

Wastewater Discharge Monitoring Long Report

For DNR Use Only

Facility Name: HEART OF THE VALLEY METRO SEWERAGE DISTRICT
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 Kaukauna, WI 54130
 Facility Contact: Brian Helming, District Director
 Phone Number: 920-766-5731
 Reporting Period: 05/01/2021 - 05/31/2021
 Form Due Date: 06/21/2021
 Permit Number: 0031232

Date Received:
 DOC: 468068
 FIN: 6375
 FID: 445005220
 Region: Northeast Region
 Permit Drafter: Lisa L Lumley
 Reviewer: Barti Oumarou
 Office: Oshkosh

	Sample Point	701	001	701	701	701
	Description	Influent	Effluent	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	5.729	3.790	279	228	
	2	7.920	7.436	196	128	
	3	8.970	8.970	224	136	
	4	8.640	8.640	177	120	1.3
	5	7.336	7.336	255	164	
	6	7.190	7.190	201	148	
	7	6.651	6.651	240	180	
	8	6.424	6.424	266	140	
	9	6.452	6.452	272	208	
	10	6.414	6.414	243	156	
	11	5.985	5.282	254	196	
	12	5.992	5.406	274	172	
	13	5.828	3.852	349	160	
	14	5.831	2.582	308	220	
	15	5.460	2.681	286	184	
	16	5.976	3.028	305	196	
	17	5.643	2.154	353	192	
	18	6.041	2.659	259	212	
	19	6.196	2.892	240	204	
	20	5.960	2.486	242	192	
	21	6.278	2.980	280	160	
	22	5.859	2.531	356	228	
	23	5.776	2.970	279	240	
	24	6.144	2.724	302	208	
	25	6.226	2.668	289	264	
	26	6.306	3.131	304	252	
	27	7.056	4.347	287	144	
	28	6.596	4.042	222	156	
	29	5.863	3.732	223	116	
	30	5.232	2.891	181	144	
	31	6.393	3.926	245	180	

	Sample Point	701	001	701	701	701
	Description	Influent	Effluent	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	6.398935484	4.460225806	264.225806452	181.548387097	1.3
	Daily Max	8.97	8.97	356	264	1.3
	Daily Max - Variable					
	Daily Min	5.232	2.154	177	116	1.3
	Geometric Mean -					
	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 -					
	Geometric Mean -					
	Weekly Avg					
QA/QC Information	LOD					1.3
	LOQ					5
	QC Exceedance	N	N	Y	N	N
	Lab Certification			445005220	445005220	405132750

	Sample Point	001	701	701	701	701
	Description	Effluent	Influent	Influent	Influent	Influent
	Parameter	66	133	147	264	315
	Description	BOD5, Total	Chromium, Total Recoverable	Copper, Total Recoverable	Lead, Total Recoverable	Nickel, Total Recoverable
	Units	mg/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	DAILY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1	5				
	2	5				
	3	6				
	4	4	9.5	51.9	5.9	5.9
	5	6				
	6	5				
	7	6				
	8	6				
	9	6				
	10	5				
	11	5				
	12	6				
	13	6				
	14	6				
	15	6				
	16	8				
	17	9				
	18	6				
	19	8				
	20	6				
	21	6				
	22	6				
	23	7				
	24	8				
	25	7				
	26	8				
	27	8				
	28	7				
	29	6				
	30	5				
	31	7				

	Sample Point	001	701	701	701	701
	Description	Effluent	Influent	Influent	Influent	Influent
	Parameter	66	133	147	264	315
	Description	BOD5, Total	Chromium, Total Recoverable	Copper, Total Recoverable	Lead, Total Recoverable	Nickel, Total Recoverable
	Units	mg/L	ug/L	ug/L	ug/L	ug/L
Summary Values	Monthly Avg	6.290322581	9.5	51.9	5.9	5.9
	Daily Max	9	9.5	51.9	5.9	5.9
	Daily Max - Variable					
	Daily Min	4	9.5	51.9	5.9	5.9
	Geometric Mean -					
	Geometric Mean -					
	Week 1 Avg	5.285714286				
	Week 2 Avg	5.714285714				
	Week 3 Avg	7				
	Week 4 Avg	7.285714286				
Limit(s) in Effect	Monthly Avg	30	0			
	Daily Max					
	Daily Max - Variable					
	Daily Min					
	Geometric Mean -					
	Geometric Mean -					
	Weekly Avg	45	0			
QA/QC Information	LOD		2.5	3.4	5.9	2.6
	LOQ		10	10	20	10
	QC Exceedance	N	N	N	N	N
	Lab Certification	445005220	405132750	405132750	405132750	405132750

	Sample Point	701	001	001	001	001
	Description	Influent	Effluent	Effluent	Effluent	Effluent
	Parameter	553	377	204	112	457
	Description	Zinc, Total Recoverable	pH Field	Fecal Coliform	Chlorine, Total Residual	Suspended Solids, Total
	Units	ug/L	su	#/100ml	ug/L	mg/L
	Sample Type	24 HR FLOW PROP	GRAB	GRAB	GRAB	24 HR FLOW PROP
	Frequency	MONTHLY	5/WEEK	WEEKLY	5/WEEK	5/WEEK
Sample Results	Day 1		7.3		<100	5.6
	2		7.3		<100	3.6
	3		7.6		<100	5.2
	4	92	8.2		<100	5.2
	5		8.1		<100	5.2
	6		7.4	18	<100	6.4
	7		7.8		<100	7.6
	8		7.4		<100	4.8
	9		7.4		<100	4.8
	10		7.4	70	<100	6.0
	11		7.4		<100	4.8
	12		7.3		<100	6.4
	13		7.2		<100	6.4
	14		7.3		<100	6.8
	15		7.9		<100	6.0
	16		7.9		<100	9.2
	17		7.3		<100	6.0
	18		7.3		<100	6.8
	19		7.7	5	<100	6.8
	20		7.3		<100	4.8
	21		7.6		<100	4.4
	22		7.5		<100	4.0
	23		7.5		<100	6.4
	24		7.4	35	<100	6.0
	25		7.1		<100	6.4
	26		7.3		<100	8.0
	27		7.2		170	7.2
	28		7.7		<100	5.6
	29		7.3		<100	3.6
	30		7.3		<100	4.8
	31		7.3		<100	5.2

	Sample Point	701	001	001	001	001			
	Description	Influent	Effluent	Effluent	Effluent	Effluent			
	Parameter	553	377	204	112	457			
	Description	Zinc, Total Recoverable	pH Field	Fecal Coliform	Chlorine, Total Residual	Suspended Solids, Total			
	Units	ug/L	su	#/100ml	ug/L	mg/L			
Summary Values	Monthly Avg	92	7.474193548	32	5.483870968	5.806451613			
	Daily Max	92	8.2	70	170	9.2			
	Daily Max - Variable								
	Daily Min	92	7.1	5	<100	3.6			
	Geometric Mean -			21.669662556					
	Geometric Mean -			70					
	Week 1 Avg				0	5.542857143			
	Week 2 Avg				0	5.714285714			
	Week 3 Avg				0	6.285714286			
	Week 4 Avg				24.285714286	6.228571429			
Limit(s) in Effect	Monthly Avg				38	0	30	0	
	Daily Max		9	0			38	1	
	Daily Max - Variable								
	Daily Min		6	0					
	Geometric Mean -				400	0			
	Geometric Mean -				656	0			
	Weekly Avg						38	0	45
QA/QC Information	LOD	11.6				100			
	LOQ	40				100			
	QC Exceedance	N	N	N	N	N	N	N	
	Lab Certification	405132750						445005220	

	Sample Point	001	001	001	001	001
	Description	Effluent	Effluent	Effluent	Effluent	Effluent
	Parameter	457	1348	1347	388	388
	Description	Suspended Solids, Total	WQT Credits Used (TSS)	WQT Computed Compliance (TSS)	Phosphorus, Total	Phosphorus, Total
	Units	lbs/day	lbs/month	lbs/day	mg/L	lbs/day
	Sample Type	CALCULATED	CALCULATED	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	5/WEEK	MONTHLY	5/WEEK	5/WEEK	5/WEEK
Sample Results	Day 1	177	0	177	0.25	7.90
	2	223	0	223	0.23	14.26
	3	389	0	389	0.22	16.46
	4	375	0	375	0.18	12.97
	5	318	0	318	0.22	13.46
	6	384	0	384	0.25	14.99
	7	422	0	422	0.22	12.20
	8	257	0	257	0.25	13.39
	9	258	0	258	0.25	13.45
	10	321	0	321	0.23	12.30
	11	211	0	211	0.25	11.01
	12	289	0	289	0.27	12.17
	13	206	0	206	0.24	7.71
	14	146	0	146	0.31	6.68
	15	134	0	134	0.33	7.38
	16	232	0	232	0.35	8.84
	17	108	0	108	0.33	5.93
	18	151	0	151	0.31	6.87
	19	164	0	164	0.31	7.48
	20	100	0	100	0.33	6.84
	21	109	0	109	0.30	7.46
	22	84	0	84	0.34	7.18
	23	159	0	159	0.31	7.68
	24	136	0	136	0.30	6.82
	25	142	0	142	0.30	6.68
	26	209	0	209	0.33	8.62
	27	261	0	261	0.32	11.60
	28	189	0	189	0.29	9.78
	29	112	0	112	0.27	8.40
	30	116	0	116	0.31	7.47
	31	170	0	170	0.31	10.15

	Sample Point	001	001	001	001	001	
	Description	Effluent	Effluent	Effluent	Effluent	Effluent	
	Parameter	457	1348	1347	388	388	
	Description	Suspended Solids, Total	WQT Credits Used (TSS)	WQT Computed Compliance (TSS)	Phosphorus, Total	Phosphorus, Total	
	Units	lbs/day	lbs/month	lbs/day	mg/L	lbs/day	
Summary Values	Monthly Avg	211.35483871	0	211.35483871	0.280967742	9.810645161	
	Daily Max	422	0	422	0.35	16.46	
	Daily Max - Variable						
	Daily Min	84	0	84	0.18	5.93	
	Geometric Mean -						
	Geometric Mean -						
	Week 1 Avg			326.857142857			
	Week 2 Avg			241.142857143			
	Week 3 Avg			142.571428571			
	Week 4 Avg			168.571428571			
Limit(s) in Effect	Monthly Avg			801	0	1	0
	Daily Max						
	Daily Max - Variable						
	Daily Min						
	Geometric Mean -						
	Geometric Mean -						
	Weekly Avg			1345	0		
QA/QC Information	LOD					0.026	
	LOQ					0.087	
	QC Exceedance	N	N	N	N	N	N
	Lab Certification					445005220	

	Sample Point	001	001	001	001	001
	Description	Effluent	Effluent	Effluent	Effluent	Effluent
	Parameter	789	87	133	147	264
	Description	Nitrogen, Ammonia (NH3-N) Total	Cadmium, Total Recoverable	Chromium, Total Recoverable	Copper, Total Recoverable	Lead, Total Recoverable
	Units	mg/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	5/WEEK	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2	0.5				
	3	0.4				
	4	0.2	<1.3	<2.5	4.8	<5.9
	5	0.2				
	6	0.2				
	7					
	8					
	9	0.2				
	10	0.2				
	11	0.2				
	12	0.2				
	13	0.3				
	14					
	15					
	16	0.5				
	17	0.8				
	18	0.3				
	19	0.4				
	20	0.5				
	21					
	22					
	23	0.7				
	24	0.7				
	25	0.5				
	26	0.4				
	27	0.5				
	28					
	29					
	30	0.2				
	31	0.3				

	Sample Point	001	001	001	001	001
	Description	Effluent	Effluent	Effluent	Effluent	Effluent
	Parameter	789	87	133	147	264
	Description	Nitrogen, Ammonia (NH3-N) Total	Cadmium, Total Recoverable	Chromium, Total Recoverable	Copper, Total Recoverable	Lead, Total Recoverable
	Units	mg/L	ug/L	ug/L	ug/L	ug/L
Summary Values	Monthly Avg	0.381818182	0	0	4.8	0
	Daily Max	0.8	<1.3	<2.5	4.8	<5.9
	Daily Max - Variable					
	Daily Min	0.2	<1.3	<2.5	4.8	<5.9
	Geometric Mean -					
	Geometric Mean -					
	Week 1 Avg	0.3				
	Week 2 Avg	0.22				
	Week 3 Avg	0.5				
	Week 4 Avg	0.56				
Limit(s) in Effect	Monthly Avg	11	0			
	Daily Max	17	0			
	Daily Max - Variable					
	Daily Min					
	Geometric Mean -					
	Geometric Mean -					
	Weekly Avg	17	0			
QA/QC Information	LOD	0.034	1.3	2.5	3.4	5.9
	LOQ	0.113	5	10	10	20
	QC Exceedance	N	N	N	N	N
	Lab Certification	445005220	405132750	405132750	405132750	405132750

	Sample Point	001	001	101	601	601
	Description	Effluent	Effluent	Effluent Reuse	River Monitoring	River Monitoring
	Parameter	315	553	671	400	399
	Description	Nickel, Total Recoverable	Zinc, Total Recoverable	Flow Unregulated	WLA Previous Day River Flow	WLA Previous 4 Day Avg River Flow
	Units	ug/L	ug/L	MGD	cfs	cfs
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	CONTINUOUS	GAUGE STN	CALCULATED
	Frequency	MONTHLY	MONTHLY	DAILY	DAILY	DAILY
Sample Results	Day 1			1.939	3670	2948
	2			0.484	3910	3315
	3			0	4660	3618
	4	4.7	13.4	0	5390	3923
	5			0	5660	4408
	6			0	5710	4905
	7			0	5650	5355
	8			0	5410	5603
	9			0	5660	5608
	10			0	5000	5608
	11			0.703	4130	5430
	12			0.586	3310	5050
	13			1.976	2830	4525
	14			3.249	2820	3818
	15			2.779	2860	3273
	16			2.948	2880	2955
	17			3.489	2930	2848
	18			3.382	3030	2873
	19			3.304	3110	2925
	20			3.474	3250	2988
	21			3.298	3280	3080
	22			3.328	3320	3168
	23			2.806	3240	3240
	24			3.420	3970	3273
	25			3.558	4520	3453
	26			3.175	5080	3763
	27			2.709	5530	4203
	28			2.554	5680	4775
	29			2.131	5700	5203
	30			2.341	5810	5498
	31			2.467	5840	5680

	Sample Point	001	001	101	601	601
	Description	Effluent	Effluent	Effluent Reuse	River Monitoring	River Monitoring
	Parameter	315	553	671	400	399
	Description	Nickel, Total Recoverable	Zinc, Total Recoverable	Flow Unregulated	WLA Previous Day River Flow	WLA Previous 4 Day Avg River Flow
	Units	ug/L	ug/L	MGD	cfs	cfs
Summary Values	Monthly Avg	4.7	13.4	1.938709677	4317.419354839	4106.838709677
	Daily Max	4.7	13.4	3.558	5840	5680
	Daily Max - Variable					
	Daily Min	4.7	13.4	0	2820	2848
	Geometric Mean -					
	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 -					
	Geometric Mean -					
	Weekly Avg					
QA/QC Information	LOD	2.6	11.6			
	LOQ	10	40			
	QC Exceedance	N	N	N	N	N
	Lab Certification	405132750	405132750			

	Sample Point	601	006	006	006	006
	Description	River Monitoring	WLA BOD5 Discharge Compliance	WLA BOD5 Discharge Compliance	WLA BOD5 Discharge Compliance	WLA BOD5 Discharge Compliance
	Parameter	401	544	12	843	543
	Description	WLA Previous Day River Temp	WLA BOD5 Value	WLA Adjusted Value	WLA BOD5 Discharged	WLA 7 Day Sum Of WLA Values
	Units	degF	lbs/day	lbs/day	lbs/day	lbs/day
	Sample Type	CALCULATED	SEE TABLE	CALCULATED	CALCULATED	CALCULATED
	Frequency	DAILY	DAILY	DAILY	DAILY	DAILY
Sample Results	Day 1	54	4375	6038	155	0
	2	55	4910	6776	318	0
	3	57	5568	7684	440	0
	4	58	4659	6429	320	0
	5	55	5568	7684	347	0
	6	55	5568	7684	318	0
	7	56	5568	7684	310	36216
	8	55	5568	7684	298	37409
	9	55	5568	7684	331	38067
	10	56	5568	7684	250	38067
	11	55	5568	7684	220	38976
	12	55	5568	7684	260	38976
	13	56	5568	7684	187	38976
	14	58	4659	6429	131	38067
	15	59	4071	5618	129	36570
	16	60	3712	5123	200	34714
	17	61	3712	5123	156	32858
	18	64	3195	4409	124	30485
	19	65	3195	4409	183	28112
	20	66	2878	3972	125	25422
	21	66	3191	4404	150	23954
	22	67	3191	4404	122	23074
	23	69	3191	4404	184	22553
	24	69	3191	4404	192	22032
	25	67	3191	4404	158	22028
	26	69	3637	5019	209	22470
	27	69	4174	5760	286	23766
	28	65	4735	6534	225	25310
	29	60	5568	7684	185	27687
	30	61	5568	7684	124	30064
	31	64	5568	7684	226	32441

	Sample Point	601	006	006	006	006
	Description	River Monitoring	WLA BOD5 Discharge Compliance	WLA BOD5 Discharge Compliance	WLA BOD5 Discharge Compliance	WLA BOD5 Discharge Compliance
	Parameter	401	544	12	843	543
	Description	WLA Previous Day River Temp	WLA BOD5 Value	WLA Adjusted Value	WLA BOD5 Discharged	WLA 7 Day Sum Of WLA Values
	Units	degF	lbs/day	lbs/day	lbs/day	lbs/day
Summary Values	Monthly Avg	60.677419355	4524.225806452	6243.580645161	221.387096774	24783.677419355
	Daily Max	69	5568	7684	440	38976
	Daily Max - Variable				440	
	Daily Min	54	2878	3972	122	0
	Geometric Mean -					
	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 -					
	Geometric Mean -					
	Weekly Avg					
QA/QC Information	LOD					
	LOQ					
	QC Exceedance	N	N	N	N	N
	Lab Certification					

	Sample Point	006	112
	Description	WLA BOD5 Discharge Compliance	In-Plant Diversion
	Parameter	541	211
	Description	WLA 7 Day Sum Of BOD5 Discharged	Flow Rate
	Units	lbs/day	MGD
	Sample Type	CALCULATED	CONTINUOUS
	Frequency	DAILY	DAILY
Sample Results	Day 1	1063	0
	2	1198	0
	3	1487	0
	4	1648	0
	5	1859	0
	6	2077	0
	7	2208	0
	8	2352	0
	9	2365	0
	10	2175	0
	11	2075	0
	12	1989	0
	13	1857	0
	14	1678	0
	15	1509	0
	16	1377	0
	17	1283	0
	18	1187	0
	19	1109	0
	20	1047	0
	21	1066	0
	22	1059	0
	23	1043	0
	24	1079	0
	25	1114	0
	26	1141	0
	27	1302	0
	28	1377	0
	29	1439	0
	30	1380	0
	31	1414	0

	Sample Point	006	112
	Description	WLA BOD5 Discharge Compliance	In-Plant Diversion
	Parameter	541	211
	Description	WLA 7 Day Sum Of BOD5 Discharged	Flow Rate
	Units	lbs/day	MGD
Summary Values	Monthly Avg	1514.741935484	0
	Daily Max	2365	0
	Daily Max - Variable	2365	
	Daily Min	1043	0
	Geometric Mean -		
	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 -		
	Geometric Mean -		
	Weekly Avg		
QA/QC Information	LOD		
	LOQ		
	QC Exceedance	N	N
	Lab Certification		

General Remarks

I certify that management practices identified in the approved water quality trading plan as the source of pollutant reduction credits are installed, established and properly maintained.

Chlorine, Total Residual daily max exceedance May 27th. Sodium Bisulfite pump malfunction due to debris in ball check prior to taking Cl2 residual. Malfunction was remedied and 30 minutes later residual taken and was less than 100 ug/l

Laboratory Quality Control Comments

Blank Exceed Control Limit of 0.24mg/L: 5-8-21 0.33mg/L

Exceedence Comments

Total Chlorine residual daily max exceedance on May 27th at 10:15 and remedied by 10:45. Sodium bisulfite pump malfunction due to debris in ball check on pump. Duration of this incident was about an hour at most. Pump is checked on a daily bases each morning on SCADA and also physically when operator takes reading on tank level in bisulfite room. All had checked good, when residual was taken exceedance detected the malfunction was corrected and 30 minutes later chlorine residual taken and was less than 100 ug/l. A y-strainer is ordered and will be placed in supply line to pumps to try and prevent check valve failure.

Submitted by K3vin1 on 06/08/2021 10:43:01 AM