PCC W 7-02

IDAHO DEPARTMENT OF WATER RESOURCES
Water Measurement Program

POWER CONSUMPTION COEFFICIENT WORKSHEET

(Revised 6/2006)

District 1

Diversion Name South well - under permit 11-7151

Inventory Date 7/10/07 Test Date 7/10/07

Inventory Examiner CBuck Person performing test CBuck

PCC o.k.? ☐ Yes ☒ No Exam complete? ☐ Yes ☐ No

Name: Paul H. Daines
Water Right No.: 11-7151, 11-2111
Legal Description: T 14S R 45E Sec. 5 SW ¼ SE ¼ SW ¼
Site Tag No.: A0010686
Diversion Name: South well

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 ID Zip _____ E-mail _____

Global Positioning System Data:

Data Collection Filename _____ Offset _____

IDWR Site Tag Identification No. A0010686

Site Tag Location description: _____

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		Manufacturer	Newman
Serial Number		Serial Number	32027031I
Model Number		Rated Horsepower	75
Type		Rated Amps	
Impeller Diameter		Rated Volts	460
Rated Speed		Rated Speed	1776.
Rated Discharge		Phase	3
Rated Head		Service Factor	1.15.

Booster Pump and Motor Information

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	Fuji
Pole Number	053000	Std. Meter Model No.	51012
Meter Manufacturer	Sangamo	Std. Meter Type (circle one)	(Sonic) Pyg Collins Hall Anub Dye/chem. Other
Meter Serial No.	42497217	Std. Meter Confidence (circle one)	Excl Good Fair Poor 2% 5% 10% >10%
Disc Constant (Kh)	57.6.	PSI gauge ID location ≅ discharge head	District / Owner _____ Yes / No
Rated Voltage	480V.	Pipe Material	Steel
Demand	12.2	Pipe Outside Diameter	8.70
Multiplier (Mult)	24.	Pipe Inside Diameter	
CTR (Current) PTR (Voltage)	~	Distance of straight pipe upstream and down	Upstream 2 Downstream 1

.216 5.37

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 = 7 (No. of Disc Rev) **Time** (sec) = (30.50)+(30.78)+(31.13)/3 = 30.80 Ave

3.6 × 57.6 (Kh) × 24 (Mult) × 7 (N) ÷ 30.80 (T) = * 1131 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 * 658 #2 * _____ #3 * _____

PSI Cond. #1 * 80 #2 * _____ #3 * _____

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

PCC Cond #1 = * 6 (KW) × 5431 ÷ * 658 (gpm) = _____(kWh/ac.ft)

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 ln / Hand ln / Gated pipe, flood / Drip / Open Discharge

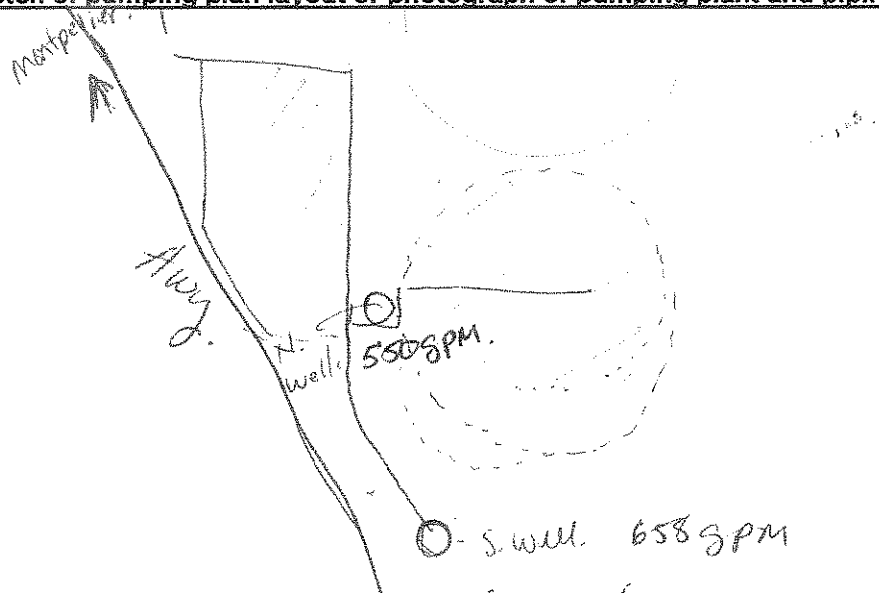
	Crop Type	Number of Acres
1	grain ? oats	95.8
2	grain ?	143.6
3		
4		
	Total Acres =	

Both, the N & S. well were on and the well under 11-2111 to get enough water to operate the 2 pivots.

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 network of water level monitoring wells? ~ Yes ~ No ~ Uncertain	
Static Water Level _____ ft Date _____	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: About 4 years ago Bud Wolstenholme connected this well and the north well to the well under WR 11-2111 because of low flows. They were irrigating with 2 pivots the day I was out measuring the flows.

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 Date 7/26/07

(person performing measurements)

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 avaible 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

A0010686

LD14
No. 14
LOG NAME :A10686
START :07-10 13:36
END :07-10 13:46
INTERVAL :00:01:00

07-10 13:36:00
+4.031E+0 ft/s
+6.746E+2 gal/min
+TOTAL 0000000 gal
NORMAL

07-10 13:37:00
+3.877E+0 ft/s
+6.488E+2 gal/min
+TOTAL 0000650 gal
NORMAL

07-10 13:38:00
+3.941E+0 ft/s
+6.596E+2 gal/min
+TOTAL 0001310 gal
NORMAL

07-10 13:39:00
+3.904E+0 ft/s
+6.533E+2 gal/min
+TOTAL 0001973 gal
NORMAL

07-10 13:40:00
+3.927E+0 ft/s
+6.572E+2 gal/min
+TOTAL 0002634 gal
NORMAL

07-10 13:41:00
+3.972E+0 ft/s
+6.647E+2 gal/min
+TOTAL 0003293 gal
NORMAL

07-10 13:42:00
+3.932E+0 ft/s
+6.580E+2 gal/min
+TOTAL 0003955 gal
NORMAL

07-10 13:43:00
+3.890E+0 ft/s
+6.510E+2 gal/min
+TOTAL 0004609 gal
NORMAL

07-10 13:44:00
+3.932E+0 ft/s
+6.581E+2 gal/min
+TOTAL 0005265 gal
NORMAL

GPM: 658 1.47 CFS
SOUTH WELL_PAUL H. DAINES

POINT OF DIVERSION #1 (SOUTH WELL)

LOCATION OF WELL #1 (SOUTH WELL)

POINT OF DIVERSION #2 (NORTH WELL)

11-07151