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St Paul, Indiana Well Maintenance

Ortman Drilling, Inc is pleased to provide you with this general outline of Professional Services in regard to your water supply wells.

I have some records from testing of the wells in 2012 and 2014 by Ortman. I also have information from some testing in 2015, then the data I have jumps to Well 2 in 2024 when it was off in capacity to the point that it could not produce 60 gallons per minute – at this point I presume that the well was cleaned but I have no information on any work completed or additional test pumping results – an evaluation of all data available is always critical to making informed decisions. The only information I have for well 1 is from my testing in 2012 and 2014.

As a process to keep track of the well condition, along with the pump system health, Annual Maintenance Inspections can be done. This is a process of pumping the well to open discharge so that pump rates can be evaluated more efficiently. During this testing we would monitor the following items:

- Discharge flow rate
- Discharge pressure
- Pump motor amps
- Pumping water levels
- Quality of water – sand content and color

With this information, we can compare, from year to year, or every other year basis, all the information to give some indication as to the need for additional maintenance and give some time for budgeting of any work that may be needed.

As part of a more comprehensive evaluation, we can also pull the pump systems out for visual inspection, then “clear” the well for a Downhole Color Video – this can give additional insight to the condition of the well screen – is it becoming plugged or if there are other concerns that may affect the long-term health of the well. Certainly, the pulling of a pump is not done every year but on a 6 or 7 year cycle unless other observed conditions indicate a need for further evaluation.

The data I have for Well 2 from 2024 suggests that the pump system is designed to produce approximately 200gpm but as the screen became plugged it was TRYING to pump more than the well could produce and causing a more rapid decline of well capacity. Periodic testing of the wells can identify this type of problem before it becomes a serious situation. Also, the correct sizing of a pump system with pressure and flow rates that are sustainable and needed is critical for the long-term life of a well.



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As a well becomes plugged and is having difficulty meeting demand, a well rehabilitation process can be completed. In the case of your wells, given their age, it is more important to maintain the asset as visual plugging (accumulation of iron, manganese, and calcium) in the screen interval can also be migrating out into the surrounding formation causing the well rehabilitation procedure to be less effective even if the screen appears to be “clear” during a video inspection – this can be noted as a continual decline in well production even after a well rehabilitation procedure but requires a series of testing reports to identify the trend.

In your situation, given the age of the two wells, the complete failure of one well leaves you with only a single well, and given that these are mechanical systems prone to failure, downtime of one well or the process of installing a replacement well while existing on a single functioning well can lead to a critical situation if another failure occurs.

My recommendation is that you maintain your existing wells but work toward budgeting the installation of a new well and then operating all three – at that time, complete failure of one of the older wells is not as critical.

If you have any questions or need additional information, please let me know at 765-438-8087.

Respectfully,

A handwritten signature in black ink that reads "Phil Bonneau".

Phil Bonneau, CPG
Ortman Drilling & Water Services