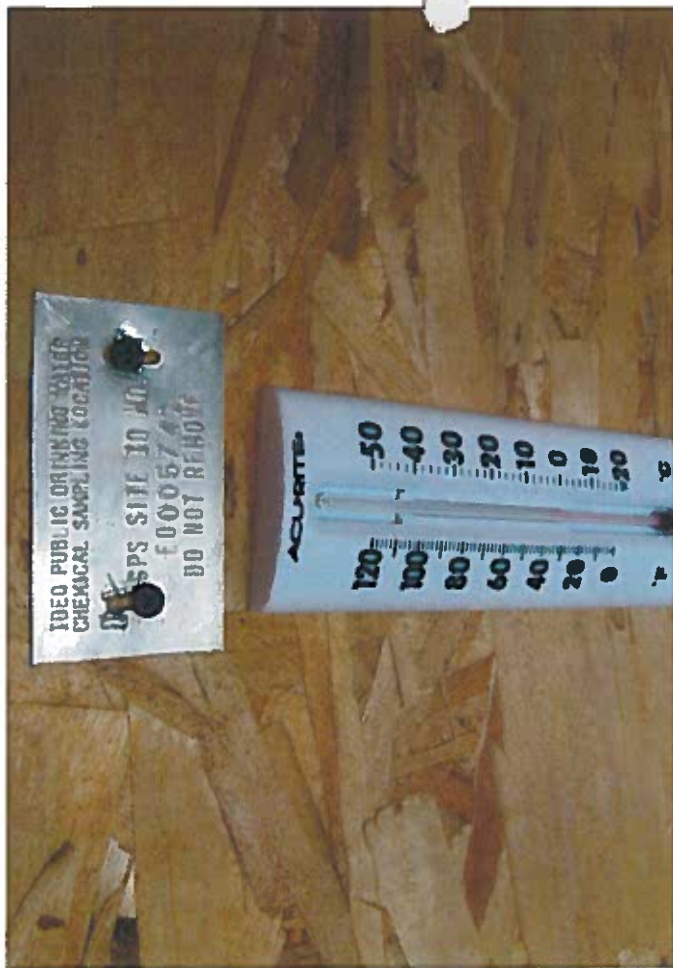
State law requires that this report be filed with the Director, Department of Water Resources
within 30 days after the completion or abandonment of the well.

1. WELL OWNER Name <u>Carol Paisley</u> Address <u>Box 240 Spirit Lake, ID</u> Owner's Permit No. <u>75-79-111</u>		7. WATER LEVEL Static water level <u>335</u> feet below land surface. Flowing? ☐ Yes ☒ No G.P.M. flow _____ Artesian closed-in pressure _____ p.s.i. Controlled by: ☐ Valve ☐ Cap ☐ Plug Temperature _____ °F. Quality _____ <i>Describe artesian or temperature zones below.</i>																																						
2. NATURE OF WORK ☒ New well ☐ Deepened ☐ Replacement ☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)		8. WELL TEST DATA ☐ Pump ☒ Bailor ☐ Air ☐ Other _____ <table border="1"><thead><tr><th>Discharge G.P.M.</th><th>Pumping Level</th><th>Hours Pumped</th></tr></thead><tbody><tr><td><u>20</u></td><td><u>155</u></td><td><u>1</u></td></tr></tbody></table>		Discharge G.P.M.	Pumping Level	Hours Pumped	<u>20</u>	<u>155</u>	<u>1</u>																															
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3. PROPOSED USE ☒ Domestic ☐ Irrigation ☐ Test ☐ Municipal ☒ Industrial ☐ Stock ☐ Waste Disposal or Injection ☐ Other _____ (specify type)		9. LITHOLOGIC LOG <table border="1"><thead><tr><th rowspan="2">Bore Diam.</th><th colspan="2">Depth</th><th rowspan="2">Material</th><th rowspan="2">Water Yes No</th></tr><tr><th>From</th><th>To</th></tr></thead><tbody><tr><td>8</td><td>1</td><td>1.6</td><td>sand & gravel</td><td></td></tr><tr><td>8</td><td>1.6</td><td>5.0</td><td>boulders</td><td></td></tr><tr><td>8</td><td>5.0</td><td>34.0</td><td>sand & gravel</td><td></td></tr><tr><td>8</td><td>34.0</td><td>35.5</td><td>boulders</td><td></td></tr><tr><td>8</td><td>35.5</td><td>42.5</td><td>sand & gravel</td><td></td></tr><tr><td>8</td><td>42.5</td><td>46.2</td><td>sand & gravel small amount of blue clay</td><td></td></tr></tbody></table>		Bore Diam.	Depth		Material	Water Yes No	From	To	8	1	1.6	sand & gravel		8	1.6	5.0	boulders		8	5.0	34.0	sand & gravel		8	34.0	35.5	boulders		8	35.5	42.5	sand & gravel		8	42.5	46.2	sand & gravel small amount of blue clay	
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4. METHOD DRILLED ☐ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary ☒ Cable ☐ Dug ☐ Other _____		 101218																																						
5. WELL CONSTRUCTION Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____ <table border="1"><thead><tr><th>Thickness</th><th>Diameter</th><th>From</th><th>To</th></tr></thead><tbody><tr><td><u>.250</u> inches</td><td><u>8</u> inches</td><td><u>2</u> feet</td><td><u>462</u> feet</td></tr><tr><td>_____ inches</td><td>_____ inches</td><td>_____ feet</td><td>_____ feet</td></tr><tr><td>_____ inches</td><td>_____ inches</td><td>_____ feet</td><td>_____ feet</td></tr><tr><td>_____ inches</td><td>_____ inches</td><td>_____ feet</td><td>_____ feet</td></tr></tbody></table> Was casing drive shoe used? ☒ Yes ☐ No Was a packer or seal used? ☐ Yes ☒ No Perforated? ☒ Yes ☐ No How perforated? ☐ Factory ☒ Knife ☒ Torch Size of perforation <u>3/16</u> inches by <u>3</u> inches <table border="1"><thead><tr><th>Number</th><th>From</th><th>To</th></tr></thead><tbody><tr><td><u>100</u> perforations</td><td><u>435</u> feet</td><td><u>455</u> feet</td></tr><tr><td>_____ perforations</td><td>_____ feet</td><td>_____ feet</td></tr><tr><td>_____ perforations</td><td>_____ feet</td><td>_____ feet</td></tr></tbody></table> 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>20</u> Material used in seal: ☐ Cement grout ☒ Bentonite ☐ Pudding 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>well cap</u>				Thickness	Diameter	From	To	<u>.250</u> inches	<u>8</u> inches	<u>2</u> feet	<u>462</u> feet	_____ inches	_____ inches	_____ feet	_____ feet	_____ inches	_____ inches	_____ feet	_____ feet	_____ inches	_____ inches	_____ feet	_____ feet	Number	From	To	<u>100</u> perforations	<u>435</u> feet	<u>455</u> feet	_____ perforations	_____ feet	_____ feet	_____ perforations	_____ feet	_____ feet					
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6. LOCATION OF WELL Sketch map location must agree with written location.  Subdivision Name <u>_____</u> Lot No. _____ Block No. _____ County <u>Bonner</u> <u>31</u> <u>54N</u> <u>-4W</u> T. <u>54N</u> R. <u>4W</u> S. <u>31</u> Sec. <u>31</u> T. <u>54N</u> R. <u>4W</u>		10. Work started <u>1-10-79</u> finished <u>7-30-79</u> 11. DRILLERS CERTIFICATION I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Firm Name <u>Bronson Water Wells</u> Firm No. <u>360</u> Address <u>Box 1 Spirit Lake, ID</u> Date <u>6-20-79</u> Signed by (Firm Official) <u>H. B. Bronson</u> and (Operator) _____																																						

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

Permit ID 757814

Well ID 269551



95-9493



95-9492



95-9493



95-9493

NOV 20 2015