

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No. 22-7280

1. Owner: LUCILLE W. OR JIM W. HOWE

Phone No. 356-3027

Current Address: Box 803, REXBURG, ID. 83440

2. Accompanied by: NORMAN RILEY

EXAM. DATE: 29-JUNE-1987

Address: 1623 W. 3400 S., REXBURG, ID 83440

Phone No. 356-5873

Relationship to Permit Holder: SON-IN-LAW / OPERATOR

3. Source: GROUNDWATER tributary to _____

B. OVERLAP REVIEW

1. Other water rights with same place of use: 22-2223 (PORTION)

☐ Copies Attached

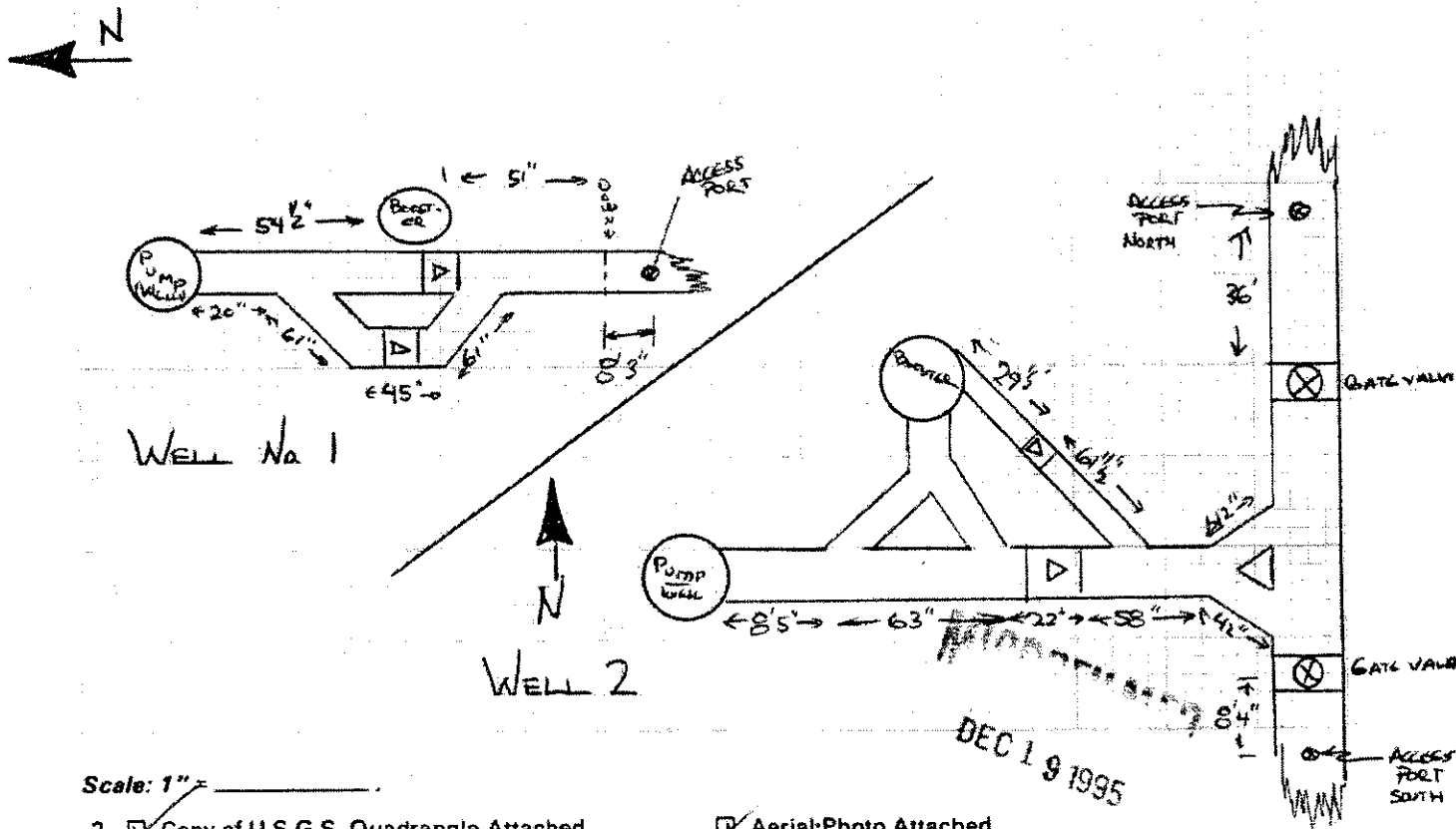
2. Other water rights with same point of diversion: 22-2223 (WELL No. 1) 3.87 cfs

☐ Copies Attached

☐ Copies of Field Exam's Attached

C. SYSTEM DESCRIPTION

1. **Diversion System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe i.d. as applicable. ☐ Alternative diagram attached



Scale: 1" = _____

2. ☒ Copy of U.S.G.S. Quadrangle Attached
Showing location(s) of point(s) of diversion and
place(s) of use (required).

☒ Photo of Diversion and System Attached

(required for all but single household domestic groundwater, and stockwater.)

☒ Aerial Photo Attached

(required for irrigation of 10 acres or more).

RE-EXAMINATION FIELD REPORT

A. GENERAL INFORMATION

Permit No. 22-07280

B. MEASUREMENTS:

Date: 16 Nov 1998

Note: Measurements taken with 2 different diameter tapes & thickness mikes

North Well #1:	o.d. = 11.850" - 12.050"	Thickness = 0.110" - 0.113"
South Well #2:		
North mainline:	o.d. = 14.000" - 14.040"	Thickness = 0.102" - 0.105"
South mainline:	o.d. = 15.990" - 16.025"	Thickness = 0.136" - 0.139"

C. FLOW CALCULATIONS:

i.d. = [o.d.] - [2(T)]

i.d. = inside diameter

o.d. = outside diameter

T = wall thickness

$Q_{cfs} = (i.d.)^2(\sqrt{H})(C) \div 448.8 \text{ gpm/cfs}$

H = differential pressure inches H₂O

C = Annubar Constant

C for 12" = 3.99

C for 14"-16" = 4.01

Assumptions:

o.d. = maximum measured outside diameter

T = minimum measured thickness

H = use differential pressure measured original exam (6-29-87)

NORTH #1 WELL: $i.d. = [12.050] - [2(0.110)] = 11.830$ $H = 12.9'$ $C = 3.99$

$$Q_{cfs} = (11.830)^2(\sqrt{12.9})(3.99) \div 448.8 = 2005.567 \text{ gpm} \div 448.8 \text{ gpm/cfs}$$

$$Q_{cfs} = 4.469 \text{ cfs} = 4.47 \text{ cfs}$$

SOUTH #2 WELL:

North Mainline: $i.d. = [14.040] - [2(0.102)] = 13.836$ $H = 4.9'$ $C = 4.01$

$$Q_{cfs} = (13.836)^2(\sqrt{4.9})(4.01) \div 448.8 = 1699.274 \text{ gpm} \div 448.8 \text{ gpm/cfs}$$

$$Q_{cfs} = 3.786 \text{ cfs} = 3.79 \text{ cfs}$$

South Mainline: $i.d. = [16.025] - [2(0.136)] = 15.753$ $H = 6.7'$ $C = 4.01$

$$Q_{cfs} = (15.753)^2(\sqrt{6.7})(4.01) \div 448.8 = 2575.777 \text{ gpm} \div 448.8 \text{ gpm/cfs}$$

$$Q_{cfs} = 5.739 \text{ cfs} = 5.74$$

9.53 for S well

TOTAL CALCULATED FLOW RATE: $Q_{TOTAL} = 4.47 \text{ cfs} + 3.79 \text{ cfs} + 5.74 \text{ cfs} = 14.00 \text{ cfs}$

D. AUTHENTICATION:

Field Examiner's Name:

KEITH C WILSON

MICROFILMED

DEC 30 1998