

# SAN ANTONIO WATER SYSTEM

## Composite Analysis

Edwards Aquifer

Data Represents Analytic Results from 2006-2008

CONSTITUENTS	Detection Limit for Reporting	Concentration Range Found	State Compliance MCL
TOTAL HARDNESS AS CaCO3 (mg/L)***		218 to 283	
Total dissolved solids (mg/L)		230 to 574	500 **
Specific Conductance (µmhos/cm)		480 to 620	
pH UNITS		7.34 to 8.06	6.6 - 8.5 **
Alkalinity, Bicarbonate (AS CaCO3) mg/L	2	193 to 266	221 *
Alkalinity, Carbonate (AS CaCO3) mg/L	2	ND	0
Alkalinity, Phenolphthalein mg/L	2	ND	0
Alkalinity, Total (AS CaCO3) mg/L	2	193 to 266	220.5 *
GROSS ALPHA(pCi/L)	2.0	ND +/- 0.4	15 *
GROSS BETA(pCi/L)	4.0	ND +/- 0.78	4 *
RA 226&228		2.3 +/- 1.2	5 *
CONSTITUENTS	Detection Limit for Reporting	Concentration Range Found (parts per million)	MCL (parts per million)
Aluminum	0.001	ND to 0.0089	0.006 *
Antimony	0.004	ND	0.05 to 0.2 **
Arsenic	0.002	ND	0.01 *
Barium	0.002	0.0377 to 0.0621	2.0 *
Beryllium	0.001	ND	0.004 *
Cadmium	0.001	ND	0.005 *
Calcium	0.20	68 to 78.2	
Chloride	1.0	11.3 to 20.6	250 **
Chromium	0.001	0.00118 to 0.00175	0.1 *
Copper	0.001	0.00222 to 0.0298	1.3 *
Cyanide	0.020	ND	0.2
Fluoride	0.01	0.17 to 2.02	4.0 *
Iron	0.05	ND to 0.0976	0.3 **
Lead	0.001	ND to 0.0036	0.015 *
Magnesium	0.20	14.8 to 16.8	
Manganese	0.001	ND to 0.00189	0.05 **
Mercury	0.0002	ND	0.002 *
Nitrogen, Nitrate (AS N)	0.001	ND to 2.4	10.0 *
Nickel	0.01	0.00189 to 0.00368	0.1
Selenium	0.004	ND	0.05 *
Silver	0.0001	ND	0.1 **
Sodium	0.50	9.69 to 10.5	
Sulfate	1.0	14.6 to 52.4	250 **
Thallium	0.001	ND	0.002 *
Zinc	0.004	0.0157 to 0.0606	5.0 **
***To convert Hardness from mg/L to Grains Per Gallon - divide mg/L by 17.1			

ND - Not Detected

MCL - National Primary Drinking Water Standard

\* National Primary Drinking Water Standard - MCL

\*\* National Secondary Drinking Water Standard - MCL

Compiled by the:  
Groundwater Protection Section

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VOLATILE ORGANICS Trihalomethanes EPA Method 502.2	Detection Limit for Reporting (parts per billion)	Concentration Range Found (parts per billion)	MCL (parts per billion)
Chloroform	0.5	ND to 0.5	
Bromodichloromethane	0.5	ND to 0.7	
Dibromochloromethane	0.5	ND to 1.65	
Bromoform	0.5	ND to 1.4	
Dibromomethane	0.5	ND to 1.0	
<b>VOLATILE ORGANICS REGULATED COMPOUNDS EPA Method 524.2</b>			
1,1 Dichloroethene	0.5	ND	7 *
1,1,1-Trichloroethane	0.5	ND	200 *
1,1,2-Trichloroethane	0.5	ND	5 *
1,2,4-Trichlorobenzene	0.5	ND	70 *
1,2-Dichlorobenzene	0.5	ND	600 *
1,2-Dichloroethane	0.5	ND	5 *
1,2-Dichloropropane	0.5	ND	5 *
1,4-Dichlorobenzene	0.5	ND	75 *
Benzene	0.5	ND	5 *
Carbon tetrachloride	0.5	ND	5 *
Chlorobenzene	0.5	ND	100 *
CIS-1,2-Dichloroethene	0.5	ND	70 *
Ethylbenzene	0.5	ND	700 *
Methylene chloride (DCM)	0.5	ND	5 *
Styrene	0.5	ND	100 *
* Tetrachloroethene	0.5	ND to 0.53*	5 *
Toluene	0.5	ND	1000 *
trans-1,2-Dichloroethene	0.5	ND	100 *
Trichloroethene	0.5	ND	5 *
Vinyl chloride	0.5	ND	2 *
m&p-Xylene	1.0	ND	
o-Xylene	0.5	ND	
Xylenes Total	2.0	ND	10000 **
<b>VOLATILE ORGANICS MONITORED COMPOUNDS EPA Method 524.2</b>			
1,1,1,2-Tetrachloroethane	1.0	ND	
1,1,2,2-Tetrachloroethane	1.0	ND	
1,1-Dichloroethane	1.0	ND	
1,1-Dichloropropene	1.0	ND	
1,2,3-Trichlorobenzene	1.0	ND	
1,2,3-Trichloropropane	1.0	ND	
1,2,4-Trimethylbenzene	1.0	ND	
1,3,5-Trimethylbenzene	1.0	ND	
1,3-Dichlorobenzene	1.0	ND	
1,3-Dichloropropane	1.0	ND	

\* A Tetrachloroethene level of 0.53 ppb was detected in one well in 2003, the well was resampled twice in 2005 and no Tetrachloroethene was detected.

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VOLATILE ORGANICS MONITORED COMPOUNDS EPA Method 524.2	Detection Limit for Reporting (parts per billion)	Concentration Range Found (parts per billion)	MCL (parts per billion)
2,2-Dichloropropane	1.0	ND	
2-Chlorotoluene	1.0	ND	
4-Chlorotoluene	1.0	ND	
4-Isopropyltoluene	1.0	ND	
Bromobenzene	1.0	ND	
Bromochloromethane	1.0	ND	
Chloroethane	2.0	ND	
cis-1,3-Dichloropropene	1.0	ND	
Dichlorodifluoromethane	1.0	ND	
Hexachlorobutadiene	1.0	ND	
Isopropyl benzene	1.0	ND	
Naphthalene	1.0	ND	
n-Butylbenzene	1.0	ND	
n-Propyl benzene	1.0	ND	
s-Butylbenzene	1.0	ND	
t-Butylbenzene	1.0	ND	
trans-1,3-Dichloropropene	1.0	ND	
Trichlorofluoromethane	2.0	ND	
OTHER COMPOUNDS EPA Method 524.2			
1,2-Dibromo-3-chloropropane	1.0	ND	0.2
1,2-Dibromoethane	1.0	ND	0.05
2-Butanone(MEK)	10.0	ND	
4-Methyl-2pentanone (MIBK)	2.0	ND	
Acetone	10	ND	
Acrylonitrile	10	ND	
Carbon disulfide	1.0	ND	
Ethyl methacrylate	1.0	ND	
Methyl methacrylate	1.0	ND	
Methyl-t-butyl ether (MTBE)	2.0	ND	
Tetrahydrofuran	2.0	ND	
Vinyl acetate	10.0	ND	
Iodomethane	2.0	ND	
2-Hexanone	1.0	ND	

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SEMIVOLATILE ORGANIC COMPOUNDS CHLORINATED PESTICIDES EPA Method E 508.1	Detection Limit for Reporting (parts per billion)	Concentration Range Found (parts per billion)	MCL (parts per billion)
Aroclor 1016	0.25	ND	0.5
Aroclor 1221	0.25	ND	0.5
Aroclor 1232	0.25	ND	0.5
Aroclor 1242	0.25	ND	0.5
Aroclor 1248	0.25	ND	0.5
Aroclor 1254	0.25	ND	0.5
Aroclor 1260	0.25	ND	0.5
<b>ORGANIC COMPOUNDS</b>			
EPA Method E 525.2			
Alachlor	0.20	ND	2
Aldrin	0.20	ND	
Atrazine	0.20	ND	3
Bromacil	0.20	ND	
Butachlor	1.02	ND	
alpha-Chlordane	0.20	ND	2
gamma-Chlordane	0.20	ND	2
trans-Nonachlor	0.20	ND	
Dieldrin	0.20	ND	
Endrin	0.20	ND	2
Heptachlor	0.20	ND	0.4
Heptachlor Epoxide	0.20	ND	0.2
Hexachlorobenzene	0.20	ND	1
Hexachlorocyclopentadiene	0.20	ND	50
gamma-BHC	0.20	ND	0.2
Methoxychlor	0.20	ND	40
Metolachlor	0.20	ND	40
Metribuzin	0.20	ND	
Pentachlorophenol	0.20	ND	1
Propachlor	0.20	ND	
Simazine	0.20	ND	4
Benzo(a)pyrene	0.20	ND	0.20
bis(2-Ethyhexy)adipate	0.20	ND	400
bis(2-Ethyhexy)phthalate	0.20	ND	6

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Flame Retardants in Drinking Water EPA Method E 527	Detection Limit for Reporting (parts per billion)	Concentration Range Found (parts per billion)	MCL (parts per billion)
Dimethoate	0.58	ND	0
Terbufos Sulfone	0.39	ND	0
2,2',4,4'-Tetrabromodiphenyl ether (BDE-47)	0.29	ND	0
2,2',4,4',6-Pentabromodiphenyl ether (BDE-100)	0.49	ND	0
2,2',4,4',5-Pentabromodiphenyl ether (BDE-99)	0.88	ND	0
2,2',4,4',5,5'-Hexabromobiphenyl (BDE-99)	0.68	ND	0
2,2',4,4',5,5'-Hexabromobiphenyl ehher (HBB-245)	0.78	ND	0
<b>Explosives in Drinking Water</b>			
<b>EPA Method E 529</b>			
1,3-Dinitrobenzene	0.78	ND	0
Hexahydro-1,3,5-Trinitro-1,3,5-triazine (FDX)	0.98	ND	0
2,4,6-Trinitrotoluene (TNT)	0.78	ND	0
<b>Nitrosoamines in Drinking Water</b>			
<b>Method E 521</b>			
N-Nitrosodiethylamine (NDEA)	0.0053	ND	0
N-Nitrosodimethylamine (NDMA)	0.0021	ND	0
N-Nitroso-di-n-butylamine (NDBA)	0.0042	ND	0
N-nitrosodi-n-propylamine (NDPA)	0.0074	ND	0
N-Nitrosomethylethylamine (NMEA)	0.0032	ND	0
N-Nitrosopyrrolidine (NPYR)	0.0021	ND	0
<b>Herbicide Degradates in Drinking Water</b>			
<b>EPA Method E 535</b>			
Acetochlor ESA	1.0	ND	0
Acetochlor OA	2.0	ND	0
Alachlor ESA	1.0	ND	0
Alachlor OA	2.0	ND	0
Metolachlor ESA	1.0	ND	0
Metolachlor OA	2.0	ND	0
<b>Organic Compounds (Method 525.2)</b>			
<b>EPA Method E 525.2</b>			
Acetochlor	1.96	ND	0
Alachlor	1.96	ND	2
Metolachlor	0.98	ND	40

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