

# New Mexico Environment Department Well Test Form 1-800-219-6157, <u>www.nmenv.state.nm.us</u>



#### Well Information (use ball-point pen, and PRESS HARD)

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Name	ne Phone						
Mailing Address							
E-Mail Address							
Well Owner/Location (if different from above)							
Well depth feet	De	epth to water	feet	Casing material Steel PVC			
Concrete pad around well? □ Yes □ No       Well cap or sanitary seal? □ Yes □ No							
Distance to nearest septic system leach field			feet	Lot size acres			
Age of well years Name of w			l driller				
Well used as source of drinking water?  Yes No							
Suspected water-quality problems?  Yes No Describe							
Water filter or treatment?  Yes No							
Describe							
Additional Information							

### **GPS Information** (use decimal degrees for latitude and longitude)

	Latitude	Longitude	Elevation (feet)
Well			
Septic System			

## **Test Results**

Parameter	Recommended Values	
pH (units)	Between 6.5 and 8.5	
Temperature (°C)		
Specific Conductance (uS/cm @ 25°C)	Less than 1000 uS/cm	
Dissolved Oxygen (mg/L)		
Organic Vapor  Not detected  Detected  ppm	Not detectable	
Fluoride (mg/L)	Less than 2.0 mg/L	
Iron (mg/L)	Less than 0.3 mg/L	
Sulfate (mg/L)	Less than 250 mg/L	
Nitrate (mg/L as Nitrogen)	Less than 10 mg/L	
Comments		
Test Date / Testing Supervisor		

See the back of this form for additional information on test results.

**Notice** - The tests performed by NMED are only for those chemicals or characteristics listed on this form. The tests are not a substitute for a complete laboratory analysis, nor do they include tests for bacteria or other organisms. In addition, if a dirty sample container was used, or if the sample was collected more than 24 hours prior to analysis, the test results may be inaccurate. If you have any questions, please ask an NMED representative.

#### **Explanation of Test Parameters**

**pH** - The pH indicates whether water is basic, neutral or acidic. It is a measure of hydrogen ion activity in water, on a scale from 0 to 14. A pH value equal to 7 is neutral. A value above 7 is basic or alkaline, and a value below 7 is acidic. The pH of water is important because high or low pH can cause aesthetic problems, and can cause toxic metals to leach from plumbing materials. **NMED recommends a pH between 6.5 and 8.5 for drinking water.** 

**Specific Conductance** – Conductivity is a measure of how water can conduct an electrical current, and increases with total dissolved solids (TDS), electrolytes, ions, or salts. High TDS can impart an unpleasant taste and odor to water, and can cause mineral deposits on plumbing fixtures. In many areas of New Mexico, where calcium is the predominant cation, TDS is proportional to water hardness. Specific conductance is conductivity at room temperature (25°C). Specific conductance can be multiplied by 0.7 to estimate TDS. **NMED recommends a maximum specific conductance of 1,000 microSiemens per centimeter (uS/cm) for drinking water to prevent aesthetic nuisances.** 

**Dissolved Oxygen** – Dissolved oxygen (DO) is an important parameter for ground water geochemistry. Low DO can indicate anoxic conditions (discussed below). No standards have been set for DO in drinking water.

**Organic Vapor** - The detection of organic vapor may indicate that your water contains gasoline, cleaning solvents, or other volatile organic chemicals. It may also indicate the presence of harmless methane gas that can occur in anoxic water (explained below). There are health standards for some volatile organic chemicals, including trichloroethylene, benzene, toluene, and xylene. NMED recommends that organic vapor be not detectable in drinking water. If organic vapor other than methane is detected in your water, further sampling will be conducted by the NMED.

**Fluoride -** Fluoride is a naturally occurring element that is commonly found in ground water. Fluroide in drinking water can be assimilated into the bones and teeth. High fluoride in drinking water can cause dental fluorosis (mottling of the teeth), and skeletal fluorosis (weakening of the bones). **NMED recommends a maximum fluoride concentration of 2 milligrams per liter (mg/L) in drinking water to prevent dental and skeletal fluorosis.** 

**Iron and Anoxic Contamination (iron, manganese, hydrogen sulfide, methane)** - Anoxic contamination is a chemical condition in which the water is deficient in oxygen. It can be caused by septic tank discharges or by naturally occurring geologic deposits such as humus and peat. Iron, manganese, hydrogen sulfide, and methane, typical anoxic contaminants, can cause severe taste and odor problems. Anoxic water often has a sulfurous "rotten egg" odor and a metallic taste. If the water is agitated, such as in a washing machine, sink, tub or toilet, it becomes oxygenated, and the iron and manganese can precipitate as oxides. These oxides range in color from black, gray and brown to red, orange and yellow, and can appear as small particles in the water or can cause stains on laundry and porcelain. The federal aesthetic standard for iron in drinking water is 0.3 milligrams per liter (mg/l). Manganese in drinking water may be a neurotoxin, and the federal drinking water health advisory is set at 0.3 mg/L. **NMED recommends a maximum iron concentration of 0.3 milligrams per liter (mg/L) to prevent aesthetic nuisances, and a maximum manganese concentration of 0.3 milligrams per liter (mg/L) to prevent neurotoxicity.** 

Sulfate - Sulfate is a compound of sulfur and oxygen that is commonly found in natural ground water. Sulfate can give an unpleasant taste to drinking water and can cause diarrhea. NMED recommends a maximum sulfate concentration of 250 milligrams per liter (mg/l) for drinking water.

Nitrate - Nitrate is a compound of nitrogen and oxygen. There are many possible sources of nitrate contamination including fertilizer, animal waste, septic tanks, refuse dumps, and natural geologic deposits. High concentrations of nitrate in drinking water can cause the "blue baby syndrome" a rare, but potentially serious, disease in infants less than six months old. There also is concern that nitrate may be associated with certain cancers in adults. State and federal health standards for nitrate are set at 10 milligrams per liter (mg/l) nitrate as nitrogen (N).