

IDAHO DEPARTMENT OF WATER RESOURCES
Water Measurement Program

POWER CONSUMPTION COEFFICIENT WORKSHEET

(Revised 6/2006)

District 11
 Diversion Name North well
 Inventory Date 7/10/07 Test Date 7/10/07
 Inventory Examiner CBurd Person performing test CBurd
 PCC o.k.? ☒ Yes ☐ No Exam complete? ☐ Yes ☐ No

Name:	<u>Paul Daines</u>
Water Right No.:	<u>11-7151</u> <u>11-2111</u>
Legal Description:	T <u>1/4</u> R <u>4SE</u> Sec. <u>5</u> SW <u>1/4</u> NE <u>1/4</u> SW <u>1/4</u>
Site Tag No.:	<u>A0010687</u>
Diversion Name:	<u>North well</u>

Current Owner

Name Paul H. Daines Phone 847-1069
 Address _____ Cell _____
 City _____ St _____ Zip _____ E-mail _____

Operator (if leased or operated by person other than owner)

Name Brad Woolstenhulme Phone 847-2850
 Address _____ Cell 317-7469
 City Dingle St 11 Zip _____ E-mail _____

Global Positioning System Data:

Data Collection Filename _____ Offset _____
 IDWR Site Tag Identification No. A0010687
 Site Tag Location description: Inlet pipe

PLS/USGS LOCATOR _____

For Department/District Use Only

Received by _____	Date _____
Reviewed by _____	Date _____
Data Entry By _____	Date _____

Well Pump and Motor Information

Pump Data		Motor Data	
Manufacturer	New man	Manufacturer	New man Co
Serial Number		Serial Number	V1069803
Model Number		Rated Horsepower	50
Type		Rated Amps	127/128.
Impeller Diameter		Rated Volts	440
Rated Speed		Rated Speed	1780 RPM.
Rated Discharge		Phase	3
Rated Head		Service Factor	1.15

Booster Pump and Motor Information

LR 9869.

Pump Data		Motor Data	
Manufacturer		Manufacturer	
Serial Number		Serial Number	
Model Number		Rated Horsepower	
Type		Rated Amps	
Impeller Diameter		Rated Volts	
Rated Speed		Rated Speed	
Rated Discharge		Phase	
Rated Head		Service Factor	

Power and Water Metering Information

Kilowatt-Hour Meter		Water Measurement Equipment and Pipe Information	
Utility	Pacificorp.	Std. Meter Manufacturer	Euji
Pole Number	052200	Std. Meter Model No.	31012
Meter Manufacturer	ABB Pacificorp.	Std. Meter Type (circle one)	Sonic Pyg Collins Hall Anub Dye/chem. Other
Meter Serial No.	02455563.	Std. Meter Confidence (circle one)	Excl Good Fair Poor 2% 5% 10% >10%
Disc Constant (Kh)	14.4.	PSI gauge ID location = discharge head	District / Owner _____ Yes / No
Rated Voltage	480 V.	Pipe Material	Steel.
Demand	43.86	Pipe Outside Diameter	8.17
Multiplier (Mult)	1	Pipe Inside Diameter	
CTR (Current) PTR (Voltage)	—	Distance of straight pipe upstream and down	Upstream _____ Downstream

Determination of Power Consumption Coefficient

Kilowatts of Energy Consumed

KW = 3.6 × Kh × Multiplier × No. of revolutions (N) ÷ Time (T) in seconds per N

Cond.#1 N = 30 (No. of Disc Rev) Time (sec) = (35.59)+(34.68)+(35.38)/3 = 35.18 Ave
 3.6 × 14.4 (Kh) × 1 (Mult) × 30 (N) ÷ 35.18 (T) = * 44.21 KW

Cond.#2 N = _____ (No. of Disc Rev) Time (sec) = (____)+(____)+(____)/3 = _____ Ave
 3.6 × _____ (Kh) × _____ (Mult) × _____ (N) ÷ _____ (T) = * _____ KW

Cond.#3 N = _____ (No. of Disc Rev) Time (sec) = (____)+(____)+(____)/3 = _____ Ave
 3.6 × _____ (Kh) × _____ (Mult) × _____ (N) ÷ _____ (T) = * _____ KW

Measured Flow Rate and Discharge Pressure – Enter flow rate as determined by the "standard" water measurement meter in GPM, and discharge pressure measured in PSI. Attach documentation to support data such as notes, printout tapes, etc.

GPM Cond. #1 * 550 565 (564.9) #2 * _____ #3 * _____
 PSI Cond. #1 * 30 #2 * _____ #3 * _____

Power Consumption Coefficient (PCC) = KW × 5431 ÷ GPM

PCC Cond #1 = * 44.21 (KW) × 5431 ÷ * 550 565 (gpm) = 425.04 (kWh/ac.ft) 436.55 CB

Qualifier Condition 1: 1 2 3 4 5 6 7 8 9 Other

Percent of seasonal use * _____ Description * _____

PCC Cond #2 = * _____ (KW) × 5431 ÷ * _____ (gpm) = _____ (kWh/ac.ft)

Qualifier Condition 2: 1 2 3 4 5 6 7 8 9 Other

Percent of seasonal use * _____ Description * _____

PCC Cond #3 = * _____ (KW) × 5431 ÷ * _____ (gpm) = _____ (kWh/ac.ft)

Qualifier Condition 3: 1 2 3 4 5 6 7 8 9 Other

Percent of seasonal use * _____ Description * _____

Is the system operator required to track and report changes in system operation? ~ Yes ~ No (check one)

System Type (circle all that apply): Pivot, linear / Wheel In / Hand In / Gated pipe, flood / Drip / Open Discharge

	Crop Type	Number of Acres
1	grain (wheat) oats	95.4
2	grain	144.8
3		
4		
Total Acres =		

WATER LEVEL DATA	
Does the well have access to measure water levels? ~ Yes ~ No (check one)	
Is this well part of USGS, IDWR, or another <u>network</u> of water level monitoring wells? ~ Yes ~ No ~ Uncertain	
Static Water Level <u>8</u> ft Date <u>12/13/83</u>	Pumping Water Level _____ ft at condition # _____) Date _____

Further describe system operating conditions (if necessary) and how percentage of seasonal use was obtained: _____

Sketch of pumping plan layout or photograph of pumping plant and piping:

Notes – Comments – Calculations: I found out later after talking with Brad the lessee that the South well and the well under license 11-2111 are tied together and operates 2 pivots or one pivot and wheel lines.

The day I measured the wells it was operating the 2 pivots. Tuesdays & Thursday the power shuts off from 2-8 pm.

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

Cindy L. Bird
(person performing measurements)

Date

7/26/07

PCC Qualifiers

- 1- Simple System with one operating condition, current valid PCC
- 2- Multiple operating conditions, all PCC measured and within 10%
- 3- Multiple Operating conditions, PCC's differ > 10%, tracking required
- 4- Multiple Operating Conditions PCC's differ > 10% tracking not reported use Low PCC
- 5- Multiple Operating Conditions not all PCC's available but could be
- 6- Known problems with Reported KWH data
- 7- Measured PCC during flow meter Calibration
- 8- Complex system where time clock or flowmeter may be more accurate
- 9- PCC estimated, not actually determined by measurement
- 10- N- No PCC Measurements made
- 11- Q- Other qualifying conditions see PCC comments for explanation
- 12- Z- Zero Pumpage

A0010687

GPM 550 1.23 CFS
NORTH WELL_PAUL DAINES

LOG NAME :A10687
START :07-10 11:40
END :07-10 11:50
INTERVAL :00:01:00

07-10 11:40:00
+3.710E+0 ft/s
+5.613E+2 gal/min
+TOTAL 0000000 gal
-3.160E+0 ANALOG IN
NORMAL

07-10 11:41:00
+3.858E+0 ft/s
+5.839E+2 gal/min
+TOTAL 0000564 gal
-3.160E+0 ANALOG IN
NORMAL

07-10 11:42:00
+3.882E+0 ft/s
+5.874E+2 gal/min
+TOTAL 0001137 gal
-3.160E+0 ANALOG IN
NORMAL

07-10 11:43:00
+3.743E+0 ft/s
+5.664E+2 gal/min
+TOTAL 0001705 gal
-3.160E+0 ANALOG IN
NORMAL

07-10 11:44:00
+3.714E+0 ft/s
+5.620E+2 gal/min
+TOTAL 0002268 gal
-3.160E+0 ANALOG IN
NORMAL

07-10 11:45:00
+3.794E+0 ft/s
+5.741E+2 gal/min
+TOTAL 0002750 gal
-3.160E+0 ANALOG IN
NORMAL

07-10 11:46:00
+3.857E+0 ft/s
+5.836E+2 gal/min
+TOTAL 0002750 gal
-3.160E+0 ANALOG IN
NORMAL

07-10 11:47:00
+3.732E+0 ft/s
+5.648E+2 gal/min
+TOTAL 0002750 gal
-3.160E+0 ANALOG IN

POINT OF
DIVERSION #2



VIEW LOOKING NORTH



POINT OF
DIVERSION #2

VIEW LOOKING SOUTH

11-07151