

ALCORN PUMP



WATER FILTRATION

WA License #'s (ALCORH824KJ) (ALCORPF825RP) (ALCORPF8259P)

AZ ROC License # 339937

Bonded and Insured

WELL INSPECTION REPORT

CUSTOMER NAME:

Louis and Kelley Johnson – Buyer
Danny Caudle - Agent

INSPECTION DATE:

2/26/2024

PROPERTY ADDRESS:

Barn well
19875 S Wagoner Rd
Kirkland, AZ 86332

INSPECTOR NAME:

Josh Inman, CPI - Service Manager

WATER SOURCE INFORMATION

SOURCE: DRILLED OTHER _____ Single Family Well Shared Well Community Well

WELLOG LOCATED ONLINE: YES NO **IF SO, WELL ID:** 55-583529 **WELL DEPTH:** 205'

WELL LOCATION: Outside Inside Pump House Vault/Underground Unknown Other

GOOD ACCESS TO WELL HEAD: YES NO **CASING TYPE & DIAMETER:** Steel 8"

DISTANCE FROM POTENTIAL POLLUTION SOURCES: 100' +

WELL HEAD INFORMATION: CAP SANITARY SEAL VENTED? YES NO VERMIN PROOF? YES

NO **OVERALL CONDITION:** GOOD OPERABLE NEEDS REPLACEMENT

NOTES: Roof of pump shed would have to be removed to replace the well pump. Barn/Irrigation well

WELL PUMP AND CONTROL EQUIPMENT

TYPE OF SYSTEM: Submersible pump, Pressure tank, Control box

SUBMERSIBLE PUMP: YES NO **LOCATION OF PUMP:** In well

BRAND/MODEL: Unknown **HP:** 3 HP **PHASE:** Single

VOLTAGE: 230 **MAX AMP:** 17.0 **RUNNING AMP:** 18.6 **PUMPING RATE:** 10.5 GPM

OHMS VALUES: RY: 4.5 BY: 1.8 RB: 5.7 **WIRE SIZE:** # 10 Flat jacket

PUMP'S RUNNING DURATION FROM CUT IN TO CUT OUT: 7 seconds

GROUNDING? YES NO **CONDITION:** GOOD **OPERABLE** NEEDS REPLACEMENT

CONTROL BOX: YES NO **BRAND:** Franklin Electric

HP 3 HP **CONDITION:** GOOD OPERABLE NEEDS REPLACEMENT

VFD CONTROLLER: YES NO **BRAND:** _____

HP: _____ **CONDITION:** GOOD OPERABLE NEEDS REPLACEMENT

WELL PUMP AND CONTROLLER NOTES:

No contactor in control box. The ohms values are at the high end of the manufacture specs which is a sign of age and wear. Pump was constantly cycling on and off due to bad pressure tank.

Control box date code: 12/27/2002

Starting meter – 3681 Ending meter – 3786 Pump duration - 10 min Gallons pumped - 105

Average GPM – 10.5

WATER STORAGE

RESERVOIR: YES NO **BURIED?** YES NO **TYPE:** _____

QUANTITY: _____ **SIZE:** _____ **LOCATION:** _____

CONDITION: GOOD OPERABLE NEEDS REPLACEMENT

NOTES:

No reservoir on site.

BOOSTER PUMP AND CONTROL EQUIPMENT

BOOSTER PUMP(s): YES NO **LOCATION OF PUMP(s):** _____ **QTY:** _____

WIRE SIZE: _____ **BRAND/MODEL:** _____

VOLTAGE: _____ **MAX AMP:** _____ **RUNNING AMP:** _____ **PUMPING RATE:** _____

OHMS VALUES: RY: _____ BY: _____ RB: _____

PUMP'S RUNNING DURATION FROM CUT IN TO CUT OUT: _____

GROUNDING? YES NO **CONDITION:** GOOD OPERABLE NEEDS REPLACEMENT

CONTROL BOX: YES NO **QUANTITY:** _____ **BRAND:** _____

HP _____ **CONDITION:** GOOD OPERABLE NEEDS REPLACEMENT

VFD CONTROLLER: YES NO **QUANTITY:** _____ **BRAND:** _____

HP: _____ **CONDITION:** GOOD OPERABLE NEEDS REPLACEMENT

NOTES:

No booster system on site.

PRESSURE TANK/'S

PRESSURE TANK/'S: YES NO NUMBER OF TANKS: 1 2 3 4 5

MAKE: Amtrol Proline TYPE: Diaphram GOOD ACCESS? YES NO

LOCATION: Pump shed DATE CODE: 12/27/2002

SIZE: 86 Gallon PSI: 0 BURIED? YES NO

PRESSURE SWITCH: Square D RANGE: 30-50 PSI SENSOR: N/A

CONDITION: GOOD OPERABLE NEEDS REPLACEMENT

NOTES:

Pressure tank is water logged

Pressure switch has burnt electrical contacts

Pressure gauge is broken

PLUMBING AND ELECTRICAL

WIRING FROM C/B TO TOP OF WELL HEAD IS? # 10 Flat jacket

WIRING FROM TOP OF WELL HEAD DOWN TO MOTOR? # 10 Submersible Flat jacket

IS THERE A PUMP HOUSE? YES NO NOTES: Pressure tank and Control box in pump shed

IS WIRING UP TO CODE? YES NO

CONDITION OF WIRING: GOOD OPERABLE NEEDS REPLACEMENT

IS WIRING IN CONDUIT? YES NO IS WIRING SAFE? YES NO

IS PLUMBING UP TO CODE? YES NO

CONDITION OF PLUMBING: GOOD OPERABLE NEEDS REPLACEMENT

NOTES:

3/4 PVC SCH 40 plumbing inside of pump shed shows of age (discolored)

FILTRATION AND WATER TESTING

IS THERE CURRENT FILTRATION EQUIPMENT? YES NO

BRAND: _____ TYPE: _____

SIZE? _____ APPROX. AGE: _____

CONDITION OF FILTRATION: GOOD OPERABLE NEEDS REPLACEMENT

NOTES:

No Filtration equipment

FIELD WATER TESTING PERFORMED BY INSPECTOR

Raw H2O Mineral Test

Treated H2O Mineral Test

Good Operational H2O Parameters

7.8 PH

_____ PH

PH 6.8-7.8

ND Iron

_____ Iron

Iron 0.5 ppm

12 Grains Hard

_____ Grains Hard

Hardness Soft – 3 Grains

N/A TDS

_____ TDS

LABORATORY TESTING

WATER SAMPLES TAKEN BY ALCORN PUMP & SENT TO THE LAB: YES NO _____

WERE SAMPLES TAKEN POST FILTRATION? YES _____ NO _____

SAMPLES WERE TAKEN AT/FROM: Mineral testing at yard hydrant outside of pump shed

TAKEN TYPE: BACTERIA ARSENIC NITRATE LEAD OTHER : _____

THE WATER SAMPLES TAKEN HAVE BEEN SUBMITTED TO THE LAB, PLEASE NOTE WE ARE THE THIRD-PARTY HANDLER & WATER SAMPLES CAN TAKE 7-10 BUSINESS DAYS BEFORE RECEIVED BACK FROM THE LAB! ONCE THE RESULTS ARE RECEIVED BACK, WE WILL FORWARD THOSE OVER VIA EMAIL ONCE THE INVOICE IS PAID AND SAMPLES HAVE BEEN REVIEWED.

NOTES ON WATER TESTING:

The EPA does not regulate private wells, private well owners are responsible for the safety of their water source:
<https://www.epa.gov/private-wells>

SUMMARY

SUMMARY OF THE WELL INSPECTION AS FOLLOWS:

The well and pump related equipment are located behind the barn in a separate shed. Water is pumped by a submersible pump in the well up to the pressure tank located in the shed. Water leaves the pump shed in a single 3/4" Sch 40 PVC waterline.

The well pump shows signs of wear and age in both the electrical ohms values of the motor windings and in the running amperage. The ohms values are at the high end of manufacture specs and the running amperage exceeds maximum manufacture specs. The pressure tank has no air in it and is waterlogged which causes the well pump to cycle on and off during use far more than it should which is putting additional wear and tear on the well pump. The pressure switch has a lot of carbon build up on the electrical contacts and is not sized appropriately for this well pump system and its components. Also noted, the pressure gauge is not functioning properly. As seen in the pictures the electrical wiring inside of the pump shed is not in conduit.

RECOMMENDATIONS

With every water well system we recommend Annual Well Service and safety checks. Servicing your water system each year will help extend the lifespan of your well pump equipment.

Alcorn Pump recommends that private well owners test their drinking water each year. Contaminants can change and these contaminants rapidly could affect a person's health. Visit the Department of Health for a list of what you should test for and when. WWW.AZDHS.GOV

Other specific recommendations are as followed, and estimates may be available upon request:

- 1) While the system is operating at this time it is recommended that the well pump, pump control box, pressure tank, pressure switch and pressure gauge be replaced.

This Report is not to be used to determine compliance with any regulations, laws, or rules. Its sole purpose is to attempt to evaluate the operating performance of the well and pump(s) at the time of inspection. Anything can change at a moment's notice.

PHOTOS



Well head Pressure tank and Control box



Control box



Pressure tank date code sticker



Well head



Running amperage of well pump



Pressure switch



Pump Flow test at yard hydrant