

January 31, 2004

General Comments

The field exam suggests more historical use of water than claimed, so I have invited the claimant to amend the claim. Please see the enclosed letter. Evidence of priority suggests a 1932 priority for the domestic portion of the claim and a 1957 priority for the commercial portion. I've suggested to the claimant that I would propose a 1957 priority, but if he wishes to enjoy the 1932 priority on the domestic portion he might consider a second claim.

Field notes are included as *.jpg images in the photos directory.

The commercial facility started out as an equipment shop (first Caterpillar and then UPS). Now it houses an RV sales lot, small tire store, restaurant/family activity center, and a cake decorating business.

Ownership

As claimed.

POD

One well, IDTM location 662,460 E 271,332 N. This is not a GPS location but is scaled off an aerial image using GIS. There is a location tag attached, number E0007626. The claimed legal description appears to be correct.

POU

As claimed/sketched in claim map. See also sketch in *.jpg of field notes.

Overlap

As noted above, the domestic use dates to 1932 and the commercial to 1957. If a separate domestic claim is filed, both rights will use this well.

Conflict

None noted.

Priority

In an interview the owner affirms that he has personal knowledge of the commercial development in 1957. An affidavit in the file establishes 1932 for the domestic use. I propose 12/31/1957 for this water right.

Quantity

Attached calculations support a diversion rate of 0.04 domestic plus 0.09 commercial, total 0.13 cfs.

Current use appears to be 1.2 acre feet/year for domestic and 2.8 acre feet/year commercial (non-residential deminimus 2,500 gallons/day). Historical use is closer to $1.2 + 7.4 = 8.6$ acre feet/year. I propose recommending the higher volume based on the historical development of the right and the potential need to resume the original use of the building.

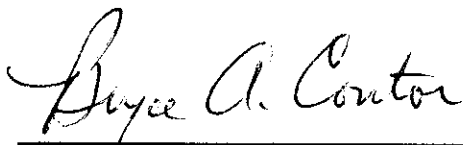
Water Use

Commercial and domestic. The current claim is only for commercial but the amended claim includes domestic. The owner may also file a separate domestic claim.

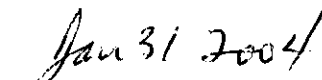
List of Photos

A25-13026_Field_Notes_1_2.jpg	Field notes.
A25-13026_Field_Notes_3_4.jpg	Field notes.
A25-13026_Field_Notes_5.jpg	Field notes.
A25-13026_1.jpg	RV business
A25-13026_2.jpg	Sugar-shell and North-40 businesses
A25-13026_3.jpg	Well

*photos
are in the
camera,
will be
included on
Sep. 24 cd*



Bryce A. Contor


Date

Water Resources Field Services

1571 N. 1100 E.

Terreton, ID 83450

208-663-4667

January 21, 2004

Rex S. Shurtliff
PO Box 2086
Idaho Falls ID 83403

Re: Water Right Adjudication Claim A25-13026

Dear Mr. Shurtliff:

My calculations show that your water use is more than the claim requests. The enclosed amended claim adjusts the amounts of water to match the historical uses we talked about when I looked at your place. If you would like to claim this additional water, please return it to IDWR with a notarized signature and a check for nine (9.00) dollars.

Because the Caterpillar shop was built in 1957, I will propose to IDWR that the priority date of this water right be 1957. However, the affidavit in the file shows that the domestic use goes back to 1932. If you would like to retain the 1932 priority date for the domestic use, you may want to talk to IDWR about filing the domestic use as a separate claim. In that case you would have two water rights out of one well, one for the domestic use in the home and lawn, and one for the commercial use in the businesses. There will be a small additional fee.

Please call me if you have any questions. You may also call IDWR at 525-7161. Please mail the claim and check directly to IDWR, or take them to the office at the corner of Grandview and Skyline in Idaho Falls.

Sincerely,

Bryce A. Contor

August 18, 2003

Rex S. Shurtliff
PO Box 2086
Idaho Falls, ID 83403

Re: Water Right Adjudication Claim(s) A25-13026

Dear Water User:

Idaho Department of Water Resources (IDWR) is reviewing claims to water rights in the Snake River Basin Adjudication in your area. Water Resources Field Services has been retained to do field inspections to aid the Department in making correct recommendations to the court. In the next weeks and months I will be contacting you to make an appointment to look at your diversion works and uses of water.

I look forward to helping make sure your water right recommendation is correct. Please contact me if there is a particular time that would be convenient for you. You may call in the evenings, or leave a message on the answering machine.

Sincerely,

Bryce A. Contor

Water Resources
Field Services
208 663 4667

A25-13026 Water-use calculation 1/31/04

This is the second time I've done these calculations. A slightly different version may come back w/ the amended claim - I can't find my copy.

Diversion Rate

Home w/ lawn	0.04 g/s
Business - # fixtures	
RV shop (sink only)	1
Sugar Shell customer restroom	2
Sink	1
Tire recyclers	0 (uses North 40 restroom)
North 40	
Mens room	6
Drinking fountain	1
Employee restroom	5
Ladies room	2
Kitchen	3
Tool room	1
Total	<u>22 fixtures</u>

Per field-examiner's handbook exhibit 14
mercantile stores = 1.3 gpm/ fixture
minimum 40 GPM. $40 \text{ gpm} \approx 0.09 \text{ g/s}$
 $0.09 + 0.04 = \boxed{0.13 \text{ g/s}}$

A25-13026 Water-use calculations p2

Alternate diversion-rate calculation:

The shop use did not include the restaurant fixtures but did include a wash rack for washing equipment / vehicles. Mr. Shurtliff states when UPS rented the shop they washed 25 trucks/night.

$$18 \text{ fixtures} \times 1.3 \text{ gpm} = 23 \text{ gpm}$$

15 - 20 gpm estimate for wash rack points to the same ≈ 0.07 gfs requirement.

Diversion Volume

Home w/ lawn

1.2 acre/foot

Commercial (based on Field Examiner's Handbook Table 3 except where noted).

Day workers @ 15 gallons/shift

RV store 1

Tire store 1

North 40 5

Sugar-shack 1

$$8 \times 15 = 120 \text{ gpd}$$

$$\times 250 \text{ days} = 30,000 \text{ gal.}$$

A25-13026 Water-use calculation p 3

$$\begin{array}{rcl} 4 \text{ store toilet rooms} & \times & 400 \text{ gallons} \\ & \times & 250 \text{ days} \\ & & 400,000 \text{ gallons} \end{array}$$

Restaurant 200 customers/day
 $\times$ 3 gallons/patron (use w/o
restroom rate since restrooms
are considered above)

$$\begin{array}{rcl} 200 \times 3 \times 250 \text{ days} & & 150,000 \text{ gallons} \\ \text{Total commercial} & & \underline{550,000 \text{ gallons}} \\ & \approx & 1.8 \text{ acre feet/yr.} \end{array}$$

This is less than the std. Leominster
non-residential domestic

$$(2500 \text{ gal/day} \times 365 \text{ days}) \approx 2.8 \text{ acre feet}$$

Alternate volume calculation

$$\begin{array}{l} \text{Shop use: } 15 \text{ workers} \times 15 \text{ g/day} \\ = 225 \text{ gallons/day} \end{array}$$

$$\text{Customer restrooms (2) @ 400} = 800 \text{ gallons/day}$$

$$\text{Wash rack } 20 \text{ gpm} \times 3 \text{ hrs/day}$$

$$\frac{20 \text{ gal}}{\text{min}} \times \frac{60 \text{ min}}{\text{hr}} \times \frac{3 \text{ hr}}{\text{day}} = 3600 \text{ gallons/day}$$

$$225 + 800 + 3600 = 8000 \text{ gallons/day}$$

$$\begin{array}{l} 8000 \text{ gallons} \times 300 \text{ days} = 2,400,000 \text{ gallons} \\ = 7.4 \text{ acre feet.} \end{array}$$

$$\text{Summary } 1.2 \text{ domestic} + 7.4 \text{ commercial} = \boxed{8.6 \text{ afa}}$$

A25-13026 Water-use calculations p4

Theoretical check:

$$\text{Water hp} = \frac{(\text{TDH} \times \text{GPM})}{3960}$$

TDH estimates

Discharge pressure 40 psi = 92.4 feet

lift $\approx$ 100 - 200 feet

Friction $\approx$ 15 feet

TDH $\approx$ 205 to 305 feet

$$\begin{aligned} \text{Water HP} &= \frac{(205)(40)}{3960} \text{ to } \frac{(305)(40)}{3960} \\ &= 2.1 \text{ to } 3.1 \end{aligned}$$

assume 60% efficiency

$$\text{required motor hp} \frac{2.1}{.6} \text{ to } \frac{3.1}{.6} = 3.5 \text{ to } 5.2$$

Current motor is 3 hp & claimant states original was 5 hp. Therefore proposed rate of $0.09 + 0.04 = 0.13$ cfs is not unreasonable in light of diversion capacity.

$$40 \text{ gpm} \times \frac{60 \text{ min}}{\text{hr}} \times \frac{5 \text{ hrs}}{\text{day}} \times 365 \text{ days} \approx 13 \text{ acre feet.}$$

proposed volume is reasonably obtainable also.

A25-13026 Preview / Contact log 1/16/04

- 1) Evidence of priority - domestic. Accomplished a purpose should work. Need to calculate water use for RV business. Diversion rate is in line w/ domestic history
- 2) Claimant may wish to amend claim to receive better priority date.

1/16/04 12:30 522-1513 Mr. Shuttliiff -
please come later in the day - 1:PM.
Next door is another business, may share
use on well - New claim may be needed?

Field exam handbook	{	Day workers	15 gal / person / day
		Shower	400 gal / day / washrooms
		diversion rate	1.3 gpm / fixture 40 gpm min

1/19/04 Mr. Shuttliiff not there - appointment 4 PM
Tomorrow