

North Texas Municipal Water District - Tawakoni
 Water Analysis
 Jan-2015

Mineral Analysis	Raw (mg/L)	Treated (mg/L)	Standards			
			EPA Primary (mg/L)	EPA Secondary (mg/L)	TCEQ Primary (mg/L)	TCEQ Secondary (mg/L)
Residue on Evaporation	148	198		500		1000
Silica (SiO2)	<2.00	<2.00				
Iron (Fe)	0.305	0.203		0.3		0.3
Calcium (Ca)	25.5	39.3				
Magnesium (Mg)	3.50	3.77				
Sodium (Na)	13.0	18.8				
Potassium (K)	4.81	4.87				
Bicarbonates (HCO3)	0	0				
Carbonates (CO3)	0	0				
Hydroxides (OH)	0	0				
Sulfate (SO4)	12.3	71.4		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0	0	10		10	
Chloride (Cl)	7.90	14.8		250		300
Fluoride (F)	0.282	0.487	4.0	2.0		2.0
Phosphates (PO4)	0.0645	0.0156				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	91.7	71.6				
Phenolphthalein Alkalinity	0	0				
Noncarbonate Hardness	7.50	55.8				
Total Hardness	99.2	127				
Langelier Index	-	[- 0.177]				

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	0.00684	0.00653	0.01		0.01	
Barium (Ba)	0.0781	0.0652	2		2	
Cadmium (Cd)	<0.00100	<0.00100	0.005		0.005	
Chromium (Cr)	<0.00500	<0.00500	0.1		0.1	
Copper (Cu)	0.000639	0.0511	1.3		1.3	1.0
Iron (Fe)	0.305	0.203		0.3		
Lead (Pb)	<0.000250	<0.000250	0.15		0.15	
Manganese (Mn)	0.0226	0.00690		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00162	0.00297				
Selenium (Se)	<0.00250	<0.00250	0.05		0.05	
Silver (Ag)	<0.000250	<0.000250		0.10		0.1
Zinc (Zn)	<0.00250	0.00427		5		5

Other Analysis

Chlorine Residual (mg/L)	-	3.48*	4.0		4.0	
Total coliform (Present / Absent)	-	A	A		A	
pH (Standard Units) @ 25°C	8.10*	7.90*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	219	336				
Turbidity (NTU)	4.70	0.0600*	0.3		0.3	
Threshold Odor Number	100F	1.4CL				3

Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.

Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.

Note 3: * Identifies Monthly Average Process analyses.

**North Texas Municipal Water District - Tawakoni
Water Analysis
Feb-2015**

Mineral Analysis	Raw	Treated	Standards			
			EPA Primary	EPA Secondary	TCEQ Primary	TCEQ Secondary
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Residue on Evaporation	130	198		500		1000
Silica (SiO2)	<2.00	<2.00				
Iron (Fe)	0.219	0.251		0.3		0.3
Calcium (Ca)	23.3	74.6				
Magnesium (Mg)	3.27	3.44				
Sodium (Na)	13.2	17.8				
Potassium (K)	4.55	4.48				
Bicarbonates (HCO3)	0	0				
Carbonates (CO3)	0	0				
Hydroxides (OH)	0	0				
Sulfate (SO4)	16.7	76.3		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0	0	10		10	
Chloride (Cl)	8.35	13.4		250		300
Fluoride (F)	0.255	0.444	4.0	2.0		2.0
Phosphates (PO4)	0.0649	0.0116				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	93.8	69.0				
Phenolphthalein Alkalinity	0	0				
Noncarbonate Hardness	0	49.8				
Total Hardness	86.8	119				
Langelier Index	-	[- 0.324]				

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	0.00839	0.00933	0.01		0.01	
Barium (Ba)	0.0732	0.0699	2		2	
Cadmium (Cd)	<0.00100	<0.00100	0.005		0.005	
Chromium (Cr)	<0.00500	<0.00500	0.1		0.1	
Copper (Cu)	0.000653	0.0384	1.3		1.3	1.0
Iron (Fe)	0.219	0.251		0.3		
Lead (Pb)	<0.000250	<0.000250	0.15		0.15	
Manganese (Mn)	0.0240	0.0144		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00137	0.00320				
Selenium (Se)	<0.00250	<0.00250	0.05		0.05	
Silver (Ag)	<0.000250	<0.000250		0.10		0.1
Zinc (Zn)	<0.00250	0.00411		5		5

Other Analysis

Chlorine Residual (mg/L)	-	3.16*	4.0		4.0	
Total coliform (Present / Absent)	-	A	A		A	
pH (Standard Units) @ 25°C	8.20*	7.70*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	217	332				
Turbidity (NTU)	5.32	0.0600*	0.3		0.3	
Threshold Odor Number	100F	1CL				3

Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.

Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.

Note 3: * Identifies Monthly Average Process analyses.

**North Texas Municipal Water District - Tawakoni
Water Analysis
Mar-2015**

<u>Mineral Analysis</u>	<u>Raw</u> (mg/L)	<u>Treated</u> (mg/L)	<u>Standards</u>			
			<u>EPA</u> <u>Primary</u> (mg/L)	<u>EPA</u> <u>Secondary</u> (mg/L)	<u>TCEQ</u> <u>Primary</u> (mg/L)	<u>TCEQ</u> <u>Secondary</u> (mg/L)
Residue on Evaporation	146	224		500		1000
Silica (SiO2)	2.12	2.04				
Iron (Fe)	0.175	0.363		0.3		0.3
Calcium (Ca)	26.3	46.7				
Magnesium (Mg)	3.41	3.71				
Sodium (Na)	12.7	20.7				
Potassium (K)	4.63	4.54				
Sulfate (SO4)	12.6	68.5		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0	0	10		10	
Chloride (Cl)	7.30	15.9		250		300
Fluoride (F)	0.252	0.427	4.0	2.0		2.0
Phosphates (PO4)	0.0835	0.0171				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	86.5	70.8				
Phenolphthalein Alkalinity	0	0				
Noncarbonate Hardness	0	49.2				
Total Hardness	79.8	120				
Langelier Index	-	[- 0.672]				

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	0.00155	<0.00500	0.01		0.01	
Barium (Ba)	0.0751	0.0705	2		2	
Cadmium (Cd)	<0.00100	<0.00100	0.005		0.005	
Chromium (Cr)	<0.00500	<0.00500	0.1		0.1	
Copper (Cu)	0.00175	0.0406	1.3		1.3	1.0
Iron (Fe)	0.175	0.363		0.3		
Lead (Pb)	0.000403	<0.000250	0.15		0.15	
Manganese (Mn)	0.00111	0.0156		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00168	0.00358				
Selenium (Se)	<0.00250	<0.00250	0.05		0.05	
Silver (Ag)	<0.000250	<0.000250		0.10		0.1
Zinc (Zn)	0.00390	0.00432		5		5

Other Analysis

Chlorine Residual (mg/L)	-	3.17*	4.0		4.0	
Total coliform (Present / Absent)	-	A	A		A	
pH (Standard Units) @ 25°C	8.00*	7.60*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	230	377				
Turbidity (NTU)	10.0	0.100*	0.3		0.3	
Threshold Odor Number	17F	2CL				3

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Note 3: * Identifies Monthly Average Process analyses.

**North Texas Municipal Water District - Tawakoni
Water Analysis
Apr-2015**

<u>Mineral Analysis</u>	<u>Raw</u> (mg/L)	<u>Treated</u> (mg/L)	<u>Standards</u>			
			<u>EPA</u> <u>Primary</u> (mg/L)	<u>EPA</u> <u>Secondary</u> (mg/L)	<u>TCEQ</u> <u>Primary</u> (mg/L)	<u>TCEQ</u> <u>Secondary</u> (mg/L)
Residue on Evaporation	202	230		500		1000
Silica (SiO2)	2.74	2.64				
Iron (Fe)	0.972	0.112		0.3		0.3
Calcium (Ca)	27.3	51.6				
Magnesium (Mg)	3.69	3.68				
Sodium (Na)	13.2	18.9				
Potassium (K)	5.20	4.86				
Sulfate (SO4)	16.3	69.6		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0	0	10		10	
Chloride (Cl)	7.60	13.3		250		300
Fluoride (F)	0.401	0	4.0	2.0		2.0
Phosphates (PO4)	0.101	0.0150				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	85.3	76.8				
Phenolphthalein Alkalinity	0	0				
Noncarbonate Hardness	0	43.4				
Total Hardness	81.0	120				
Langelier Index	-	[+ 0.0207]				

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	<0.00500	<0.00500	0.01		0.01	
Barium (Ba)	0.0745	0.0699	2		2	
Cadmium (Cd)	<0.00100	<0.00100	0.005		0.005	
Chromium (Cr)	<0.00500	<0.00500	0.1		0.1	
Copper (Cu)	0.00146	0.0201	1.3		1.3	1.0
Iron (Fe)	0.972	0.112		0.3		
Lead (Pb)	<0.00100	<0.00100	0.15		0.15	
Manganese (Mn)	0.0369	0.00176		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00224	0.00402				
Selenium (Se)	<0.00100	<0.00100	0.05		0.05	
Silver (Ag)	<0.00100	<0.00100		0.10		0.1
Zinc (Zn)	<0.00500	0.00593		5		5

Other Analysis

Chlorine Residual (mg/L)	-	3.28*	4.0		4.0	
Total coliform (Present / Absent)	-	A	A		A	
pH (Standard Units) @ 25°C	7.70*	8.00*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	224	351				
Turbidity (NTU)	15.4	0.100*	0.3		0.3	
Threshold Odor Number	3E	ND				3

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Note 3: * Identifies Monthly Average Process analyses.

**North Texas Municipal Water District - Tawakoni
Water Analysis
May-2015**

<u>Mineral Analysis</u>	<u>Raw</u> (mg/L)	<u>Treated</u> (mg/L)	<u>Standards</u>			
			<u>EPA</u> <u>Primary</u> (mg/L)	<u>EPA</u> <u>Secondary</u> (mg/L)	<u>TCEQ</u> <u>Primary</u> (mg/L)	<u>TCEQ</u> <u>Secondary</u> (mg/L)
Residue on Evaporation	156	210		500		1000
Silica (SiO2)	3.79	3.69				
Iron (Fe)	0.722	<0.200		0.3		0.3
Calcium (Ca)	27.8	53.7				
Magnesium (Mg)	3.27	3.34				
Sodium (Na)	10.5	15.3				
Potassium (K)	4.41	4.27				
Sulfate (SO4)	15.6	62.7		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0	0	10		10	
Chloride (Cl)	7.35	14.2		250		300
Fluoride (F)	<0.250	0	4.0	2.0		2.0
Phosphates (PO4)	0.0760	0.0150				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	83.8	71.9				
Phenolphthalein Alkalinity	0	0				
Noncarbonate Hardness	0	49.1				
Total Hardness	83.0	121				
Langelier Index	-					

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	<0.00500	<0.00500	0.01		0.01	
Barium (Ba)	0.0737	0.0666	2		2	
Cadmium (Cd)	<0.00100	<0.00100	0.005		0.005	
Chromium (Cr)	<0.00500	<0.00500	0.1		0.1	
Copper (Cu)	0.00206	0.0386	1.3		1.3	1.0
Iron (Fe)	0.722	<0.200		0.3		
Lead (Pb)	<0.00100	<0.00100	0.15		0.15	
Manganese (Mn)	0.0308	0.00466		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00225	0.00387				
Selenium (Se)	<0.00100	<0.00100	0.05		0.05	
Silver (Ag)	<0.00100	<0.00100		0.10		0.1
Zinc (Zn)	0.00561	<0.00500		5		5

Other Analysis

Chlorine Residual (mg/L)	-	3.38*	4.0		4.0	
Total coliform (Present / Absent)	-	-	A		A	
pH (Standard Units) @ 25°C	7.70*	7.80*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	241	369				
Turbidity (NTU)	13.7	0.120*	0.3		0.3	
Threshold Odor Number	6F	50CL				3

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Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.

Note 3: * Identifies Monthly Average Process analyses.

**North Texas Municipal Water District - Tawakoni
Water Analysis
Jun-2015**

<u>Mineral Analysis</u>	<u>Raw</u> (mg/L)	<u>Treated</u> (mg/L)	<u>Standards</u>			
			<u>EPA</u> <u>Primary</u> (mg/L)	<u>EPA</u> <u>Secondary</u> (mg/L)	<u>TCEQ</u> <u>Primary</u> (mg/L)	<u>TCEQ</u> <u>Secondary</u> (mg/L)
Residue on Evaporation	164	206		500		1000
Silica (SiO2)	2.88	2.19				
Iron (Fe)	0.237	0.190		0.3		0.3
Calcium (Ca)	29.5	43.6				
Magnesium (Mg)	3.23	3.31				
Sodium (Na)	9.77	15.8				
Potassium (K)	4.87	4.84				
Sulfate (SO4)	10.5	61.0		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0	0	10		10	
Chloride (Cl)	6.60	13.4		250		300
Fluoride (F)	<0.250	0	4.0	2.0		2.0
Phosphates (PO4)	0.112	0.0303				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	96.5	96.7				
Phenolphthalein Alkalinity	0	0				
Noncarbonate Hardness	0	27.7				
Total Hardness	84.6	124				
Langelier Index	-					

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	0.00325	0.00908	0.01		0.01	
Barium (Ba)	0.0720	0.0624	2		2	
Cadmium (Cd)	<0.000250	<0.00100	0.005		0.005	
Chromium (Cr)	0.000584	<0.00500	0.1		0.1	
Copper (Cu)	0.00183	0.0621	1.3		1.3	1.0
Iron (Fe)	0.237	0.190		0.3		
Lead (Pb)	0.000381	<0.000250	0.15		0.15	
Manganese (Mn)	0.0656	0.0280		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00215	0.00391				
Selenium (Se)	<0.00250	<0.00250	0.05		0.05	
Silver (Ag)	<0.000250	<0.000250		0.10		0.1
Zinc (Zn)	<0.00250	0.00319		5		5

Other Analysis

Chlorine Residual (mg/L)	-	3.51*	4.0		4.0	
Total coliform (Present / Absent)	-	A	A		A	
pH (Standard Units) @ 25°C	7.50*	7.60*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	218	335				
Turbidity (NTU)	6.87	0.100*	0.3		0.3	
Threshold Odor Number	6E	1CL				3

Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.

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Note 3: * Identifies Monthly Average Process analyses.

**North Texas Municipal Water District - Tawakoni
Water Analysis
Jul-2015**

<u>Mineral Analysis</u>	<u>Raw</u> (mg/L)	<u>Treated</u> (mg/L)	<u>Standards</u>			
			<u>EPA</u> <u>Primary</u> (mg/L)	<u>EPA</u> <u>Secondary</u> (mg/L)	<u>TCEQ</u> <u>Primary</u> (mg/L)	<u>TCEQ</u> <u>Secondary</u> (mg/L)
Residue on Evaporation	138	224		500		1000
Silica (SiO2)	<2.00	<2.00				
Iron (Fe)	0.166	0.184		0.3		0.3
Calcium (Ca)	28.0	48.8				
Magnesium (Mg)	2.92	3.42				
Sodium (Na)	9.85	17.5				
Potassium (K)	4.89	5.28				
Sulfate (SO4)	8.78	65.3		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0	0	10		10	
Chloride (Cl)	5.48	15.9		250		300
Fluoride (F)	<0.250	0.399	4.0	2.0		2.0
Phosphates (PO4)	0.0770	0.0270				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	86.1	69.1				
Phenolphthalein Alkalinity	0	0				
Noncarbonate Hardness	5.30	61.7				
Total Hardness	91.4	131				
Langelier Index	-					

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	0.00594	<0.00500	0.01		0.01	
Barium (Ba)	0.0621	0.0628	2		2	
Cadmium (Cd)	<0.00100	<0.00100	0.005		0.005	
Chromium (Cr)	<0.00500	<0.00500	0.1		0.1	
Copper (Cu)	0.000559	0.0539	1.3		1.3	1.0
Iron (Fe)	0.166	0.184		0.3		
Lead (Pb)	<0.000250	<0.000250	0.15		0.15	
Manganese (Mn)	0.0307	0.0119		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00163	0.00431				
Selenium (Se)	<0.00250	<0.00250	0.05		0.05	
Silver (Ag)	<0.000250	<0.000250		0.10		0.1
Zinc (Zn)	<0.00250	0.00253		5		5

Other Analysis

Chlorine Residual (mg/L)	-	3.60*	4.0		4.0	
Total coliform (Present / Absent)	-	A	A		A	
pH (Standard Units) @ 25°C	7.50*	7.50*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	217	366				
Turbidity (NTU)	2.06	0.100*	0.3		0.3	
Threshold Odor Number	6E	8CL				3

Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.

Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.

Note 3: * Identifies Monthly Average Process analyses.

**North Texas Municipal Water District - Tawakoni
Water Analysis
Aug-2015**

<u>Mineral Analysis</u>	<u>Raw</u> (mg/L)	<u>Treated</u> (mg/L)	<u>Standards</u>			
			<u>EPA</u> <u>Primary</u> (mg/L)	<u>EPA</u> <u>Secondary</u> (mg/L)	<u>TCEQ</u> <u>Primary</u> (mg/L)	<u>TCEQ</u> <u>Secondary</u> (mg/L)
Residue on Evaporation	132	210		500		1000
Silica (SiO2)	2.40	2.46				
Iron (Fe)	0.127	<0.200		0.3		0.3
Calcium (Ca)	31.8	51.2				
Magnesium (Mg)	3.26	3.57				
Sodium (Na)	17.8	26.0				
Potassium (K)	5.34	5.51				
Sulfate (SO4)	8.79	60.2		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0	0	10		10	
Chloride (Cl)	5.77	15.0		250		300
Fluoride (F)	<0.250	0.416	4.0	2.0		2.0
Phosphates (PO4)	0.0720	0.0270				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	85.9	75.4				
Phenolphthalein Alkalinity	0	0				
Noncarbonate Hardness	23.1	57.2				
Total Hardness	109	133				
Langelier Index	-					

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	<0.00500	<0.00500	0.01		0.01	
Barium (Ba)	0.0605	0.0537	2		2	
Cadmium (Cd)	<0.00100	<0.00100	0.005		0.005	
Chromium (Cr)	<0.00500	<0.00500	0.1		0.1	
Copper (Cu)	0.00111	0.0630	1.3		1.3	1.0
Iron (Fe)	0.127	<0.200		0.3		
Lead (Pb)	<0.00100	<0.00100	0.15		0.15	
Manganese (Mn)	0.0359	0.00420		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00182	0.00350				
Selenium (Se)	<0.00100	<0.00100	0.05		0.05	
Silver (Ag)	<0.00100	<0.00100		0.10		0.1
Zinc (Zn)	<0.00500	<0.00500		5		5

Other Analysis

Chlorine Residual (mg/L)	-	3.44*	4.0		4.0	
Total coliform (Present / Absent)	-	A	A		A	
pH (Standard Units) @ 25°C	7.60*	7.60*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	204	334				
Turbidity (NTU)	1.87	0.0800*	0.3		0.3	
Threshold Odor Number	1F	ND				3

Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.

Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.

Note 3: * Identifies Monthly Average Process analyses.

**North Texas Municipal Water District - Tawakoni
Water Analysis
Sep-2015**

Mineral Analysis	Raw	Treated	Standards			
			EPA Primary (mg/L)	EPA Secondary (mg/L)	TCEQ Primary (mg/L)	TCEQ Secondary (mg/L)
Regenerated: 11/24/2015	(mg/L)	(mg/L)				
Residue on Evaporation	124	200		500		1000
Silica (SiO2)	3.59	3.61				
Iron (Fe)	<0.200	<0.200		0.3		0.3
Calcium (Ca)	30.2	49.3				
Magnesium (Mg)	3.33	3.94				
Sodium (Na)	11.3	20.8				
Potassium (K)	5.50	6.16				
Sulfate (SO4)	8.07	61.6		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0	0	10		10	
Chloride (Cl)	6.19	14.9		250		300
Fluoride (F)	<0.250	0.416	4.0	2.0		2.0
Phosphates (PO4)	0.0440	0.0260				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	89.5	80.3				
Phenolphthalein Alkalinity	0	0				
Noncarbonate Hardness	0.700	58.9				
Total Hardness	90.2	139				
Langelier Index	-					

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	<0.00500	<0.00500	0.01		0.01	
Barium (Ba)	0.0630	0.0555	2		2	
Cadmium (Cd)	<0.00100	<0.00100	0.005		0.005	
Chromium (Cr)	<0.00500	<0.00500	0.1		0.1	
Copper (Cu)	<0.00100	0.0384	1.3		1.3	1.0
Iron (Fe)	<0.200	<0.200		0.3		
Lead (Pb)	<0.00100	<0.00100	0.15		0.15	
Manganese (Mn)	0.0643	0.00530		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00205	0.00418				
Selenium (Se)	<0.00100	<0.00100	0.05		0.05	
Silver (Ag)	<0.00100	<0.00100		0.10		0.1
Zinc (Zn)	<0.00500	<0.00500		5		5

Other Analysis

Chlorine Residual (mg/L)	-	3.46*	4.0		4.0	
Total coliform (Present / Absent)	-	A	A		A	
pH (Standard Units) @ 25°C	7.60*	7.90*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	217	345				
Turbidity (NTU)	1.56	0.0700*	0.3		0.3	
Threshold Odor Number	35F	ND				3

Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.

Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.

Note 3: * Identifies Monthly Average Process analyses.

**North Texas Municipal Water District - Tawakoni
Water Analysis
Oct-2015**

Mineral Analysis	Raw	Treated	Standards			
			EPA Primary (mg/L)	EPA Secondary (mg/L)	TCEQ Primary (mg/L)	TCEQ Secondary (mg/L)
Regenerated: 11/24/2015	(mg/L)	(mg/L)				
Residue on Evaporation	146	218		500		1000
Silica (SiO2)	4.27	4.05				
Iron (Fe)	<0.200	<0.200		0.3		0.3
Calcium (Ca)	29.3	55.6				
Magnesium (Mg)	3.79	3.77				
Sodium (Na)	12.1	18.7				
Potassium (K)	5.80	5.62				
Sulfate (SO4)	8.77	68.8		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0	0	10		10	
Chloride (Cl)	6.47	15.6		250		300
Fluoride (F)	<0.250	0.366	4.0	2.0		2.0
Phosphates (PO4)	0.0650	0.0210				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	89.5	76.4				
Phenolphthalein Alkalinity	0	0				
Noncarbonate Hardness	6.30	49.4				
Total Hardness	95.8	126				
Langelier Index	-					

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	<0.00500	<0.00500	0.01		0.01	
Barium (Ba)	0.0814	0.0587	2		2	
Cadmium (Cd)	<0.00100	<0.00100	0.005		0.005	
Chromium (Cr)	<0.00500	<0.00500	0.1		0.1	
Copper (Cu)	<0.00100	0.0483	1.3		1.3	1.0
Iron (Fe)	<0.200	<0.200		0.3		
Lead (Pb)	<0.00100	<0.00100	0.15		0.15	
Manganese (Mn)	0.0366	0.00368		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00229	0.00383				
Selenium (Se)	<0.00100	<0.00100	0.05		0.05	
Silver (Ag)	<0.00100	<0.00100		0.10		0.1
Zinc (Zn)	<0.00500	<0.00500		5		5

Other Analysis

Chlorine Residual (mg/L)	-	0*	4.0		4.0	
Total coliform (Present / Absent)	-	A	A		A	
pH (Standard Units) @ 25°C	7.50*	7.70*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	225	359				
Turbidity (NTU)	1.95	0.100*	0.3		0.3	
Threshold Odor Number	6E	ND				3

Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.

Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.

Note 3: * Identifies Monthly Average Process analyses.

North Texas Municipal Water District - Tawakoni
 Water Analysis
 Jan-2015

Mineral Analysis	Raw	Treated	Standards			
			EPA Primary (mg/L)	EPA Secondary (mg/L)	TCEQ Primary (mg/L)	TCEQ Secondary (mg/L)
Regenerated: 12/11/2015	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Residue on Evaporation	148	198		500		1000
Silica (SiO2)	<2.00	<2.00				
Iron (Fe)	0.305	0.268		0.3		0.3
Calcium (Ca)	25.5	79.2				
Magnesium (Mg)	3.50	3.77				
Sodium (Na)	13.0	18.8				
Potassium (K)	4.81	4.87				
Sulfate (SO4)	12.3	71.4		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0.0923	0.187	10		10	
Chloride (Cl)	7.90	14.8		250		300
Fluoride (F)	0.282	0.487	4.0	2.0		2.0
Phosphates (PO4)	0.0645	0.0156				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	91.7	71.6				
Total Hardness	99.2	127				
Langelier Index	-	[- 0.177]				

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	0.00684	0.00653	0.01		0.01	
Barium (Ba)	0.0781	0.0652	2		2	
Cadmium (Cd)	<0.00100	<0.00100	0.005		0.005	
Chromium (Cr)	<0.00500	<0.00500	0.1		0.1	
Copper (Cu)	0.000639	0.0511	1.3		1.3	1.0
Iron (Fe)	0.305	0.268		0.3		
Lead (Pb)	<0.000250	<0.000250	0.15		0.15	
Manganese (Mn)	0.0226	0.00690		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00162	0.00297				
Selenium (Se)	<0.00250	<0.00250	0.05		0.05	
Silver (Ag)	<0.000250	<0.000250		0.10		0.1
Zinc (Zn)	<0.00250	0.00427		5		5

Other Analysis

Chlorine Residual (mg/L)	-	3.48*	4.0		4.0	
Total coliform (Present / Absent)	-	A	A		A	
pH (Standard Units) @ 25°C	8.10*	7.90*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	219	336				
Turbidity (NTU)	4.70	0.0600*	0.3		0.3	
Threshold Odor Number	100F	1.4CL				3

Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects in Drinking Water.

Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.

Note 3: * Identifies Monthly Average Process analyses.

North Texas Municipal Water District - Tawakoni
 Water Analysis
 Feb-2015

Mineral Analysis	Raw	Treated	Standards			
			EPA Primary (mg/L)	EPA Secondary (mg/L)	TCEQ Primary (mg/L)	TCEQ Secondary (mg/L)
Regenerated: 12/11/2015	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Residue on Evaporation	130	198		500		1000
Silica (SiO2)	<2.00	<2.00				
Iron (Fe)	0.219	0.235		0.3		0.3
Calcium (Ca)	23.3	37.4				
Magnesium (Mg)	3.27	3.44				
Sodium (Na)	13.2	17.8				
Potassium (K)	4.55	4.48				
Bicarbonates (HCO3)	0	0				
Carbonates (CO3)	0	0				
Hydroxides (OH)	0	0				
Sulfate (SO4)	16.7	76.3		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0.0760	0.147	10		10	
Chloride (Cl)	8.35	13.4		250		300
Fluoride (F)	0.255	0.444	4.0	2.0		2.0
Phosphates (PO4)	0.0649	0.0116				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	93.8	69.0				
Total Hardness	86.8	119				
Langelier Index	-	[- 0.324]				

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	0.00839	0.00933	0.01		0.01	
Barium (Ba)	0.0732	0.0699	2		2	
Cadmium (Cd)	<0.00100	<0.00100	0.005		0.005	
Chromium (Cr)	<0.00500	<0.00500	0.1		0.1	
Copper (Cu)	0.000653	0.0384	1.3		1.3	1.0
Iron (Fe)	0.219	0.235		0.3		
Lead (Pb)	<0.000250	<0.000250	0.15		0.15	
Manganese (Mn)	0.0240	0.0144		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00137	0.00320				
Selenium (Se)	<0.00250	<0.00250	0.05		0.05	
Silver (Ag)	<0.000250	<0.000250		0.10		0.1
Zinc (Zn)	<0.00250	0.00411		5		5

Other Analysis

Chlorine Residual (mg/L)	-	3.16*	4.0		4.0	
Total coliform (Present / Absent)	-	A	A		A	
pH (Standard Units) @ 25°C	8.20*	7.70*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	217	332				
Turbidity (NTU)	5.32	0.0600*	0.3		0.3	
Threshold Odor Number	100F	1CL				3

Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.

Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.

Note 3: * Identifies Monthly Average Process analyses.

**North Texas Municipal Water District - Tawakoni
Water Analysis
Mar-2015**

Mineral Analysis	Raw	Treated	Standards			
			EPA Primary (mg/L)	EPA Secondary (mg/L)	TCEQ Primary (mg/L)	TCEQ Secondary (mg/L)
Regenerated: 12/11/2015	(mg/L)	(mg/L)				
Residue on Evaporation	146	224		500		1000
Silica (SiO2)	2.12	2.04				
Iron (Fe)	0.543	0.363		0.3		0.3
Calcium (Ca)	26.3	41.3				
Magnesium (Mg)	3.41	3.71				
Sodium (Na)	12.7	20.7				
Potassium (K)	4.63	4.54				
Sulfate (SO4)	12.6	68.5		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0.242	0.367	10		10	
Chloride (Cl)	7.30	15.9		250		300
Fluoride (F)	0.252	0.427	4.0	2.0		2.0
Phosphates (PO4)	0.0835	0.0171				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	86.5	70.8				
Total Hardness	79.8	120				
Langelier Index	-	[- 0.672]				

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	0.00155	<0.00500	0.01		0.01	
Barium (Ba)	0.0751	0.0705	2		2	
Cadmium (Cd)	<0.00100	<0.00100	0.005		0.005	
Chromium (Cr)	<0.00500	<0.00500	0.1		0.1	
Copper (Cu)	0.00175	0.0406	1.3		1.3	1.0
Iron (Fe)	0.543	0.363		0.3		
Lead (Pb)	0.000403	<0.000250	0.15		0.15	
Manganese (Mn)	0.0212	0.0156		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00168	0.00358				
Selenium (Se)	<0.00250	<0.00250	0.05		0.05	
Silver (Ag)	<0.000250	<0.000250		0.10		0.1
Zinc (Zn)	0.00390	0.00432		5		5

Other Analysis

Chlorine Residual (mg/L)	-	3.17*	4.0		4.0	
Total coliform (Present / Absent)	-	A	A		A	
pH (Standard Units) @ 25°C	8.00*	7.60*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	230	377				
Turbidity (NTU)	10.0	0.100*	0.3		0.3	
Threshold Odor Number	17F	2CL				3

Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.

Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.

Note 3: * Identifies Monthly Average Process analyses.

**North Texas Municipal Water District - Tawakoni
Water Analysis
Apr-2015**

Mineral Analysis	Raw	Treated	Standards			
			EPA Primary (mg/L)	EPA Secondary (mg/L)	TCEQ Primary (mg/L)	TCEQ Secondary (mg/L)
Regenerated: 12/11/2015	(mg/L)	(mg/L)				
Residue on Evaporation	202	230		500		1000
Silica (SiO2)	2.74	2.64				
Iron (Fe)	0.972	<0.200		0.3		0.3
Calcium (Ca)	27.3	51.6				
Magnesium (Mg)	3.69	3.68				
Sodium (Na)	13.2	18.9				
Potassium (K)	5.20	4.86				
Sulfate (SO4)	16.3	69.6		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0.530	0.822	10		10	
Chloride (Cl)	7.60	13.3		250		300
Fluoride (F)	0.401	0	4.0	2.0		2.0
Phosphates (PO4)	0.101	0.0150				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	85.3	76.8				
Total Hardness	81.0	120				
Langelier Index	-	[+ 0.0207]				

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	<0.00500	<0.00500	0.01		0.01	
Barium (Ba)	0.0745	0.0699	2		2	
Cadmium (Cd)	<0.00100	<0.00100	0.005		0.005	
Chromium (Cr)	<0.00500	<0.00500	0.1		0.1	
Copper (Cu)	0.00146	0.0201	1.3		1.3	1.0
Iron (Fe)	0.972	<0.200		0.3		
Lead (Pb)	<0.00100	<0.00100	0.15		0.15	
Manganese (Mn)	0.0369	0.0148		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00224	0.00402				
Selenium (Se)	<0.00100	<0.00100	0.05		0.05	
Silver (Ag)	<0.00100	<0.00100		0.10		0.1
Zinc (Zn)	<0.00500	0.00593		5		5

Other Analysis

Chlorine Residual (mg/L)	-	3.28*	4.0		4.0	
Total coliform (Present / Absent)	-	A	A		A	
pH (Standard Units) @ 25°C	7.70*	8.00*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	224	351				
Turbidity (NTU)	15.4	0.100*	0.3		0.3	
Threshold Odor Number	3E	ND				3

Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.

Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.

Note 3: * Identifies Monthly Average Process analyses.

**North Texas Municipal Water District - Tawakoni
Water Analysis
May-2015**

Mineral Analysis	Raw	Treated	Standards			
			EPA Primary (mg/L)	EPA Secondary (mg/L)	TCEQ Primary (mg/L)	TCEQ Secondary (mg/L)
Regenerated: 12/11/2015	(mg/L)	(mg/L)				
Residue on Evaporation	156	210		500		1000
Silica (SiO2)	3.79	3.69				
Iron (Fe)	0.722	<0.200		0.3		0.3
Calcium (Ca)	27.8	53.7				
Magnesium (Mg)	3.27	3.34				
Sodium (Na)	10.5	15.3				
Potassium (K)	4.41	4.27				
Sulfate (SO4)	15.6	62.7		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0.642	0.947	10		10	
Chloride (Cl)	7.35	14.2		250		300
Fluoride (F)	<0.250	0	4.0	2.0		2.0
Phosphates (PO4)	0.0760	0.0150				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	83.8	71.9				
Total Hardness	83.0	121				
Langelier Index	-					

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	<0.00500	<0.00500	0.01		0.01	
Barium (Ba)	0.0737	0.0666	2		2	
Cadmium (Cd)	<0.00100	<0.00100	0.005		0.005	
Chromium (Cr)	<0.00500	<0.00500	0.1		0.1	
Copper (Cu)	0.00206	0.0386	1.3		1.3	1.0
Iron (Fe)	0.722	<0.200		0.3		
Lead (Pb)	<0.00100	<0.00100	0.15		0.15	
Manganese (Mn)	0.0308	0.00614		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00225	0.00387				
Selenium (Se)	<0.00100	<0.00100	0.05		0.05	
Silver (Ag)	<0.00100	<0.00100		0.10		0.1
Zinc (Zn)	0.00561	<0.00500		5		5

Other Analysis

Chlorine Residual (mg/L)	-	3.38*	4.0		4.0	
Total coliform (Present / Absent)	-	-	A		A	
pH (Standard Units) @ 25°C	7.70*	7.80*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	241	369				
Turbidity (NTU)	13.7	0.120*	0.3		0.3	
Threshold Odor Number	6F	50CL				3

Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.

Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.

Note 3: * Identifies Monthly Average Process analyses.

**North Texas Municipal Water District - Tawakoni
Water Analysis
Jun-2015**

Mineral Analysis	Raw	Treated	Standards			
			EPA Primary (mg/L)	EPA Secondary (mg/L)	TCEQ Primary (mg/L)	TCEQ Secondary (mg/L)
Regenerated: 12/11/2015	(mg/L)	(mg/L)				
Residue on Evaporation	164	206		500		1000
Silica (SiO2)	2.88	2.19				
Iron (Fe)	0.546	0.190		0.3		0.3
Calcium (Ca)	29.5	43.6				
Magnesium (Mg)	3.23	3.31				
Sodium (Na)	9.77	15.8				
Potassium (K)	4.87	4.84				
Sulfate (SO4)	10.5	61.0		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0.408	0.478	10		10	
Chloride (Cl)	6.60	13.4		250		300
Fluoride (F)	<0.250	0	4.0	2.0		2.0
Phosphates (PO4)	0.112	0.0303				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	96.5	96.7				
Total Hardness	84.6	124				
Langelier Index	-					

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	0.00325	0.00908	0.01		0.01	
Barium (Ba)	0.0720	0.0624	2		2	
Cadmium (Cd)	<0.000250	<0.00100	0.005		0.005	
Chromium (Cr)	0.000584	<0.00500	0.1		0.1	
Copper (Cu)	0.00183	0.0621	1.3		1.3	1.0
Iron (Fe)	0.546	0.190		0.3		
Lead (Pb)	0.000381	<0.000250	0.15		0.15	
Manganese (Mn)	0.0656	0.0280		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00215	0.00391				
Selenium (Se)	<0.00250	<0.00250	0.05		0.05	
Silver (Ag)	<0.000250	<0.000250		0.10		0.1
Zinc (Zn)	<0.00250	0.00319		5		5

Other Analysis

Chlorine Residual (mg/L)	-	3.51*	4.0		4.0	
Total coliform (Present / Absent)	-	A	A		A	
pH (Standard Units) @ 25°C	7.50*	7.60*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	218	335				
Turbidity (NTU)	6.87	0.100*	0.3		0.3	
Threshold Odor Number	6E	1CL				3

Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.

Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.

Note 3: * Identifies Monthly Average Process analyses.

**North Texas Municipal Water District - Tawakoni
Water Analysis
Jul-2015**

Mineral Analysis	Raw	Treated	Standards			
			EPA Primary (mg/L)	EPA Secondary (mg/L)	TCEQ Primary (mg/L)	TCEQ Secondary (mg/L)
Regenerated: 12/11/2015	(mg/L)	(mg/L)				
Residue on Evaporation	138	224		500		1000
Silica (SiO2)	<2.00	<2.00				
Iron (Fe)	0.166	0.210		0.3		0.3
Calcium (Ca)	28.0	46.4				
Magnesium (Mg)	2.92	3.42				
Sodium (Na)	9.85	17.5				
Potassium (K)	4.89	5.28				
Sulfate (SO4)	8.78	65.3		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0.242	0.554	10		10	
Chloride (Cl)	5.48	15.9		250		300
Fluoride (F)	<0.250	0.399	4.0	2.0		2.0
Phosphates (PO4)	0.0770	0.0270				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	86.1	69.1				
Total Hardness	91.4	131				
Langelier Index	-					

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	0.00594	<0.00500	0.01		0.01	
Barium (Ba)	0.0621	0.0628	2		2	
Cadmium (Cd)	<0.00100	<0.00100	0.005		0.005	
Chromium (Cr)	<0.00500	<0.00500	0.1		0.1	
Copper (Cu)	0.000559	0.0539	1.3		1.3	1.0
Iron (Fe)	0.166	0.210		0.3		
Lead (Pb)	<0.000250	<0.000250	0.15		0.15	
Manganese (Mn)	0.0307	0.0119		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00163	0.00431				
Selenium (Se)	<0.00250	<0.00250	0.05		0.05	
Silver (Ag)	<0.000250	<0.000250		0.10		0.1
Zinc (Zn)	<0.00250	0.00253		5		5

Other Analysis

Chlorine Residual (mg/L)	-	3.60*	4.0		4.0	
Total coliform (Present / Absent)	-	A	A		A	
pH (Standard Units) @ 25°C	7.50*	7.50*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	217	366				
Turbidity (NTU)	2.06	0.100*	0.3		0.3	
Threshold Odor Number	6E	8CL				3

Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.

Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.

Note 3: * Identifies Monthly Average Process analyses.

**North Texas Municipal Water District - Tawakoni
Water Analysis
Aug-2015**

Mineral Analysis	Raw	Treated	Standards			
			EPA Primary (mg/L)	EPA Secondary (mg/L)	TCEQ Primary (mg/L)	TCEQ Secondary (mg/L)
Regenerated: 12/11/2015	(mg/L)	(mg/L)				
Residue on Evaporation	132	210		500		1000
Silica (SiO2)	2.40	2.46				
Iron (Fe)	<0.200	<0.200		0.3		0.3
Calcium (Ca)	31.8	51.2				
Magnesium (Mg)	3.26	3.57				
Sodium (Na)	17.8	26.0				
Potassium (K)	5.34	5.51				
Sulfate (SO4)	8.79	60.2		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0.189	0.366	10		10	
Chloride (Cl)	5.77	15.0		250		300
Fluoride (F)	<0.250	0.416	4.0	2.0		2.0
Phosphates (PO4)	0.0720	0.0270				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	85.9	75.4				
Total Hardness	109	133				
Langelier Index	-					

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	<0.00500	<0.00500	0.01		0.01	
Barium (Ba)	0.0605	0.0537	2		2	
Cadmium (Cd)	<0.00100	<0.00100	0.005		0.005	
Chromium (Cr)	<0.00500	<0.00500	0.1		0.1	
Copper (Cu)	0.00111	0.0630	1.3		1.3	1.0
Iron (Fe)	<0.200	<0.200		0.3		
Lead (Pb)	<0.00100	<0.00100	0.15		0.15	
Manganese (Mn)	0.0359	0.00420		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00182	0.00350				
Selenium (Se)	<0.00100	<0.00100	0.05		0.05	
Silver (Ag)	<0.00100	<0.00100		0.10		0.1
Zinc (Zn)	<0.00500	<0.00500		5		5

Other Analysis

Chlorine Residual (mg/L)	-	3.44*	4.0		4.0	
Total coliform (Present / Absent)	-	A	A		A	
pH (Standard Units) @ 25°C	7.60*	7.60*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	204	334				
Turbidity (NTU)	1.87	0.0800*	0.3		0.3	
Threshold Odor Number	1F	ND				3

Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.

Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.

Note 3: * Identifies Monthly Average Process analyses.

**North Texas Municipal Water District - Tawakoni
Water Analysis
Sep-2015**

Mineral Analysis	Raw	Treated	Standards			
			EPA Primary (mg/L)	EPA Secondary (mg/L)	TCEQ Primary (mg/L)	TCEQ Secondary (mg/L)
Regenerated: 12/11/2015	(mg/L)	(mg/L)				
Residue on Evaporation	124	200		500		1000
Silica (SiO2)	3.59	3.61				
Iron (Fe)	<0.200	<0.200		0.3		0.3
Calcium (Ca)	30.2	49.3				
Magnesium (Mg)	3.33	3.94				
Sodium (Na)	11.3	20.8				
Potassium (K)	5.50	6.16				
Sulfate (SO4)	8.07	61.6		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0.155	0.349	10		10	
Chloride (Cl)	6.19	14.9		250		300
Fluoride (F)	<0.250	0.416	4.0	2.0		2.0
Phosphates (PO4)	0.0440	0.0260				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	89.5	80.3				
Total Hardness	90.2	139				
Langelier Index	-					

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	<0.00500	<0.00500	0.01		0.01	
Barium (Ba)	0.0630	0.0555	2		2	
Cadmium (Cd)	<0.00100	<0.00100	0.005		0.005	
Chromium (Cr)	<0.00500	<0.00500	0.1		0.1	
Copper (Cu)	<0.00100	0.0384	1.3		1.3	1.0
Iron (Fe)	<0.200	<0.200		0.3		
Lead (Pb)	<0.00100	<0.00100	0.15		0.15	
Manganese (Mn)	0.0643	0.00530		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00205	0.00418				
Selenium (Se)	<0.00100	<0.00100	0.05		0.05	
Silver (Ag)	<0.00100	<0.00100		0.10		0.1
Zinc (Zn)	<0.00500	<0.00500		5		5

Other Analysis

Chlorine Residual (mg/L)	-	3.46*	4.0		4.0	
Total coliform (Present / Absent)	-	A	A		A	
pH (Standard Units) @ 25°C	7.60*	7.90*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	217	345				
Turbidity (NTU)	1.56	0.0700*	0.3		0.3	
Threshold Odor Number	35F	ND				3

Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.

Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.

Note 3: * Identifies Monthly Average Process analyses.

**North Texas Municipal Water District - Tawakoni
Water Analysis
Oct-2015**

Mineral Analysis	Raw	Treated	Standards			
			EPA Primary (mg/L)	EPA Secondary (mg/L)	TCEQ Primary (mg/L)	TCEQ Secondary (mg/L)
Regenerated: 12/11/2015	(mg/L)	(mg/L)				
Residue on Evaporation	146	218		500		1000
Silica (SiO2)	4.27	4.05				
Iron (Fe)	<0.200	<0.200		0.3		0.3
Calcium (Ca)	29.3	55.6				
Magnesium (Mg)	3.79	3.77				
Sodium (Na)	12.1	18.7				
Potassium (K)	5.80	5.62				
Sulfate (SO4)	8.77	68.8		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0.344	0.440	10		10	
Chloride (Cl)	6.47	15.6		250		300
Fluoride (F)	<0.250	0.366	4.0	2.0		2.0
Phosphates (PO4)	0.0650	0.0210				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	89.5	76.4				
Total Hardness	95.8	126				
Langelier Index	-					

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	<0.00500	<0.00500	0.01		0.01	
Barium (Ba)	0.0814	0.0587	2		2	
Cadmium (Cd)	<0.00100	<0.00100	0.005		0.005	
Chromium (Cr)	<0.00500	<0.00500	0.1		0.1	
Copper (Cu)	<0.00100	0.0483	1.3		1.3	1.0
Iron (Fe)	<0.200	<0.200		0.3		
Lead (Pb)	<0.00100	<0.00100	0.15		0.15	
Manganese (Mn)	0.0366	0.00368		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00229	0.00383				
Selenium (Se)	<0.00100	<0.00100	0.05		0.05	
Silver (Ag)	<0.00100	<0.00100		0.10		0.1
Zinc (Zn)	<0.00500	<0.00500		5		5

Other Analysis

Chlorine Residual (mg/L)	-	0*	4.0		4.0	
Total coliform (Present / Absent)	-	A	A		A	
pH (Standard Units) @ 25°C	7.50*	7.70*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	225	359				
Turbidity (NTU)	1.95	0.100*	0.3		0.3	
Threshold Odor Number	6E	ND				3

Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.

Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.

Note 3: * Identifies Monthly Average Process analyses.

**North Texas Municipal Water District - Tawakoni
Water Analysis
Nov-2015**

Mineral Analysis	Raw	Treated	Standards			
			EPA Primary (mg/L)	EPA Secondary (mg/L)	TCEQ Primary (mg/L)	TCEQ Secondary (mg/L)
Regenerated: 12/11/2015	(mg/L)	(mg/L)				
Residue on Evaporation	130	210		500		1000
Silica (SiO2)	4.18	3.80				
Iron (Fe)	<0.200	<0.200		0.3		0.3
Calcium (Ca)	29.8	48.3				
Magnesium (Mg)	3.13	4.08				
Sodium (Na)	9.82	21.1				
Potassium (K)	5.00	6.12				
Sulfate (SO4)	9.11	66.8		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0.448	0.580	10		10	
Chloride (Cl)	6.04	15.1		250		300
Fluoride (F)	<0.250	0	4.0	2.0		2.0
Phosphates (PO4)	0.0610	0.0180				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	83.3	68.7				
Total Hardness	88.2	123				
Langelier Index	-					

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	<0.00500	<0.00500	0.01		0.01	
Barium (Ba)	0.0778	0.0615	2		2	
Cadmium (Cd)	<0.00100	<0.00100	0.005		0.005	
Chromium (Cr)	<0.00500	<0.00500	0.1		0.1	
Copper (Cu)	0.00386	0.0460	1.3		1.3	1.0
Iron (Fe)	<0.200	<0.200		0.3		
Lead (Pb)	0.00224	<0.00100	0.15		0.15	
Manganese (Mn)	0.0789	0.00515		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00254	0.00412				
Selenium (Se)	<0.00100	<0.00100	0.05		0.05	
Silver (Ag)	<0.00100	<0.00100		0.10		0.1
Zinc (Zn)	0.00681	<0.00500		5		5

Other Analysis

Chlorine Residual (mg/L)	-	0*	4.0		4.0	
Total coliform (Present / Absent)	-	A	A		A	
pH (Standard Units) @ 25°C	7.60*	7.80*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	225	372				
Turbidity (NTU)	2.02	0.100*	0.3		0.3	
Threshold Odor Number	4G	1CL				3

Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.

Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.

Note 3: * Identifies Monthly Average Process analyses.

**North Texas Municipal Water District - Tawakoni
Water Analysis
Dec-2015**

Mineral Analysis	Raw	Treated	Standards			
			EPA Primary (mg/L)	EPA Secondary (mg/L)	TCEQ Primary (mg/L)	TCEQ Secondary (mg/L)
Generated: 01/00/1900	(mg/L)	(mg/L)				
Residue on Evaporation	138	202		500		1000
Silica (SiO2)	5.38	4.78				
Iron (Fe)	0.232	<0.200		0.3		0.3
Calcium (Ca)	36.9	44.5				
Magnesium (Mg)	3.58	3.97				
Sodium (Na)	11.4	20.0				
Potassium (K)	5.67	5.74				
Sulfate (SO4)	7.92	65.7		250		
Nitrite (NO2)	<0.0200	<0.0200	1		1	
Nitrate (NO3)	0.426	0.519	10		10	
Chloride (Cl)	4.92	13.6		250		300
Fluoride (F)	<0.250	0	4.0	2.0		2.0
Phosphates (PO4)	0.0600	0.0170				

	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)	(mg/L as CaCO3)
Total Alkalinity	78.3	65.7				
Total Hardness	79.2	119				
Langelier Index	-					

Trace Element Analysis

	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic (As)	<0.00500	<0.00500	0.01		0.01	
Barium (Ba)	0.0723	0.0566	2		2	
Cadmium (Cd)	<0.00100	<0.00100	0.005		0.005	
Chromium (Cr)	<0.00500	<0.00500	0.1		0.1	
Copper (Cu)	<0.00100	0.0431	1.3		1.3	1.0
Iron (Fe)	0.232	<0.200		0.3		
Lead (Pb)	<0.00100	<0.00100	0.15		0.15	
Manganese (Mn)	0.0403	0.00413		0.05		0.05
Mercury (Hg)	<0.000100	<0.000100	0.002		0.002	
Nickel (Ni)	0.00308	0.00459				
Selenium (Se)	<0.00100	<0.00100	0.05		0.05	
Silver (Ag)	<0.00100	<0.00100		0.10		0.1
Zinc (Zn)	<0.00500	<0.00500		5		5

Other Analysis

Chlorine Residual (mg/L)	-	3.56*	4.0		4.0	
Total coliform (Present / Absent)	-	A	A		A	
pH (Standard Units) @ 25°C	7.70*	7.60*		6.5 - 8.5		>7.0
Specific Conductance (Umhos)	197	331				
Turbidity (NTU)	6.03	0.0700*	0.3		0.3	
Threshold Odor Number	6F	1CL				3

Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.

Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.

Note 3: * Identifies Monthly Average Process analyses.