

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 Helming, District Director
 Phone Number: 920-766-5731
 Reporting Period: 12/01/2019 - 12/31/2019
 Form Due Date: 01/21/2020
 Permit Number: 0031232

Date Received:
 DOC: 436502
 FIN: 6375
 FID: 445005220
 Region: Northeast Region
 Permit Drafter: Lisa L Lumley
 Reviewer: Barti Oumarou
 Office: Oshkosh

| | Sample Point | 001 | 701 | 701 | 001 | 701 |
|----------------|--------------|------------|------------|-----------------|-----------------|-------------------------|
| | Description | Effluent | Influent | Influent | Effluent | Influent |
| | Parameter | 211 | 211 | 66 | 66 | 457 |
| | Description | Flow Rate | Flow Rate | BOD5, Total | BOD5, Total | Suspended Solids, Total |
| | Units | MGD | MGD | mg/L | mg/L | mg/L |
| | Sample Type | CONTINUOUS | CONTINUOUS | 24 HR FLOW PROP | 24 HR FLOW PROP | 24 HR FLOW PROP |
| | Frequency | DAILY | DAILY | 5/WEEK | 5/WEEK | 5/WEEK |
| Sample Results | Day 1 | 8.315 | 10.637 | 155 | 10 | 120 |
| | 2 | 6.495 | 9.194 | 106 | 15 | 200 |
| | 3 | 5.405 | 8.153 | 105 | 10 | 124 |
| | 4 | 4.875 | 7.608 | 158 | 12 | 136 |
| | 5 | 4.308 | 7.065 | 152 | 14 | 120 |
| | 6 | 4.375 | 7.016 | 186 | 12 | 148 |
| | 7 | 4.127 | 6.654 | 152 | 13 | 132 |
| | 8 | 4.276 | 6.871 | 175 | 14 | 200 |
| | 9 | 3.687 | 6.506 | 181 | 16 | 136 |
| | 10 | 3.872 | 6.727 | 192 | 16 | 208 |
| | 11 | 3.242 | 6.105 | 169 | 9 | 220 |
| | 12 | 3.701 | 6.552 | 178 | 9 | 156 |
| | 13 | 3.422 | 6.273 | 216 | 9 | 208 |
| | 14 | 3.090 | 5.949 | 206 | 9 | 168 |
| | 15 | 3.343 | 6.010 | 202 | 8 | 164 |
| | 16 | 3.112 | 5.704 | 205 | 7 | 144 |
| | 17 | 2.480 | 5.634 | 270 | 7 | 192 |
| | 18 | 2.422 | 5.368 | 282 | 9 | 204 |
| | 19 | 2.524 | 5.462 | 267 | 7 | 196 |
| | 20 | 2.072 | 5.287 | 270 | 9 | 168 |
| | 21 | 2.287 | 5.432 | 225 | 12 | 104 |
| | 22 | 2.860 | 5.560 | 244 | 14 | 248 |
| | 23 | 3.203 | 5.785 | 318 | 13 | 236 |
| | 24 | 2.947 | 5.685 | 251 | 9 | 216 |
| | 25 | 2.835 | 5.318 | 225 | 8 | 228 |
| | 26 | 3.241 | 5.889 | 229 | 9 | 156 |
| | 27 | 2.981 | 5.719 | 249 | 9 | 172 |
| | 28 | 4.298 | 7.030 | 219 | 10 | 212 |
| | 29 | 10.787 | 13.509 | 145 | 16 | 100 |
| | 30 | 10.575 | 13.317 | 122 | 16 | 80 |
| | 31 | 7.323 | 10.078 | 79 | 7 | 28 |

| | Sample Point | 001 | 701 | 701 | 001 | 701 |
|---------------------------|--------------------------|-------------|-------------|---------------|--------------|-------------------------|
| | Description | Effluent | Influent | Influent | Effluent | Influent |
| | Parameter | 211 | 211 | 66 | 66 | 457 |
| | Description | Flow Rate | Flow Rate | BOD5, Total | BOD5, Total | Suspended Solids, Total |
| | Units | MGD | MGD | mg/L | mg/L | mg/L |
| Summary Values | Monthly Avg | 4.273548387 | 7.035387097 | 197.838709677 | 10.903225806 | 165.290322581 |
| | Daily Max | 10.787 | 13.509 | 318 | 16 | 248 |
| | Daily Min | 2.072 | 5.287 | 79 | 7 | 28 |
| | Week 1 Avg | | | | 12.285714286 | |
| | Week 2 Avg | | | | 11.714285714 | |
| | Week 3 Avg | | | | 8.428571429 | |
| | Week 4 Avg | | | | 10.285714286 | |
| Limit(s) in Effect | Monthly Avg | | | | 30 | 0 |
| | Daily Max | | | | | |
| | Daily Min | | | | | |
| | Weekly Avg | | | | 45 | 0 |
| QA/QC Information | LOD | | | | | |
| | LOQ | | | | | |
| | QC Exceedance | N | N | N | N | N |
| | Lab Certification | | | 445005220 | 445005220 | 445005220 |

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| | Sample Point | 701 | 701 | 701 | 701 | 701 |
| | Description | Influent | Influent | Influent | Influent | Influent |
| | Parameter | 87 | 133 | 147 | 264 | 315 |
| | Description | Cadmium, Total Recoverable | Chromium, Total Recoverable | Copper, Total Recoverable | Lead, Total Recoverable | Nickel, 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 | | | | | |
| | 2 | | | | | |
| | 3 | <1.3 | 6.4 | 42.3 | <5.9 | 3.8 |
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|---------------------------|--------------------------|----------------------------|-----------------------------|---------------------------|-------------------------|---------------------------|
| | Sample Point | 701 | 701 | 701 | 701 | 701 |
| | Description | Influent | Influent | Influent | Influent | Influent |
| | Parameter | 87 | 133 | 147 | 264 | 315 |
| | Description | Cadmium, Total Recoverable | Chromium, Total Recoverable | Copper, Total Recoverable | Lead, Total Recoverable | Nickel, Total Recoverable |
| | Units | ug/L | ug/L | ug/L | ug/L | ug/L |
| Summary Values | Monthly Avg | 0 | 6.4 | 42.3 | 0 | 3.8 |
| | Daily Max | <1.3 | 6.4 | 42.3 | <5.9 | 3.8 |
| | Daily Min | <1.3 | 6.4 | 42.3 | <5.9 | 3.8 |
| | Week 1 Avg | | | | | |
| | Week 2 Avg | | | | | |
| | Week 3 Avg | | | | | |
| | Week 4 Avg | | | | | |
| Limit(s) in Effect | Monthly Avg | | | | | |
| | Daily Max | | | | | |
| | Daily Min | | | | | |
| | Weekly Avg | | | | | |
| QA/QC Information | LOD | 1.3 | 2.5 | 3.4 | 5.9 | 2.6 |
| | LOQ | 5 | 10 | 11.2 | 19.7 | 10 |
| | QC Exceedance | N | N | N | N | N |
| | Lab Certification | 405132750 | 405132750 | 405132750 | 405132750 | 405132750 |

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|-----------------------|---------------------|-------------------------|----------|-------------------------|-------------------------|------------------------|
| | Sample Point | 701 | 001 | 001 | 001 | 001 |
| | Description | Influent | Effluent | Effluent | Effluent | Effluent |
| | Parameter | 553 | 377 | 457 | 457 | 1348 |
| | Description | Zinc, Total Recoverable | pH Field | Suspended Solids, Total | Suspended Solids, Total | WQT Credits Used (TSS) |
| | Units | ug/L | su | mg/L | lbs/day | lbs/month |
| | Sample Type | 24 HR FLOW PROP | GRAB | 24 HR FLOW PROP | CALCULATED | CALCULATED |
| | Frequency | MONTHLY | 5/WEEK | 5/WEEK | 5/WEEK | MONTHLY |
| Sample Results | Day 1 | | 7.3 | | 915 | |
| | 2 | | 7.3 | | 888 | |
| | 3 | 79.9 | 7.4 | | 397 | |
| | 4 | | 7.2 | | 472 | |
| | 5 | | 7.3 | | 517 | |
| | 6 | | 7.1 | 13.2 | 540 | |
| | 7 | | 7.6 | 16.4 | 564 | |
| | 8 | | 7.7 | 8.8 | 456 | |
| | 9 | | 7.2 | 11.6 | 455 | |
| | 10 | | 7.2 | 14.4 | 478 | |
| | 11 | | 7.1 | 14.8 | 346 | |
| | 12 | | 7.2 | 16.4 | 469 | |
| | 13 | | 7.2 | 12.8 | 400 | |
| | 14 | | 7.6 | 14.8 | 433 | |
| | 15 | | 7.7 | 14.8 | 335 | |
| | 16 | | 7.6 | 12.8 | 332 | |
| | 17 | | 7.2 | 13.2 | 273 | |
| | 18 | | 7.2 | 12.4 | 250 | |
| | 19 | | 7.1 | 12.0 | 253 | |
| | 20 | | 7.5 | 12.8 | 221 | |
| | 21 | | 7.1 | 15.2 | 290 | |
| | 22 | | 7.3 | 17.2 | 410 | |
| | 23 | | 7.0 | 18.0 | 481 | |
| | 24 | | 7.7 | 12.0 | 295 | |
| | 25 | | 7.7 | 10.0 | 236 | |
| | 26 | | 7.2 | 9.6 | 259 | |
| | 27 | | 7.9 | 12.4 | 308 | |
| | 28 | | 7.8 | 11.6 | 416 | |
| | 29 | | 7.7 | 20.8 | 1871 | |
| | 30 | | 7.5 | 21.2 | 1870 | |
| | 31 | | 7.5 | 8.8 | 537 | 0 |

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|---------------------------|--------------------------|-------------------------|-------------|-------------------------|-------------------------|------------------------|
| | Sample Point | 701 | 001 | 001 | 001 | 001 |
| | Description | Influent | Effluent | Effluent | Effluent | Effluent |
| | Parameter | 553 | 377 | 457 | 457 | 1348 |
| | Description | Zinc, Total Recoverable | pH Field | Suspended Solids, Total | Suspended Solids, Total | WQT Credits Used (TSS) |
| | Units | ug/L | su | mg/L | lbs/day | lbs/month |
| Summary Values | Monthly Avg | 79.9 | 7.390322581 | 13.769230769 | 515.064516129 | 0 |
| | Daily Max | 79.9 | 7.9 | 21.2 | 1871 | 0 |
| | Daily Min | 79.9 | 7 | 8.8 | 221 | 0 |
| | Week 1 Avg | | | 14.8 | | |
| | Week 2 Avg | | | 13.371428571 | | |
| | Week 3 Avg | | | 13.314285714 | | |
| | Week 4 Avg | | | 12.971428571 | | |
| Limit(s) in Effect | Monthly Avg | | | 30 | 0 | |
| | Daily Max | | 9 | 0 | | |
| | Daily Min | | 6 | 0 | | |
| | Weekly Avg | | | 45 | 0 | |
| QA/QC Information | LOD | 11.6 | | | | |
| | LOQ | 40 | | | | |
| | QC Exceedance | N | N | N | N | N |
| | Lab Certification | 405132750 | | 445005220 | | |

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| | Sample Point | 001 | 001 | 001 | 001 | 001 |
| | Description | Effluent | Effluent | Effluent | Effluent | Effluent |
| | Parameter | 1347 | 388 | 388 | 789 | 87 |
| | Description | WQT Computed Compliance (TSS) | Phosphorus, Total | Phosphorus, Total | Nitrogen, Ammonia (NH3-N) Total | Cadmium, Total Recoverable |
| | Units | lbs/day | mg/L | lbs/day | mg/L | ug/L |
| | Sample Type | CALCULATED | 24 HR FLOW PROP | CALCULATED | 24 HR FLOW PROP | 24 HR FLOW PROP |
| | Frequency | 5/WEEK | 5/WEEK | 5/WEEK | 5/WEEK | MONTHLY |
| Sample Results | Day 1 | 915 | 0.18 | 12.48 | 1.1 | |
| | 2 | 888 | 0.24 | 13.00 | 2.5 | |
| | 3 | 397 | 0.17 | 7.66 | 2.2 | <1.3 |
| | 4 | 472 | 0.20 | 8.13 | 2.5 | |
| | 5 | 517 | 0.26 | 9.34 | 2.8 | |
| | 6 | 540 | 0.21 | 7.66 | | |
| | 7 | 564 | 0.22 | 7.57 | | |
| | 8 | 456 | 0.24 | 8.56 | 2.8 | |
| | 9 | 455 | 0.28 | 8.61 | 3.1 | |
| | 10 | 478 | 0.26 | 8.40 | 2.8 | |
| | 11 | 346 | 0.20 | 5.41 | 1.2 | |
| | 12 | 469 | 0.22 | 6.79 | 0.6 | |
| | 13 | 400 | 0.24 | 6.85 | | |
| | 14 | 433 | 0.24 | 6.18 | | |
| | 15 | 335 | 0.22 | 6.13 | 0.6 | |
| | 16 | 332 | 0.17 | 4.41 | 0.2 | |
| | 17 | 273 | 0.19 | 3.93 | 0.3 | |
| | 18 | 250 | 0.26 | 5.25 | 0.4 | |
| | 19 | 253 | 0.21 | 4.442 | 0.6 | |
| | 20 | 221 | 0.24 | 4.15 | | |
| | 21 | 290 | 0.32 | 6.10 | | |
| | 22 | 410 | 0.29 | 6.92 | 1.6 | |
| | 23 | 481 | 0.27 | 7.21 | 0.9 | |
| | 24 | 295 | 0.24 | 5.90 | 0.3 | |
| | 25 | 236 | 0.18 | 4.26 | 0.3 | |
| | 26 | 259 | 0.22 | 5.95 | 0.3 | |
| | 27 | 308 | 0.24 | 5.97 | | |
| | 28 | 416 | 0.51 | 18.28 | | |
| | 29 | 1871 | 0.34 | 30.59 | 0.3 | |
| | 30 | 1870 | 0.38 | 33.51 | 0.1 | |
| | 31 | 537 | 0.29 | 17.71 | 0.5 | |

| | Sample Point | 001 | | 001 | | 001 | | 001 | | |
|---------------------------|--------------------------|-------------------------------|------|-------------------|---------|-------------------|------|---------------------------------|---|-----------|
| | Description | Effluent | | Effluent | | Effluent | | Effluent | | |
| | Parameter | 1347 | | 388 | | 388 | | 789 | | |
| | Description | WQT Computed Compliance (TSS) | | Phosphorus, Total | | Phosphorus, Total | | Nitrogen, Ammonia (NH3-N) Total | | |
| Units | lbs/day | | mg/L | | lbs/day | | mg/L | | | |
| Summary Values | Monthly Avg | 515.064516129 | | 0.249354839 | | 9.269419355 | | 1.217391304 | | 0 |
| | Daily Max | 1871 | | 0.51 | | 33.51 | | 3.1 | | <1.3 |
| | Daily Min | 221 | | 0.17 | | 3.93 | | 0.1 | | <1.3 |
| | Week 1 Avg | 613.285714286 | | | | | | 2.22 | | |
| | Week 2 Avg | 433.857142857 | | | | | | 2.1 | | |
| | Week 3 Avg | 279.142857143 | | | | | | 0.42 | | |
| | Week 4 Avg | 343.571428571 | | | | | | 0.68 | | |
| Limit(s) in Effect | Monthly Avg | 801 | 0 | 1 | 0 | | | 18 | 0 | |
| | Daily Max | | | | | | | 17 | 0 | |
| | Daily Min | | | | | | | | | |
| | Weekly Avg | 1345 | 0 | | | | | 17 | 0 | |
| QA/QC Information | LOD | | | 0.026 | | | | 0.034 | | 1.3 |
| | LOQ | | | 0.087 | | | | 0.113 | | 5 |
| | QC Exceedance | N | | N | | N | | Y | | N |
| | Lab Certification | | | 445005220 | | | | 445005220 | | 405132750 |

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| | Sample Point | 001 | 001 | 001 | 001 | 001 |
| | Description | Effluent | Effluent | Effluent | Effluent | Effluent |
| | 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 | | | | | |
| | 2 | | | | | |
| | 3 | 3.4 | 7.7 | <5.9 | 3.9 | 27.2 |
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| | Sample Point | 001 | | 001 | | 001 | | 001 | | 001 | |
| | Description | Effluent | | Effluent | | Effluent | | Effluent | | Effluent | |
| | 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 | 3.4 | | 7.7 | | 0 | | 3.9 | | 27.2 | |
| | Daily Max | 3.4 | | 7.7 | | <5.9 | | 3.9 | | 27.2 | |
| | Daily Min | 3.4 | | 7.7 | | <5.9 | | 3.9 | | 27.2 | |
| | Week 1 Avg | | | | | | | | | | |
| | Week 2 Avg | | | | | | | | | | |
| | Week 3 Avg | | | | | | | | | | |
| | Week 4 Avg | | | | | | | | | | |
| Limit(s) in Effect | Monthly Avg | | | | | | | | | | |
| | Daily Max | | | | | | | | | | |
| | Daily Min | | | | | | | | | | |
| | Weekly Avg | | | | | | | | | | |
| QA/QC Information | LOD | 1.3 | | 3.4 | | 5.9 | | 2.6 | | 11.6 | |
| | LOQ | 5 | | 11.2 | | 19.7 | | 10 | | 40 | |
| | QC Exceedance | N | | N | | N | | N | | N | |
| | Lab Certification | 405132750 | | 405132750 | | 405132750 | | 405132750 | | 405132750 | |

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|-----------------------|---------------------|------------------|--------------------|
| | Sample Point | 101 | 112 |
| | Description | Effluent Reuse | In-Plant Diversion |
| | Parameter | 671 | 211 |
| | Description | Flow Unregulated | Flow Rate |
| | Units | MGD | MGD |
| | Sample Type | CONTINUOUS | CONTINUOUS |
| | Frequency | DAILY | DAILY |
| Sample Results | Day 1 | 2.322 | 0 |
| | 2 | 2.699 | 0 |
| | 3 | 2.748 | 0 |
| | 4 | 2.733 | 0 |
| | 5 | 2.757 | 0 |
| | 6 | 2.641 | 0 |
| | 7 | 2.527 | 0 |
| | 8 | 2.595 | 0 |
| | 9 | 2.819 | 0 |
| | 10 | 2.855 | 0 |
| | 11 | 2.863 | 0 |
| | 12 | 2.851 | 0 |
| | 13 | 2.851 | 0 |
| | 14 | 2.859 | 0 |
| | 15 | 2.667 | 0 |
| | 16 | 2.592 | 0 |
| | 17 | 3.154 | 0 |
| | 18 | 2.946 | 0 |
| | 19 | 2.938 | 0 |
| | 20 | 3.215 | 0 |
| | 21 | 3.145 | 0 |
| | 22 | 2.700 | 0 |
| | 23 | 2.582 | 0 |
| | 24 | 2.738 | 0 |
| | 25 | 2.483 | 0 |
| | 26 | 2.648 | 0 |
| | 27 | 2.738 | 0 |
| | 28 | 2.732 | 0 |
| | 29 | 2.722 | 0 |
| | 30 | 2.742 | 0 |
| | 31 | 2.755 | 0 |

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|---------------------------|--------------------------|------------------|--------------------|
| | Sample Point | 101 | 112 |
| | Description | Effluent Reuse | In-Plant Diversion |
| | Parameter | 671 | 211 |
| | Description | Flow Unregulated | Flow Rate |
| | Units | MGD | MGD |
| Summary Values | Monthly Avg | 2.76183871 | 0 |
| | Daily Max | 3.215 | 0 |
| | Daily Min | 2.322 | 0 |
| | Week 1 Avg | | |
| | Week 2 Avg | | |
| | Week 3 Avg | | |
| | Week 4 Avg | | |
| Limit(s) in Effect | Monthly Avg | | |
| | Daily Max | | |
| | Daily Min | | |
| | 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

12-13-2019 ---Ammonia Blank Exceeded the Control Limit of 0.034 with a 0.058.

Submitted by K3vin1 on 01/17/2020 9:12:19 AM