

The Water We Drink

Timely Information about your Water Service From:

CHILTON WATER AUTHORITY

We're pleased to present to you this year's Annual quality Water Report. This report shows the results of our monitoring for the period of January 1 to December 31, 2016. Visit our Website for general information.

Our water source is WELLS. Our wells draw from the Coker Aquifer, Jemison Chert, Ordovician Knox Group, and Newala Limestone. The Jemison Chert well and plant serves customers located North of Highway 22 west from Clanton and North of Cargile Creek, east of Clanton. The Coker Foundation and wells, Roebuck, Osborne, Miller, Sellers, Chambers and Adams serve customers south of Highway 22 and west of Clanton and south of Cargile Creek. The Ordovician and Newala Limestone plant serves customers located west of US 31 and north of Highway 22.

A source Water Assessment Plan is available for review at our office. Our system had no violations for the monitoring period of 2015. We are proud that our drinking water meets or exceeds all Federal and State requirements. The most commonly requested test, Coliform Bacteria, is required monthly. There have been no detections for this form of bacteria during the monitoring period. Maximum Contaminant Levels (MCL) are set at very stringent levels. Based on a study conducted by ADEM with the approval of the EPA, a statewide waiver for the monitoring of asbestos and dioxin was issued.

Please find below the Analysis results from the latest testing for your drinking water. You may find many terms and abbreviations that are not familiar to you. To help you better understand these terms, we've provided the following definitions:

- *Parts per million (ppm) or Milligrams per liter (mg/l)*-one part per million corresponds to one minute in two years or a single penny in \$10,000.
- *Parts per billion (ppb) or Micrograms per liter (µmg/l)*-one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000.
- *Nephelometric Turbidity Unit (NTU)* - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- *Action Level*- the concentration of a contaminant which, if exceeds, 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 that is allowed in drinking water.
- *Maximum Contaminant Level (MCL)* - The maximum allowed MCL is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available treatment technology.
- *Maximum Contaminant Level Goal (MCLG)* - The goal is the level of contaminant in drinking water below which there is no known or expected risk to health.
- *ND*- not detected.

2016

DISINFECTION BYPRODUCTS ANALYSIS

Tested Quarterly

Location	Chloroacetic Acid (µg/L)	Bromoacetic Acid (µg/L)	Dichloroacetic Acid (µg/L)	Trichloroacetic Acid (µg/L)	Dibromacetic Acid (µg/L)	Total Haloacetic Acid (µg/L)
Site 1 - 2231 County Road 93 Verbena	< 2.0	< 1.0	1.01	< 1.00	< 1.00	1.01
Site 2 - 10259 Al, Hwy 22 Maplesville	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Site 3 - 6164 County Road 264 Clanton	< 2.0	< 1.0	1.91	< 1.0	< 1.0	1.91
Site 4 - 2780 County Road 607 Clanton	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Location	Chloroform (µg/L)	Bromodichloro Methane (µg/L)	Dibromochloro Methane (µg/L)	Bromoform (µg/L)	Total Trihalomethanes (µg/L)
Site 1 - 2231 County Road 93 Verbena	1.51	1.50	< 1.0	< 1.0	3.01
Site 2 - 10259 Al, Hwy 22 Maplesville	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Site 3 - 6164 County Road 264 Clanton	5.26	1.67	< 1.0	< 1.0	6.93
Site 4 - 2780 County Road 607 Clanton	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trip Bank	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

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NORTHERN & SOUTHERN SECTION ANALYSIS

Parameter	Maximum Contaminant Level (MCL)	Concentration Northern Section Gulf States	Concentration Northern Section Kewish	Concentration Southern Section Sardis
pH units	-	7.99	7.37	7.90
Alkalinity, mg/l as CaCO ₃	-	125.0	39	85.2
Total Dissolved Solids, mg/l	500	156	76	164
Corrosivity, Langliers Index	-	0.13	-1.33	-2.1
Hardness, mg/l as CaCO ₃	-	135.0	41.8	93.4
Color, units	15	< 5	< 5	< 5
MBAS, mg/l	0.5	< .05	< 0.05	< 0.05
Turbidity, N.T.U.	-	0.20	0.18	0.14
Odor, T.O.N.	-	< 1	< 1	< 1
Chloride, mg/l as Cl	250	8.91	3.44	8.95
Nitrate, mg/l as N-NO ₃	10.0	0.60	0.34	< 0.10
Nitrate, mg/l as N-NO ₂	1.0	< 0.10	< 0.10	< 0.10
Total Nitrate, Nitrate, mg/l as N	10.0	0.18	0.18	< 0.10
Sulfate, mg/l as SO ₄	500	4.42	5.2	11.6
Fluoride, mg/l as F	4.0	< 0.25	< 0.25	< 0.25
Carbon Dioxide, mg/l as CO ₂	-	< 1.0	< 1.0	< 1.0
Cyanide, mg/l as CN	0.20	< 0.010	< 0.010	< 0.010
Aluminum, mg/l as AL	0.20	< 0.05	< 0.05	< 0.05
Antimony, mg/l as Sb	0.006	< 0.005	< 0.005	< 0.005
Arsenic, mg/l as As	0.050	< 0.005	< 0.005	< 0.005
Barium, mg/l as Ba	2.00	< 0.05	< 0.05	0.117
Beryllium, mg/l as Be	0.004	< 0.001	< 0.001	< 0.001
Cadmium, mg/l as Cd	0.005	< 0.001	< 0.001	< 0.001
Calcium, mg/l as Ca	-	35.2	15.2	29.7
Chromium, mg/l as Cr	0.10	< 0.05	< 0.05	< 0.05
Copper, mg/l as Cu	1.0	< 0.05	< 0.05	< 0.05
Iron, mg/l as Fe	.030	< 0.05	< 0.05	< 0.050
Lead, mg/l as Pb	0.015	< 0.005	< 0.005	< 0.005
Magnesium, mg/l as Mg	-	11.4	.904	4.66
Manganese, mg/l as Mn	0.050	< 0.01	< 0.01	0.010
Mercury, mg/l as Hg	0.002	< 0.001	< 0.001	< 0.001
Nickel, mg/l as Ni	0.10	< 0.05	< 0.05	< 0.05

CONTINUED FROM ABOVE:

Selenium, mg/l as Se	0.10	< 0.010	< 0.010	< 0.010
Silver, mg/l as Ag	0.10	< 0.05	< 0.05	< 0.05
Sodium, mg/l as Na	-	3.62	2.01	4.37
Thallium, mg/l as Tl	0.002	< 0.001	< 0.001	< 0.001
Zinc, mg/l as Zn	5.00	< 0.05	< 0.05	< 0.05
Gross Alpha, pci/1*	-	0.2+/-0.5	1.6+/-0.06	0.7+/-0.5

NORTHERN AND SOUTHERN INORGANICS

Location	Contaminant	Results (mg/l)	Date Analyzed	MDL (mg/l)	MCL (mg/l)	Method	Code	Lab ID
	Radiologicals							
South	Radium- 228,p,Ci/L	0.2+/-0.7	3/5/2010	1.00	15	E900		40580
Kewish	Radium- 228,p,Ci/L	0.2+/-0.7	3/5/2010	1.00	15	E900		40580
Gulf States	Radium- 228,p,Ci/L	0.2+/-0.7	3/5/2010	1.00	15	E900		40580

Facility Sample point	1,2,3 Trichloropropane (µg/L)	1,3 Butadiene (µg/L)	Chloromethane (Methyl Chloride) (µg/L)	1,1-Dichloroethane (µg/L)
Distribution System/ Kewish Well #6	-	-	-	-
Distribution System/ Chilton TP	-	-	-	-
Distribution System/ Gulf States Well	-	-	-	-
Kewish Well #6 + Treatment Plant/Gnrtd Routine Smple PT	<0.03	<0.10	<0.20	<0.03
Chil. Treatment Plant (South Park)/Gnrtd Routine Smple PT	<0.03	<0.10	<0.20	<0.03
Gulf State Well + Treatment Plant/ Entry Point	<0.03	<0.10	<0.20	<0.03

Cont:

Bromomethane (µg/L)	Chlorodifluoromethane (µg/L)	Bromochloromethane (HCFC-22) (µg/L)	1,4 Dioxane (µg/L)	Vanadium (µg/L)
-	-	-	-	0.30
-	-	-	-	<0.20
-	-	-	-	0.40
<0.20	<0.08	<0.06	<0.07	<0.20
<0.20	<0.08	<0.06	<0.07	<0.20
<0.20	<0.08	<0.06	<0.07	0.40

Cont:

Molybdenum (µg/L)	Cobalt (µg/L)	Strontium (µg/L)	Chromium-5 (µg/L)	Chromium-6 (µg/L)	Chlorate (µg/L)	PFOS (µg/L)
<1.00	<1.00	40.00	0.20	0.04	<20.00	-
<1.00	<1.00	300.00	<0.20	<0.03	38.00	-
<1.00	<1.00	74.00	<0.20	0.16	<20.00	-
<1.00	<1.00	37.00	<0.20	0.03	<20.00	<0.04
<1.00	<1.00	300.00	<0.20	<0.03	34.00	<0.04
<1.00	<1.00	75.00	<0.20	0.17	<20.00	<0.04

Cont:

PFOA (µg/L)	PFNA (µg/L)	PFHxS (µg/L)	PFBS (µg/L)	PFHpA (µg/L)
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
<0.02	<0.02	<0.03	<0.09	<0.01
<0.02	<0.02	<0.03	<0.09	<0.01
<0.02	<0.02	<0.03	<0.09	<0.01

TABLE OF PRIMARY CONTAMINANTS

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of contamination
Microbiological						
1. Total Coliform Bac.	N	0	Colonies/100mls	0		Presence of coliform bacteria in 5% of monthly samples Naturally present in the environment.
2. Fecal Colif. & Bac	N	0	Colonies/100mls	1/0/1900		A routine sample and repeat sample are total coliform positive and one is also fecal coliform or E. coli Positive Human and animal fecal waste.
3. Turbidity	N	0.19	NTU	N/A	TT	Soil Runoff
Radioactive Contaminants (1998)						
4. Beta/ Photon Emitters	Not Required		mrem/yr	0	4	Decay of natural and manmade
5. Alpha Emitters	N	1.3	pCi/l	0	15	Erosion of natural deposits.
6. Combined Radium	Not Required		pCi/l	0	5	Erosion Of natural deposits.
Inorganic Contaminants (1998)						
7. Antimony	N	ND	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramic electronics; solder
8. Arsenic	N	ND	ppb	N/A	50	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
9. Asbestos	Not Required		MFL	7	7	Decay of asbestos cement water mains; erosion of natural deposits.
10. Barium	N	1.37	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
11. Beryllium	N	ND	ppb	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical aerospace, and defense industries.
12. Cadmium	N	ND	ppb	5	5	Corrosion of galvanized pipes, erosion of natural deposits; discharge from metal refineries; runoff from waste batteries & paints.
13. Chromium	N	ND	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper	N	See Footnote ¹	ppm	1.3	AL = 1.3	Corrosion of household plumbing; erosion of natural deposits; leaching from wood preservatives
15. Cyanide	N	ND	ppb	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories.
16. Fluoride	N	ND	ppm	4	4	erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
17. Lead	N	See FootNote ²	ppb	0	AL = 15	Corrosion of household plumbing systems; erosion of natural deposits.
18. Mercury (Inorganic)	N	ND	ppb	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland.
19. Nitrate (as Nitrogen)	N	0.18	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
20. Nitrate (as Nitrogen)	N	ND	ppm	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
21. Selenium	N	ND	ppb	50	50	Discharge from petroleum & metal refineries; erosion of natural deposits; discharge from mines.
22. Thallium	N	ND	ppb	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories.
Synthetic Organic contaminants including Pesticides and Herbicides (1998)						
23. 2,4-D	N	ND	ppb	70	70	Runoff from herbicides used on row.
24. 2,4,5-tp (Silvex)	N	ND	ppb	50	50	Residue of banned herbicides.

25. Acrylamide	Not Required	ND	ppb	0	TT	Added to water during sewage/wastewater treatment.
26. Alachlor	N	ND	ppb	0	2	Runoff from herbicides used on rows.
27. Atrazine	N	ND	Nanograms/l	3	3	Runoff from herbicide used on row crops.
28. Benzo(a)pyrene	N	ND	ppb	0	200	Leaching from linings of water storage tanks and distribution lines.
29. Carbofuran	N	ND	ppb	40	40	Leaching of soil fumigant used on rice and alfalfa.
30. Chlordane	N	ND	ppb	0	2	Residue of banned termiticide.
31. Dalapon	N	ND	ppb	200	200	Runoff from herbicide used on right of way.
32. Di(2-ethylhexyl) adipate	N	ND	ppb	400	400	Discharge from chemical factories.
33. Di(2-ethylhexyl) phthalate	N	ND	ppb	0	6	Discharge from rubber and chemical factories.
34. Dibromochloropropane	N	ND	Nanograms/l	0	200	Runoff/Leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.
35. Dinoseb	N	ND	ppb	7	7	Runoff from herbicide used on soybeans and vegetables.
36. Diquat	N	ND	ppb	20	20	Runoff from herbicide used on soybeans and vegetables.

The third Unregulated Rule (UCMR3) was initiated by EPA in 2012. UCMR3 requires the monitoring of two viruses and 28 unregulated chemical contaminants. These contaminants pose many of the same health risks as the regulated contaminants, but their presence in most drinking water is not frequent enough to warrant regulation. Unregulated contaminants are tested for to provide historical data on components present in drinking water over time.

THIRD UNREGULATED CONTAMINANT MONITORING (UCMR3) RESULTS IN ppb

Analyte:	Detection:	Analyte:	Detection:
1,2,3-Trichloropropane	Detected	Perflourooctansulfonic acid (PFOS)	Detected
1,3-Bdutiadiene	Detected	Perflourooctanoic acid (PFOA)	Detected
Chloromethane (Methyl Chloride)	Detected	Perflouoronanoic acid (PFNA)	Detected
1,1-dichloroethane	Detected	Perflourohexanesulfonic acid (PFHxS)	Detected
Bromomethane	Detected	Perflourobutanesulfonic acid (PFBS)	Detected
Chloroifluoromethane (HCF-22)	Detected	17-β- Estradiol	Not Detected
Bromochloromethane (Halon 1011)	Detected	17-α-Ethynylestradiol	Not Detected
1,4-Dioxane	Detected	Estrilol	Not Detected
Vanadium	Detected	Equilin	Not Detected
Molybdenum	Detected	Noroviruses	Not Detected
Cobalt	Detected	Perflouroheptanoic acid (PFHpA)	Detected
Strontium	Detected	Esterone	Not Detected
Chromimum-5	Detected	Testosterone	Not Detected
Chromimum-6	Detected	4-Anadrostene-3.17dione	Not Detected
Chlorate	Detected	Enteroviruses	Not Detected

Primary/Secondary Inorganic (PSI)

Location	Contaminant	Results (µmg/l)	Date Analyzed	MDL (mg/l)	MCL (mg/l)	Method	Code	Lab ID
Gulf States	Nitrogen, Nitrate, as NO3-N	0.6	3/7/2016	0.10	10	E300	1040	40170
Kewish	Nitrogen, Nitrate, as NO3-N	0.34	3/7/2016	0.10	10	E300	1040	40170
Wells 1,2,3,4	Nitrogen, Nitrate, as NO3-N	<0.10	3/7/2016	0.10	10	E300	1040	40170

Lead & Copper Analysis (Sept. 2014)

Sample ID	TTL Lab Number	Lead (mg/l as Pb)	Copper (mg/l as Cu)
Sample 1	20822.300	<0.005	0.050
Sample 2	20822.301	<0.005	0.050
Sample 3	20822.302	<0.005	0.050
Sample 4	20822.303	<0.005	0.070
Sample 5	20822.304	<0.005	0.076
Sample 6	20822.305	<0.005	0.050
Sample 7	20822.306	<0.005	0.050
Sample 8	20822.307	<0.005	0.076
Sample 9	20822.308	0.011	0.500
Sample 10	20822.309	<0.005	0.059
Sample 11	20822.310	<0.005	<0.050
Sample 12	20822.311	<0.005	0.083
Sample 13	20822.312	<0.005	<0.050
Sample 14	20822.313	<0.005	<0.050
Sample 15	20822.314	<0.005	0.052
Sample 16	20822.315	<0.005	0.050
Sample 17	20822.316	<0.005	0.050
Sample 18	20822.317	<0.005	<0.094
Sample 19	20822.318	<0.005	<0.050
Sample 20	20822.319	<0.005	0.050
Sample 21	20822.320	<0.005	0.050
Sample 22	20822.321	<0.005	<0.050
Sample 23	20822.322	<0.005	<0.050
Sample 24	20822.323	<0.005	0.050
Sample 25	20822.324	<0.005	0.050
Sample 26	20822.325	<0.005	0.125
Sample 27	20822.326	<0.005	<0.050
Sample 28	20822.327	<0.005	<0.050
Sample 29	20822.328	<0.005	<0.050
Sample 30	20822.329	<0.005	<0.050
Sample 31	20822.330	<0.005	0.090
Sample 32	20822.331	<0.005	<0.050