



State of Idaho

DEPARTMENT OF WATER RESOURCES

900 N. Skyline Dr., Suite A, Idaho Falls, Idaho 83402-1718 - (208) 525-7161- Fax (208) 525-7177

EASTERN REGION

June 29, 2001

DIRK KEMPTHORNE
GOVERNOR

KARL J. DREHER
DIRECTOR

City of Chubbuck
City Engineer
PO Box 5604
Chubbuck, ID 83202-0006

Re: Adjudication Claims 29-2385, 29-2413, 29-2469, 29-7624

Dear Water User:

We are beginning the review of adjudication claims in Basin 29, in order to prepare recommendations to the court. My records show the city has filed the four claims listed above. In addition, the database shows that the City of Chubbuck holds license 29-8188, permit 29-8229, and permit 29-8230. These were issued after the commencement of the adjudication and are not required to be reviewed by the department nor by the court.

An initial review of the City of Chubbuck claims has raised some issues that need attention.

The first issue is that claims do not always match the underlying licenses. As I make recommendations, I am limited by both the license *and* the claim – I cannot recommend more than either. The following table shows the licensed and claimed diversion rates:

<u>Right</u>	<u>Licensed Rate</u>	<u>Claimed Rate</u>
29-2385	0.78 cfs	0.56 cfs
29-2413	1.10 cfs	2.23 cfs
29-2469	1.11 cfs	3.80 cfs
29-7624	4.96 cfs	4.45 cfs

You may wish to consider amending the two claims which are less than the original licensed rate, if historically the city has used the full licensed amount of water.

The second issue is that it appears the original capacity of the wells under licenses 29-2413 and 29-2469 was greater than originally licensed. In both

cases, the license was issued for the amount of the permit, which was less than the actual capacity developed.

For ground water put to use before the mandatory permit statute became effective (March 25, 1963), a "beneficial use" water right may be recommended. Documentation in the file establishes that the use of water under 29-2413 was actually 1.5 cfs (instead of 1.10) as September of 1958. Documentation in file 29-2469 indicates that well had a capacity of 2.0 cfs (instead of 1.11) at least as early as June of 1963.

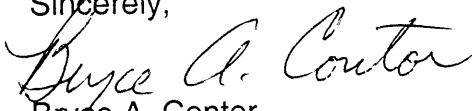
You may wish to file a beneficial use claim for the additional diversion rate developed from the well under license 29-2413, and you may wish to see if you can document use of the well under 29-2469 earlier than March 25 of 1963. The enclosed pamphlet describes some sources of documentation you may wish to consider. If an affidavit is used, it must clearly show that the person *personally observed* the use of water and *the date this was observed*. The more detail the better, such as amounts of water used, types of equipment observed, or circumstantial details that help establish dates.

Please consider whether you wish to amend some of your claims, or file beneficial use claims. If you decide to do this, I can prepare the claims and mail them, or you may come up to the office.

I have requested a copy of the Water Measurement Program data from Tim Luke's group of IDWR in Boise. This may provide additional insight into historical use of water by the city, which will help me make more accurate recommendations. If you have additional documentation or information that might improve the recommendations, please forward it to me.

You are welcome to call me if you have questions, but I am hard to catch. You may also e-mail me at bcontor@idwr.state.id.us and I will reply or call you. I look forward to working with you to make accurate recommendations to the court.

Sincerely,



Bryce A. Contor
Senior Water Resource Agent

enclosure

Addendum to Petition for Exclusion From a Water Measurement District

City of Chubbuck Points of Diversion:

Well # 1, East Chubbuck Rd

Water Right Number - 29-2385

Point of Diversion location- NE1/4,NW1/4,Sec.11,T.6S,R.34E,BM *may be NW1/4*

Description of Point of Diversion and Conveyance System-

Single deep well diverting water to a municipal storage system consisting of a 50,000 gal., 70,000 gal., and 1.5 million gal. tank.

Flow Meter -

A. Type - Data Industrial, Model 900T Digital Flow Monitor

B. Manufacturer - Data Industrial

C. Frequency of measurement readings - Daily

1. By whom - Charles Piquet, Water Technician

A. Address - PO Box 5604, Chubbuck, ID 83202

Water Level Recorder -

A. Type - Sounder

B. Manufacturer - Fisher M-Scope

C. Frequency of reading - Bimonthly

1. Static - Monthly

2. Pumping - Monthly

3. By whom - Charles Piquet, Water Technician

A. Address - PO Box 5604, Chubbuck, ID 83202

From Water Distribution Section
Records 7/5/2001. B. Contor

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
 Water Measurement Program

RECEIVED

JAN 14 1998

Department of Water Resources

1997 WATER MEASURING DEVICE CERTIFICATIONDate of Testing 5-28-97Person performing test CHODGESEXAM NOT
COMPLETE

Photo 12

Name:	CITY OF CHUBBUCK	_____
Water Right No:	A29-02385	_____
Legal Description:	06S 34E 11 NWNW	1 1/4
Site Tag No:	WELL #1, EAST CHUBBUCK RD	_____
Diversion Name:	_____	

Current OwnerName City of Chubbuck Phone 208-237-2430
 Last, First, MIAddress P.O. Box 5604 City Chubbuck State ID Zip 83202**Operator (if leased or operated by someone else)**Name _____ Phone _____
 Last, First, MI**SECTION I WELL SITE IDENTIFICATION**

Global Positioning System Data:

Data Collection Filename D052890A Offset 15'SIDWR Site Tag Identification No. E0007394Site Tag location description ON AIR BLEEDER ON DISCHARGE PIPING

PLS/USGS Locator _____

For Department/District Use OnlyReceived by gjh Date 1-14-98Reviewed by gjh Date 1-28-98Data Entry by OK Date 3-13-98

 From Water Distribution Section
 Records 7/5/2001. B. Contor

SECTION II INSTALLED METER INFORMATION

METER AND MOUNTING PIPE INFORMATION			
Date of meter Installation	unknown	Multiplier - Flow rate	1.0
Manufacturer	DATA INDUSTRIAL	Multiplier - Totalizer	x 100 (1000)
Meter Type	DIGITAL FLOW MONITOR	Location (good, fair, poor)	POOR (FAIR)
Model	900T	Pipe information	
Serial Number	020762	Pipe material	DI
Size (nominal)	6"	Outside Diameter	6.90"
Measure Flow Rate?	(circle one) Yes No	Wall Thickness	.31"
Measurement Units	(circle one) CFS GPM Other(specify)	Inside Diameter	6.28"
Measure Cumulative Volume?	(circle one) Yes No	Dist. of straight pipe upstream from meter	42" (7x)
Volume Units	Acre-Feet Yes No Other(specify) GAL	Dist. of Straight pipe downstream from meter	18" (3x)

SECTION III CERTIFICATION FOR CALIBRATION OF A WATER MEASUREMENT METER

See back page for instructions.

Measurement No. 1 (M_1) is the measured rate of flow from the permanently installed flow meter.

Measurement No. 2 (M_2) is the measured rate of flow from the measuring device being used to check the flow for the calibration. This method or device must be accurate to within $\pm 5\%$ error. Describe below the method and equipment used to perform this measurement.

$$\text{Percent Difference} = (M_1 - M_2) \div M_2 \times 100 = \pm \% \quad (\text{Acceptable is within } \pm 10\%) \quad (\text{equation 1})$$

$$\text{Calibration Multiplier} = M_2 \div M_1 \quad (\text{equation 2})$$

Is flowmeter installed according to manufacturer's specifications? Yes ☒ No ☐ Unsure

Describe any apparent problems with installation or operation 1/2" inlet from chlorinator located 9" downstream from flow sensor. When chlorinator is off flow increases by up to 50 gpm.

Flowmeter accuracy prior to any adjustments: _____ Totalizer reading _____

Flowmeter accuracy after final adjustment: _____ Totalizer reading _____

Flowmeter calibration multiplier: _____

From Water Distribution Section 2
Records 7/5/2001. B. Contor

Water Level Data

Does the well have access to measure water levels? Yes / No

Static Water Level _____ ft Pumping Water Level _____ ft (at condition # _____)
Date _____ Date _____

FLOWMETER ACCURACY CALIBRATION TABLE

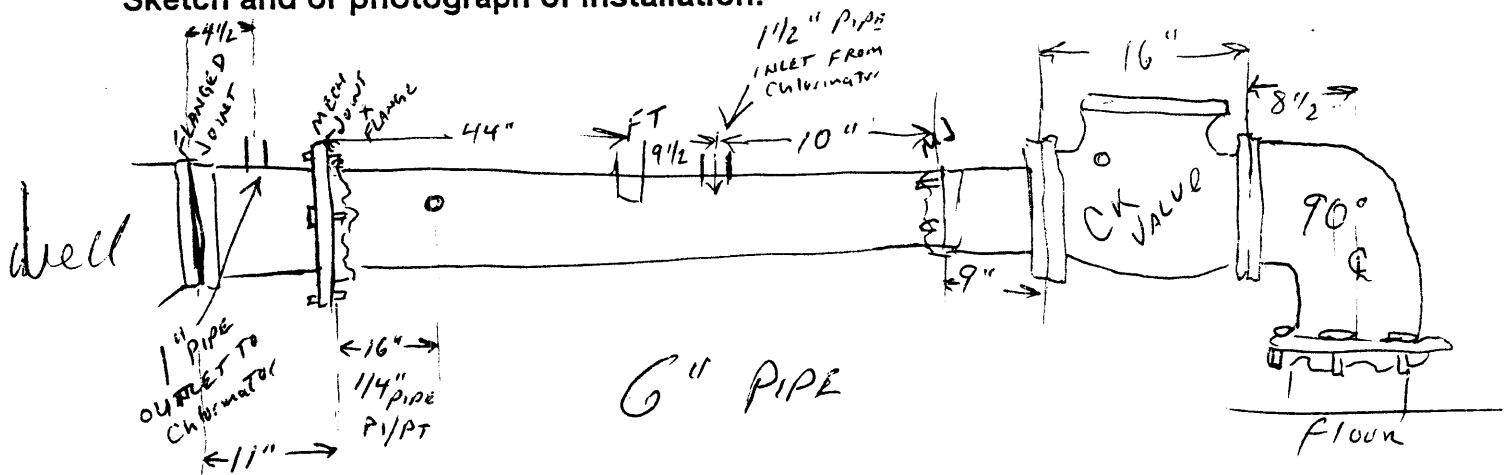
Owners meter (totalizer reading)	Time	Total Gallons	Ave. Flow Rate - GPM (M ₁)	Standard total gallons	Average flow rate (M ₂)	Percent diff. (±)	Comments and adjustments
4542365000 0				3000	300		
86800 10		3000	300				
		(display reads					
			331)		300	+10.3%	
		6	327		300	+9%	*

Notes, Comments or Calculations:

* This timed volume. No good. Did not time correctly

* Brian's calibration w/o multiplier is +8.9% -- use that

Sketch and or photograph of installation:



I certify that the above information is true and correct to the best of my knowledge and ability and the measurements taken and recorded are in accordance with the standards and specifications of the equipment used.

Signature Charles Figue
(person performing measurements)

Date 1-8-98

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
Water Measurement Program

Multiplier ~~5.34~~
see comments
0.92

1996 WATER MEASURING DEVICE CERTIFICATION

Date of Testing 3/4/98

Person performing test B. Niggs

Name:	<u>Chubbuck #1</u>
Water Right No:	<u>A-29-02385</u>
Legal Description:	T _____ R _____ Sec. _____ 1/4 _____ 1/4 _____ 1/4 _____
Site Tag No:	_____
Diversion Name:	_____

Current Owner
Name _____ Phone _____
Last, First, MI
Address _____ City _____ State _____ Zip _____

Operator (if leased or operated by someone else)
Name _____ Phone _____
Last, First, MI

SECTION I INSTALLED METER INFORMATION

METER AND MOUNTING PIPE INFORMATION			
Date of Installation		Multiplier - Flow rate	<u>1.0</u>
Manufacturer	<u>Date Industrial Impeller</u>	Multiplier - Totalizer	<u>1000</u>
Meter Type	<u>Turbeller</u>		
Model Number	<u>900T</u>	Pipe information	
Serial Number		Pipe material	<u>steel</u>
Size (nominal)		Outside Diameter	<u>6.923</u>
Measure Flow Rate ?	(circle one) <u>Yes</u> No	Wall Thickness	<u>0.293</u>
Measurement Units	(circle one) CFS <u>GPM</u>	Inside Diameter	
Measure Cumulative Volume ?	(circle one) <u>Yes</u> No	Dist. of straight pipe upstream from meter	<u>2'</u>
Volume Units	Acre-Feet <u>Yes</u> No Other (specify) <u>gls</u>	Dist. of Straight pipe downstrm from meter	<u>2'</u>

From Water Distribution Section
Records 7/5/2001. B. Contor

Fuji
Multiplier

Chubbuck #1

98-03-04 15:54:32
+3.230E+2 gal/m
+TOTAL 0000049 gal
NORMAL

98-03-04 15:56:31
+3.240E+2 gal/m
+TOTAL 0000688 gal
NORMAL

98-03-04 15:58:31
+3.244E+2 gal/m
+TOTAL 0001335 gal
NORMAL

98-03-04 16:00:31
+3.231E+2 gal/m
+TOTAL 0001981 gal
NORMAL

98-03-04 16:02:31
+3.230E+2 gal/m
+TOTAL 0002626 gal
ABNORMAL

323 gpm → use this

~~(.942)~~
~~(323)(0.942) =~~

~~304~~ See comments

From Water Distribution Section
Records 7/5/2001. B. Contor

SECTION II. CERTIFICATION

CALIBRATION OF A WATER MEASUREMENT METER

NOTE: Permanently installed flow meters must be calibrated at the time of installation and at least once every four years or whenever major repairs or maintenance has been performed. All documentation to support data such as notes, printout tapes, etc., should be attached to this form for submittal.

Measurement No. 1 (M_1) is the measured rate of flow from the permanently installed flow meter.

Measurement No. 2 (M_2) is the measured rate of flow from the measuring device being used to check the flow for the calibration. This method or device must be accurate to within $\pm 5\%$ error. Describe below the method and equipment used to perform this measurement.

$$\text{Percent Difference} = (M_1 - M_2) \div M_2 \times 100 = \pm \% \quad (\text{Acceptable is within } \pm 10\%)$$

FLOW RATE METHOD

Owners meter (M_1) GPM or CFS	Standard meter (M_2) GPM or CFS	Percent Difference ($\pm$)	Comments or Notes

From Water Distribution Section
Records 7/5/2001. B. Contor

VOLUME METHOD FROM METER TOTALIZER

Owners meter - (totalizer reading)	Time	Total Gallons	Ave. Flow Rate - GPM (M_1)	Standard total gallons	Average flow rate (M_2)	Percent diff. ($\pm$)
4501111	8:51.7				304	-0.84
4501114	8:31.00	3000	352	Fuji =	323*	+8.98%

+16%
+8.9%
+8.9%
+8.9%

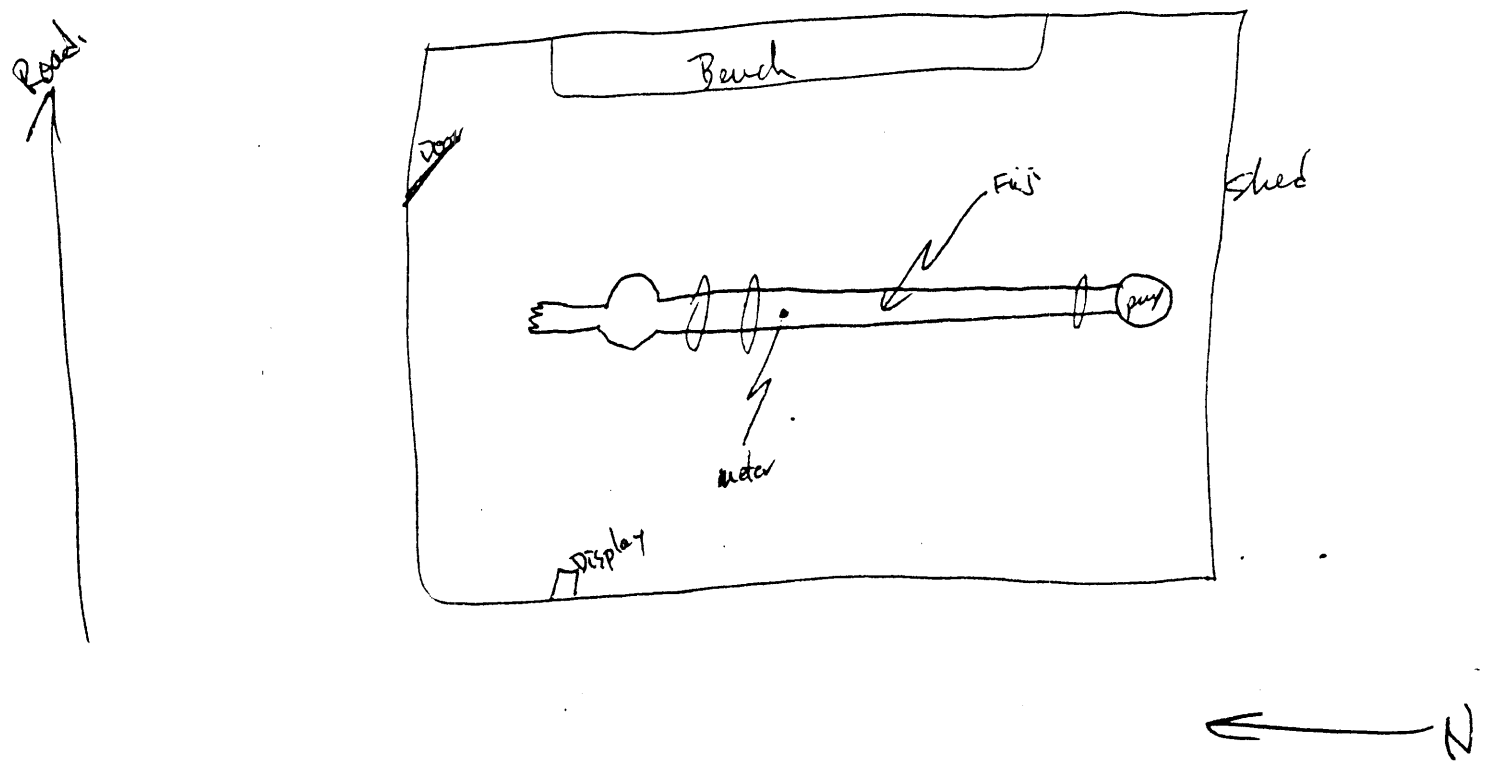
Mult = 0.92
-0.92

Notes, Comments or Calculations: 4 bars signal @ standard power.
Faru was section short.

The pipe is 6" so Fuji calibration factor applies.

* Terry Henderson has made a statement (per Scott) that problems w/ Fuji are more likely related to thin-wall pipe than to pipe dia, therefore won't apply Brian's Fuji calibration in this case.

Sketch and or photograph of installation:



Comments:
Dedicated air-line for w/l

I certify that the above information is true and correct to the best of my knowledge and ability and the measurements taken and recorded are in accordance with the standards and specifications of the equipment used.

Signature _____ Date _____
(person performing measurements)

For Department Use Only

Received by igl
Reviewed by agl
Data Entry by _____

Date 3-12-98
Date 3-12-98
Date _____

From Water Distribution Section
Records 7/5/2001. B. Contor

Addendum to Petition for Exclusion From a Water Measurement District

City of Chubbuck Points of Diversion:

Well # 2, Stuart Park

Water Right Number - 29-2413

✓ Point of Diversion location- NW1/4,SW1/4,Sec.3,T.6S,R.34E,BM

Description of Point of Diversion and Conveyance System-

Single deep well diverting water to a municipal storage system consisting of a 50,000 gal., 70,000 gal., and 1.5 million gal. tank.

Flow Meter -

A. Type - Data Industrial, Model 900T Digital Flow Monitor

B. Manufacturer - Data Industrial

C. Frequency of measurement readings - Daily

1. By whom - Charles Piquet, Water Technician

A. Address - PO Box 5604, Chubbuck, ID 83202

(NOT USED)

Water Level Recorder -

A. Type - Sounder

B. Manufacturer - Fisher M-Scope

C. Frequency of reading - Bimonthly

1. Static - Monthly

2. Pumping - Monthly

3. By whom - Charles Piquet, Water Technician

A. Address - PO Box 5604, Chubbuck, ID 83202

Well # 2 is an outcrop
source and will be
underpinned due to
H&E construction.
We will continue to
discharge for testing
purposes.

From Water Distribution Section
Records 7/5/2001. B. Contor

Addendum to Petition for Exclusion From a Water Measurement District

City of Chubbuck Points of Diversion:

Well # 3, Greener Pastures

Water Right Number - 29-2969

✓ Point of Diversion location- NW1/4,SW1/4,Sec.34,T.5S,R.34E,BM

Description of Point of Diversion and Conveyance System-

Single deep well diverting water to a municipal storage system consisting of a 50,000 gal., 70,000 gal., and 1.5 million gal. tank.

Flow Meter -

A. Type - Data Industrial, Model 900T Digital Flow Monitor

B. Manufacturer - Data Industrial

C. Frequency of measurement readings - Daily

1. By whom - Charles Piquet, Water Technician

A. Address - PO Box 5604, Chubbuck, ID 83202

Water Level Recorder -

A. Type - Sounder

B. Manufacturer - Fisher M-Scope

C. Frequency of reading - Bimonthly

1. Static - Monthly

2. Pumping - Monthly

3. By whom - Charles Piquet, Water Technician

A. Address - PO Box 5604, Chubbuck, ID 83202

From Water Distribution Section
Records 7/5/2001. B. Contor

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
Water Measurement Program

Multiplier 0.99

1996 WATER MEASURING DEVICE CERTIFICATION

Date of Testing 3/4/98Person performing test B. Higgs

Name:	<u>Chubbuck City #3</u>
Water Right No:	_____
Legal Description:	T _____ R _____ Sec. _____ 1/4 _____ 1/4 _____ 1/4 _____
Site Tag No:	<u>DEQ E 0007396</u>
Diversion Name:	_____

Current Owner

Name _____

Phone _____

Last, First, MI

Address _____ City _____ State _____ Zip _____

Operator (if leased or operated by someone else)

Name _____

Phone _____

Last, First, MI

SECTION I INSTALLED METER INFORMATION

METER AND MOUNTING PIPE INFORMATION			
Date of Installation		Multiplier - Flow rate	<u>10</u>
Manufacturer	<u>Data Industrial</u>	Multiplier - Totalizer	<u>1000</u>
Meter Type	<u>impeller</u>		
Model Number	<u>900T</u>	Pipe information	
Serial Number	<u>020809</u>	Pipe material	<u>steel</u>
Size (nominal)		Outside Diameter	<u>11.061</u>
Measure Flow Rate ?	(circle one) <u>Yes</u> No	Wall Thickness	<u>0.336</u>
Measurement Units	(circle one) CFS <u>GPM</u>	Inside Diameter	
Measure Cumulative Volume ?	(circle one) <u>Yes</u> No	Dist. of straight pipe upstream from meter	<u>3'</u>
Volume Units	Acre-Feet Yes <u>No</u> Other (specify) <u>gals</u>	Dist. of Straight pipe downstrm from meter	<u>2'</u>

From Water Distribution Section
Records 7/5/2001. B. Contor

Chubback #3

98-03-04 13:46:44
+1.293E+3 gal/m
+TOTAL 0001560 gal
NORMAL location #1

98-03-04 13:51:45
+1.270E+3 gal/m
+TOTAL 0007931 gal
NORMAL

1,277 gpm

98-03-04 13:56:45
+1.270E+3 gal/m
+TOTAL 0014310 gal
NORMAL

98-03-04 14:00:04
+1.400E+3 gal/m
+TOTAL 0000163 gal
NORMAL location #2

98-03-04 14:05:03
+1.400E+3 gal/m
+TOTAL 0007147 gal
NORMAL

1,402 gpm

Chubback #3
DEQ E0007396

98-03-04 14:11:00
+1.622E+3 gal/m
+TOTAL 0000429 gal
NORMAL

location #3

98-03-04 14:16:08
+1.636E+3 gal/m
+TOTAL 0008555 gal
NORMAL

98-03-04 14:21:08
+1.636E+3 gal/m
+TOTAL 0016672 gal
NORMAL

1,627 gpm

USE

From Water Distribution Section
Records 7/5/2001. B. Contor

SECTION II. CERTIFICATION - 3 CALIBRATION OF A WATER MEASUREMENT METER

NOTE: Permanently installed flow meters must be calibrated at the time of installation and at least once every four years or whenever major repairs or maintenance has been performed. All documentation to support data such as notes, printout tapes, etc., should be attached to this form for submittal.

Measurement No. 1 (M_1) is the measured rate of flow from the permanently installed flow meter.

Measurement No. 2 (M_2) is the measured rate of flow from the measuring device being used to check the flow for the calibration. This method or device must be accurate to within $\pm 5\%$ error. Describe below the method and equipment used to perform this measurement.

$$\text{Percent Difference} = (M_1 - M_2) \div M_2 \times 100 = \pm \% \quad (\text{Acceptable is within } \pm 10\%)$$

FLOW RATE METHOD

Owners meter (M_1) GPM or CFS	Standard meter (M_2) GPM or CFS	Percent Difference ($\pm$)	Comments or Notes
2168179	6.0775		
2168189	6.0465	10.000	= 16.45 gpm

VOLUME METHOD FROM METER TOTALIZER

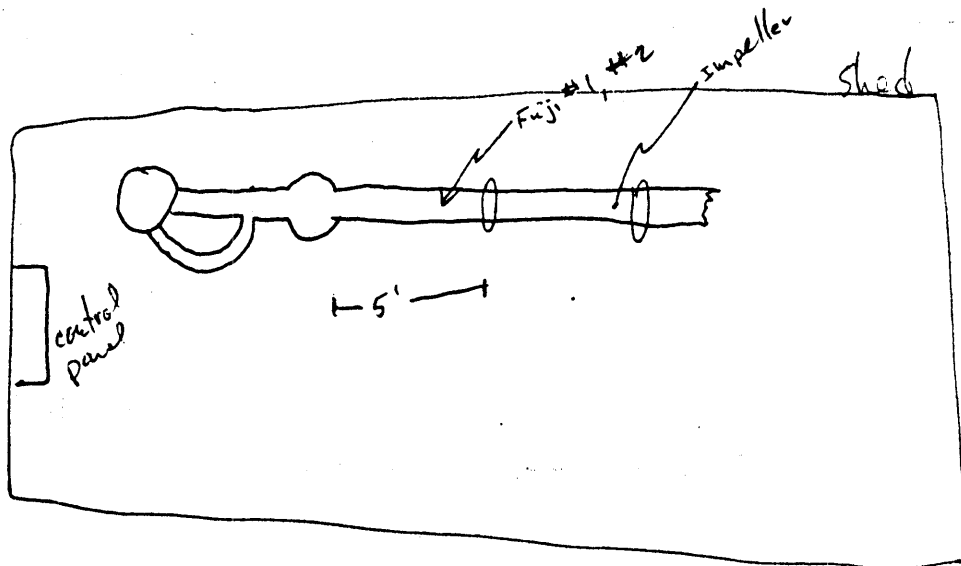
Owners meter - (totalizer reading)	Time	Total Gallons	Ave. Flow Rate - GPM (M_1)	Standard total gallons	Average flow rate (M_2)	Percent diff. ($\pm$)
2168134						
2168141	4:24.45	7000	1649			
2168148	8:28.65	14000	1651	Fuji = 1627		+4.1% 1.5%
2168165	7:39.7					Mult = 0.99
2168178	7:53.24	13,000	1646			

Notes, Comments or Calculations: Measured 3 locations. Right out of pump gave highest reading. Short section but 3 bars signal. 3 bars all 3 locations. Lots of fittings etc in-line making for a short section. Pump delivers water to a big tank. As wll gets higher the pressure builds up. I measured PCC as a good back up. Short section but good signal.

From Water Distribution Section
Records 7/5/2001. B. Contor

Sketch and or photograph of installation:

ROAD



From Water Distribution Section
Records 7/5/2001. B. Contor

Comments:

Dedicated air-line for water level.

I certify that the above information is true and correct to the best of my knowledge and ability and the measurements taken and recorded are in accordance with the standards and specifications of the equipment used.

Signature _____
(person performing measurements)

Date _____

For Department Use Only

Received by cjl

Date 3-12-98

Reviewed by cjl

Date 3-12-98

Data Entry by OK

Date 3-13-98

Addendum to Petition for Exclusion From a Water Measurement District

City of Chubbuck Points of Diversion:

Well # 4, Heritage West

Water Right Number - 29-7624

→ Point of Diversion location- SE1/4,SW1/4,Sec.4,T.6S,R.34E,BM

Description of Point of Diversion and Conveyance System-

Single deep well diverting water to a municipal storage system consisting of a 50,000 gal., 70,000 gal., and 1.5 million gal. tank.

Flow Meter -

- A. Type -Model 3000 receiver, model 155 Flow meter
- B. Manufacturer - Badger Meter Co.
- C. Frequency of measurement readings - Daily
 - 1. By whom - Charles Piquet, Water Technician
 - A. Address - PO Box 5604, Chubbuck, ID 83202

New meter. Need
~~info~~ info.

Water Level Recorder -

- A. Type - Sounder
- B. Manufacturer - Fisher M-Scope
- C. Frequency of reading - Bimonthly
 - 1. Static - Monthly
 - 2. Pumping - Monthly
 - 3. By whom - Charles Piquet, Water Technician
 - A. Address - PO Box 5604, Chubbuck, ID 83202

From Water Distribution Section
Records 7/5/2001. B. Contor

Addendum to Petition for Exclusion From a Water Measurement District

City of Chubbuck Points of Diversion:

Well # 5, 4070 Hawthorne Rd.

Water Right Number - In permit process 29-8188 *constructed 4/96*

Point of Diversion location- SW1/4,SW1/4,Sec.10,T.6S.,R34E.,BM

Description of Point of Diversion and Conveyance System-

Single deep well diverting water to a municipal storage system consisting of a 50,000 gal., 70,000 gal., and 1.5 million gal. tank.

Flow Meter -

- A. Type -Model 2100 Digital Flow Monitor
- B. Manufacturer - Data Industrial
- C. Frequency of measurement readings - Daily
 - 1. By whom - Charles Piquet, Water Technician
 - A. Address - PO Box 5604, Chubbuck, ID 83202

Water Level Recorder -

- A. Type - Sounder
- B. Manufacturer - Fisher M-Scope
- C. Frequency of reading - Bimonthly
 - 1. Static - Monthly
 - 2. Pumping - Monthly
 - 3. By whom - Charles Piquet, Water Technician
 - A. Address - PO Box 5604, Chubbuck, ID 83202

From Water Distribution Section
Records 7/5/2001. B. Contor

 From Water Distribution Section
 Records 7/5/2001. B. Contor

98-03-04 15:10:18
+2.613E+3 gal/m
+TOTAL 0001136 gal
NORMAL

98-03-04 15:12:17
+2.359E+3 gal/m
+TOTAL 0006146 gal
NORMAL

98-03-04 15:14:17
+2.569E+3 gal/m
+TOTAL 0011246 gal
NORMAL

2,538 gpm

DEQ E0007398
Chubbuck #5

From Water Distribution Section
Records 7/5/2001. B. Contor

SECTION II. CERTIFICATION CALIBRATION OF A WATER MEASUREMENT METER

NOTE: Permanently installed flow meters must be calibrated at the time of installation and at least once every four years or whenever major repairs or maintenance has been performed. All documentation to support data such as notes, printout tapes, etc., should be attached to this form for submittal.

Measurement No. 1 (M_1) is the measured rate of flow from the permanently installed flow meter.

Measurement No. 2 (M_2) is the measured rate of flow from the measuring device being used to check the flow for the calibration. This method or device must be accurate to within $\pm 5\%$ error. Describe below the method and equipment used to perform this measurement.

$$\text{Percent Difference} = (M_1 - M_2) \div M_2 \times 100 = \pm \% \quad (\text{Acceptable is within } \pm 10\%)$$

FLOW RATE METHOD

Owners meter (M_1) GPM or CFS	Standard meter (M_2) GPM or CFS	Percent Difference ($\pm$)	Comments or Notes
61729130			
61746541	6.9195	17.411	2516 gpm Fuji = 2538
61750108	8.335 8:20.12	20.978	2517 gpm

From Water Distribution Section
Records 7/5/2001, B. Contor

-0.92
1.01
Mult 110

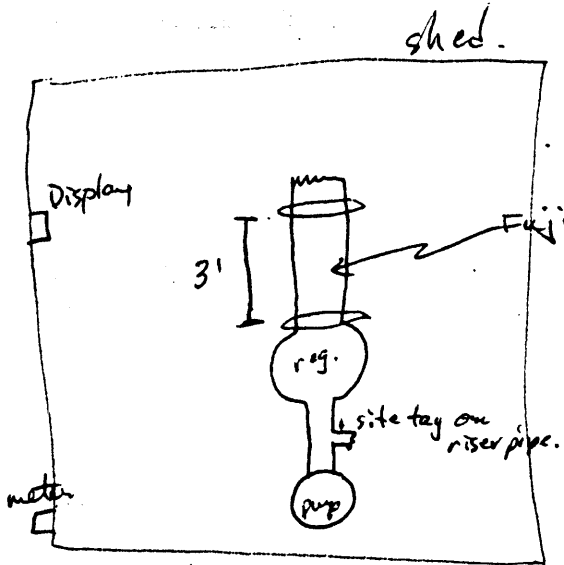
VOLUME METHOD FROM METER TOTALIZER

Owners meter - (totalizer reading)	Time	Total Gallons	Ave. Flow Rate - GPM (M_1)	Standard total gallons	Average flow rate (M_2)	Percent diff. ($\pm$)
9853220						
9853484	10:06.22					
61715685			Bad timing			
61719722	1:22.1 1:13.26	4037	3306	Fuji = 2538		
61722170						

Notes, Comments or Calculations: Very poor meas. Section 5 bars @ 8X power.
Lots of reg's valves etc is short exposed pipe. But, Fuji reading
steady @ 8X power. Had 3 bars at standard, 4 bars @ 4X.
The 7th-line meter reads in gallons. It is necessary to time totalizer
between increases.

This pump mostly used in summer to provide for watering lawns etc.

Sketch and or photograph of installation:



Meter must be underground.

Comments:

W/ access E side stand pipe

I certify that the above information is true and correct to the best of my knowledge and ability and the measurements taken and recorded are in accordance with the standards and specifications of the equipment used.

Signature _____
(person performing measurements)

Date _____

For Department Use Only

Received by cyh

Date 3-12-98

Reviewed by cyh

Date 3-12-98

Data Entry by _____

Date _____

From Water Distribution Section
Records 7/5/2001, B. Contor
