

August 18, 2003

Elmer Ellsworth Produce
PO Box 9
Lewisville, ID 83431

Re: Water Right Adjudication Claim(s) A25-11617

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, the staff will be contacting you to make an appointment to look at your diversion works and uses of water.

The purpose of this letter will be to locate and photograph the wells and review the historical use of water.

I look forward to helping make sure your water right recommendation is correct. Please contact us if the time is not convenient for you. You may call in the evenings, or leave a message on the answering machine.

Sincerely,

Bryce A. Contor

2/16/2004

General Comments

I made two visits. On the first visit, I forgot to double-check the claim file. The plant manager did not realize there were two wells, so I missed one.

Ownership

Appears to be correct.

POD

Legal description appears to be correct. There are two wells located in the basement of the building. What I have called in the notes "the south well" is about 30 feet inside the wall (SW) from GPS location Waypoint 8, 660,731 E 291,460 N IDTM. The building apparently is oriented more to the west than to the northwest. This well is close to the front of the big double doors, on the right.

The well I have called the north well is about 10 feet inside the wall (NE) from GPS location waypoint 15, 660,693 E 291,452 N.

POU

Appears to be correct.

Overlap

None noted.

Conflict

None noted.

Priority

Affidavit states "In or about 1950." I propose 12/31/1950.

Quantity

Please see attached calculations and *.jpg of field notes. Claim is for 0.04 cfs but field exam found 0.166 cfs. I have mailed an amended claim (see letter and

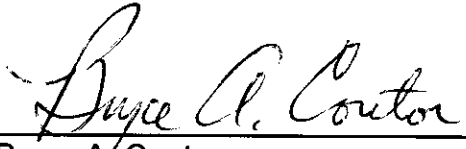
*.jpg). If the amended claim is filed I propose 0.166 cfs and 10.0 acre feet. If the amended claim is not filed, I propose 0.04 cfs and 4.0 acre feet ($0.04 \text{ ft}^3/\text{second} \times 1200 \text{ hours} \times 3600 \text{ seconds/hour} \times 1 \text{ acre foot} / 43560 \text{ ft}^3$).

Water Use

Commercial for fresh-pack potato operation.

List of Photos

A25-11617_1.jpg	Well and pump labeled "South Well." This photo is in the January 2004 folder. The others are in the February folder.
A25-11617_2.jpg	Nameplate on motor at south well (<i>also in Jan. folder</i>)
A25-11617_3.jpg	Looking SW at POU.
A25-11617_4.jpg	Well and pump labeled "North Well"
A25-11617_5.jpg	Looking NW at POU.
A25-11617_Field_Notes.jpg	Field notes
A25-11617_Amended_1.jpg	Copy of amended claim mailed to Mr. Ellsworth
A25-11617_Amended_2.jpg	Copy of amended claim


Bryce A. Contor

2/16/04
Date

Water Resources Field Services

1571 N. 1100 E.

Terreton, ID 83450

208-663-4667

February 16, 2004

Elmer Ellsworth DBA Ellsworth Produce
PO Box 9
Lewisville ID 83431

Re: Water Right Claim A25-11617

Dear Mr. Ellsworth:

Today I looked at the wells and pumps for the fresh-pack potato shed you own in Lewisville. This is for your water right claim in the Snake River Basin Adjudication.

It looks like the plant actually uses more water than the claim requests. The enclosed "Amended Claim" form corrects this oversight. If you would like to claim the full amount of water that the pumps produce, please sign this before a notary and mail it to IDWR at:

IDWR
Attn: Michael Holliday
900 N Skyline Ste A
Idaho Falls ID 83402

If you want to take it in to IDWR, there is a notary there who can help you with the signatures. There is a fee of \$12.60 for the additional claimed diversion rate.

Please call me at 681 9100 if you have questions.

Sincerely,

Bryce A. Contor
Enclosure

A25-11617 Water Use Calculations.

1) Pump capacity.

South pump has a 3 hp GE motor. It is a centrifugal pump drawing from a sandpoint well with an 1 1/4" pipe discharge. The horse-power based calculation is:

Formula	$\text{GPM} = \frac{\text{Water HP} \times 3960}{(\text{Total Dynamic Head})}$		
Water HP =	Motor HP X efficiency		
	3 x	0.6 =	1.8
TDH	Lift	20	(This is a surface-mount centrifugal lift can't be higher than 25 feet)
	Friction	5	
	Pressure	92.4	40 psi X 2.31
	TDH	117.4	feet
Calculated GPM:	61		

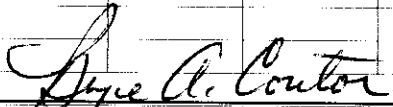
This is unreasonable for a 1 1/4 discharge pipe.

Alternate calculation: Maximum velocity in the pipe is probably 7 to 8 ft/second. Use 8 ft/second

Diameter	1.25 inches
Radius	0.625 inches
Radius (ft)	0.052083
Area	0.008522 ft ² (pi times radius squared)
Q = Velocity X Area	
	0.068 ft ³ /second
	31 gallons/minute

North pump. Motor had no nameplate but physically it is similar in size to the motor on the south pump. The pump itself is larger and the discharge pipe is 1 1/2 inch. I apply the velocity calculation:

Diameter	1.5 inches
Radius	0.75 inches
Radius (ft)	0.0625
Area	0.012272 ft ² (pi times radius squared)
Q = Velocity X Area	
	0.098 ft ³ /second
	44 gallons/minute

Total Q =	0.166 ft ³ /second																												
2) Volume Calculations																													
When I arrived the north pump was running, and it ran for five or ten minutes while I took photographs and made notes (I had to go out to the car for flash batteries & I assume it continued to run while I was out). Just before I planned to time its operation, it shut off. I waited for half an hour and it never came on. Based on this I estimate it runs 10 minutes out of every 45 minutes, or 13.33333 minutes/hour. Because I don't know how long the pump had been running when I arrived, I double this estimate to avoid injuring the claimant: 26.66667 minutes/hour.																													
The south pump was off when I started timing, it cycled twice during the half hour I timed it, so that should be a good representation. It ran 25 min 6 seconds of 30 min, or 50.2 minutes/hour																													
The plant personnel told me the plant runs 200 days a year, average six hours/day.																													
Plant hours:	<table border="0"> <tr> <td>Hours</td> <td>x</td> <td>Days</td> <td>=</td> <td>Total Hours</td> </tr> <tr> <td>6</td> <td>x</td> <td>200</td> <td>=</td> <td>1200</td> </tr> </table>	Hours	x	Days	=	Total Hours	6	x	200	=	1200																		
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