

# Annual Drinking Water Quality Report

TX1090018

BRANDON IRENE WSC

Annual Water Quality Report for the period of January 1 to December 31, 2016

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

For more information regarding this report contact:

**Brandon-Irene WSC 254-632-4120**

BRANDON IRENE WSC is Purchased Surface Water and Ground Water

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (254) 632-4120.

## Public Participation

*The Brandon-Irene WSC board meetings are held the 2<sup>nd</sup> Thursday of each month at 7:00 P.M. in the Brandon Community Center, 7416 SH 22 Brandon, Texas 76628.*

## Sources of Drinking Water

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.

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 EPAs Safe Drinking Water Hotline at (800) 426-4791.

Contaminants that may be present in source water 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 storm water 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 storm water 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 storm water 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, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact the system's business office.

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer; persons who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders, can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care providers. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

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 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>.

### Information about Source Water Assessments

A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus source water protection strategies.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL:  
<http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=>

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: <http://dww.tceq.texas.gov/DWW>

Source Water Name	Location	Type of Water	Report Status	
1 - PS 1 BRANDON (FM 1243)	PS 1 BRANDON / FM 1243	GW		Trinity Aquifer
2 - PS 4 (HWY 22 / FM 286)	PS 4 (HWY 22 / FM 286)	GW	Y	Trinity Aquifer
SW FROM AQUILLA	CC FROM TX1090068 AQUILLA	SW		Lake Aquilla

**Disinfectant Data**

<b>Year</b>	<b>Disinfectant</b>	<b>Average Level</b>	<b>Minimum Level</b>	<b>Maximum Level</b>	<b>MRDL</b>	<b>MRDLG</b>	<b>Unit of Measure</b>	<b>Source of Chemical</b>
2016	GAS CHLORINE	1.24	.8	2.0	4.0	<4.0	ppm	Disinfectant used to control microbes

**2016 Regulated Contaminants Detected**

**Regulated Contaminants**

<b>Disinfectants and Disinfection By-Products</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Levels Detected</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>
<b>Haloacetic Acids (HAA5)</b>	2016	11	0 - 34.1	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
<b>Total Trihalomethanes (TTHM)</b>	2016	29	11.7 - 53.6	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
<b>Inorganic Contaminants</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Levels Detected</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>
<b>Arsenic</b>	2016	4	2.5 - 4	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
<b>Barium</b>	2016	0.0831	0.0815 - 0.0831	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
<b>Fluoride</b>	12/09/2015	1.67	1.67 - 1.67	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
<b>Nitrate [measured as Nitrogen]</b>	2016	1	0.02 - 0.78	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
<b>Radioactive Contaminants</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Levels Detected</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>
<b>Combined Radium 226/228</b>	06/20/2012	1	1 - 1	0	5	pCi/L	N	Erosion of natural deposits.
<b>Volatile Organic Contaminants</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Levels Detected</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>

<b>Xylenes</b>	2016	0.0005	0 - 0.0005	10	10	ppm	N	Discharge from petroleum factories; Discharge from chemical factories.
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**Regulated Contaminants (Aquilla WSD TX1090068)**

<b>Disinfectants and Disinfection By-Products</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Levels Detected</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>
<b>Chlorite</b>	2016	0.77	0.42 - 0.77	0.8	1	ppm	N	By-product of drinking water disinfection.
<b>Haloacetic Acids (HAA5)</b>	2016	26	25.7 - 25.7	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
<b>Total Trihalomethanes (TTHM)</b>	2016	13	13.4 - 13.4	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
<b>Inorganic Contaminants</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Levels Detected</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>
<b>Barium</b>	2016	0.0433	0.0433 - 0.0433	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
<b>Cyanide</b>	2016	60	60 - 60	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
<b>Fluoride</b>	2016	0.2	0.18 - 0.18	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
<b>Nitrate [measured as Nitrogen]</b>	2016	1	0.73 - 0.73	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	02/22/2011	1	1 - 1	0	5	pCi/L	N	Erosion of natural deposits.
Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Atrazine	2016	1	0.16 - 1.7	3	3	ppb	N	Runoff from herbicide used on row crops.

### Turbidity

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	0.11 NTU	N	Soil runoff.
Lowest monthly % meeting limit	0.3 NTU	100%	N	Soil runoff.

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration

### Total Organic Carbon

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violations section.

## Lead and Copper Rule

**Definitions:**

**Action Level Goal (ALG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

**Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	08/21/2014	1.3	1.3	0.1	0	Ppm	N	Erosion of natural deposits; Leaching from wood preservatives, Corrosions of household plumbing systems.
Lead	08/21/2014	0	15	1.4	0	Ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

### Water Loss Audit

In the water loss audit submitted to the Texas Water Development Board for the time period of January-December 2015, our system lost an estimated 14,912,804 gallons of water. If you have any questions about the water loss audit please call 254-632-4120.

### Water Quality Test Results

- Level 2 Assessment:** A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
- Maximum residual disinfectant level or MRDL:** 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.
- Maximum residual disinfectant level goal or MRDLG:** 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.
- MFL:** million fibers per liter (a measure of asbestos)
- na:** not applicable.
- Mrem:** millirems per year (a measure of radiation absorbed by the body)
- NTU:** nephelometric turbidity units (a measure of turbidity)
- pCi/L:** picocuries per liter (a measure of radioactivity)
- ppb:** micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
- Ppm:** milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.
- Treatment Technique or TT:** A required process intended to reduce the level of a contaminant in drinking water.

Ppt:

parts per trillion, or nanograms per liter (ng/L)

Ppq:

parts per quadrillion, or picograms per liter (pg/L)

## **Public Participation Opportunities**

**Date: Regular Board  
Meeting 2<sup>nd</sup> Thursday of  
Each Month**

**Time: 7:00 P.M.**

**Location: 7416 State Hwy 22  
Brandon, Texas**

*This institution is an equal opportunity provider.*