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# 2016 Consumer Confidence Report

### **Spanish (Espanol)**

Este informe contiene informacion muy importante sobre la calidad de su agua beber. Traduscalo o hable con alguien que lo entienda bien.

#### Is my water safe?

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

## Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791). Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

# Where does my water come from?

Bryan Co. Rural Water District #2 has two sources of water. Our primary water source is surface water from Blue River and our secondary source is Eagle Lake. The lake supplies surface water to a 1.2 million gallon per day treatment facility. We also have one (1) water well which is capable of pumping 250-300 gpm. In emergency situations, we also purchase water from the City of Durant.

#### Source water assessment and its availability

We have a source water protection plan available in our office which identifies the Qualitative Susceptibility Rating for the Blue River and Eagle Lake as MODERATE. Some of the potential sources of contamination are houses, septic systems, barns/sheds, etc. This Plan may be reviewed anytime during our regular office hours, 8:00 A.M. - 5:00 P.M., Monday thru Friday excluding Holidays.

#### Why are there contaminants in my drinking water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791). Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791). The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity: microbial ontaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water

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systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

#### How can I get involved?

If you have any questions about this report or concerning your water utility, please contact Manager Regina Clinton at (580) 924-8517. The Water District's mailing address is P.O. Box 119, Mead, OK 73449. For after hour and weekend emergencies, please call our emergency number (580) 916-1880. We want our valued customers to be informed about their water utility so, if you want to learn more, our regularly scheduled meetings are held at 5:30 P.M. on the 2nd Monday of each month at the Bryan Co. Rural Water District #2 Office located at 9077 US Hwy 70, Mead, OK. We would also like to encourage all of our customers to go to our website, www.ruralwater2.com, and click on the "Alert" tab and register to receive important news and alerts about your water via text and/or email.

### **Description of Water Treatment Process**

Your water is treated in a "treatment train" (a series of processes applied in a sequence) that includes coagulation, flocculation, sedimentation, filtration, and disinfection. Coagulation removes dirt and other particles suspended in the source water by adding chemicals (coagulants) to form tiny sticky particles called "floc," which attract the dirt particles. Flocculation (the formation of larger flocs from smaller flocs) is achieved using gentle, constant mixing. The heavy particles settle naturally out of the water in a sedimentation basin. The clear water then moves to the filtration process where the water passes through sand, gravel, charcoal or other filters that remove even smaller particles. A small amount of chlorine or other disinfection method is used to kill bacteria and other microorganisms (viruses, cysts, etc.) that may be in the water before water is stored and distributed to homes and businesses in the community.

#### **Water Conservation Tips**

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

#### **Source Water Protection Tips**

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.

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• Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

#### **Additional Information for Lead**

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Bryan Co. Rural Water, Sewer & Solid Waste Management Dist. #2 is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

### **Total Organic Carbon (TOC) Explanation**

The percentage of Total Organic Carbon (TOC) removal was measured each month and Bryan Co. Rural Water District #2 and the City of Durant met all TOC removal requirements set, unless a TOC violation is noted in the violations section.

**Water Quality Data Table** 

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

|                         | MCLG                                     | MCL,        | Detect<br>In  |         | nge     |                |             |  |  |  |
|-------------------------|--|-------------|---------------|---------|---------|----------------|-------------|--|--|--|
| Contaminants            | or<br>MRDLG                              | TT, or MRDL | Your<br>Water | Low     | High    | Sample<br>Date | Violation   | Typical Source   |  |  |
| Disinfectants & D       | Disinfectants & Disinfection By-Products |             |               |         |         |                |             |  |  |  |
| (There is convincing    | ng evidence                              | e that add  | lition of     | a disir | nfectan | t is neces     | sary for co | ntrol of microbial contaminants)   |  |  |
| Chlorine (as C12) (ppm) | 4  | 4           | 2             | NA      | 2       | 2016           | No          | Water additive used to control microbes.  SURFACE WATER TREATMENT RULE (SWTR): The Surface Water Treatment Rule seeks to prevent waterborne diseases caused by viruses, Legionella, and Giardia lamblia. The rule requires that water systems filter and disinfect water from surface water sources to reduce the occurrence of unsafe levels of these microbes.  VIOLATION TYPE: Residual Disinfect Concentration VIOLATION BEGIN: 5/1/2016 |  |  |

|              | MCLG        | MCL,           | Detect<br>In  | Ra  | nge  |                |           |   |
|--------------|-------------|----------------|---------------|-----|------|----------------|-----------|---|
| Contaminants | or<br>MRDLG | TT, or<br>MRDL | Your<br>Water | Low | High | Sample<br>Date | Violation | Typical Source  |
|              |             |                |               |     |      |                |           | VIOLATION END: 8/31/2016  |
|              |             |                |               |     |      |                |           |   |
|              |             |                |               |     |      |                |           | surrounding development areas of the source water of Eagle Lake at our treatment plant. As a result, the Manganese levels, as well as turbidity, rose to a point that traditional methods of treatment were insufficient for proper removal, which caused reports of brown water. The water plant proceeded to feed a pre-treatment dose of Chlorine, along with a Caustic soda feed, to oxidize and remove Manganese, as well as a post chlorine dosage, causing periodic compliance issues of high Chlorine residual readings in the system. In addition, the oxidation process also caused an extreme increase in media filter   |
|              |             |                |               |     |      |                |           | issues at the plant. Since that time, the operators and management consulted and brought in not only chemical distribution representatives, but also technicians from the filter manufacturer who evaluated not only the mechanical aspects of the water plant, but also any chemical changes in order to not only sequester, but eliminate any Manganese or turbidity issues from the distribution water. From the findings given, we have taken the Pre-treatment Chlorine feed off line and replaced it with a sodium permanganate feed to oxidize any residual Manganese before entering the water plant. In addition to removing the Manganese, this also has greatly reduced the turbidity issues in our water plant, improving clear well conditions and reducing or eliminating customer issues. To further resolve turbidity issues, the water plant operators drained, removed sludge |
| ı            |             |                |               |     |      |                |           | and disinfected our clear well tanks, and dosed our reservoir with a copper sulfate algae killer in order to reduce any factors that would contribute to  |

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|  | MCLG        | MCL,   | Dete<br>In |              | Range  | :      |                      |   |             |  |  |
|--|-------------|--------|------------|--------------|--------|--------|----------------------|---|-------------|--|--|
| Contaminants                               | or<br>MRDLG | TT, or | You<br>Wat | ır 🗀         | ow Hi  |        | nple<br>ate          | Violatio  | n           | Typical Source   |  |
|  |             |        |            |              |        |        |                      |   | taste       | e/odor/color complaints.   |  |
| Haloacetic Acids<br>(HAA5) (ppb)           | NA          | 60     | 53         | 30           | 0.6 92 | .4 20  | 016                  | No  | By-1        | product of drinking water disinfection   |  |
| TTHMs [Total<br>Trihalomethanes]<br>(ppb)  | NA          | 80     | 128        | 8 4          | 1.1 37 | 7 20   | )16                  | Yes   | By-1        | product of drinking water disinfection   |  |
| Total Organic<br>Carbon (%<br>Removal)     | NA          | TT     | -1         | N            | IA N   | A 20   | )16                  | No  | Natı        | urally present in the environment  |  |
| Inorganic Contar                           | ninants     |        | •          | ·            | •      | •      |                      |   | •           |  |  |
| Nitrate<br>[measured as<br>Nitrogen] (ppm) | 10          | 10     | .14        | 4 N          | IA N   | A 20   | 016                  | No  |             | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits            |  |
| Microbiological (                          | Contamina   | ints   |            | •            |        |        | •                    |   |             |  |  |
| Turbidity (NTU)                            | NA          | 0.3    | 63         | N            | IA N   | A 20   | 16                   | Yes   | Soil        | runoff   |  |
| 63% of the sample 2.9. Any measurer        |             |        |            |              |        |        |                      |   |             | s a TT violation. The highest single measurement was state.  |  |
| Radioactive Cont                           | aminants    |        | _          |              |        |        |                      |   |             |  |  |
| Beta/photon<br>emitters<br>(mrem/yr)       | 0           | 4      | 1.1        | 8 N          | IA N   | A 20   | 013                  | No Decay of natural and man-made deposits. The EPA considers 4 mrem/yr (50 pCi/L) to be the level of confor Beta particles. |             | siders 4 mrem/yr (50 pCi/L) to be the level of concern   |  |
| Contaminants                               |             | MCLG   |            | Your<br>Wate |        | ple Ex | Samp<br>cceedi<br>AL |   | ceeds<br>AL | Typical Source   |  |
| Inorganic Contar                           | ninants     |        |            |              |        |        |                      |   |             |  |  |
| Copper - action le consumer taps (pp       |             | 1.3    | 1.3        | .278         | 201    | 5      | 0                    |   | No          | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |  |

#### Violations and Exceedances

#### TTHMs [Total Trihalomethanes]

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer. Violation Begin: 1/1/2016 Violation Ended: 12/31/2016

We have recently installed an aeration system on our Lakewood water tower. This method has been known to decrease the TTHMs and help other Water Districts to get back in compliance. All samples collected since this project has been completed have been in

help other Water Districts to get back in compliance. All samples collected since this project has been completed have been in compliance. The Oklahoma DEQ has issued a Consent Order, which orders us to be back in compliance no later than June 2019.

#### **Turbidity**

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. Violation Begin: 1/1/2016 Violation End: 1/31/2016; Violation Begin: 5/1/2016 Violation End: 8/31/2016; Violation Begin: 10/1/2016 Violation End: 10/31/2016

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#### Violations and Exceedances

January: During the overnight hours on January 15, 2016, our T-2 Water Plant failed to successfully maintain the necessary sludge blanket in order to properly filter our surface water. The water to our clear well reservoir. We have made significant upgrades to our treatment plant facility, as well as improved monitoring by way of internet telemetry and personnel changes to ensure that these issues are better monitored.

May thru August: The spring rains that occurred from April through June brought in added run off from surrounding development areas of the source water of Eagle Lake at our treatment plant. As a result, the Manganese levels, as well as turbidity, rose to a point that traditional methods of treatment were insufficient for proper removal, which caused reports of brown water. The water plant proceeded to feed a pre treatment dose of Chlorine, along with a Caustic soda feed, to oxidize and remove Manganese, as well as a post chlorine dosage, causing periodic compliance issues of high Chlorine residual readings in the system. In addition, the oxidation process also caused an extreme increase in media filter issues at the plant. Since that time, the operators and management have consulted and brought in not only our chemical distribution representatives, but also technicians from the filter manufacturer who have evaluated not only the mechanical aspects of the water plant, but also any chemical changes in order to not only sequester, but eliminate any Manganese or turbidity issues from the distribution water. From the findings given, we have since taken the Pre treatment Chlorine feed off line and replaced it with a sodium permanganate feed to oxidize any residual Manganese before entering the water plant. In addition to removing the Manganese, this also has greatly reduced the turbidity issues in our water plant, improving clear well conditions and reducing or eliminating customer issues. To further resolve turbidity issues, the water plant operators have also drained, removed sludge and disinfected our clear well tanks, and dosed our reservoir with a copper sulfate algae killer in order to reduce any factors that would contribute to taste/odor/color complaints.

October: On October 25th, there was a reported entry in the monthly operational report (MOR) of a finished Turbidity reading 1.50 mg/L, exceeding the maximum amount of 1.00 mg/L. After reviewing the daily filter sheets, it was discovered that the actual reading was 0.15, and the reported number was in fact a typing error.

# **Additional Contaminants**

In an effort to insure the safest water possible the State has required us to monitor some contaminants not required by Federal regulations. Of those contaminants only the ones listed below were found in your water.

| Contaminants   | State<br>MCL | Your<br>Water   | Violation | Explanation and Comment  |
|--|--------------|-----------------|-----------|--|
| Barium (as per City of Durant CCR)                                 | 2 ppm        | .0279 ppm       | No        | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits 2013 Sample Results.            |
| Beta/photon emitters (as per City of Durant CCR)                   | 4<br>mrem/yr | 3.62<br>mrem/yr | No        | Decay of natural and man-made deposits. 2013 Sample Results.   |
| Chlorine (as Cl2) (as per City of Durant CCR)                      | 4 ppm        | 2 ppm           | No        | Water additive used to control microbes  |
| Chlorite (as per City of Durant CCR)                               | 1 ppm        | .498 ppm        | No        | By-product of drinking water disinfection  |
| Copper - action level at consumer taps (as per City of Durant CCR) | 1.3 ppm      | .04788<br>ppm   | No        | Corrosion of household plumbing systems; Erosion of natural deposits. 2016 Sample Results.                                 |
| Fluoride (as per City of Durant CCR)                               | 4 ppm        | .81 ppm         | No        | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| Haloacetic Acids (HAA5) (as per City of Durant CCR)                | 60 ppb       | 26 ppb          | No        | By-product of drinking water chlorination  |
| Lead (as per City of Durant CCR)                                   | 15 ppb       | 1.12 ppb        | No        | Corrosion of household plumbing systems; Erosion of natural deposits   |
| Total Trihalomethanes (TTHMs) (as per City of Durant CCR)          | 80 ppb       | 32 ppb          | No        | By-product of drinking water disinfection  |

Undetected Contaminants
The following contaminants were monitored for, but not detected, in your water.

| Contaminants |   | TT, or | Your | Violation | Typical Source   |
|--------------|---|--------|------|-----------|--|
| Barium (ppm) | 2 | 2      | ND   | No        | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |

| <b>Unit Des</b> | criptions  |
|-----------------|--|
| Term            | Definition   |
| ppm             | ppm: parts per million, or milligrams per liter (mg/L)   |
| ppb             | ppb: parts per billion, or micrograms per liter (μg/L)   |
| mrem/yr         | mrem/yr: millirems per year (a measure of radiation absorbed by the body)  |
| NTU             | NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. |
| NA              | NA: not applicable   |
| ND              | ND: Not detected   |
| NR              | NR: Monitoring not required, but recommended.  |

| Important Drink          | mportant Drinking Water Definitions   |  |  |  |  |  |  |  |  |
|--------------------------|---|--|--|--|--|--|--|--|--|
| Term                     | Definition  |  |  |  |  |  |  |  |  |
| MCLG                     | MCLG: Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.  |  |  |  |  |  |  |  |  |
| MCL                      | MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.   |  |  |  |  |  |  |  |  |
| TT                       | TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.  |  |  |  |  |  |  |  |  |
| AL                       | AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.   |  |  |  |  |  |  |  |  |
| Variances and Exemptions | Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.   |  |  |  |  |  |  |  |  |
| MRDLG                    | MRDLG: Maximum residual disinfection level goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants. |  |  |  |  |  |  |  |  |
| MRDL                     | MRDL: Maximum residual disinfectant level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.                              |  |  |  |  |  |  |  |  |
| MNR                      | MNR: Monitored Not Regulated  |  |  |  |  |  |  |  |  |
| MPL                      | MPL: State Assigned Maximum Permissible Level   |  |  |  |  |  |  |  |  |

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| TT<br>Violation   | Explanation  | Length  | Health Effects<br>Language   | Explanation and Comment  |
|---|--|---|--|--|
| Surface water treatment rule filtration and disinfection violations | 5/1/2016 thru 7/31/2016: We routinely monitor your water for turbidity (cloudiness). This tells us whether we are effectively filtering the water supply.  During the month of May 2016, one (1) sample was above the standard of 1 turbidity units and in July 2016, two (2) samples were above the standard.  Because of these high levels of turbidity, there is an increased chance that the water may contain disease-causing organisms. Water samples for May 2016 showed that nineteen percent (19%) of turbidity measurements exceeded 0.3 turbidity units; for June 2016 showed that ten percent (10%) of turbidity measurements exceeded; for July 2016 showed that thirty-six percent (36%) of turbidity measurements exceeded and for August 2016 showed that ten percent (10%) of turbidity measurements exceeded — the standard is that no more than five percent (5%) of samples exceed 0.3 turbidity units per month.  10/1/2016 thru 10/31/2016: On October 25th, there was a reported entry in the monthly operational report (MOR) of a finished Turbidity reading 1.50 mg/L, exceeding the maximum amount of 1.00 mg/L. After reviewing the daily filter sheets, it was discovered that the actual reading was 0.15, and the reported number was in fact a typing error. | Violation Begin: 5/1/2016 Violation End: 7/31/2016 Violation Begin:10/1/2016 Violation End: 10/31/2016                    | Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. | 5/1/2016 thru 7/31/2016: The spring rains that occurred from April through June brought in added run off from surrounding development areas of the source water of Eagle Lake at our treatment plant. As a result, the Manganese levels, as well as turbidity, rose to a point that traditional methods of treatment were insufficient for proper removal, which caused reports of brown water. The water plant proceeded to feed a pre treatment dose of Chlorine, along with a Caustic soda feed, to oxidize and remove Manganese, as well as a post chlorine dosage, causing periodic compliance issues of high Chlorine residual readings in the system. In addition, the oxidation process also caused an extreme increase in media filter issues at the plant. Since that time, the operators and management have consulted and brought in not only our chemical distribution representatives, but also technicians from the filter manufacturer who have evaluated not only the mechanical aspects of the water plant, but also any chemical changes in order to not only sequester, but eliminate any Manganese or turbidity issues from the distribution water. From the findings given, we have since taken the Pre treatment Chlorine feed off line and replaced it with a sodium permanganate feed to oxidize any residual Manganese before entering the water plant. In addition to removing the Manganese, this also has greatly reduced the turbidity issues in our water plant, improving clear well conditions and reducing or eliminating customer issues. To further resolve turbidity issues, the water plant operators have also drained, removed sludge and disinfected our clear well tanks, and dosed our reservoir with a copper sulfate algae killer in order to reduce any factors that would contribute to taste/odor/color complaints.  10/1/2016 thru 10/31/2016: Error has been corrected & reported. |
| Ground<br>Water Rule<br>violations                                  | We routinely monitor for the presence of drinking water contaminants. Results of regular monitoring are indicator of whether or not your drinking water meets health standards. During May and August 2014 and August 2015, we failed to collect follow-up samples within  | Violation Begin:<br>6/9/2014<br>Violation End:<br>3/1/2017<br>Violation Begin:<br>8/21/2014<br>Violation End:<br>3/1/2017 | Inadequately<br>treated water<br>may contain<br>disease-causing<br>organisms.<br>These organisms<br>include bacteria,<br>viruses, and<br>parasites, which  | All required samples have been taken and show that we are meeting drinking water standards.  This was reported on the 2015 CCR, but the Dept. of Environmental Quality did not close out the violation, therefore we were required to also include it on the 2016 CCR.   |

| TT<br>Violation | Explanation  | Length  | Health Effects<br>Language   | Explanation and Comment |
|-----------------|--|---|--|-------------------------|
|                 | 24 hours of learning of a total coliform-positive sample. These needed to be tested for fecal indicators from all sources (one water well) that were being used at the time the positive sample was collected. Our water well was not in operation from July 14, 2014 to October 15, 2014. Since these samples were not collected from our water well during the August 13, 2015 violation, we cannot be sure of the quality of our drinking water during that time. | Violation Begin:<br>8/13/2015<br>Violation End:<br>3/1/2017 | can cause<br>symptoms such<br>as nausea,<br>cramps,<br>diarrhea, and<br>associated<br>headaches. |                         |

# For more information please contact:

Contact Name: Regina Clinton Address: P. O. Box 119 Mead, OK 73449 Phone: 580-924-8517