



2015

*MAGNA WATER DISTRICT
WATER QUALITY REPORT*





MAGNA WATER DISTRICT

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Governing Board

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Mick Sudbury, Board Member

Jeff White, Board Member

Executive Staff

Terry Pollock, General Manager

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Kim Bailey, Water Operations Manager

LeIsle Fitzgerald, District Controller

Clint Dilley, District Engineer

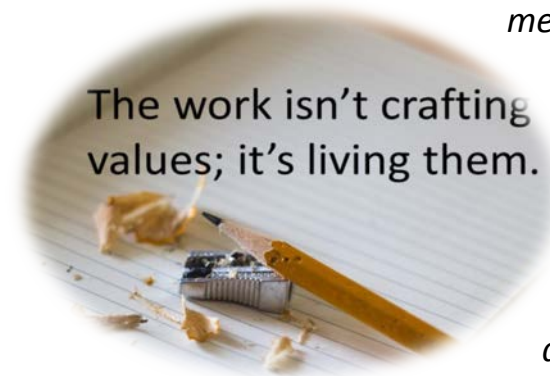


OUR MISSION

Magna Water District is committed to serve the needs of the Metro Township of Magna residents, businesses, and visitors by providing high-quality drinking water and wastewater disposal services while planning for future

economic growth. This will be accomplished through progressive planning, implementing water conservation

The work isn't crafting values; it's living them.



measures, safe-guarding

public health and the

environment, and

providing for

continuous process

improvements,

advanced technologies,

and cost

efficiencies. This requires that

we establish, maintain, update, and protect our water

system from contaminants, either natural or as the result of

industry; maintain and enhance long-term water resources through water conservation programs, using the most advanced technology for pristine water quality, and wastewater disposal services. It also requires that we accomplish this 24 hours a day, 365 days a year. We are honoured to serve our community and pursue this mission.

OUR VISION

The continuous delivery of safe, excellent, cost-effective water supply and wastewater services in compliance with all State and Federal regulatory requirements to every home and business within Magna Water District boundaries.

OUR VALUES

Our Values are: Service, Leadership, Integrity, Flexibility, Efficiency and Stewardship.

OUR COMMITMENT

Magna Water District is committed to working to provide the highest level of customer satisfaction by supplying safe and clean drinking water that meets or exceeds state and federal standards. Magna Water District is required to report the test results taken in the calendar year from January 1, 2015 to December 31, 2015. The District is constantly testing and works closely with the Utah Division

of Drinking Water and Federal EPA to ensure your drinking water meets and exceeds all drinking water standards, also to ensure proper protection, management of our water sources and a continuing supply of safe drinking water to our consumers.



CONSUMER CONFIDENCE REPORTING

*Each year Magna Water District must provide our customers with a **Consumer Confidence Report (CCR)**. This*






document is intended to provide consumers with an overview of their drinking water provided by Magna Water District. Data on bacteriologic and chemical quality is also provided. The CCR is the result of the 1996 Safe Drinking Water Act. EPA is requiring community water systems to prepare and provide to their customers annual reports on the quality of water delivered by their systems.

***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 EPA's Safe Drinking Water Hotline: 1-800-426-4791.*

***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: Safe Drinking Water Hotline: 1-800-426-4791.

Contaminants that may be present in source water before we treat it 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 and residential uses.*
-  *Radioactive contaminants, which are naturally occurring.*
-  *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.

SOURCES OF SUPPLY

WHERE DOES YOUR WATER COME FROM?

Your water comes from 10 wells located in two well fields. The oldest well field is the Haynes Well Field the other is Barton Well Field. MAGNA WATER DISTRICT owns the land around these wells and restricts any activity that could contaminate them.

Additional water is purchased through a perpetual yearly contract with Jordan Valley Water Conservancy District, which is injected directly in the District’s water system at the southeast end of the District.

2015 Production in Acre Feet (1 Acre Foot of Water = 325,828 Gallons)	
<i>Jordan Valley Water Conservancy District</i>	<i>793.34</i>
<i>EDR – PLANT Finished Blend</i>	<i>3,933.34</i>
<i>Total Production</i>	<i>4,417.11</i>



Last year, as in years past, your drinking water met state and federal requirements during 2015. The District vigilantly safeguards its water supplies and once again we are proud to report that our system has never violated a maximum contaminant level or any other water quality requirements.

"EPA requires monitoring of over 80 drinking water contaminants. Those contaminants listed in the table below are the only contaminants detected in your drinking water."

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Contaminants (units)		MCL	MCLG	Magna Water Result		Major Sources in Drinking Water
Microbiological Contaminants						
Total Coliform Bacteria		MCL: presence of Coliform bacteria in >5% of monthly samples	0	0		Naturally present in the Environment.
Disinfection By-products						
TTHMs [Total Trihalomethanes] HAA5s (ug/L)		80 ug/L 60 ug/L	na na	27.72 ug/L 14.16 ug/L		By-product of drinking water chlorination.

Primary Inorganics						
Arsenic	0.010 ug/L	0.0 ug/L	.0057 ug/L			Erosion of naturally occurring deposits and runoff from orchards.
Nitrate, Nitrogen	10 mg/L	10 mg/L	3.2 mg/L			Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.
Unregulated Contaminants Monitoring Rule 3 (UCMR3)						

Chromium-6	UR	NE	.668 ug/L		Naturally Occurring.
1,4-Dioxane	UR	NE	<0.07 ug/L		Found in manufacturing processes
1,1-Dichloroethane	UR	NE	<0.03 ug/L		Found in manufacturing processes
1,2,3-Trichloropropane	UR	NE	<0.03 ug/L		Used to make other chemicals
1,3-Butadiene	UR	NE	<0.1 ug/L		Used in rubber and plastic manufacturing
Bromochloromethane	UR	NE	<0.06 ug/L		Used as a chemical intermediate; limited use as a fire extinguishing agent.
Bromomethane	UR	NE	<0.2 ug/L		Used in pesticides.
Chlorodifluoromethane	UR	NE	<0.08 ug/L		Used in refrigeration
Chloromethane	UR	NE	<0.2 ug/L		Released from manmade sources.
PFBS	UR	NE	<0.09 ug/L		Manmade Compound.
PFHpA	UR	NE	<0.01 ug/L		Manmade Compound.
PFHxS	UR	NE	<0.03 ug/L		Manmade Compound.
PFNA	UR	NE	<0.02 ug/L		Manmade Compound.
PFOA	UR	NE	<0.02 ug/L		Manmade Compound.
PFOS	UR	NE	<0.04 ug/L		Manmade Compound.
Chlorate	UR	NE	100.05 ug/L		Byproduct of disinfection.
Pesticides					
None Detected					
Herbicides					

None Detected
Carbamates
None Detected

To help you better understand unfamiliar items and abbreviations used in this table, we have provided the following definitions:

- 💧 *Action Level (AL) - the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.*
- 💧 *Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water.*
- 💧 *Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.*
- 💧 *ND: Non-Detect*
- 💧 *NE: None established*
- 💧 *NR: Not reported*
- 💧 *UR: Unregulated at this time.*
- 💧 *MFL: Million fibers per liter*
- 💧 *Nephelometric Turbidity Unit (NTU) – the measurement of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.*
- 💧 *Parts per million (ppm) - one part per million corresponds to one minute in two years or a single penny in \$10,000.*
- 💧 *Parts per billion (ppb) - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.*
- 💧 *Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.*
- 💧 *Range: Values shown are a range of measured values in your area. Single values indicate one actual measured value.*
- 💧 *SS: Secondary Standards.*

**All water delivered to Magna Water customers is fluoridated. Questions regarding Fluoridation may be addressed by calling the Salt Lake Valley Health Department at (801) 313-6602.*

RESIDENTS – HELP PROTECT YOUR DRINKING WATER!

Public drinking water in your area comes from water wells that tap underground aquifers underlying the town of Magna. You live; work and play on your drinking recharge area!

HOUSEHOLD HAZARDOUS WASTE IS A SERIOUS THREAT

Many hazardous products and chemicals such as cleaners, oils and pesticides are used in the home every day. When discarded, these products are called household hazardous waste. Because chemicals found in



household hazardous wastes can contaminate soil and groundwater, generate hazardous emissions at

landfills and disrupt water treatment plants, it is important to properly dispose of them. Please properly use, store and dispose of household hazardous waste.



Pesticides and fertilizers applied to plants during crop, lawn, and garden maintenance may leach into the groundwater and cause contamination. Proper storage, mixing, application, spill cleanup, watering, and disposal procedures should be a part of your best management practices.

Minimize waste! The fewer pesticides and hazardous products you buy, the fewer you will have to store. Therefore, only purchase the amount and kind of hazardous products that are needed. Hazardous materials should always be stored in sound, properly labeled, original containers, and used in accordance with manufacturer's directions.

Properly dispose of hazardous materials. Don't dump wastes down a drain or onto the ground. Containers which have been emptied and rinsed can be discarded in

*the trash. Unused products in their original containers
may be recycled at household hazardous waste collections*

Check out the web for more information:

<http://www.hazardouswaste.utah.gov/>

<http://www.hazardouswaste.utah.gov/Docs/GUIDE1a.pdf>

[http://www.drinkingwater.utah.gov/documents/spec_services/
pollution_prevention_pesticides.pdf](http://www.drinkingwater.utah.gov/documents/spec_services/pollution_prevention_pesticides.pdf)

sites.

For additional information, contact:

Division of Solid & Hazardous Waste: (801) 538-6170

Division of Drinking Water, Source Protection Program: (801) 536-4200

Environmental Hotline: 1 (800) 458-0145

Pollution Prevention Coordinator: (801) 536-4477

JORDAN VALLEY WATER CONSERVANCY DISTRICT Consumer Confidence Report Data

2015

The table below lists all of the parameters in the drinking water detected by Jordan Valley Water Conservancy District or its suppliers in the drinking water during the calendar year of this report. The presence of these parameters in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of this report. For certain parameters, EPA and/or the State requires monitoring at a frequency less than once per year because the concentrations do not change frequently.

Parameter	Units	2015 Average	2015 Maximum	2015 Minimum	Monitoring Criteria			Last Sampled	Comments/Likely Source
					MCL	MCLG	Violation		
PRIMARY INORGANICS									
Antimony	ug/L	0.06	0.90	ND	6.00	6.00	No	2014	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
Arsenic	ug/L	1.2	3.2	ND	10.0	0.0	No	2015	Erosion of naturally occurring deposits and runoff from orchards.
Asbestos	MFL	ND	ND	ND	7.0	7.0	No	2014	Decay of asbestos cement in water mains; erosion of natural deposits.
Barium	ug/L	71	172	ND	2000	2000	No	2015	Erosion of naturally occurring deposits.
Beryllium	ug/L	ND	ND	ND	4	4	No	2015	Discharge from metal refineries and coal burning factories.
Cadmium	ug/L	ND	ND	ND	5.00	5.00	No	2015	Corosion of galvanized pipes; erosion of natural deposits.
Copper	ug/L	2	38	ND	NE	NE	No	2015	Erosion of naturally occurring deposits.
Chromium	ug/L	0.04	0.60	ND	100.0	100.0	No	2015	Discharge from steel and pulp mills; Erosion of natural deposits.
Cyanide, Free	ug/L	ND	ND	ND	200.0	200.0	No	2013	Discharge from steel/metal factories; discharge from plastic and fertilizer factories.
Fluoride	mg/L	0.4	1.3	0.2	4.0	4.0	No	2015	Erosion of naturally occurring deposits and discharges from fertilizers. Fluoride added at source.
Lead	ug/L	0.1	1.0	ND	NE	NE	No	2015	Erosion of naturally occurring deposits. Compliance is based on samples taken from customer's taps, which is represented below.

Mercury	ug/L	ND	ND	ND	2.00	2.00	No	2014	Erosion of naturally occurring deposits and runoff from landfills.
Nickel	ug/L	ND	4.5	ND	NE	NE	No	2015	Erosion of naturally occurring deposits.
Nitrate	mg/L	1.1	3.1	ND	10.0	10.0	No	2015	Runoff from fertilizer, leaching from septic tanks, and naturally occurring organic material.
Nitrite	mg/L	ND	ND	ND	1.0	1.0	No	2015	Runoff from fertilizer, leaching from septic tanks, and naturally occurring organic material.
Selenium	ug/L	0.7	3.1	ND	50.0	50.0	No	2015	Erosion of naturally occurring deposits.
Sodium	mg/L	18.2	79.9	5.4	NE	NE	No	2015	Erosion of naturally occurring deposits and runoff from road deicing.
Sulfate	mg/L	36	100	6	1000	NE	No	2015	Erosion of naturally occurring deposits.
Thallium	ug/L	ND	ND	ND	2.0	0.5	No	2015	Leaching from ore-processing sites and discharges from electronics, glass and drug factories.
TDS	mg/L	238	688	100	2000	NE	No	2015	Erosion of naturally occurring deposits.
Turbidity (groundwater sources)	NTU	0.15	0.59	0.02	5.0	NE	No	2015	MCL is 5.0 for groundwater. Suspended material from soil runoff.
Turbidity (surface water sources)	NTU	0.03	0.24	0.01	0.3	TT	No	2015	MCL is 0.3 NTU 95% of the time for surface water. Suspended material from soil runoff.
Lowest Monthly % Meeting TT	%	100% (Treatment Technique requirement applies only to treated surface water sources)							

SECONDARY INORGANICS - Aesthetic Standards

Aluminum	ug/L	ND	ND	ND	SS = 50-200	NE	No	2015	Erosion of naturally occurring deposits and treatment residuals.
Chloride	mg/L	38	170	9	SS = 250	NE	No	2015	Erosion of naturally occurring deposits.
Color	CU	1	1	1	SS = 15	NE	No	2015	Decaying naturally occurring organic material and suspended particles.
Iron	ug/L	1	30	ND	SS = 300	NE	No	2015	Erosion of naturally occurring deposits.
Manganese	ug/L	1	5	ND	SS = 50	NE	No	2015	Erosion of naturally occurring deposits.

pH		7.82	8.70	6.90	SS = 6.5-8.5	NE	No	2015	Naturally occurring and affected by chemical treatment.
Silver	ug/L	0.0	0.5	ND	SS = 100	NE	No	2015	Erosion of naturally occurring deposits.
Zinc	ug/L	0.2	30.0	ND	SS = 5000	NE	No	2015	Erosion of naturally occurring deposits.
UNREGULATED PARAMETERS - monitoring not required									
Alkalinity, Bicarbonate	mg/L	137	288	60	UR	NE	No	2015	Naturally occurring.
Alkalinity, Carbonate	mg/L	1	13	ND	UR	NE	No	2015	Naturally occurring.
Alkalinity, CO2	mg/L	101	212	45	UR	NE	No	2015	Naturally occurring.
Alkalinity, Hydroxide	mg/L	ND	ND	ND	UR	NE	No	2015	Naturally occurring.
Alkalinity, Total (CaCO3)	mg/L	118	236	18	UR	NE	No	2015	Naturally occurring.
Ammonia	mg/L	ND	ND	ND	UR	NE	No	2014	Runoff from fertilizer and naturally occurring.
Bromide	ug/L	ND	14.43	ND	UR	NE	No	2015	Naturally occurring.
Calcium	mg/L	49	84	15	UR	NE	No	2015	Erosion of naturally occurring deposits.
Chemical Oxygen Demand	mg/L	8	18	ND	UR	NE	No	2014	Measures amount of organic compounds in water. Naturally occurring.
Chloropicrin	ug/L	ND	ND	ND	UR	NE	No	2014	Antimicrobial, fungicide chemical compound.
Cobalt	mg/L	ND	ND	ND	UR	NE	No	2015	Erosion of naturally occurring deposits.
Conductance	umhos/cm	413	917	46	UR	NE	No	2015	Naturally occurring.
Cyanide, Total	ug/L	ND	ND	ND	UR	NE	No	2014	Discharge from steel/metal factories; discharge from plastic and fertilizer factories.
Geosmin	ng/L	5.0	8.6	ND	UR	NE	No	2015	Naturally occurring organic compound associated with musty odor.

Hardness, Calcium	mg/L	119	190	14	UR	NE	No	2015	Erosion of naturally occurring deposits.
Hardness, Total	mg/L	161	402	20	UR	NE	No	2015	Erosion of naturally occurring deposits.
Chromium VI	mg/L	ND	ND	ND	UR	NE	No	2011	Industrial runoff and naturally occurring.
Magnesium	mg/L	14.2	47.0	2.7	UR	NE	No	2015	Erosion of naturally occurring deposits.
Oil & Grease	mg/L	6	19	ND	UR	NE	No	2014	Petroleum hydrocarbons can either occur from natural underground deposits or from man made lubricants.
Orthophosphates	ug/L	3.1	140.0	ND	UR	NE	No	2015	Erosion of naturally occurring deposits.
Potassium	mg/L	3.6	14.0	0.9	UR	NE	No	2015	Erosion of naturally occurring deposits.
TSS (Total Suspended Solids)	mg/L	ND	1	ND	UR	NE	No	2015	Erosion of naturally occurring deposits.
Turbidity (distribution system)	NTU	0.13	0.61	0.02	UR	NE	No	2015	Suspended material from soil runoff.
Vanadium	ug/L	ND	ND	ND	UR	NE	No	2014	Naturally occurring.
VOCs									
Chloroform	ug/L	6.9	83.2	ND	UR	NE	No	2015	By-product of drinking water disinfection.
Dibromochloromethane	ug/L	0.7	4.4	ND	UR	NE	No	2015	By-product of drinking water disinfection.
Bromodichloromethane	ug/L	2.6	17.6	ND	UR	NE	No	2015	By-product of drinking water disinfection.
All Other Parameters	ug/L	None Detected			Various	Various	No	2015	Various sources.
PESTICIDES/PCBs/SOCs									
Bis (2ethylhexyl) phthalate	ug/L	ND	ND	ND	6.0	0.0	No	2015	Discharge from rubber and chemical factories.
All Other Parameters	ug/L	None Detected			Various	Various	No	2015	Various sources.

RADIOLOGICAL									
Radium 226	pCi/L	0.11	0.35	-0.01	NE	NE	No	2014	Decay of natural and man-made deposits.
Radium 228	pCi/L	0.72	3.00	0.13	NE	NE	No	2015	Decay of natural and man-made deposits.
Radium 226 & 228	pCi/L	0.82	3.11	0.18	5.00	NE	No	2015	Decay of natural and man-made deposits.
Gross-Alpha	pCi/L	2.4	12.0	-1.2	15.0	NE	No	2015	Decay of natural and man-made deposits.
Gross-Beta	pCi/L	6.0	14.0	1.1	50.0	NE	No	2015	Decay of natural and man-made deposits.
Uranium	ug/L	11.8	118.0	0.0	30.0	NE	No	2015	The high maximum result is not a violation but triggers quarterly monitoring. Decay of natural and man-made deposits.
Radon	pCi/L	-6.0	-1.0	-9.0	NE	NE	No	2013	Naturally occurring in soil.
DISINFECTANTS / DISINFECTION BY-PRODUCTS									
Chlorine	mg/L	0.7	1.2	ND	4.0	NE	No	2015	Drinking water disinfectant.
TTHMs	ug/L	25.2	103.0	ND	80.0	NE	No	2015	High result is not a violation, violation is determined on annual location average. By-product of drinking water disinfection.
HAA5s	ug/L	17.3	51.3	ND	60.0	NE	No	2015	By-product of drinking water disinfection.
HAA6	ug/L	25.3	54.3	8.2	UR	NE	No	2015	By-product of drinking water disinfection.
Highest Annual Location	ug/L	TTHM = 58.4 ug/L, HAA5s = 35.1 ug/L							
Bromate	ug/L	ND	ND	ND	10.0	NE	No	2015	By-product of drinking water disinfection.
Chlorine Dioxide	ug/L	6	140	ND	800	NE	No	2015	Drinking water disinfectant.
Chlorite	mg/L	0.31	0.45	0.24	1.00	0.80	No	2015	By-product of drinking water disinfection.
ORGANIC MATERIAL									
Total Organic Carbon	mg/L	1.4	3.6	ND	TT	NE	No	2015	Naturally occurring.
Dissolved Organic Carbon	mg/L	1.9	2.5	0.8	TT	NE	No	2015	Naturally occurring.

UV-254	1/cm	0.020	0.051	0.010	UR	NE	No	2015	This is a measure of the concentration of UV-absorbing organic compounds. Naturally occurring.
LEAD and COPPER (tested at the consumer's tap) - monitoring required every 3 years.									
Lead	ug/L	5	87	ND	AL = 15	NE	No	2013	Lead violation is determined by the 90th percentile result. Corrosion of household plumbing systems, erosion of naturally occurring deposits.
Copper	ug/L	114	370	11	AL = 1300	NE	No	2013	Copper violation is determined by the 90th percentile result. Corrosion of household plumbing systems, erosion of naturally occurring deposits.
90th Percentile		Lead = 4.2 ppb, Copper = 258 ppb							
# of sites above Action		Lead = 2, Copper = 0							
PROTOZOA (sampled at source water)									
Cryptosporidium	Oocysts/1L	0.01	0.11	ND	TT	0.00	No	2015	Parasite that enters lakes and rivers through sewage and animal waste.
Giardia	Cysts/1L	0.06	0.30	ND	TT	0.00	No	2015	Parasite that enters lakes and rivers through sewage and animal waste.
MICROBIOLOGICAL									
HPC	MPN/mL	85.3	623.0	ND	500.0	0.0	No	2015	The high maximum result is not a violation because the HPC value is calculated into the Not >5% positive Coliform samples per month. Even with this result the 5% was not exceeded.
Total Coliform	% Positive per Month	0.00%	0.68%	0.00%	Not >5%	0.00	No	2015	MCL is for monthly compliance. All repeat samples were negative; no violations were issued. Human and animal fecal waste, naturally occurring in the environment.

mg/L: milligrams per liter
ug/L: micrograms per liter
pg/L: picograms per liter
ng/L: nanograms per liter
NTU: Nephelometric Turbidity Unit
CU: Color Unit

MCL: Maximum Contaminant Level
MCLG: Maximum Contaminant Level Goal
TTHM: Total Trihalomethanes
HAA5s: Five Haloacetic Acids
HPC: Heterotrophic Plate Count
VOCs: Volatile Organic Compounds

ND: None Detected
NA: Not Applicable
NE: Not Established
UR: Unregulated
TT: Treatment
AL: Action Level

TON: Threshold Odor Unit

umhos/cm: micro ohms per centimeter

1/cm: One / centimeter

pCi/L: picocuries per liter

MFL: Millions of Fibers per Liter

MPN/mL: most probable number per millileter

Oocysts/1L: Oocysts per 1 liter

Cysts/1L: Cysts per 1 liter

PCBs: Polychlorinated Biphenyls

SOCs: Synthetic Organic Chemicals

SS: Secondary

Standard