Wastewater Discharge Monitoring Long Report

For DNR Use Only

Facility Name: HEART OF THE VALLEY METRO SEWERAGE DISTRICT
Contact Address: 801 Thilmany Rd
Kaukauna, WI 54130
Facility Contact: Brian Helminger, District Director
Phone Number: 920-766-5731
Reporting Period: 05/01/2018 - 05/31/2018
Form Due Date: 06/21/2018
Permit Number: 0031232

Date Received:	
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FID:	445005220
Region:	Northeast Region
Permit Drafter:	Richard P Sachs
Reviewer:	Barti Oumarou
Office:	Oshkosh

	Sample Point	001	701	701	701	701
	Description	Effluent	Influent	Influent	Influent	Influent
	Parameter	211	211	66	457	87
	Description	Flow Rate	Flow Rate	BOD5, Total	Suspended Solids, Total	Cadmium, Total Recoverable
	Units	MGD	MGD	mg/L	mg/L	ug/L
	Sample Type	CONTINUOUS	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	DAILY	DAILY	5/WEEK	5/WEEK	MONTHLY
Sample Results	Day 1	8.731	8.731	141	180	<1.3
	2	11.440	11.440	202	104	
	3	15.437	15.437	101	104	
	4	23.269	23.269	32	32	
	5	12.224	12.224	100	60	
	6	10.374	10.374	133	128	
	7	8.806	8.806	137	128	
	8	7.672	7.672	133	100	
	9	11.418	11.418	128	108	
	10	9.638	9.638	113	104	
	11	8.863	9.560	123	104	
	12	7.768	8.510	110	84	
	13	7.506	8.259	143	152	
	14	6.728	7.820	164	124	
	15	4.682	7.290	183	144	
	16	3.905	6.970	205	172	
	17	3.071	6.450	226	160	
	18	3.135	6.160	194	140	
	19	3.049	6.070	273	192	
	20	2.704	5.799	224	216	
	21	2.519	5.805	258	260	
	22	2.057	5.517	213	220	
	23	2.432	5.649	299	252	
	24	2.169	5.312	238	224	
	25	2.153	5.320	163	88	
	26	1.546	4.934	156	92	
	27	1.247	4.797	185	100	
	28	1.641	5.243	244	256	
	29	1.466	5.064	219	216	
	30	1.313	4.976	301	264	
	31	1.133	4.865	220	160	

	Sample Point	001	701	701	701	701
	Description	Effluent	Influent	Influent	Influent	Influent
	Parameter	211	211	66	457	87
	Description	Flow Rate	Flow Rate	BOD5, Total	Suspended Solids, Total	Cadmium, Total Recoverable
	Units	MGD	MGD	mg/L	mg/L	ug/L
Summary Values	**Monthly Avg**	6.132129032	8.044483871	179.387096774	150.580645161	0
	Daily Max	23.269	23.269	301	264	<1.3
	Daily Max - Variable					
	Daily Min	1.133	4.797	32	32	<1.3
	Geometric Mean -					
	Week 1 Avg					
	Week 2 Avg					
	Week 3 Avg					
	Week 4 Avg					
Limit(s) in Effect	**Monthly Avg**					
	Daily Max					
	Daily Max - Variable					
	Daily Min					
	Geometric Mean -					
	Weekly Avg					
QA/QC Information	**LOD**					1.3
	LOQ					5
	QC Exceedance	N	N	N	N	N
	Lab Certification			445005220	445005220	405132750

	Sample Point	701	701	701	701	701
	Description	Influent	Influent	Influent	Influent	Influent
	Parameter	133	147	264	315	553
	Description	Chromium, Total Recoverable	Copper, Total Recoverable	Lead, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**	6.2	44.8	<4.3	<2.6	83.6
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	701	701	701	701	701
	Description	Influent	Influent	Influent	Influent	Influent
	Parameter	133	147	264	315	553
	Description	Chromium, Total Recoverable	Copper, Total Recoverable	Lead, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
Summary Values	**Monthly Avg**	6.2	44.8	0	0	83.6
	Daily Max	6.2	44.8	<4.3	<2.6	83.6
	Daily Max - Variable					
	Daily Min	6.2	44.8	<4.3	<2.6	83.6
	Geometric Mean -					
	Week 1 Avg					
	Week 2 Avg					
	Week 3 Avg					
	Week 4 Avg					
Limit(s) in Effect	**Monthly Avg**					
	Daily Max					
	Daily Max - Variable					
	Daily Min					
	Geometric Mean -					
	Weekly Avg					
QA/QC Information	**LOD**	2.5	6.3	4.3	2.6	9.3
	LOQ	10	20	13	10	40
	QC Exceedance	N	N	N	N	N
	Lab Certification	405132750	405132750	405132750	405132750	405132750

	Sample Point	001	001	001	001	001
	Description	Effluent	Effluent	Effluent	Effluent	Effluent
	Parameter	649	457	377	204	112
	Description	CBOD5	Suspended Solids, Total	pH Field	Fecal Coliform	Chlorine, Total Residual
	Units	mg/L	mg/L	su	#/100ml	ug/L
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	GRAB	GRAB	GRAB
	Frequency	DAILY	5/WEEK	5/WEEK	WEEKLY	5/WEEK
Sample Results	Day 1	7	9	7.3		<100
	2	5	12	7.6	13	<100
	3	7	33	7.6		<100
	4	5	14	7.4		<100
	5	4	10	7.0		
	6	5	14	7.2		
	7	4	9	7.8		<100
	8	3	9	7.4		<100
	9	4	7	7.5	8	<100
	10	4	12	7.5		<100
	11	4	11	7.6		<100
	12	4	10	7.4		
	13	4	8	7.3		
	14	6	15	7.4		<100
	15	5	10	7.6		<100
	16	4	10	7.4	15	<100
	17	5	10	7.5		<100
	18	5	12	7.1		<100
	19	4	10	7.5		
	20	5	10	7.6		<100
	21	6	12	7.6		<100
	22	3	9	7.5		<100
	23	5	12	7.3	10	<100
	24	4	12	7.3		<100
	25	5	9	7.2		
	26	4	8	7.2		
	27	4	6	7.2		<100
	28	4	10	7.2		<100
	29	3	9	7.1		<100
	30	5	11	7.4	13	<100
	31	4	12	7.4		<100

	Sample Point	001		001		001		001		001	
	Description	Effluent		Effluent		Effluent		Effluent		Effluent	
	Parameter	649		457		377		204		112	
	Description	CBOD5		Suspended Solids, Total		pH Field		Fecal Coliform		Chlorine, Total Residual	
	Units	mg/L		mg/L		su		#/100ml		ug/L	
Summary Values	**Monthly Avg**	4.548387097		11.129032258		7.390322581		11.8		0	
	Daily Max	7		33		7.8		15		<100	
	Daily Max - Variable										
	Daily Min	3		6		7		8		<100	
	Geometric Mean -							11.518968486			
	Week 1 Avg	5.285714286		14.428571429							
	Week 2 Avg	4.142857143		10.285714286							
	Week 3 Avg	4.857142857		10.571428571							
	Week 4 Avg	4.142857143		9.428571429							
Limit(s) in Effect	**Monthly Avg**	25	0	30	0						
	Daily Max					9	0			38	0
	Daily Max - Variable										
	Daily Min					6	0				
	Geometric Mean -							400	0		
	Weekly Avg	40	0	45	0						
QA/QC Information	**LOD**									100	
	LOQ									100	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	445005220		445005220							

	Sample Point	001	001	001	001	001
	Description	Effluent	Effluent	Effluent	Effluent	Effluent
	Parameter	388	789	87	133	147
	Description	Phosphorus, Total	Nitrogen, Ammonia (NH3-N) Total	Cadmium, Total Recoverable	Chromium, Total Recoverable	Copper, Total Recoverable
	Units	mg/L	mg/L	ug/L	ug/L	ug/L
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	5/WEEK	5/WEEK	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1	0.23	0.2	<1.3	<2.5	7.5
	2	0.21	0.1			
	3	0.51	0.4			
	4	0.23				
	5	0.06				
	6	0.21	0.1			
	7	0.19	0.1			
	8	0.16	0.1			
	9	0.16	0.2			
	10	0.18	0.1			
	11	0.15				
	12	0.16				
	13	0.13	0.1			
	14	0.24	0.2			
	15	0.25	0.3			
	16	0.19	0.2			
	17	0.13	0.2			
	18	0.19				
	19	0.17				
	20	0.18	0.2			
	21	0.18	0.2			
	22	0.11	0.4			
	23	0.23	0.3			
	24	0.24	0.4			
	25	0.20				
	26	0.18				
	27	0.25	0.3			
	28	0.15	0.4			
	29	0.20	0.3			
	30	0.25	0.5			
	31	0.26	0.3			

	Sample Point	001		001		001		001		001	
	Description	Effluent		Effluent		Effluent		Effluent		Effluent	
	Parameter	388		789		87		133		147	
	Description	Phosphorus, Total		Nitrogen, Ammonia (NH3-N) Total		Cadmium, Total Recoverable		Chromium, Total Recoverable		Copper, Total Recoverable	
	Units	mg/L		mg/L		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**	0.199354839		0.243478261		0		0		7.5	
	Daily Max	0.51		0.5		<1.3		<2.5		7.5	
	Daily Max - Variable										
	Daily Min	0.06		0.1		<1.3		<2.5		7.5	
	Geometric Mean -										
	Week 1 Avg										
	Week 2 Avg										
	Week 3 Avg										
	Week 4 Avg										
Limit(s) in Effect	**Monthly Avg**	1	0	11	0						
	Daily Max			17	0						
	Daily Max - Variable										
	Daily Min										
	Geometric Mean -										
	Weekly Avg										
QA/QC Information	**LOD**	0.026		0.045		1.3		2.5		6.3	
	LOQ	0.087		0.15		5		10		20	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	445005220		445005220		405132750		405132750		405132750	

	Sample Point	001	001	001	101	601
	Description	Effluent	Effluent	Effluent	Effluent Reuse	River Monitoring
	Parameter	264	315	553	671	400
	Description	Lead, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Flow Unregulated	WLA Previous Day River Flow
	Units	ug/L	ug/L	ug/L	MGD	cfs
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	CONTINUOUS	GAUGE STN
	Frequency	MONTHLY	MONTHLY	MONTHLY	DAILY	DAILY
Sample Results	Day 1	<4.3	4.2	19.9	0.000	13100
	2				0.000	13800
	3				0.000	13800
	4				0.000	16000
	5				0.000	16300
	6				0.000	16100
	7				0.000	16300
	8				0.000	16900
	9				0.000	17200
	10				0.000	17100
	11				0.697	17000
	12				0.742	16900
	13				0.753	16900
	14				1.092	16900
	15				2.608	16800
	16				3.065	16700
	17				3.379	16300
	18				3.025	15800
	19				3.021	15300
	20				3.095	15000
	21				3.286	14200
	22				3.460	13600
	23				3.217	12600
	24				3.143	11600
	25				3.167	11500
	26				3.388	11400
	27				3.550	11300
	28				3.602	11100
	29				3.598	10000
	30				3.663	8480
	31				3.732	6520

	Sample Point	001	001	001	101	601
	Description	Effluent	Effluent	Effluent	Effluent Reuse	River Monitoring
	Parameter	264	315	553	671	400
	Description	Lead, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Flow Unregulated	WLA Previous Day River Flow
	Units	ug/L	ug/L	ug/L	MGD	cfs
Summary Values	**Monthly Avg**	0	4.2	19.9	1.912354839	14274.193548387
	Daily Max	<4.3	4.2	19.9	3.732	17200
	Daily Max - Variable					
	Daily Min	<4.3	4.2	19.9	0	6520
	Geometric Mean -					
	Week 1 Avg					
	Week 2 Avg					
	Week 3 Avg					
	Week 4 Avg					
Limit(s) in Effect	**Monthly Avg**					
	Daily Max					
	Daily Max - Variable					
	Daily Min					
	Geometric Mean -					
	Weekly Avg					
QA/QC Information	**LOD**	4.3	2.6	9.3		
	LOQ	13	10	40		
	QC Exceedance	N	N	N	N	N
	Lab Certification	405132750	405132750	405132750		

	Sample Point	601	601	006	006	006
	Description	River Monitoring	River Monitoring	WLA CBOD5 Discharge Compliance	WLA CBOD5 Discharge Compliance	WLA CBOD5 Discharge Compliance
	Parameter	399	401	545	12	889
	Description	WLA Previous 4 Day Avg River Flow	WLA Previous Day River Temp	WLA CBOD5 Value	WLA Adjusted Value	WLA CBOD5 Discharged
	Units	cfs	degF	lbs/day	lbs/day	lbs/day
	Sample Type	CALCULATED	CALCULATED	SEE TABLE	CALCULATED	CALCULATED
	Frequency	DAILY	DAILY	DAILY	DAILY	DAILY
Sample Results	Day 1	12800	51	5568	7684	506
	2	12875	53	5568	7684	488
	3	13175	53	5568	7684	881
	4	13425	53	5568	7684	805
	5	14175	55	5568	7684	364
	6	14975	57	5568	7684	450
	7	15550	58	5568	7684	277
	8	16175	58	5568	7684	187
	9	16400	59	5568	7684	393
	10	16625	58	5568	7684	335
	11	16875	56	5568	7684	284
	12	17050	55	5568	7684	279
	13	17050	57	5568	7684	233
	14	16975	59	5568	7684	330
	15	16925	60	5568	7684	190
	16	16875	62	5568	7684	140
	17	16825	62	5568	7684	116
	18	16675	62	5568	7684	120
	19	16400	63	5568	7684	96
	20	16025	63	5568	7684	113
	21	15600	62	5568	7684	118
	22	15075	62	5568	7684	58
	23	14525	64	5568	7684	99
	24	13850	66	5568	7684	77
	25	13000	69	5568	7684	81
	26	12325	70	5568	7684	51
	27	11775	73	5568	7684	43
	28	11450	76	5568	7684	53
	29	11325	76	5568	7684	40
	30	10950	77	5568	7684	57
	31	10220	77	5568	7684	42

	Sample Point	601	601	006	006	006
	Description	River Monitoring	River Monitoring	WLA CBOD5 Discharge Compliance	WLA CBOD5 Discharge Compliance	WLA CBOD5 Discharge Compliance
	Parameter	399	401	545	12	889
	Description	WLA Previous 4 Day Avg River Flow	WLA Previous Day River Temp	WLA CBOD5 Value	WLA Adjusted Value	WLA CBOD5 Discharged
	Units	cfs	degF	lbs/day	lbs/day	lbs/day
Summary Values	**Monthly Avg**	14643.387096774	62.129032258	5568	7684	235.677419355
	Daily Max	17050	77	5568	7684	881
	Daily Max - Variable					881
	Daily Min	10220	51	5568	7684	40
	Geometric Mean -					
	Week 1 Avg					
	Week 2 Avg					
	Week 3 Avg					
	Week 4 Avg					
Limit(s) in Effect	**Monthly Avg**					
	Daily Max					
	Daily Max - Variable					0 0
	Daily Min					
	Geometric Mean -					
	Weekly Avg					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance	N	N	N	N	N
	Lab Certification					

	Sample Point	006	006
	Description	WLA CBOD5 Discharge Compliance	WLA CBOD5 Discharge Compliance
	Parameter	543	542
	Description	WLA 7 Day Sum Of WLA Values	WLA 7 Day Sum Of CBOD5 Discharged
	Units	lbs/day	lbs/day
	Sample Type	CALCULATED	CALCULATED
	Frequency	DAILY	DAILY
Sample Results	Day 1		3091
	2		2773
	3		3180
	4		3752
	5		3873
	6		3929
	7	38976	3915
	8	38976	3596
	9	38976	3501
	10	38976	2955
	11	38976	2290
	12	38976	2205
	13	38976	1988
	14	38976	2041
	15	38976	2044
	16	38976	1791
	17	38976	1572
	18	38976	1408
	19	38976	1225
	20	38976	1105
	21	38976	893
	22	38976	761
	23	38976	720
	24	38976	681
	25	38976	642
	26	38976	597
	27	38976	527
	28	38976	462
	29	38976	444
	30	38976	402
	31	38976	367

	Sample Point	006		006	
	Description	WLA CBOD5 Discharge Compliance		WLA CBOD5 Discharge Compliance	
	Parameter	543		542	
	Description	WLA 7 Day Sum Of WLA Values		WLA 7 Day Sum Of CBOD5 Discharged	
	Units	lbs/day		lbs/day	
Summary Values	**Monthly Avg**	38976		1894.516129032	
	Daily Max	38976		3929	
	Daily Max - Variable			3929	
	Daily Min	38976		367	
	Geometric Mean -				
	Week 1 Avg				
	Week 2 Avg				
	Week 3 Avg				
	Week 4 Avg				
Limit(s) in Effect	**Monthly Avg**				
	Daily Max				
	Daily Max - Variable			0	0
	Daily Min				
	Geometric Mean -				
	Weekly Avg				
QA/QC Information	**LOD**				
	LOQ				
	QC Exceedance	N		N	
	Lab Certification				

Footnotes (DNR Use Only; Instructions for completing this form that are unique for your facility may be displayed here.)

General Remarks

Laboratory Quality Control Comments

Submitted by K3vin1 on 06/07/2018 10:06:15 AM