St Marys Wastewater Treatment Plant 2023-24 Pollution Monitoring Summary

EPL 1729

Summary period: 01-07-2023 to 30-06-2024

Date published: 01-09-2024



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Table 1: 50 percentile yearly summary EPA Point 5 Site code SM0005 Point description: At the outlet of the chlorine contact tank								
pollutant	unit of measure	sampling frequency	number of samples	minimum result	maximum result	50 percentile limit	50 percentile value	within limits
biochemical oxygen demand	mg/L	every 6 days	61	<2	<2	10	<2	yes
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	12	100	100	50	100	yes
nitrogen (ammonia)	mg/L	every 6 days	61	0.01	0.8	0.9	0.02	yes
total suspended solids	mg/L	every 6 days	61	<2	5	5	<2	yes

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Table 2: 80 percentile yearly summa	ry							
EPA Point 5 Site code SM0005	Point descri	Point description: At the outlet of the chlorine contact tank						
	unit of	sampling	number of	minimum	maximum	80 percentile	80 percentile	within
pollutant	measure	frequency	samples	result	result	limit	value	limits
faecal coliforms	CFU/100mL	every 6 days	61	<1	25	200	6	yes

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Table 3: 90 percentile yearly summ	ary								
EPA Point 5 Site code SM0005	Point description: At the outlet of the chlorine contact tank								
pollutant	unit of measure	sampling frequency	number of samples	minimum result	maximum result	90 percentile limit	90 percentile value	within limit	
aluminium	ug/L	monthly	12	33	146	200	137	yes	
biochemical oxygen demand	mg/L	every 6 days	61	<2	<2	15	<2	yes	
chlorine (total residual)	mg/L	every 6 days	61	<0.04	0.04	0.1	<0.04	yes	
copper	ug/L	monthly	12	6.8	15.4	8	15.3	no ¹	
diazinon	ug/L	monthly	12	<0.1	<0.1	0.1	<0.1	yes	
hydrogen sulphide (unionised)	ug/L	monthly	12	<30	<30	60	<30	yes	
iron	ug/L	monthly	12	43	102	96	83	yes	
nickel	ug/L	monthly	12	2.9	6.6	16.9	4.6	yes	
nitrogen (ammonia)	mg/L	every 6 days	61	0.01	0.8	1.4	0.05	yes	
total suspended solids	mg/L	every 6 days	61	<2	5	10	<2	yes	
zinc	ug/L	monthly	12	18	34	46	32	yes	

¹ Copper 90th percentile limit exceedance was largely influenced by the implementation of tighter limits following the Stage 1 concentration limit review and significant technology changes in biosolids treatment as part of the Lower South Creek Treatment Program.

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Table 4: 100 percentile yearly summary										
EPA Point 5 Site code SM0005	Point descr	Point description: At the outlet of the chlorine contact tank								
pollutant	unit of measure	sampling frequency	number of samples	minimum result	maximum result	100 percentile limit	100 percentile value	within limits		
nitrogen (total)	mg/L	every 6 days	61	2.46	8.74	45	8.74	yes		
phosphorus	mg/L	every 6 days	61	0.02	0.18	5	0.18	yes		

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Table 5: Average yearly summary									
EPA Point 5 Site code SM0005	Point description: At the outlet of the chlorine contact tank								
pollutant	unit of measure	sampling frequency	number of samples	minimum result	maximum result	Average limit	Average value	within limits	
aluminium	ug/L	monthly	12	33	146	120	69	yes	
copper	ug/L	monthly	12	6.8	15.4	6	12	no ²	
diazinon	ug/L	monthly	12	<0.1	<0.1	0.2	<0.1	yes	
hydrogen sulphide (unionised)	ug/L	monthly	12	<30	<30	30	<30	yes	
iron	ug/L	monthly	12	43	102	156	70	yes	
nickel	ug/L	monthly	12	2.9	6.6	12.3	3.8	yes	
zinc	ug/L	monthly	12	18	34	37	25	yes	

² Copper average limit exceedance was largely influenced by the implementation of tighter limits following the Stage 1 concentration limit review and significant technology changes in biosolids treatment as part of the Lower South Creek Treatment Program.