

The City of Lake Charles Water Division
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337-491-1307

June 2015

Annual Drinking Water Quality Report

We are pleased to present to you the Annual Water Quality Report for the reporting/monitoring period from January 1, 2014 to December 31, 2014. This report is designed to inform you about the quality of your water and the services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your drinking water and its' compliance with government standards. In this report you will find information such as the quality of the local drinking water; likely sources of drinking water contamination; and information about your local services. We want to thank all of our customers for their patience during the chlorine burnout we performed in the Spring of 2014. The citywide initiative and flushing was performed in order to improve long term overall water quality. You can learn more about the Water Division and its' facilities and services by visiting the City web site at www.cityoflakecharles.com. Under the Public Works department listing, click on the water tab. If you have any questions about this report, or simply want to learn more about your drinking water, please contact Russell Buckels at 337-491-1479.

**All information in this report has been collected and reported to you in accordance with water quality standards established by the USEPA. We are pleased to report our drinking water meets all Federal and State regulatory requirements.*

City of Lake Charles Water Sources

The City of Lake Charles obtains water from wells that are drilled in the 500-foot and 700-foot sands of the Chicot Aquifer. Groundwater or well water is found in saturated zones beneath the land's surface. It fills the pores and fractures in underground material such as sand, gravel, or other rock. If the water can be removed from this material in useful amounts, these areas are called aquifers. At the present time the City of Lake Charles has 17 wells that provide a clean, sufficient water supply for all of our customers.

| HEALTH INFORMATION | |
|---|--|
| | The sources of drinking water (both tap and bottled) 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 untreated source water include: |
| * | Microbial Contaminants - such as viruses and bacteria, 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 – 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 – 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 EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. | |

PROTECT OUR RESOURCES, USE WATER WISELY !!!

**Got A Question?
Need Some Answers**



The numbers below are provided if you have questions or problems with your water service.

| | |
|-------------------------|----------|
| Billing/New Service | 491-1307 |
| Meter Problems | 491-1522 |
| Main Breaks | 491-1487 |
| Rusty Water/Odor | 491-1554 |
| Distribution Department | 491-1494 |
| Production/Plant Info | 491-1479 |
| 24 Hour Number | 491-1483 |
| For Plant Tours | 491-1487 |

SOURCE WATER ASSESSMENT

A Source Water Assessment was performed on our water supply in April 2003. The program emphasizes pollution prevention to ensure safe drinking water, focusing on the protection of the water sources. Personnel with the State of Louisiana performed this assessment. The source water assessment consists of three steps: 1) Delineation or outline of the source water protection areas – in our case a one mile radius around each well field; 2) Inventory of significant potential sources of contamination within these areas; and 3) Analysis of the system's susceptibility to contamination from the potential sources identified. This plan is now available in our office. According to the Source Water Assessment Plan, our water system had a susceptibility rating of 'MEDIUM'. If you would like to review the plan, please feel free to contact our office. Information can be obtained by contacting Russell Buckels, Water Division Superintendent at 491-1479.

The Louisiana Department of Health and Hospitals - Office of Public Health, routinely monitors for constituents in your drinking water. Results of sampling by the State and contracted laboratories are shown in the tables below. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

Our water system is required to test a minimum of 80 bacteriological samples per month in accordance with the Total Coliform Rule. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. **During the monitoring period covered by this report, we had no noted violations of drinking water regulations.** In addition, the State of Louisiana also performs routine chemical analysis for regulated contaminants. Chemical sampling for regulated contaminants may not be required on an annual basis. The results furnished for testing are from the most recent sampling of our source water performed in Jan/Feb of 2013.

Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta particle and photon radioactivity in excess of the MCL over many years may have an increased risk of getting cancer.

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 / CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants 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. The City Water Division seeks to provide 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 drinking water, information on lead in drinking water, testing methods, and steps to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov.safewater/lead>.

TEST RESULTS

In the tables below are shown results of sampling on our source and treated water. The last chemical sampling of our source water was performed in Jan/Feb of 2013. This sampling was performed by a private laboratory certified by the State of Louisiana. Chemical sampling may not be required on an annual basis, therefore, information provided refers back to the most recent chemical sampling results. You will note that all of these contaminants were not detected or were well below the MCL. Terms and abbreviations you might not be familiar with are furnished with the following definitions:

Not-Detected (ND) - laboratory analysis indicates that the constituent is not present.

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCL's are set at very stringent levels.

Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's 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.

Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

(ppm) = parts per million **(ppb)** = parts per billion **(ppt) or (nanograms/l)** = parts per trillion

(ppq) or (picograms/l) = parts per quadrillion **Picocuries per liter (pCi/L)** – measure of radioactivity in water

In the table below, we have shown the deficiencies that were identified during our latest survey done by the Louisiana Department of Health and Hospitals. These are deficiencies we are currently working to resolve.

| Date Identified | Facility | Category Code | Activity Name | Due Date | Comments |
|-----------------|--------------|---------------|--|------------|--|
| 05/29/2014 | Distribution | CC17 | GWR - App Corrective Action Plan (Fed) | 07/01/2015 | LAC 51:XII.344 - LSPC Protection of Water Supply Containment Practices |
| 05/29/2014 | Well M2 (V) | SO18 | GWR - App Corrective Action Plan (Fed) | 03/31/2015 | SRC WL – LAC 51:XII.327.A.12 GW Well Vent Construction |

Below, are listed the regulated contaminants that were detected during sampling. While these contaminants were detected, you will note that all were **BELOW** their maximum contaminant level. Required sampling was performed at sites within the distribution system, and at each of our well sites. All sampling was performed either by the State of Louisiana or by private laboratories certified by the State of Louisiana.

| Regulated Contaminant | Collection Date | Highest Value | Range | Unit | MCL | MCLG | Typical Source |
|----------------------------|-----------------|---------------|-------------|------|-----|------|---|
| Di(2-ethylhexyl) Phthalate | 4/30/2012 | 1.71 | 0.47 – 1.71 | ppb | 6 | 0 | Discharge from rubber and chemical factories |
| Fluoride | 12/14/2012 | 0.2 | 0.1 – 0.2 | ppm | 4 | 4 | Erosion of natural deposits; Water additive which promotes strong teeth Discharge from fertilizer and aluminum factories |

| Lead and Copper | Date | 90 th percentile | Range | Unit | AL | Sites over AL | Typical Source |
|-----------------|-----------|-----------------------------|---------|------|-----|---------------|--|
| Copper, Free | 2011-2013 | 0.2 | 0.1-0.3 | ppm | 1.3 | 0 | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| Lead | 2011-2013 | 2 | 1-7 | ppb | 15 | 0 | Corrosion of household plumbing systems; Erosion of natural deposits |

| Disinfection Byproducts | Sample Point | Period | Highest LRAA | Range | Unit | MCL | MCLG | Typical Source |
|-------------------------------|---------------|--------|--------------|---------|------|-----|------|---|
| Total Haloacetic Acids (HAA5) | 209 Helen St. | 2014 | 12 | 1.1-8.1 | ppb | 60 | 0 | By-product of drinking water disinfection |
| Total Haloacetic Acids (HAA5) | 2437 Ory Rd. | 2014 | 8 | 0-21.4 | ppb | 60 | 0 | By-product of drinking water disinfection |

| Disinfection Byproducts | Sample Point | Period | Highest LRAA | Range | Unit | MCL | MCLG | Typical Source |
|-------------------------------|-----------------|--------|--------------|-----------|------|-----|------|---|
| Total Haloacetic Acids (HAA5) | 4260 Indigo Pl. | 2014 | 3 | 0-6.1 | ppb | 60 | 0 | By-product of drinking water disinfection |
| Total Haloacetic Acids (HAA5) | 4908 Desoto S. | 2014 | 5 | 1.3-10.7 | ppb | 60 | 0 | By-product of drinking water disinfection |
| TTHM | 209 Helen St. | 2014 | 9 | 2.4-17.9 | ppb | 80 | 0 | By-product of drinking water chlorination |
| TTHM | 2437 Ory Rd. | 2014 | 30 | 5.3-52.4 | ppb | 80 | 0 | By-product of drinking water chlorination |
| TTHM | 4260 Indigo Pl. | 2014 | 13 | 5.1-22.5 | ppb | 80 | 0 | By-product of drinking water chlorination |
| TTHM | 4908 Desoto S. | 2014 | 23 | 15.8-30.8 | ppb | 80 | 0 | By-product of drinking water chlorination |

THE FOLLOWING CONTAMINANTS WERE SAMPLED FOR, AND WERE NOT DETECTED IN OUR WELLS OR FINISHED WATER

| CONTAMINANT | MCL | RESULT |
|------------------------------------|---------------|--------|
| Arsenic | 10 ppb | ND |
| Barium | 2 ppm | ND |
| Beryllium | 4 ppb | ND |
| Cyanide | 200 ppb | ND |
| Cadmium | 5 ppb | ND |
| Chromium | 100 | ND |
| Mercury | 2 ppb | ND |
| Nitrate | 10 ppm | ND |
| Nitrite | 1 ppm | ND |
| Selenium | 50 ppb | ND |
| Thallium | 2 ppb | ND |
| 2,4,-D | 70 ppb | ND |
| 2,4,5, -TP (Silvex) | 50 ppb | ND |
| Alachlor | 2 ppb | ND |
| Atrazine | 3 ppb | ND |
| Benzo (a) pyrene PAHs | 200nanograms | ND |
| Carbofuran | 40 ppb | ND |
| Chlordane | 2 ppb | ND |
| Dalapon | 200 ppb | ND |
| Di(2-ethylhexyl)adipate | 400 ppb | ND |
| Di(2-ethylhexyl)phthalate | 6 ppb | ND |
| 1,2-Dibromo-3-chloropropane (DBCP) | 200 nanograms | ND |
| Dinoseb | 7 ppb | ND |
| Diquat | 20 ppb | ND |
| Dioxin [2,3,7,8-TCDD] | 30 picograms | ND |
| Endothall | 100 ppb | ND |
| Endrin | 2 ppb | ND |
| Epichlorohydrin | ---- | ND |
| Ethylene dibromide EDB | 50 nanograms | ND |
| Glyphosphate | 700 ppb | ND |
| Heptachlor | 400 nanograms | ND |
| Heptachlor epoxide | 200 nanograms | ND |

| CONTAMINANT | MCL | RESULT |
|------------------------------|---------------|--------|
| Hexachloro-cyclopentadiene | 50 ppb | ND |
| Lindane | 200 nanograms | ND |
| Hexachlorabenzene | 1 ppb | ND |
| Methoxychlor | 40 ppb | ND |
| Oxamyl [Vydate] | 200 ppb | ND |
| PCB's | 500 nanograms | ND |
| Pentachlorophenol | 1 ppb | ND |
| Picloram | 500 ppb | ND |
| Simazine | 4 ppb | ND |
| Toxaphene | 3 ppb | ND |
| Benzene | 5 ppb | ND |
| Carbon tetrachloride | 5 ppb | ND |
| Chlorobenzene | 100 ppb | ND |
| o-Dichlorobenzene | 600 ppb | ND |
| p-Dichlorobenzene | 75 ppb | ND |
| 1,2, - Dichloroethane | 5 ppb | ND |
| 1,1 – Dichloroethylene | 7 ppb | ND |
| cis -1,2-Dichloroethylene | 70 ppb | ND |
| trans – 1,2-Dichloroethylene | 100 ppb | ND |
| Dichloromethane | 5 ppb | ND |
| 1,2-Dichloropropane | 5 ppb | ND |
| Ethylbenzene | 700 ppb | ND |
| Styrene | 100 ppb | ND |
| Tetrachloroethylene | 5 ppb | ND |
| 1,2,4 – Trichlorobenzene | 70 ppb | ND |
| 1,1,1 – Trichloroethane | 200 ppb | ND |
| 1,1,2 – Trichloroethane | 5 ppb | ND |
| Trichloroethylene | 5 ppb | ND |
| Toluene | 1 ppm | ND |
| Vinyl Chloride | 2 ppb | ND |
| Xylenes | 10 ppm | ND |