

CONFIDENTIAL/PROPRIETARY INFORMATION

Ralph Heringer
Rec Dist 2028 Bacon Island
P O Box 4005
Stockton, CA 95204

Thursday, Oct 03, 2024

SUBJECT: PUMPING COST ANALYSIS
HP: 100.00 Plant: North Pump 2
PUMP TEST REFERENCE NUMBER: PT-28969
PUMP TEST RUN: Run 1

The following Pumping Cost Analysis is presented as an aid to your cost accounting. This analysis is an estimate prepared from operating criteria supplied from the pump test performed Sep 30 2024 and information provided by you during the pump test.

It is recommended and assumed that:

- Overall plant efficiency can be improved to: 74.7%
- Water requirements will be the same as for the past year
- All operating conditions (annual hours of operation, discharge head, and water pumping level) will remain the same as they were at the time of the pump test

	EXISTING PLANT EFFICIENCY	IMPROVED PLANT EFFICIENCY	SAVINGS
kWh/AF	38.7	38.7	*
Estimated Total kWh	81,602	81,602	*
Average Cost per kWh	\$0.18	\$0.18	
Average Cost per hour	\$15.06	\$16.65	*
Cost Per Acre Ft.	\$7.14	\$7.14	*
Estimated Acre Ft. Per Year	2,108.69	2,108.69	
Run Hours	1,000.00	1,000.00	
Overall Plant Efficiency	74.7%	74.7%	
Estimated Total Annual Cost	\$15,065.41	\$15,065.41	*

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will be continued. If you have any questions, please contact Bill Power at (209) 527-2908.

Regards,

William Thomas Power, III

Enclosures



Report ID: PT-28969

6301 Bearden Lane
Modesto, CA 95357
209.527.2908
fax
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Agricultural and Domestic Pump Test Report Rec Dist 2028 Bacon Island - North Pump 2 - Run 1

Latitude: 38.435
Test Date: Sep 30 2024

Longitude: -121.54816
Tester: Devin Power

Elevation: 0
Nameplate HP: 100.00

Customer Information Rec Dist 2028 Bacon Island P O Box 4005 Stockton, CA 95204 Contact: Ralph Heringer Cell: 916-777-6091	Power Company Data PG&E Meter #: 1010055722 Rate Schedule: AG5B Average Cost: \$0.18	Equipment Data Motor Make: U.S. Volts/Amps: 460V/121.00A Serial #: C1007149 Pump Make: No Name Plate Pump Type: Mix Flow Drive Type: Electric Motor Gearhead Make:
Hydraulic Data Pumping Water Level (PWL): 16.00 ft Discharge Pressure: 5.30 PSI Discharge Level: 12.24 ft Total Lift: 28.24 ft Water Source: Canal	Flow Data Run Number: 1 of 1 Measured Flow: 11452 gpm Customer Flow: 0 gpm Flow Velocity: 8.61 ft/sec Acre Feet per 24 Hr: 50.67 Cubic Feet Per Second (CFS): 25.51 ft	
Power Data Horsepower Input to Motor: 109.38 hp Brake Horsepower: 99.54 hp Kilowatt Input to Motor: 81.6 kW Energy Cost: \$15.06/hr Nameplate RPM: 900 rpm VFD: 0 hz Percent of Rated Motor Load: 100% Kilowatt Hours per Acre Foot: 38.7 Cost to Pump an Acre Foot: \$7.14 Overall Plant Efficiency: 74.67% Water Horsepower: 81.68 hp Run Hours: 1000		
Remarks All results are based on conditions during the time of the test. If these conditions vary from the normal operation of your pump, the results shown may not describe the pump's normal performance. <hr/> This pump has an adequate test section. <hr/> This pump did not have a flow meter. <hr/> Based on information obtained at the time the test was performed, this test represents the pumps standard operating conditions. <hr/> HPI measured with direct read KWI. <hr/> Overall efficiency of this plant is considered to be very good assuming this run represents plant's normal operating condition. <hr/>		



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Pump Name: North Pump 2

HYDRAULIC TEST RESULTS

PT-28969

Test Date: Sep 30 2024

Tester: Devin Power
Meter #: 1010055722
Annual Run Hrs: 1000

Utility: PG&E
Rate Sched: AG5B
Avg Cost kWh: \$0.18

Meter kWh: 4.80
Meter Const: 80

Motor Make: U.S.
Volts: 460
Gearhead Make:
Pump Make: No Name Plate
Water Source: Canal

Motor Serial: C1007149
Amps: 121.00
Nameplate RPM: 900
Pump Type: Mix Flow

Horsepower: 100.00
Drive Type: Electric Motor
Pipe Diameter: 23.31

Results	Test 1
Discharge Pressure, PSI	5.30
Standing Water Level, Feet	0
Recovered Water Level	0.00
Drawdown, Feet	16
Discharge Head, Feet	12.24
Pumping Water Level, Feet	16.00
Total Measured Head, Feet	28.243
Measured GPM	11452.00
Customer Meter, GPM	
Well Yield, GPM/ft Drawdown	715.75
Acre Feet Pumped in 24 Hours	50.67
kW Input to Motor	81.6
HP Input to Motor	109.38
Motor Load %	99.5
Measured Speed of Pump, RPM	
VFD, Hz:	
kWh per Acre Foot	38.7
Overall Plant Efficiency (%)	74.7
Energy Cost per Hour	15.06
Water Horsepower, hp	81.68
Flow Velocity, ft/sec	8.61