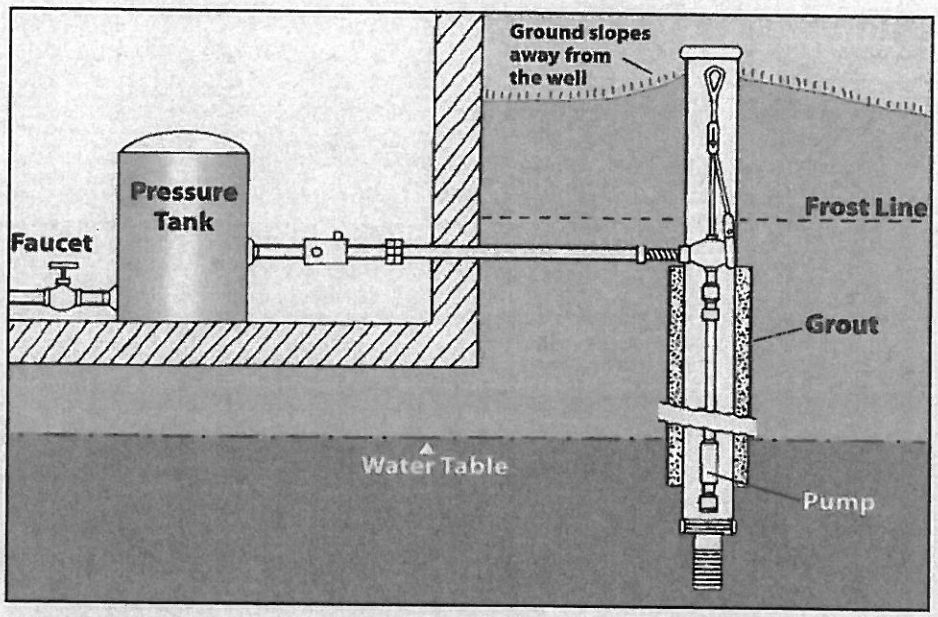
Information and Guidelines for Your Water Well

Water Well Records

Property owner and location: _____

The quality of your private water system is determined by **you**! For the health of you and your family, keep records on your well water quality, any maintenance performed on your well, and consult a professional with any concerns.



Folder Contents:

❒ Permit application ❒ Construction report

❒ Permit ❒ Well log

❒ Water quality test results

Property service address: _____

_____

Drilling contractor:

Name: _____

Address: _____

_____

Phone: _____

Date Well Drilled:

_____

System Description:

Max gallons per minute (gpm): _____

Pump depth: _____

Pump type: _____

Pump installation date: _____

Water Quality Treatment System:

❒ yes ❒ no

If "yes," what type:

❒ water softener ❒ chlorination

❒ distillation ❒ reverse osmosis

❒ ozonation ❒ oxidizing filters

❒ activated carbon filters

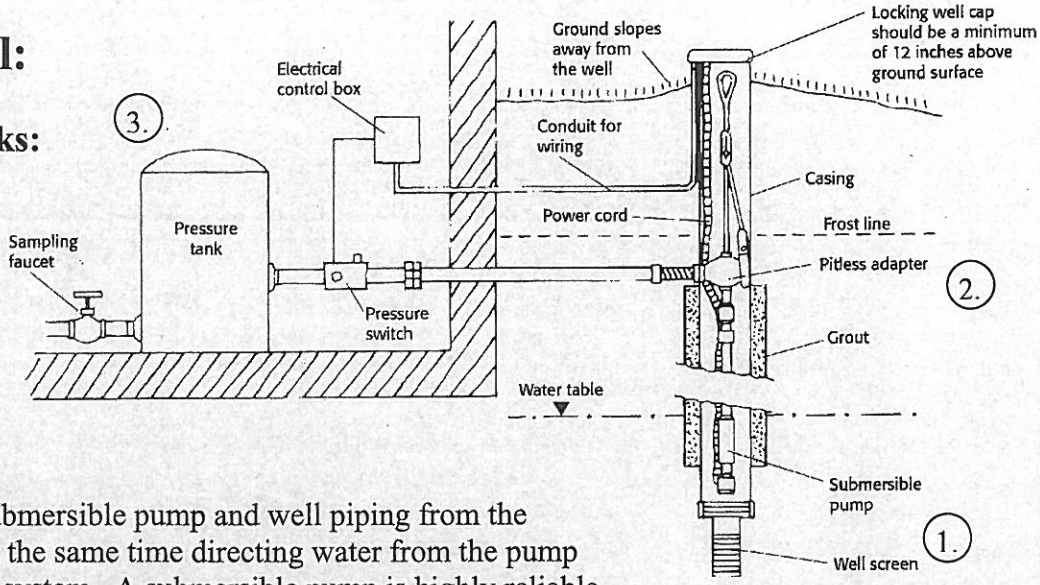
❒ mechanical filtration

❒ ultraviolet radiation

Date installed: _____

Inside your well:

How the Pump works:



1. Instead of lifting the water to the ground surface, most wells have submersible pumps that will actually push the water up.

2. The pitless adapter provides access to the submersible pump and well piping from the top of the well casing, at the same time directing water from the pump into the house plumbing system. A submersible pump is highly reliable, sometimes running for 20 years without servicing.

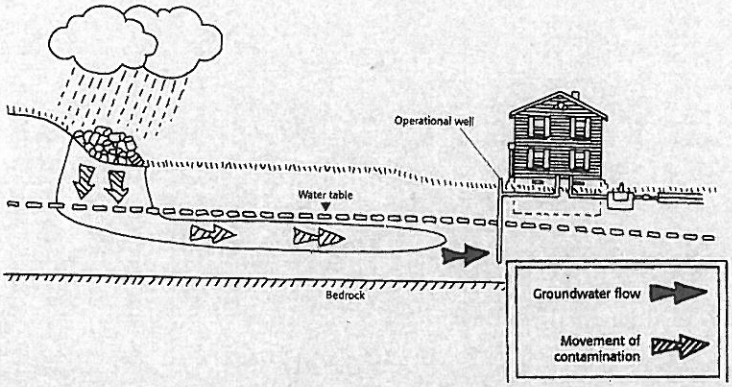
3. Your pump is not supposed to run constantly. The pressure tank and the air bladder inside the tank ensures that your pump is not always running. Water is pumped into the tank until the air bladder is compressed to a selected pressure, at which time the pumping stops. This selected pressure ranges between 40 to 60 pounds per square inch (psi). Water then exits the pressure tank as it is used in the home, dropping the bladder pressure. The pump will restart when the air bladder pressure has dropped about 20 psi.

Typical System Terminology:

Aquifer – a water bearing layer of sediment or rock
Borehole – the cylindrical hole drilled into the aquifer
Casing – steel or PVC pipe placed in the borehole to keep the borehole open and to allow a void to store water and install a pump; this includes **surface casing**, which is steel casing at least 25 feet deep and at least 1 foot above ground that prevents surface contaminants from entering the well
Drop Pipe – pipe placed in the casing to connect the pump to the surface
Electrical Control Box – a switch box that turns the well pump on and off
Grout – a layer of material placed between the wall of the borehole and the casing to prevent surface contamination from reaching the aquifer; often cement
Pitless Adapter – a device placed in the well casing that allows water to be diverted from the drop pipe to piping on the exterior of the well below the frost line
Power Cord/Pump Wire – wiring from the pump control box to the pump that supplies power for the pump and sends command signals
Pressure Tank – a water holding tank equipped with an air bladder that regulates water pressure into the home and demand to the pump; this air bladder is in place so that the pump will not constantly run
Submersible Pump – the most common type of water well pump includes the pump and pump motor placed at the bottom of the drop pipe, below the pumping water level
Water Table – the natural level of the upper limit of a saturated portion of ground
Well Cap – a sealed cap on the top of the well casing that prevents surface contaminants from entering the inside of the well

Maintenance:

It is important that you maintain your water well, as you and your family's health depends on the quality of water it supplies. Regular maintenance and testing will enable you to track the quality of your water, and keeping your records provides good information in the case of adverse effects on your water from outside activity.



Don't put your water quality in danger!

- keep pesticides and other chemicals at an adequate distance from your well
- locate your well at an acceptable distance away from any waste treatment system (including animal), and always up gradient (flow) from contamination sources

Complete regular water quality checks!

- keep track of and be aware of changes in your water and around your well
- complete an annual water chemistry and bacteria check
- complete a total water quality analysis every three years

Protect your wellhead!

- keep the outer casing at least 1 foot above ground, sloping the ground around the wellhead away from it
- check the integrity of your well cap and seal

Chlorinate your well after any opening and all maintenance!

- this is to ensure that your well does not become contaminated by outside contact

At the end of your well's lifetime, plug your well properly!

- always go to a professional for well installation and abandoned well sealing

---

Trouble Shooting Q&A:

Why doesn't water come from my well anymore?

First, check your breaker box to see if the breaker is tripped. Also check the pump reset button on the control box near the breaker. If these do not solve the problem, call a licensed pump installer to check the pump and pump control equipment, which may have failed. The pump installer can also check the water level in the well.

Why does my well seem to pump less water than it used to?

Over time, minerals or bacteria can constrict your water well screen or your water system pump or piping. Overuse or seasonal lack of recharge of the aquifer can also cause the groundwater level to drop, decreasing the amount of water that can enter the well. A licensed well driller or pump installer can clean your well screen and check your pump, piping, and water level.

Why does my pump seem to run every time I turn on the tap?

The pressure in your water system is regulated by a pressure tank so that the pump does not have to be run every time there is demand for water. The tank has an air bladder in it that can rupture. Have a licensed pump installer check the pressure tank and check valve.

Why does my water leave stains on fixtures and clothes?

Your water likely has a high level of dissolved minerals. Have the water tested by a laboratory to determine its chemical composition.

Why is there a lot of sediment in my water?

When your well was drilled, it may have been improperly developed to remove excess drilling fluids and sediment. Or your well casing or well seals may have failed. Have a licensed well driller inspect the well and determine the source of the sediment.

Why does my water smell like sulfur or have a sewer-like smell?

Your well probably has bacteria in it. Have the water tested for bacteria immediately. The local health department can help disinfect the well and find the source of the bacteria. Do not drink the water until checked.

Why does my water smell or taste like chemicals?

Your well may be polluted with chemicals. Stop drinking the water immediately. Have the water tested by a laboratory for likely chemical pollutants.

Why does my water fizz?

Your well water has gas dissolved in it. This gas may be air or carbon dioxide (harmless) or it may be methane. Have the water tested by a laboratory to determine what the gas is, and if a treatment system is necessary.

Important Phone Numbers:

Maintenance:

Well Servicing Contractor:_____ phone:_____

Plumber name:_____ phone:_____

Health:

County Health phone:_____

State Health phone:_____

Water testing laboratory name:_____ phone:_____

address:_____

General Questions:

State water quality phone:_____

Local extension agent name:_____ phone:_____

Maintenance Record:

Date	Work Performed and Comments	Contractor	Cost