

**Water Quality Chemistry Services
 2022 ADDITIONAL PHYSICAL, MINERAL, AND METAL CHARACTERISTICS**

PARAMETER	Units	CSD MDL	CITY OF SAN DIEGO TREATMENT PLANTS								
			ALVARADO			MIRAMAR			OTAY		
			MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX
Aggressive Index	---	---	12.0	12.3	12.4	12.2	12.4	12.6	11.9	12.2	12.5
Ammonia (as Nitrogen)	ppm	0.03	0.38	0.66	0.95	0.25	0.57	0.98	0.30	0.61	0.88
Bicarbonate	ppm	---	136	151	156	128	148	158	117	145	158
Bromide	ppm	0.1	ND	ND	0.1	ND	ND	0.1	ND	ND	0.2
Calcium	ppm	5	48	61	67	54	66	70	54	61	69
Calcium Hardness	ppm	10	120	153	167	134	164	176	135	152	173
Carbonate	ppm	---	0	1.5	4.2	0	2.1	4.1	0	0.81	2.9
Dissolved Organic Carbon (DOC)*	ppm	0.3	2.3	2.7	3.1	2.2	2.5	3.1	2.0	2.9	6.4
Magnesium	ppm	3	20.8	24.7	26.6	20.8	24.3	25.9	19.4	26.0	29.7
Non-Carb-Hardness	ppm	---	89	128	145	105	139	154	111	138	158
Total Phosphorus	ppb	12.5	ND	16.0	26.0	ND	8.0	21.0	ND	8.0	23.0
Potassium	ppm	0.5	4	5	6	4	5	5	4	5	6
Ryzner Aggressive Index	---	---	6.9	7.1	7.4	6.8	6.9	7.3	6.9	7.2	7.6
Silica	ppm	0.625	4.60	7.63	8.7	3.80	6.87	8.46	2.67	5.66	8.36
SUVA*	L/mg-m	---	1.2	1.3	1.3	1.1	1.2	1.2	1.0	1.2	1.4
Total Nitrogen	ppm	0.156	0.2	0.7	0.9	0.5	0.7	0.7	0.6	0.8	1.0

* Results from untreated water