

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-8684

Exam Date: 1/23/1998

8/21/2007

1. Current Owner: SOUTH RIVER WATER ASSN
PO BOX 213
POST FALLS ID 83854
(208)773-2300

2. Accompanied by: Lynn Martin (2007) 83854
Phone No: (208) 659.773.2001 (14709 W River View DR, Post Falls, ID.
Address: PO Box 213, Post Falls, ID 83854 (Assoc. PO Box)
Relationship to Permit Holder: Operator / Board Member

3. SOURCE**TRIBUTARY**

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 95-4624, 95-7612, 95-7822, 95-7276
2. Other water rights with the same point of diversion: NONE, 95-7236 (Cancelled)

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER NE1/4NW1/4, Sec. 10, Twp 50N, Rge 05W, B.M., KOOTENAI County

GROUND WATER SE1/4NW1/4, Sec. 10, Twp 50N, Rge 05W, B.M., KOOTENAI County

Method of Determination: Garmin GPS, USGS 7.5' Quadrangle (Topographic) 'Post Falls'

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	
50N 05W 9				X													
50N 05W 10					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>
well 1	Grundfos	10 ¹	Unknown	85S 100-9	230 Volt 3 Phase
well 2	Unknown	10 ²	Unknown	Unknown	Unknown

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

10¹ 10 HP per 2007 Field Exam 10² 10 HP per 1996 pump test

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>
Flowmeter In-Line	Badger	170	96706873	Unknown	Unknown	Unknown
Flowmeter In-Line	Badger	170	96781795	Unknown	Unknown	Unknown

2. Measurements: wells 1 & 2 operated independently for 5 minutes each.

Well 1 44131165 Gallons Well 2 7241000 Gallons
 - 44130700 Gallons - 7240700 Gallons

$465 \div 5 = 93 \text{ GPM}$ $300 \div 5 = 60 \text{ GPM}$
 $93 + 60 = 153 \text{ GPM} = .340 \text{ CFS}$

E. FLOW CALCULATIONS

Measured Method:

Theoretical

PUMP EQUATIONS	WATER RIGHT	95-8684	Well 1			
	HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI	
Q = $HP \cdot 8.8 \cdot \text{Eff} / H$	10	97.82313	0.7	40	25	
Q =	0.631 cfs					

PUMP EQUATIONS	WATER RIGHT	95-8684	Well 2			
	HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI	
Q = $HP \cdot 8.8 \cdot \text{Eff} / H$	10	107.8231	0.7	50	25	
Q =	0.572 cfs					

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: Not Applicable Lawns less than 1/2 acre each.

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

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

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

2. Volume Calculations for Other Uses: Municipal = (Multiple Domestic) under Permit condition is 62 homes.

$$(62 \text{ lots}) \times (1.2) = 74.4 \text{ AFA}$$

95-8684

Summary: The South River Water Association (SRWA) system has three wells located South of the City of Post Falls and the Spokane River. All wells are connected to a common distribution system and supply water to a common reservoir. Well # 1; near the River; was the original SRWA Point of Diversion. SRWA feared that it would have to abandon Well # 1 due to nitrate contamination. Permit 95-8684 listed only Well # 2 because of the planned abandonment of Well # 1. SRWA decided to retain Well # 1 after the nitrate problem cleared up because it produces water at a lower cost than Wells # 2 and # 3. Wells #1 and # 2 existed and were in service before the end of the development period. Well # 3 was not completed until after Proof of Beneficial Use had been submitted for Permit 95-8684. Theoretical calculations and flowmeter readings indicate that the combined output capacity of Wells # 1 and # 2, when operated independently, exceeds the Permit CFS amount.

In between Well #1 and the storage reservoir approximately 26 homes are served water. The non-consumed water being pumped from Well # 1 goes to the storage reservoir. Well # 2 is pumped directly to storage. From storage two five (5) horsepower Red Jacket pumps along with five each 100 Pound Per Square Inch (PSI) pressure tanks are used to distribute water through the six inch main line.

(Start of AUG 21 2007 Field Exam) A new well (Well 3) was drilled FEB 19, 1998 next to the reservoir. Reservoir capacity is now 36,000 gallons. Well GPS locations are (Well 1 N 47 42.079, W 116 57.005) (Well 2 drilled MAR 11, 1991 is at N 47 41.749, W 116 57.037) (Well 3 N 47 41.563, W 116 57.113). All wells operated independently for five minutes each in the AUG 2007 exam.

Have conditions of permit approval been met? ☒ Yes ☐ No (With Amendment)

1. Recommended Amounts

2. Recommended Amendments

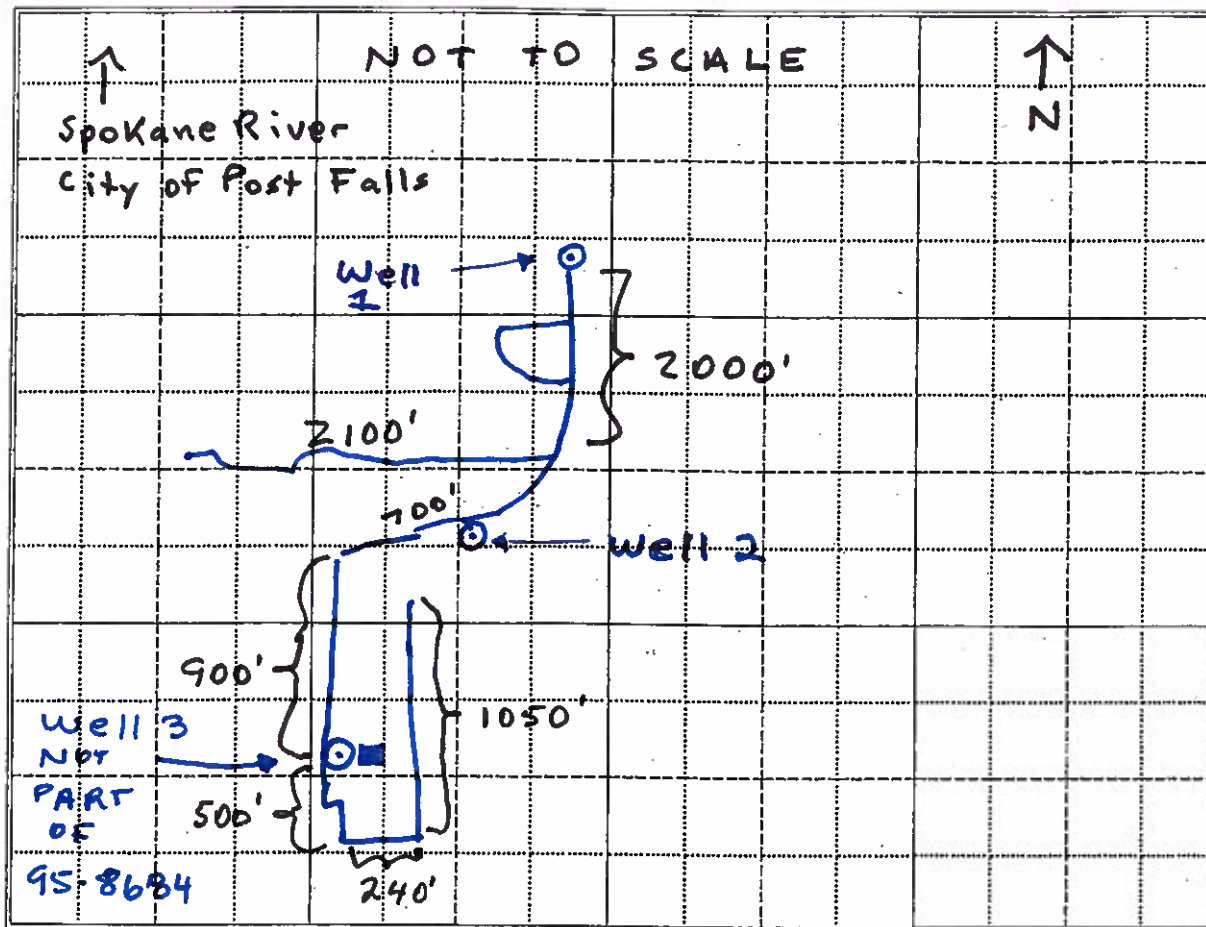
I. AUTHENTICATION

Reviewer

Date _____

95-8684

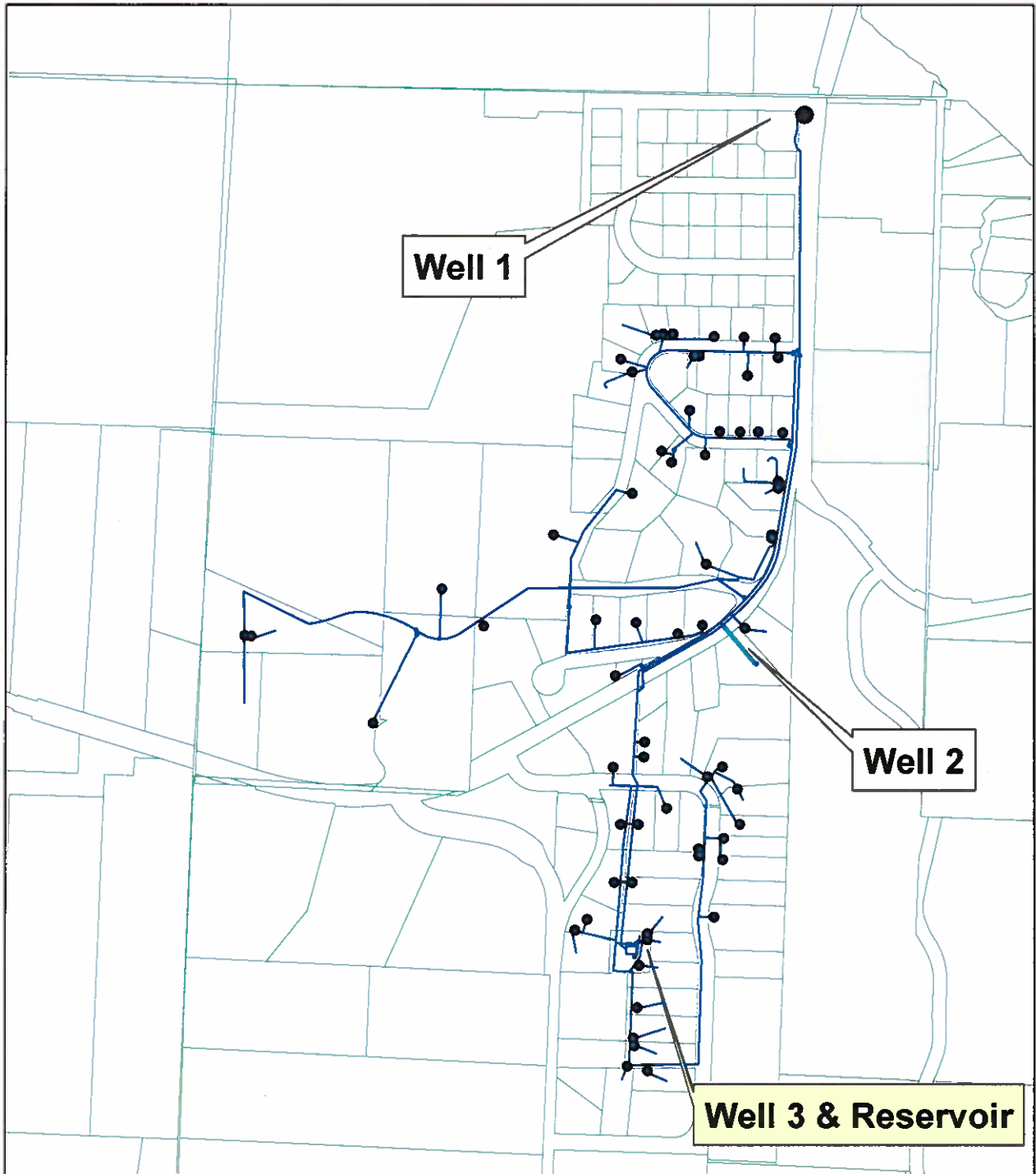
3. Delivery System Diagram: Indicate all major components and distances between components. Indicate well size/ditch size/pipe I.D. as applicable.



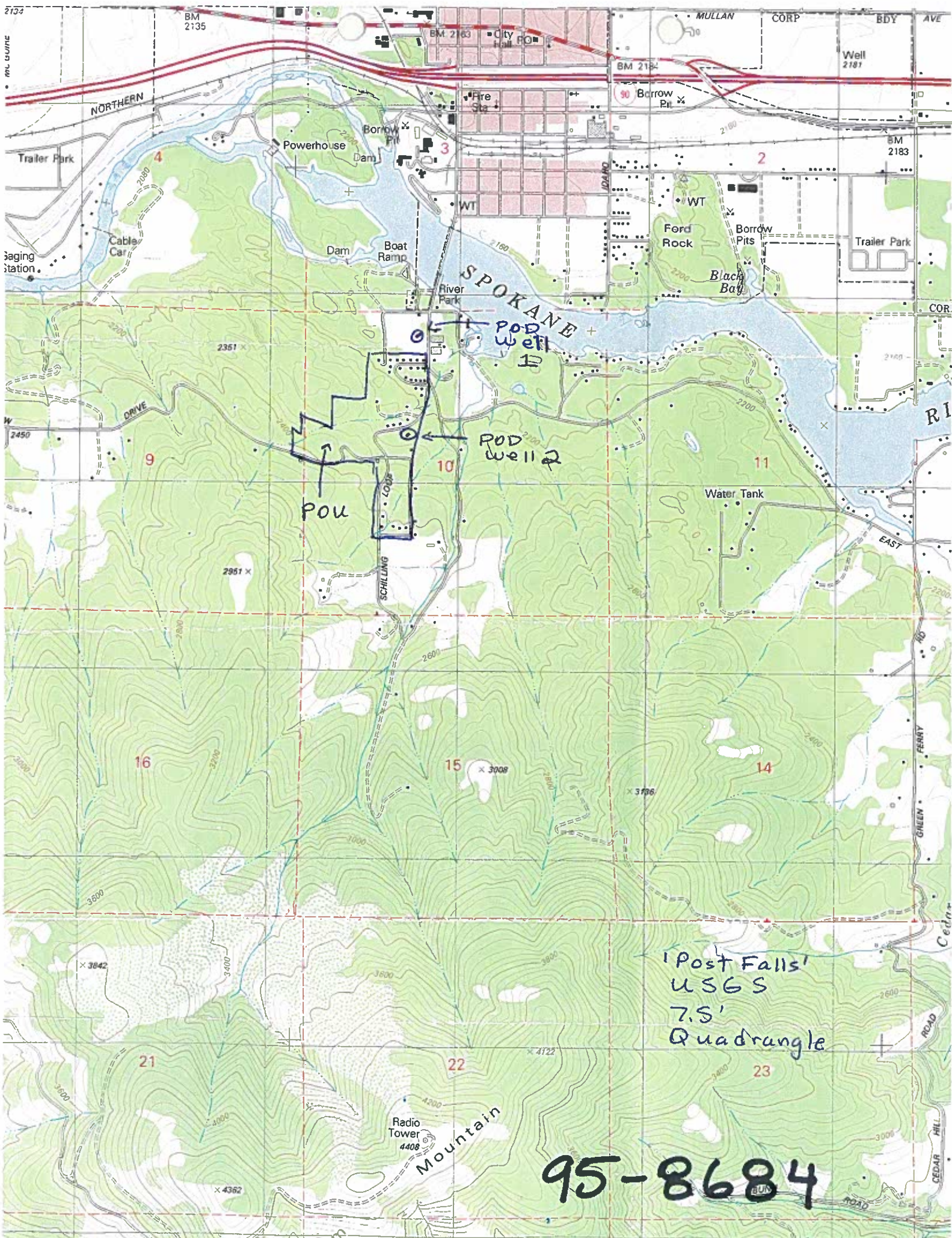
- ⊙ Well
- Reservoir
- Water Distribution Line
(individual home water lines not shown)

95-8684

95-8684



95-8684



'Post Falls'
USGS
7.5'
Quadrangle

95-8684

95-8684



95-8684



95-8684 Reservoir
pumphouse interior.JPG



95-8684 Well 1 8 inch
casing.JPG



95-8684 Well 1 DEQ
tag.JPG



95-8684 Well 1 GPS
read.JPG



95-8684 Well 1 meter.JPG



95-8684 Well 1 next to Well
house.JPG



95-8684 Well 1.JPG



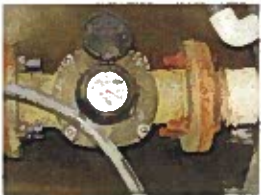
95-8684 Well 2
electrical.JPG



95-8684 Well 2 House
view.JPG



95-8684 Well 2 House.JPG



95-8684 Well 2 meter.JPG



95-8684 Well 2 view.JPG



95-8684 Well 3 8 inch
casing.JPG



95-8684 Well 3 at
reservoir.JPG



95-8684 Well 3
D0003604.JPG



95-8684 Well 3 DEQ
tag.JPG



95-8684 Well 3 location
reservoir.JPG



95-8684 Well 3
reservoir.JPG



92-8684 Well 1 meter near
test end.JPG

95-8684



95-8684 Well 1 meter near test end



95-8684 Reservoir pump house interior

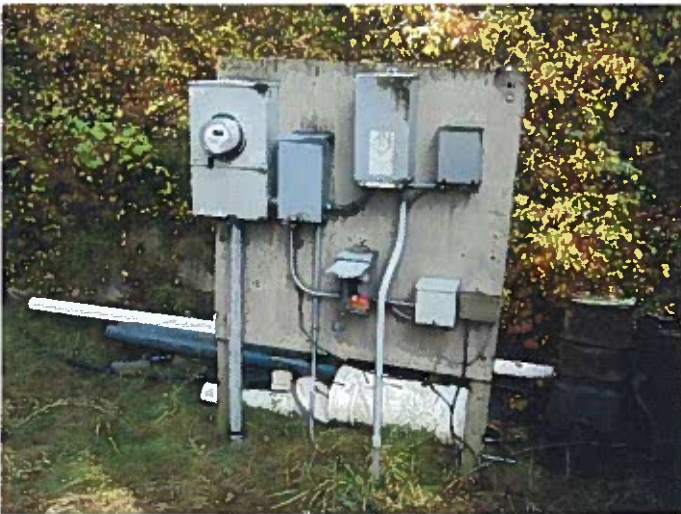


95-8684 Well 1 8 inch casing

95-8684



95-8684 Well 1



95-8684 Well 2 electrical

95-8684



95-8684 Well 2 house view



95-8684 Well 3 at reservoir

95-8684



95-8684 Well 3 D0003604



95-8684 Well 3 DEQ tag



95-8684 Well 3 location at reservoir

95-8684

[Signature]

95-08684

MEMO:

1/23/97

ADD FILE #13-2

LYNN MARTIN

Because of high water level
Well #1 will be replaced
New location will be near
Reservoir. AZ

TRACY COLLINS CALLED ON NOV. 18, 1996
AND SAID THAT THE BOARD OF DIRECTORS
IS WORKING ON THE INSTALLATION OF "INLINE"
METER FOR THEIR SYSTEM

HE SAID HE WOULD CONTACT US WHEN THEY
HAVE METERS INSTALLED.

Memo - 1-6-96

Hummer & Spang

Talked w/ Tracy Collins he said they have
one flowmeter ~~is~~ installed on the well by
the park.

They are having problems with the snow and the other
well location. They need to put a vault in the
ground to install a measuring device. Not sure
when they will have the work completed. Will
call w/ more specific time frame.

George
Conrad
- Board Member -

[Signature]

95-8684

9-13-96

Memo to File # 95-08684
South River Water Assoc.

Held file until meters are installed on both wells because on an old filing by Hughes Construction the Permit was cancelled because permit conditions were not met. i.e. flow meter or measuring device.

H. Spang

Meters are to be installed by the end of 1996. according to Tracy Collins. Meters are to be put on in accordance with Dept. of Health.

9-13-96

H. Spang

95-8684