WATER SOURCES

The sources of drinking water (both tap 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.

Contaminants that may be present in source water before treatment include:

- **Microbial contaminants**, such as viruses and bacteria, which 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, and 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.

- **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, the U.S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Federal Food and Drug Administration Agency regulations establish limits for contaminants in bottled water which must provide the same protection for public health.
### ABOUT THE TABLES

The attached table contains all of the chemical contaminants which have been found in your drinking water. The U.S. EPA requires water systems to test for up to 97 contaminants. All contaminants detected in your water are below state and federal allowed levels. The State of Texas allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Our water system purchased water from Harris County MUD No. 157 during 2017. Their water quality information is provided below.

### ADDITIONAL HEALTH 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. We are responsible for providing high quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you may minimize the potential for lead exposure by flushing your tap for 30 seconds to two 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](http://www.epa.gov/safewater/lead).

### DEFINITIONS AND UNIT DESCRIPTIONS

**AL**
- Action Level – The concentration level of a contaminant which, if exceeded, requires a water system to treat water or follow other requirements.

**Avg**
- Regulatory compliance with some MCLs are based on running annual average of monthly samples.

**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.

**MCLG**
- Maximum Contaminant Level Goal – The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**MFL**
- Million Fibers per Liter (a measure of asbestos)

**MRDL**
- Maximum Residual Disinfection Level – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that additional disinfection is necessary for control of microbial contaminants.

**MRDLG**
- Maximum Residual Disinfection Level Goal – The level of a drinking water disinfectant below which there is no known or expected health risk. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**mrem/yr**
- Millirems per year (a measure of radiation absorbed by the body)

**NA**
- Not applicable

**NTU**
- Nephelometric turbidity units (a measure of turbidity)

**ppb**
- Picograms per liter [a measure of radioactivity]

**ppm**
- Parts per billion, or micrograms per liter (µg/L), or one part per million (mg/L) of water.

**ppq**
- Parts per quadrillion, or picograms per liter (pg/L)

**ppt**
- Parts per trillion, or picograms per liter (pg/L)

**TT**
- Treatment Technique – A required process intended to reduce the level of a contaminant in drinking water

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#### ADDITIONAL CONSTITUENTS

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not necessarily causes for health concern. Therefore, secondary are not required to be reported in this document, but they may greatly affect the appearance and taste of your water. For more information on secondary constituents contact H2O Consulting at 281-861-7265.

### HARRIS COUNTY MUD 165 – Inorganic Contaminants

<table>
<thead>
<tr>
<th>Year</th>
<th>Contaminant</th>
<th>Highest or Average Concentration</th>
<th>Range of Detected Levels</th>
<th>MCL</th>
<th>MCLG</th>
<th>Unit of Measure</th>
<th>Violations</th>
<th>Source of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>Arsenic¹</td>
<td>9.0</td>
<td>7.7–9.0</td>
<td>10</td>
<td>0</td>
<td>ppm</td>
<td>No</td>
<td>Byproduct of drinking water disinfection</td>
</tr>
<tr>
<td>2016</td>
<td>Barium</td>
<td>0.234</td>
<td>0.135–0.234</td>
<td>2</td>
<td>2</td>
<td>ppm</td>
<td>No</td>
<td>Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits</td>
</tr>
<tr>
<td>2017</td>
<td>Fluoride</td>
<td>0.21</td>
<td>0.21–0.21</td>
<td>4</td>
<td>4</td>
<td>ppm</td>
<td>No</td>
<td>No natural deposits</td>
</tr>
<tr>
<td>2017</td>
<td>Nitrate (as Nitrogen)</td>
<td>0.21</td>
<td>0.01–0.21</td>
<td>10</td>
<td>10</td>
<td>ppm</td>
<td>No</td>
<td>No natural deposits</td>
</tr>
<tr>
<td>2017</td>
<td>Selenium</td>
<td>4.6</td>
<td>0–4.8</td>
<td>50</td>
<td>50</td>
<td>ppb</td>
<td>No</td>
<td>No natural deposits</td>
</tr>
<tr>
<td>2017</td>
<td>Sulfate</td>
<td>8.0</td>
<td>8.0–8.0</td>
<td>300</td>
<td>0</td>
<td>ppb</td>
<td>No</td>
<td>No natural deposits</td>
</tr>
</tbody>
</table>

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#### HARRIS COUNTY MUD 165 – Volatile Organic Compounds

<table>
<thead>
<tr>
<th>Year</th>
<th>Contaminant</th>
<th>Highest or Average Concentration</th>
<th>Range of Detected Levels</th>
<th>MCL</th>
<th>MCLG</th>
<th>Unit of Measure</th>
<th>Violations</th>
<th>Source of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>Total Trichloroethenes (TTC1)²</td>
<td>5.2</td>
<td>0–5.2</td>
<td>80</td>
<td>No Goal</td>
<td>No</td>
<td>No</td>
<td>Byproduct of drinking water disinfection</td>
</tr>
</tbody>
</table>

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#### HARRIS COUNTY MUD 165 – Radio nuclides

<table>
<thead>
<tr>
<th>Year</th>
<th>Contaminant</th>
<th>Highest or Average Concentration</th>
<th>Range of Detected Levels</th>
<th>MCL</th>
<th>MCLG</th>
<th>Unit of Measure</th>
<th>Violations</th>
<th>Source of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>Combined Uranium</td>
<td>8.9</td>
<td>4.9–8.9</td>
<td>80</td>
<td>0</td>
<td>µg/L</td>
<td>No</td>
<td>No natural deposits</td>
</tr>
<tr>
<td>2017</td>
<td>Gross Alpha</td>
<td>11.1</td>
<td>10–11</td>
<td>15</td>
<td>0</td>
<td>µg/L</td>
<td>No</td>
<td>No natural deposits</td>
</tr>
<tr>
<td>2017</td>
<td>Gross Beta</td>
<td>4.2</td>
<td>4.2–4.2</td>
<td>50</td>
<td>0</td>
<td>µg/L</td>
<td>No</td>
<td>No natural deposits</td>
</tr>
</tbody>
</table>

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#### HARRIS COUNTY MUD 165 – Disinfection Byproducts

<table>
<thead>
<tr>
<th>Year</th>
<th>Contaminant</th>
<th>Highest or Average Concentration</th>
<th>Range of Detected Levels</th>
<th>MCL</th>
<th>MCLG</th>
<th>Unit of Measure</th>
<th>Violations</th>
<th>Source of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>Total Trihalomethanes (TTHM)³</td>
<td>2.7</td>
<td>0.7–7.9</td>
<td>No Goal</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No natural deposits</td>
</tr>
<tr>
<td>2017</td>
<td>Total Haloacetic Acids (HAA5)⁴</td>
<td>2</td>
<td>0.135–0.234</td>
<td>No Goal</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No natural deposits</td>
</tr>
<tr>
<td>2017</td>
<td>Total Trihalomethanes (TTC1)²</td>
<td>7</td>
<td>0–7.9</td>
<td>No Goal</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No natural deposits</td>
</tr>
</tbody>
</table>

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1 The value in the Highest Level or Average Detected column is the highest average of all TTTHM sample results collected at a location over a year.

2 While your drinking water meets the EPA standard for arsenic, it does contain low levels of arsenic. EPA standards balance the current understanding of arsenic’s possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects at low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and neurological problems.

3 Of the 30 contaminants regulated by the EPA in the U.S., arsenic is one of the few that are monitored at very low concentrations. In Texas, we are required to monitor all 30 contaminants at least once every five years, making it difficult to detect levels of arsenic in drinking water.

4 Disinfection byproducts are formed when disinfectants react with organic matter in drinking water. Inactivation of harmful microorganisms requires the use of disinfectants, but exposure to disinfection byproducts is a concern.

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Harris County MUD No. 165 submitted to the Texas Water Development Board for a water loss audit for the 2017 calendar year. Our system lost an estimated 31,484,614 gallons of water.