



Utilities Department
Laboratory
289 N. Figueroa Avenue
Yuma, AZ 85364
(928) 329-2893

Annual Inorganic Chemical Analysis Report Main Street Water Treatment Plant

The samples for the inorganic analyses are collected in January.

Definitions

Primary Inorganic Chemicals – Are chemicals, mainly metals, that the Environmental Protection Agency (EPA) has determined can cause health effects if present at the maximum contaminant level (MCL) over a period of time.

Secondary Inorganic Chemicals – No standards have been set by the EPA for these chemicals at this time. These are considered to be mainly of esthetic interest and do not present a health concern.

MCL – Maximum Contaminant Level. The maximum permissible level for a contaminant in water that is delivered to any user of a water system.

Contaminant – Any physical, chemical, biological, microbiological or radiological substance or matter in water.

MDL – PQL – MRL – RL – Minimum detection level – practical quantitation level – minimum reporting level – reporting level. The lowest measurable quantity of a contaminant that current laboratory instruments or technology can measure.

< -- This symbol indicates “less than” the number that appears to the right of it.

ug/L – micrograms per liter or parts per billion (ppb). Divide by 1000 to convert ug/L to mg/L.

mg/L – milligrams per liter or parts per million (ppm).

ND – Non-detectable. Rather than claiming a contaminant does not exist or is zero (0), laboratories report a contaminant is “non-detectable,” and report the result as less than (<) the reporting level for that particular contaminant.

Analysis Method – Are numbers that identify the specific procedure that was used to test for the contaminant.

Contaminant Code – Identifies the contaminant with a number, mainly for computer/data tracking by the Arizona Department of Environmental Quality.

Arizona Department of Environmental Quality
 Drinking Water Inorganic Chemical Analysis Report Form

Entry Point To the Distribution System (EPDS) Only

PWS ID#: AZ0414024 PWS Name: City of Yuma Laboratory

01/13/2020 0935 (24 hr Clock) Leah Dennis
 Sample Date Sample Time Owner/Contact Person

Owner/Contact Fax Number _____ Owner/Contact Phone Number (928) 373-4596

Sample Type
 Compliance Monitoring

Sample Collection Point
 EPDS# 001

MAIN ST WTP EPDS 001

Sampling Site ID _____

For MCL or Composite Level Exceedance	
_____	Original Violation Specimen Number
Sample Type	
<input type="checkbox"/>	Confirmation
<input type="checkbox"/>	Confirmation - Composite

INORGANIC CHEMICAL ANALYSIS

>>>To be completed by laboratory personnel<<<

Analysis Method	MCL	Reporting Limit	Contaminant Name Method	Cont. Code	Analysis Run Date	Results	Exceeds MCL	Exceeds Trigger Limit
<u>200.8</u>	0.010	0.005	Arsenic	1005	<u>01/20/2020</u>	<u>0.0012</u>	<input type="checkbox"/>	
<u>200.8</u>	2	1	Barium	1010	<u>01/20/2020</u>	<u>0.10</u>	<input type="checkbox"/>	
<u>200.8</u>	0.005	0.0025	Cadmium	1015	<u>01/20/2020</u>	<u><0.0005</u>	<input type="checkbox"/>	
<u>200.8</u>	0.1	0.05	Chromium	1020	<u>01/20/2020</u>	<u><0.001</u>	<input type="checkbox"/>	
<u>4500F-C</u>	4	0.5	Fluoride	1025	<u>01/16/2020</u>	<u>0.38</u>	<input type="checkbox"/>	
<u>200.8</u>	0.002	0.001	Mercury	1035	<u>02/03/2020</u>	<u><0.0002</u>	<input type="checkbox"/>	
<u>300.0</u>	10	2.5	Nitrate (as N)	1040	<u>01/14/2020</u>	<u>0.21</u>	<input type="checkbox"/>	(5 mg/L) <input type="checkbox"/>
<u>300.0</u>	1	0.25	Nitrite	1041	<u>01/14/2020</u>	<u><0.05</u>	<input type="checkbox"/>	0.5 mg/L <input type="checkbox"/>
<u>200.8</u>	0.05	0.025	Selenium	1045	<u>01/20/2020</u>	<u><0.005</u>	<input type="checkbox"/>	
<u>200.8</u>	0.006	0.003	Antimony	1074	<u>01/20/2020</u>	<u><0.001</u>	<input type="checkbox"/>	
<u>200.8</u>	0.004	0.002	Beryllium	1075	<u>01/20/2020</u>	<u><0.001</u>	<input type="checkbox"/>	
<u>335.4</u>	0.2	0.1	Cyanide	1024	<u>01/21/2020</u>	<u><0.005</u>	<input type="checkbox"/>	
<u>200.8</u>	No MCL	0.05	Nickel*	1036	<u>01/20/2020</u>	<u><0.005</u>	<input type="checkbox"/>	
<u>200.8</u>	0.002	0.001	Thallium	1085	<u>01/20/2020</u>	<u><0.001</u>	<input type="checkbox"/>	
<u>200.7</u>	No MCL	10	Sodium*	1052	<u>01/29/2020</u>	<u>120</u>	<input type="checkbox"/>	

Laboratory Information

>>>To be completed by laboratory personnel<<<

Lab ID Number: AZ0778
 Specimen Number: 202001140329I
 Name: Euofins Eaton Analytical, LLC
 Printed Name and Phone Number of Lab Contact: Thomas D French (480) 778-1558
 Authorized Signature: _____
 Date Public Water System Notified: _____
 Comments: _____

All units must be reported in milligrams per liter (mg/L)
 *Contaminants without an MCL
 DWAR 2IN: Revised 8/2009

Tel: (626) 386-1100
 Fax: (866) 988-3757
 1 800 566 LABS (1 800 566 5227)

Report: 849013
 Project: IOC
 Group: Annual IOC

City of Yuma Laboratory
 Leah Dennis
 289 N. Figueroa Ave.
 Yuma, AZ 85364

Samples Received on:
 01/14/2020 1312

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
MAIN ST WTP EPDS 001 (202001140329)						Sampled on 01/13/2020 0935			
PWSID: AZ0414024									
Well ID: 001									
Variable ID: 0106-20									
EPA 200.8 - ICPMS Metals									
01/14/20	01/20/20 19:53	1221186	1222059	(EPA 200.8)	Aluminum Total ICAP/MS	220	ug/L	20	1
01/14/20	01/20/20 19:53	1221186	1222059	(EPA 200.8)	Antimony Total ICAP/MS	ND	ug/L	1.0	1
01/14/20	01/20/20 19:53	1221186	1222059	(EPA 200.8)	Arsenic Total ICAP/MS	1.2	ug/L	1.0	1
01/14/20	01/20/20 19:53	1221186	1222059	(EPA 200.8)	Barium Total ICAP/MS	100	ug/L	2.0	1
01/14/20	01/20/20 19:53	1221186	1222059	(EPA 200.8)	Beryllium Total ICAP/MS	ND	ug/L	1.0	1
01/14/20	01/20/20 19:53	1221186	1222059	(EPA 200.8)	Cadmium Total ICAP/MS	ND	ug/L	0.50	1
01/14/20	01/20/20 19:53	1221186	1222059	(EPA 200.8)	Chromium Total ICAP/MS	ND	ug/L	1.0	1
01/14/20	01/20/20 19:53	1221186	1222059	(EPA 200.8)	Copper Total ICAP/MS	2.0	ug/L	2.0	1
01/14/20	01/20/20 19:53	1221186	1222059	(EPA 200.8)	Lead Total ICAP/MS	ND	ug/L	0.50	1
01/14/20	01/20/20 19:53	1221186	1222059	(EPA 200.8)	Manganese Total ICAP/MS	ND	ug/L	2.0	1
01/14/20	01/20/20 19:53	1221186	1222059	(EPA 200.8)	Nickel Total ICAP/MS	ND	ug/L	5.0	1
01/14/20	01/20/20 19:53	1221186	1222059	(EPA 200.8)	Selenium Total ICAP/MS	ND	ug/L	5.0	1
01/14/20	01/20/20 19:53	1221186	1222059	(EPA 200.8)	Silver Total ICAP/MS	ND (B1)	ug/L	0.50	1
01/14/20	01/20/20 19:53	1221186	1222059	(EPA 200.8)	Thallium Total ICAP/MS	ND	ug/L	1.0	1
01/14/20	01/20/20 19:53	1221186	1222059	(EPA 200.8)	Zinc Total ICAP/MS	ND	ug/L	20	1
EPA 200.7 - ICP Metals									
01/14/20	01/29/20 16:04	1221186	1224203	(EPA 200.7)	Calcium Total ICAP	81	mg/L	1.0	1
01/14/20	01/29/20 16:04	1221186	1224203	(EPA 200.7)	Iron Total ICAP	ND	mg/L	0.020	1
01/14/20	01/29/20 16:04	1221186	1224203	(EPA 200.7)	Magnesium Total ICAP	30	mg/L	0.10	1
01/14/20	01/29/20 16:04	1221186	1224203	(EPA 200.7)	Potassium Total ICAP	5.1	mg/L	1.0	1
01/14/20	01/29/20 16:04	1221186	1224203	(EPA 200.7)	Sodium Total ICAP	120	mg/L	1.0	1
EPA 200.7 - ICP Metals									
01/14/20	01/29/20 16:04	1221186	1224256	(EPA 200.7)	Silica	8.7	mg/L	0.50	1
EPA 200.8 - Mercury ICPMS									
01/14/20	02/03/20 15:26	1221186	1225105	(EPA 200.8)	Mercury ICPMS	ND	ug/L	0.20	1
SM2330B - Hydroxide as OH, Calculated									
	01/17/20 15:38			(SM2330B)	Hydroxide as OH Calculated	ND (c)	mg/L	2.0	1
SM 2330B - pH of CaCO3 saturation(60C)									
	01/17/20 15:38			(SM 2330B)	pH of CaCO3 saturation(60C)	6.9 (c)	Units	0.10	1
SM4500-CO2-D - Carbon Dioxide,Free(25C)-Calc.									

Rounding on totals after summation.
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Report: 849013
 Project: IOC
 Group: Annual IOC

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Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
	01/17/20 15:38			(SM4500-CO2-D)	Carbon Dioxide,Free(25C)-Calc.	2.8 (c)	mg/L	2.0	1
					SM 2330B - Langelier Index - 25 degree				
	01/17/20 15:38			(SM 2330B)	Langelier Index - 25 degree	0.71 (c)	None	-14	1
					SM2330B - Carbonate as CO3, Calculated				
	01/17/20 22:33			(SM2330B)	Carbonate as CO3, Calculated	ND (c)	mg/L	2.0	1
					SM 2340B - Total Hardness as CaCO3 by ICP				
	01/29/20 17:24			(SM 2340B)	Total Hardness as CaCO3 by ICP (calc)	320 (c)	mg/L	3.0	1
					SM 1030E - Anion Sum - Calculated				
	01/17/20 15:59			(SM 1030E)	Anion Sum - Calculated	12 (c)	meq/L	0.0010	1
					SM 1030E - Cation Sum - Calculated				
	01/29/20 17:24			(SM 1030E)	Cation Sum - Calculated	12 (c)	meq/L	0.0010	1
					SM 2330B - pH of CaCO3 saturation(25C)				
	01/29/20 17:23			(SM 2330B)	pH of CaCO3 saturation(25C)	7.3 (c)	Units	0.10	1
					SM2330B - Bicarb.Alkalinity as HCO3,calc				
	01/17/20 15:59			(SM2330B)	Bicarb.Alkalinity as HCO3calc	170 (c)	mg/L	2.0	1
					SM 2330 - Agressiveness Index-Calculated				
	01/29/20 17:23			(SM 2330)	Agressiveness Index-Calculated	13 (c)	None	0.10	1
					SM 2330B - Langlier Index at 60 degrees C				
	01/29/20 22:31			(SM 2330B)	Langelier Index at 60 degrees C	1.1 (c)	None	-14	1
					SM 1030E - Cation/Anion Difference				
	01/29/20 22:32			(SM 1030E)	Cation/Anion Difference	0.091 (c)	%		1
					EPA 300.0 - Nitrate, Nitrite by EPA 300.0				
	01/14/20 18:33		1221159	(EPA 300.0)	Nitrate as Nitrogen by IC	0.21	mg/L	0.20	2
	01/14/20 18:33		1221159	(EPA 300.0)	Nitrate as NO3 (calc)	0.95	mg/L	0.88	2
	01/14/20 18:33		1221159	(EPA 300.0)	Nitrite Nitrogen by IC	ND	mg/L	0.10	2
	01/14/20 18:33		1221159	(EPA 300.0)	Total Nitrate, Nitrite-N, CALC	0.21	mg/L	0.10	1
					EPA 300.0 - Chloride, Sulfate by EPA 300.0				
	01/16/20 06:44		1221529	(EPA 300.0)	Chloride	120	mg/L	2.5	5
	01/16/20 06:44		1221529	(EPA 300.0)	Sulfate	280	mg/L	2.5	5
					EPA 335.4 - Cyanide by manual distillation				
01/21/20	01/21/20 11:53	1222374	1222556	(EPA 335.4)	Cyanide by manual distillation	ND	mg/L	0.0050	1
					SM 4500F-C - Fluoride				
	01/16/20 16:58		1221793	(SM 4500F-C)	Fluoride	0.38	mg/L	0.050	1
					SM 2320B - Alkalinity in CaCO3 units				
	01/16/20 11:14		1221796	(SM 2320B)	Alkalinity in CaCO3 units	140	mg/L	2.0	1
					E160.1/SM2540C - Total Dissolved Solids (TDS)				
01/16/20	01/16/20 22:07	1221888	1221890	(E160.1/SM2540C)	Total Dissolved Solids (TDS)	720	mg/L	10	1

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SM4500-HB - PH (H3=past HT not compliant)									
	01/16/20 11:14		1221758	(SM4500-HB)	PH (H3=past HT not compliant)	8.0	Units	0.10	1
SM 5540C/EPA 425.1 - Surfactants									
	01/14/20 18:38		1221167	(SM 5540C/EPA 425.1)	Surfactants	ND	mg/L	0.10	1
SM2510B - Specific Conductance									
	01/16/20 11:14		1221801	(SM2510B)	Specific Conductance, 25 C	1200	umho/cm	2.0	1

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