

		Sample 1	Sample 2	Daily lab result	Recommendation for WWT based on international guidelines	Source (international guideline)
		Mar 2024	Nov 2024	Sample Date Yielded - 2024 WWT		
		WIK Philip Analysis *Only legly required both	WIK Philip Analysis	Local WWT Philip 02.09.2024		
Temperature	°C			12.8	increase < 3	International Finance Corporation: Environmental, Health, and Safety Guidelines - Effluent Levels for Metal, Plastic, and Rubber Products Manufacturing
Soluble solids (TDS)	mg/l		100	287	500	Code of Federal Regulations: Other safe drinking water act regulations
Suspended solids (SS)	mg/l	0.5	50	6	30-50	Water Soil & Stewardship- Platinum 7.10 Optimizing Effluent and Sludge Quality at the Facility Level International Finance Corporation: Environmental, Health, and Safety Guidelines - Effluent Levels for Metal, Plastic, and Rubber Products Manufacturing
pH		8.50	7.33	7.10	6.5-8.5	Code of Federal Regulations: Other safe drinking water act regulations
Dissolved iron (Fe)	mg/l		2.07		0.3-1	Code of Federal Regulations: Other safe drinking water act regulations International Finance Corporation: Environmental, Health, and Safety Guidelines - Effluent Levels for Metal, Plastic, and Rubber Products Manufacturing
Dissolved manganese (Mn)	mg/l		1.92		0.05	Code of Federal Regulations: Other safe drinking water act regulations
Mercury (Hg)	mg/l		0.02		1-3	WHO Guidelines for drinking-water quality
Copper (Cu)	mg/l		0.032		0.1-2	Abwasserabgesetz Germany (Wastewater Levy Act) WHO Guidelines for drinking-water quality
Zinc (Zn)	mg/l		0.116		0.2-2	Abwasserabgesetz Germany (Wastewater Levy Act) International Finance Corporation: Environmental, Health, and Safety Guidelines - Effluent Levels for Metal, Plastic, and Rubber Products Manufacturing
Hexavalent Chromium (Cr6+)	mg/l		0.003		0.05	Regulations for chromium emissions to the aquatic environment in Europe and elsewhere (https://pubmed.ncbi.nlm.nih.gov/2937286/)
Total Chromium (Cr)	mg/l				0.05	Regulations for chromium emissions to the aquatic environment in Europe and elsewhere (https://pubmed.ncbi.nlm.nih.gov/2937286/)
Cadmium (Cd)	mg/l		<0.001		0.003-0.05	WHO Guidelines for drinking-water quality Abwasserabgesetz Germany (Wastewater Levy Act)
Mercury (Pb)	mg/l		<0.001		0.001	Abwasserabgesetz Germany (Wastewater Levy Act) WHO Guidelines for drinking-water quality
Lead (Pb)	mg/l		<0.001		0.01-0.05	Abwasserabgesetz Germany (Wastewater Levy Act)
Manganese (Mn)	mg/l		0.003		2	International Finance Corporation: Environmental, Health, and Safety Guidelines - Effluent Levels for Metal, Plastic, and Rubber Products Manufacturing
Arsenic (As)	mg/l		<0.001		0.01-0.1	WHO Guidelines for drinking-water quality International Finance Corporation: Environmental, Health, and Safety Guidelines - Effluent Levels for Metal, Plastic, and Rubber Products Manufacturing
Selenium (Se)	mg/l		<0.001		0.04	WHO Guidelines for drinking-water quality
Nickel (Ni)	mg/l		0.004		0.05	Abwasserabgesetz Germany (Wastewater Levy Act)
Cobalt (Co)	mg/l		<0.001		0,004 (hronis) - 0,11 (acute)	TECHNICAL REPORT - WATER QUALITY GUIDELINES FOR COBALT, page 12 (https://www2.gov.bc.ca/gov/environment/air-land-water/water/waterquality/water-quality-guidelines/agreement-wqgl/cobalt_tech.pdf)
Cyanide (CN)	mg/l		0.067		0.05	Thresholds defined by Indonesia for "business/activities without established wastewater quality standards" (p. 79)
Sulfate (SO4)	mg/l				0.05-0.5	WHO Guidelines for drinking-water quality
Fluoride (F)	mg/l				1.5	WHO Guidelines for drinking-water quality
Free chlorine (Cl2)	mg/l				0.2	WHO Guidelines for drinking-water quality
Ammonia Nitrogen (NH3-N)	mg/l				1.5	WHO Guidelines for drinking-water quality
Nitrate (NO3-N)	mg/l		<0.08		20	BAT Reference Document on Waste Water and Waste Gas Treatment/management in the chemical industry. Umweltbundesamt Germany
Nitrite (NO2-N)	mg/l		0.08		0.6	BAT Reference Document on Waste Water and Waste Gas Treatment/management in the chemical industry. Umweltbundesamt Germany
Total Nitrogen	mg/l				10	Water Soil & Stewardship- Platinum 7.10 Optimizing Effluent and Sludge Quality at the Facility Level
BOD5	mg/l	0.5	<0.5		25	Water Soil & Stewardship- Platinum 7.10 Optimizing Effluent and Sludge Quality at the Facility Level
COD	mg/l	238	323		20 (direct discharge) 100 (transfer to wastewater treatment plant)	Abwasserabgesetz Germany (Wastewater Levy Act) Water Soil & Stewardship- Platinum 7.10 Optimizing Effluent and Sludge Quality at the Facility Level
Methylene blue active compound	mg/l				5	Thresholds defined by Indonesia for "business/activities without established wastewater quality standards" (p. 79)
Phenol	mg/l				0.15	BAT Reference Document on Waste Water and Waste Gas Treatment/management in the chemical industry. Umweltbundesamt Germany
Oil & Fat	mg/l		<5		10	Water Soil & Stewardship- Platinum 7.10 Optimizing Effluent and Sludge Quality at the Facility Level
Coliform Bacteria	MPN/100 ml		3.6 - 10 ⁷ CFU/100ml		400 bacteria/100ml	Water Soil & Stewardship- Platinum 7.10 Optimizing Effluent and Sludge Quality at the Facility Level
Escherichia coli	CFU/100ml		9.1 - 10 ⁴			