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December 10, 2018

Tiffany Myers, District Supervisor  
Surface Water Quality Division  
Michigan Department of Environmental Quality  
301 East Louis Glick Highway  
Jackson, Michigan 49201

**Re: Monitoring Report # 259  
November 1 – November 30, 2018**

Dear Ms. Myers:

Pursuant to the National Pollutant Discharge Elimination System (NPDES) Permit No. MI0048453, please find the enclosed Monitoring Report for the period of November 1 through November 30, 2018.

Should you have any questions or concerns regarding this report, please contact me at 386-562-0176.

Sincerely,

A handwritten signature in black ink, appearing to read "L. Gelb", with a long horizontal line extending to the right.

Lawrence J. Gelb  
Sr. Director Global EHS

cc: Dan Hamel, MDEQ  
Supervisor, Scio Twp.  
Matthew Naud, City of Ann Arbor



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**UNIT D2 UPGRADIENT EXTRACTION DATA**

Month of: **Nov-18**

Date	TW-21			Daily Flow	Daily Total
	TW-21			GPM	Gallons
	Gallons	GPM	Run Hrs.		
Thu-11/1/18	26,327	65	6.75	18	26,327
Fri-11/2/18	53,124	65	13.62	37	53,124
Sat-11/3/18	72,056	65	18.48	50	72,056
Sun-11/4/18	93,621	65	24.00	65	93,621
Mon-11/5/18	93,645	65	24.00	65	93,645
Tue-11/6/18	93,653	65	24.00	65	93,653
Wed-11/7/18	93,589	65	24.00	65	93,589
Thu-11/8/18	93,614	65	24.00	65	93,614
Fri-11/9/18	93,577	65	24.00	65	93,577
Sat-11/10/18	93,536	65	24.00	65	93,536
Sun-11/11/18	93,569	65	24.00	65	93,569
Mon-11/12/18	93,582	65	24.00	65	93,582
Tue-11/13/18	93,553	65	24.00	65	93,553
Wed-11/14/18	93,494	65	24.00	65	93,494
Thu-11/15/18	93,538	65	24.00	65	93,538
Fri-11/16/18	93,541	65	24.00	65	93,541
Sat-11/17/18	93,572	65	24.00	65	93,572
Sun-11/18/18	93,551	65	24.00	65	93,551
Mon-11/19/18	93,533	65	24.00	65	93,533
Tue-11/20/18	93,567	65	24.00	65	93,567
Wed-11/21/18	93,549	65	24.00	65	93,549
Thu-11/22/18	93,521	65	24.00	65	93,521
Fri-11/23/18	93,576	65	24.00	65	93,576
Sat-11/24/18	93,615	65	24.00	65	93,615
Sun-11/25/18	93,625	65	24.00	65	93,625
Mon-11/26/18	80,313	65	20.60	56	80,313
Tue-11/27/18	93,498	65	24.00	65	93,498
Wed-11/28/18	93,518	65	24.00	65	93,518
Thu-11/29/18	93,530	65	24.00	65	93,530
Fri-11/30/18	93,584	65	24.00	65	93,584
<b>TOTALS</b>	<b>2,664,571</b>	<b>65</b>	<b>683.45</b>	<b>62</b>	<b>2,664,571</b>

<b>TOTAL VOLUME EXTRACTED :</b>	<b>2,664,571 GALLONS</b>
<b>DAYS IN MONTH :</b>	<b>30 DAYS</b>
<b>MONTHLY AVERAGE FLOW RATE :</b>	<b>61.68 GPM</b>

11/1/18 - 11/3/18 - TW-21 was shut down to regulate the Pond level.  
 11/26/18 - TW-21 was shut down briefly due to a DTE Energy power loss.

**UNIT D2 DOWNGRADIENT EXTRACTION DATA**

**Month of: Nov-18**

Date	LB-4			Daily	Daily
	Gallons	GPM	Run Hrs.	Flow GPM	Total Gallons
Thu-11/1/18	144,195	100	24.00	100	144,195
Fri-11/2/18	144,151	100	24.00	100	144,151
Sat-11/3/18	144,224	100	24.00	100	144,224
Sun-11/4/18	144,202	100	24.00	100	144,202
Mon-11/5/18	144,194	100	24.00	100	144,194
Tue-11/6/18	144,159	100	24.00	100	144,159
Wed-11/7/18	142,051	100	23.65	99	142,051
Thu-11/8/18	144,220	100	24.00	100	144,220
Fri-11/9/18	144,239	100	24.00	100	144,239
Sat-11/10/18	144,234	100	24.00	100	144,234
Sun-11/11/18	144,248	100	24.00	100	144,248
Mon-11/12/18	144,250	100	24.00	100	144,250
Tue-11/13/18	144,237	100	24.00	100	144,237
Wed-11/14/18	136,786	100	22.78	95	136,786
Thu-11/15/18	144,265	100	24.00	100	144,265
Fri-11/16/18	144,241	100	24.00	100	144,241
Sat-11/17/18	144,197	100	24.00	100	144,197
Sun-11/18/18	144,168	100	24.00	100	144,168
Mon-11/19/18	144,268	100	24.00	100	144,268
Tue-11/20/18	144,199	100	24.00	100	144,199
Wed-11/21/18	144,205	100	24.00	100	144,205
Thu-11/22/18	144,216	100	24.00	100	144,216
Fri-11/23/18	144,209	100	24.00	100	144,209
Sat-11/24/18	144,173	100	24.00	100	144,173
Sun-11/25/18	144,208	100	24.00	100	144,208
Mon-11/26/18	123,440	100	20.53	86	123,440
Tue-11/27/18	136,457	100	22.70	95	136,457
Wed-11/28/18	144,153	100	24.00	100	144,153
Thu-11/29/18	144,219	100	24.00	100	144,219
Fri-11/30/18	144,210	100	24.00	100	144,210
<b>TOTALS</b>	<b>4,288,218</b>	<b>100</b>	<b>713.66</b>	<b>99</b>	<b>4,288,218</b>

<b>TOTAL VOLUME EXTRACTED :</b>	<b>4,288,218 GALLONS</b>
<b>DAYS IN MONTH :</b>	<b>30 DAYS</b>
<b>MONTHLY AVERAGE FLOW RATE :</b>	<b>99.26 GPM</b>

11/14/18 - LB-4 was shut down briefly due to a DTE Energy power loss.  
 11/26/18 - 11/27/18 - LB-4 was shut down due to a DTE Energy power loss.

**CORE AREA EXTRACTION DATA**

**Month of: Nov-18**

Core Area Well Extraction							Daily	Daily
Date	TW-2 (Dolph)			TW-20			Flow	Total
	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	GPM	Gallons
Thu-11/1/18	16,064	11	24.00	10,163	25	6.77	18	26,227
Fri-11/2/18	16,456	11	24.00	20,539	25	13.63	26	36,995
Sat-11/3/18	16,109	11	24.00	27,860	25	18.45	31	43,969
Sun-11/4/18	15,685	11	24.00	36,155	25	24.00	36	51,840
Mon-11/5/18	15,692	11	24.00	35,984	25	24.00	36	51,676
Tue-11/6/18	15,669	11	24.00	36,020	25	24.00	36	51,689
Wed-11/7/18	15,647	11	24.00	14,567	25	9.67	21	30,214
Thu-11/8/18	15,688	11	24.00	18,775	30	10.42	24	34,463
Fri-11/9/18	15,739	11	24.00	43,288	30	24.00	41	59,027
Sat-11/10/18	15,560	11	24.00	43,114	30	24.00	41	58,674
Sun-11/11/18	16,278	11	24.00	42,915	30	24.00	41	59,193
Mon-11/12/18	16,418	11	24.00	42,807	30	24.00	41	59,225
Tue-11/13/18	16,336	12	23.67	43,092	30	24.00	41	59,428
Wed-11/14/18	16,259	11	23.63	43,283	30	24.00	41	59,542
Thu-11/15/18	16,552	11	24.00	43,310	30	24.00	42	59,862
Fri-11/16/18	19,221	13	24.00	43,268	30	24.00	43	62,489
Sat-11/17/18	20,950	15	24.00	43,176	30	24.00	45	64,126
Sun-11/18/18	21,324	15	24.00	43,036	30	24.00	45	64,360
Mon-11/19/18	19,064	13	24.00	42,913	30	24.00	43	61,977
Tue-11/20/18	19,262	13	24.00	43,201	30	24.00	43	62,463
Wed-11/21/18	20,396	14	24.00	43,043	30	24.00	44	63,439
Thu-11/22/18	16,989	12	24.00	43,160	30	24.00	42	60,149
Fri-11/23/18	19,098	13	24.00	43,183	30	24.00	43	62,281
Sat-11/24/18	20,938	15	24.00	43,272	30	24.00	45	64,210
Sun-11/25/18	21,130	15	24.00	43,106	30	24.00	45	64,236
Mon-11/26/18	17,798	14	20.70	37,015	30	20.53	38	54,813
Tue-11/27/18	17,396	12	24.00	43,339	30	24.00	42	60,735
Wed-11/28/18	17,413	12	24.00	43,417	30	24.00	42	60,830
Thu-11/29/18	17,732	12	24.00	43,384	30	24.00	42	61,116
Fri-11/30/18	18,506	13	24.00	43,072	30	24.00	43	61,578
<b>TOTALS</b>	<b>527,369</b>	<b>12</b>	<b>716.00</b>	<b>1,143,457</b>	<b>29</b>	<b>655.47</b>	<b>39</b>	<b>1,670,826</b>

<b>TOTAL VOLUME EXTRACTED :</b>	<b>1,670,826 GALLONS</b>
<b>DAYS IN MONTH :</b>	<b>30 DAYS</b>
<b>MONTHLY AVERAGE FLOW RATE :</b>	<b>38.68 GPM</b>

11/1/18 - 11/3/18 - TW-20 was shut down to regulate the Pond level.  
 11/7/18 - 11/8/18 - TW-20 was shut down for rehabilitation.  
 11/26/18 - Dolph & TW-20 were shut down briefly due to a DTE Energy power loss.

**MARSHY AREA EXTRACTION DATA**

**Month of: Nov-18**

Marshy Well Extraction				Daily Flow	Daily Total
Date	PW-1 Gallons	GPM	Run Hrs.	GPM	Gallons
Thu-11/1/18	2,803	2	24.00	2	2,803
Fri-11/2/18	2,897	2	24.00	2	2,897
Sat-11/3/18	2,891	2	24.00	2	2,891
Sun-11/4/18	2,880	2	24.00	2	2,880
Mon-11/5/18	2,864	2	24.00	2	2,864
Tue-11/6/18	2,867	2	24.00	2	2,867
Wed-11/7/18	2,855	2	24.00	2	2,855
Thu-11/8/18	2,842	2	24.00	2	2,842
Fri-11/9/18	2,941	2	22.95	2	2,941
Sat-11/10/18	2,885	2	21.58	2	2,885
Sun-11/11/18	2,850	2	20.83	2	2,850
Mon-11/12/18	2,848	2	20.97	2	2,848
Tue-11/13/18	2,840	2	20.95	2	2,840
Wed-11/14/18	2,807	2	20.95	2	2,807
Thu-11/15/18	2,775	2	20.53	2	2,775
Fri-11/16/18	2,585	2	19.60	2	2,585
Sat-11/17/18	2,469	2	19.02	2	2,469
Sun-11/18/18	2,478	2	19.32	2	2,478
Mon-11/19/18	2,432	2	19.02	2	2,432
Tue-11/20/18	2,385	2	19.13	2	2,385
Wed-11/21/18	2,352	2	18.82	2	2,352
Thu-11/22/18	2,329	2	18.82	2	2,329
Fri-11/23/18	2,288	2	18.92	2	2,288
Sat-11/24/18	2,278	2	18.32	2	2,278
Sun-11/25/18	2,261	2	18.20	2	2,261
Mon-11/26/18	2,052	2	15.82	1	2,052
Tue-11/27/18	2,342	2	18.37	2	2,342
Wed-11/28/18	2,316	2	17.38	2	2,316
Thu-11/29/18	2,301	2	17.28	2	2,301
Fri-11/30/18	2,313	2	17.60	2	2,313
<b>TOTALS</b>	<b>78,026</b>	<b>2</b>	<b>616.37</b>	<b>2</b>	<b>78,026</b>

<b>TOTAL VOLUME EXTRACTED :</b>	<b>78,026 GALLONS</b>
<b>DAYS IN MONTH :</b>	<b>30 DAYS</b>
<b>MONTHLY AVERAGE FLOW RATE :</b>	<b>1.81 GPM</b>

PW-1 was down intermittently due to flow fluctuations.

**SOUTHWEST AREA EXTRACTION DATA**

**Month of: Nov-18**

SouthWest Well Extraction				Dnily Flow	Dnily Total
Date	ACTIVE WELLS		Run Hrs.	GPM	Gallons
	Gallons	GPM			
Thu-11/1/18	16,178	11	24.00	11	16,178
Fri-11/2/18	16,220	11	24.00	11	16,220
Sat-11/3/18	15,973	11	24.00	11	15,973
Sun-11/4/18	15,825	11	24.00	11	15,825
Mon-11/5/18	15,820	11	24.00	11	15,820
Tue-11/6/18	15,804	11	24.00	11	15,804
Wed-11/7/18	15,650	11	24.00	11	15,650
Thu-11/8/18	15,564	11	24.00	11	15,564
Fri-11/9/18	15,546	11	24.00	11	15,546
Sat-11/10/18	15,442	11	24.00	11	15,442
Sun-11/11/18	15,343	12	21.50	11	15,343
Mon-11/12/18	15,300	25	10.38	11	15,300
Tue-11/13/18	15,178	11	23.57	11	15,178
Wed-11/14/18	15,011	12	20.73	10	15,011
Thu-11/15/18	15,044	15	16.20	10	15,044
Fri-11/16/18	14,965	15	16.53	10	14,965
Sat-11/17/18	14,681	10	24.00	10	14,681
Sun-11/18/18	14,628	10	24.00	10	14,628
Mon-11/19/18	14,582	10	24.00	10	14,582
Tue-11/20/18	14,468	10	24.00	10	14,468
Wed-11/21/18	14,319	10	24.00	10	14,319
Thu-11/22/18	14,163	10	24.00	10	14,163
Fri-11/23/18	14,135	10	24.00	10	14,135
Sat-11/24/18	14,105	10	24.00	10	14,105
Sun-11/25/18	14,022	10	24.00	10	14,022
Mon-11/26/18	12,064	10	20.57	8	12,064
Tue-11/27/18	14,173	10	24.00	10	14,173
Wed-11/28/18	5,621	10	9.28	4	5,621
Thu-11/29/18	-	-	-	<2	-
Fri-11/30/18	3,374	20	2.87	2	3,374
<b>TOTALS</b>	<b>413,198</b>	<b>12</b>	<b>621.63</b>	<b>10</b>	<b>413,198</b>

<b>TOTAL VOLUME EXTRACTED :</b>	<b>413,198 GALLONS</b>
<b>DAYS IN MONTH :</b>	<b>30 DAYS</b>
<b>MONTHLY AVERAGE FLOW RATE :</b>	<b>9.56 GPM</b>

Note: ACTIVE WELLS = TW-8, TW-22

11/11/18 - 11/16/18 - SW extraction was shut down intermittently, due to low flow from TW-8.

11/26/18 - SW extraction was shut down due to a DTE Energy power loss.

11/28/18-11/30/18 - SW extraction was shut down for rehabilitation of TW-8 and TW-22. TW-8 remains shut down pending replacement.

**UNIT "E" EXTRACTION DATA**

**Month of: Nov-18**

Date	TW-18			TW-19			TW-23			Daily	Daily
	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	Flow GPM	Total Gallons
Thu-11/1/18	67,758	167	6.77	44,935	31	24.00	99,398	69	24.00	147	212,091
Fri-11/2/18	136,825	167	13.65	45,010	31	24.00	99,322	69	24.00	195	281,157
Sat-11/3/18	185,333	167	18.48	44,999	31	24.00	99,340	69	24.00	229	329,672
Sun-11/4/18	240,896	167	24.00	45,002	31	24.00	99,377	69	24.00	268	385,275
Mon-11/5/18	240,878	167	24.00	45,003	31	24.00	99,425	69	24.00	268	385,306
Tue-11/6/18	240,836	167	24.00	44,999	31	24.00	99,330	69	24.00	267	385,165
Wed-11/7/18	240,875	167	24.00	43,549	31	23.30	96,521	69	23.30	265	380,945
Thu-11/8/18	240,900	167	24.00	44,780	31	24.00	99,279	69	24.00	267	384,959
Fri-11/9/18	240,914	167	24.00	43,929	31	23.50	98,185	69	23.70	266	383,028
Sat-11/10/18	240,886	167	24.00	44,957	31	24.00	99,398	69	24.00	268	385,241
Sun-11/11/18	240,922	167	24.00	44,986	31	24.00	99,380	69	24.00	268	385,288
Mon-11/12/18	240,933	167	24.00	44,965	31	24.00	99,365	69	24.00	268	385,263
Tue-11/13/18	240,943	167	24.00	44,989	31	24.00	99,377	69	24.00	268	385,309
Wed-11/14/18	240,902	167	24.00	41,595	30	22.80	94,491	69	22.80	262	376,988
Thu-11/15/18	240,913	167	24.00	43,721	30	24.00	99,514	69	24.00	267	384,148
Fri-11/16/18	240,902	167	24.00	43,729	30	24.00	99,459	69	24.00	267	384,090
Sat-11/17/18	240,913	167	24.00	43,710	30	24.00	99,347	69	24.00	267	383,970
Sun-11/18/18	240,906	167	24.00	43,720	30	24.00	99,356	69	24.00	267	383,982
Mon-11/19/18	240,950	167	24.00	43,750	30	24.00	99,372	69	24.00	267	384,072
Tue-11/20/18	240,854	167	24.00	43,738	30	24.00	99,325	69	24.00	267	383,917
Wed-11/21/18	240,955	167	24.00	43,724	30	24.00	99,279	69	24.00	267	383,958
Thu-11/22/18	241,030	167	24.00	43,749	30	24.00	99,606	69	24.00	267	384,385
Fri-11/23/18	240,980	167	24.00	43,761	30	24.00	99,610	69	24.00	267	384,351
Sat-11/24/18	240,934	167	24.00	43,776	30	24.00	99,345	69	24.00	267	384,055
Sun-11/25/18	240,988	167	24.00	43,720	30	24.00	99,528	69	24.00	267	384,236
Mon-11/26/18	206,948	167	20.63	37,633	31	20.50	84,986	69	20.50	229	329,567
Tue-11/27/18	240,915	167	24.00	41,515	31	22.60	93,652	69	22.60	261	376,082
Wed-11/28/18	240,968	167	24.00	43,882	30	24.00	99,380	69	24.00	267	384,230
Thu-11/29/18	240,903	167	24.00	43,851	30	24.00	99,579	69	24.00	267	384,333
Fri-11/30/18	240,938	167	24.00	43,822	30	24.00	99,524	69	24.00	267	384,284
<b>TOTALS</b>	<b>6,860,798</b>	<b>167</b>	<b>683.53</b>	<b>1,315,499</b>	<b>31</b>	<b>712.70</b>	<b>2,953,050</b>	<b>69</b>	<b>712.90</b>	<b>258</b>	<b>11,129,347</b>

<b>TOTAL VOLUME EXTRACTED :</b>	<b>11,129,347 GALLONS</b>
<b>DAYS IN MONTH :</b>	<b>30 DAYS</b>
<b>MONTHLY AVERAGE FLOW RATE :</b>	<b>257.62 GPM</b>

11/1/18 - 11/3/18 - TW-18 was shut down to regulate the Pond level.  
 11/14/18 - TW-19 & TW-23 were shut down due to a DTE Energy power loss.  
 11/26/18 - TW-18 was shut down briefly due to a DTE Energy power loss.  
 11/26/18 - 11/27/18 - TW-19 & TW-23 were shut down due to a DTE Energy power loss.



**TABLE #7**

**Little Lake Area System**

MW-53i	
Date	1,4-Dioxane ug/L
08/07/18	61
09/05/18	78
10/02/18	46
11/07/18	42

A2 Cleaning Supply	
Date	1,4-Dioxane ug/L
08/07/18	84
09/07/18	84
10/02/18	83
11/12/18	66



**TABLE #8**

**INDIVIDUAL PURGE WELL CONCENTRATIONS**

<b>SAMPLE ID</b>	<b>Date Sampled</b>	<b>1,4-DIOXANE (ppb)</b>
DOLPH-11-09-18-08:33-1	11/09/18	130
TW-20-11-09-18-08:26-1	11/09/18	1100
LB-4-11-09-18-09:07-1	11/09/18	490
TW-21-11-09-18-08:45-1	11/09/18	210
TW-18-11-09-18-08:40-1	11/09/18	250
TW-19-11-09-18-09:20-1	11/09/18	470
TW-23-11-09-18-09:04-1	11/09/18	450
PW-1-11-09-18-08:35-1	11/09/18	950
TW-22-11-09-18-08:12-1	11/09/18	460
TW-8-11-09-18-08:10-1	11/09/18	730

**RED POND DATA**

**Month of: Nov-18**

Date	Time	Notes	Red Pond				
			Pond	Level	Aeration	Influent	Influent
			Visual Chk	Feet	Hours	Hours	GPM
Thu-11/1/18	3:05:29		Y	6.4	-	24.00	297
Fri-11/2/18	3:00		Y	6.6	-	24.00	371
Sat-11/3/18	3:00	(1)		6.6	-	24.00	423
Sun-11/4/18	3:00	(1)		6.6	-	24.00	482
Mon-11/5/18	3:00		Y	6.5	-	24.00	482
Tue-11/6/18	3:00		Y	6.4	-	24.00	481
Wed-11/7/18	3:00:00		Y	6.3	-	24.00	462
Thu-11/8/18	3:00		Y	6.0	-	24.00	469
Fri-11/9/18	3:00		Y	5.8	-	24.00	485
Sat-11/10/18	3:00	(1)		5.7	-	24.00	486
Sun-11/11/18	3:00	(1)		5.7	-	24.00	486
Mon-11/12/18	3:00		Y	5.6	-	24.00	486
Tue-11/13/18	3:00		Y	5.6	-	24.00	486
Wed-11/14/18	3:00		Y	5.4	-	24.00	475
Thu-11/15/18	3:00		Y	5.3	-	24.00	486
Fri-11/16/18	3:00		Y	5.3	-	24.00	487
Sat-11/17/18	3:00	(1)		5.2	-	24.00	488
Sun-11/18/18	3:00	(1)		5.2	-	24.00	488
Mon-11/19/18	3:00		Y	5.2	-	24.00	487
Tue-11/20/18	3:00		Y	5.1	-	24.00	487
Wed-11/21/18	3:00		Y	5.2	-	24.00	487
Thu-11/22/18	3:00		Y	5.2	-	24.00	485
Fri-11/23/18	3:00		Y	5.1	-	24.00	487
Sat-11/24/18	3:00	(1)		5.0	-	24.00	488
Sun-11/25/18	3:00	(1)		5.0	-	24.00	488
Mon-11/26/18	3:00		Y	5.0	-	24.00	418
Tue-11/27/18	12:02		Y	5.2	-	24.00	475
Wed-11/28/18	3:00		Y	5.1	-	24.00	480
Thu-11/29/18	3:00		Y	5.0	-	24.00	476
Fri-11/30/18	3:00		Y	4.8	-	24.00	479
<b>TOTALS</b>			-	-	-	720	

Daily readings are collected by the Operator at various times of the day, resulting in varied readings and calculations.

(1) Manual readings were not taken due to weekend and/or holiday.



## TABLE #10

### RED POND CONCENTRATIONS

Concentrations of 1,4-Dioxane found in the Red Pond

SAMPLE ID	Date Sampled	1,4-DIOXANE (ppb)
Red Pond-11-05-18-08:30-1	11/5/2018	320
Red Pond-11-13-18-07:45-1	11/13/2018	290
Red Pond-11-19-18-08:00-1	11/19/2018	340
Red Pond-11-26-18-07:45-1	11/26/2018	260

Analyte value quantified from a dilution, reporting limit is raised to reflect dilution

**OZONE OPERATION REPORT**

**Month of: Nov-18**

Date	Time	Notes	SYSTEM-1A		SYSTEM-1B		SYSTEM-2A		SYSTEM-2B	
			Flow GPM	Run Hours	Flow GPM	Run Hours	Flow GPM	Run Hours	Flow GPM	Run Hours
Thu-11/1/18	3:07:00		240	23.77	0	6.83	0	0.35	0	0.00
Fri-11/2/18	3:00 AM		240	24.00	0	11.28	0	2.17	0	0.00
Sat-11/3/18	3:00 AM	(1)	240	23.92	0	12.52	241	4.63	0	0.00
Sun-11/4/18	3:00 AM	(1)	240	24.00	241	24.00	0	0.00	0	0.00
Mon-11/5/18	3:00 AM		240	24.00	241	24.00	0	0.00	0	0.00
Tue-11/6/18	3:00 AM		240	23.82	240	23.82	0	0.00	0	0.00
Wed-11/7/18	3:00:00		240	24.00	240	24.00	0	0.00	0	0.00
Thu-11/8/18	3:00 AM		240	24.00	240	24.00	0	0.00	0	0.00
Fri-11/9/18	3:00 AM		240	24.00	239	24.00	0	0.00	0	0.00
Sat-11/10/18	3:00 AM	(1)	240	24.00	241	24.00	0	0.00	0	0.00
Sun-11/11/18	3:00 AM	(1)	239	24.00	240	24.00	0	0.00	0	0.00
Mon-11/12/18	3:00 AM		240	24.00	240	24.00	0	0.00	0	0.00
Tue-11/13/18	3:00 AM		239	24.00	239	24.00	0	0.00	0	0.00
Wed-11/14/18	3:00 AM		240	24.00	241	24.00	0	0.00	0	0.00
Thu-11/15/18	3:00 AM		240	24.00	240	24.00	0	0.00	0	0.00
Fri-11/16/18	3:00 AM		240	24.00	240	24.00	0	0.00	0	0.00
Sat-11/17/18	3:00 AM	(1)	240	24.00	241	24.00	0	0.00	0	0.00
Sun-11/18/18	3:00 AM	(1)	240	24.00	240	24.00	0	0.00	0	0.00
Mon-11/19/18	3:00 AM		240	24.00	241	24.00	0	0.00	0	0.00
Tue-11/20/18	3:00 AM		240	23.78	240	23.85	0	0.00	0	0.00
Wed-11/21/18	3:00 AM		240	24.00	241	24.00	0	0.00	0	0.00
Thu-11/22/18	3:00 AM		240	24.00	240	24.00	0	0.00	0	0.00
Fri-11/23/18	3:00 AM		240	24.00	239	24.00	0	0.00	0	0.00
Sat-11/24/18	3:00 AM	(1)	240	24.00	240	24.00	0	0.00	0	0.00
Sun-11/25/18	3:00 AM	(1)	240	24.00	240	24.00	0	0.00	0	0.00
Mon-11/26/18	3:00 AM		240	16.62	239	13.57	0	10.23	0	0.00
Tue-11/27/18	12:02 PM		240	24.00	0	0.00	241	24.00	0	0.00
Wed-11/28/18	3:00 AM		240	24.00	0	0.00	240	24.00	0	0.00
Thu-11/29/18	3:00 AM		240	24.00	0	0.00	240	24.00	0	0.00
Fri-11/30/18	3:00 AM		240	24.00	0	0.00	240	22.35	0	0.00

Daily readings are collected by the Operator at various times of the day, resulting in varied readings and calculations.

(1) Manual readings were not taken due to weekend and/or holiday.

11/1/18 - 11/25/18 System-1B placed on line while System-2A was shut down for maintenance.

11/26/18 - Treatment was shut down due to a DTE Energy power loss.

11/30/18 - System-2A was shut down briefly for maintenance.

**TABLE #12**

**GREEN POND / DISCHARGE DATA**

Month of: **Nov-18**

Date	Time	Notes	Green Pond																	
			Visual Chk	Level Feet	Aeration Hours	Influent Hours	Influent GPM	Pond Discharge			Bypass Discharge			Recirc Thru UV to Pond			Recirc Thru UV to Disch			
								GPM	Gallons	Hours	GPM	Gallons	Hours	GPM	Gallons	Hours	GPM	Gallons	Hours	
Thu-11/1/18	3:05:29		Y	-	-	-	-	-	-	-	298	422,115	23.63	-	-	-	-	-	-	
Fri-11/2/18	3:00 AM		Y	-	-	-	-	-	-	-	379	545,537	24.00	-	-	-	-	-	-	
Sat-11/3/18	3:00 AM	(1)		-	-	-	-	-	-	-	438	625,355	23.80	-	-	-	-	-	-	
Sun-11/4/18	3:00 AM	(1)		-	-	-	-	-	-	-	498	716,736	24.00	-	-	-	-	-	-	
Mon-11/5/18	3:00 AM		Y	-	-	-	-	-	-	-	498	716,960	24.00	-	-	-	-	-	-	
Tue-11/6/18	3:00 AM		Y	-	-	-	-	-	-	-	498	707,651	23.70	-	-	-	-	-	-	
Wed-11/7/18	3:00:00		Y	-	-	-	-	-	-	-	497	716,010	24.00	-	-	-	-	-	-	
Thu-11/8/18	3:00 AM		Y	-	-	-	-	-	-	-	497	715,988	24.00	-	-	-	-	-	-	
Fri-11/9/18	3:00 AM		Y	-	-	-	-	-	-	-	497	716,076	24.00	-	-	-	-	-	-	
Sat-11/10/18	3:00 AM	(1)		-	-	-	-	-	-	-	497	715,791	24.00	-	-	-	-	-	-	
Sun-11/11/18	3:00 AM	(1)		-	-	-	-	-	-	-	497	715,915	24.00	-	-	-	-	-	-	
Mon-11/12/18	3:00 AM		Y	-	-	-	-	-	-	-	497	716,067	24.00	-	-	-	-	-	-	
Tue-11/13/18	3:00 AM		Y	-	-	-	-	-	-	-	496	714,253	24.00	-	-	-	-	-	-	
Wed-11/14/18	3:00 AM		Y	-	-	-	-	-	-	-	497	715,767	24.00	-	-	-	-	-	-	
Thu-11/15/18	3:00 AM		Y	-	-	-	-	-	-	-	497	715,925	24.00	-	-	-	-	-	-	
Fri-11/16/18	3:00 AM		Y	-	-	-	-	-	-	-	497	716,041	24.00	-	-	-	-	-	-	
Sat-11/17/18	3:00 AM	(1)		-	-	-	-	-	-	-	497	716,086	24.00	-	-	-	-	-	-	
Sun-11/18/18	3:00 AM	(1)		-	-	-	-	-	-	-	496	713,839	24.00	-	-	-	-	-	-	
Mon-11/19/18	3:00 AM		Y	-	-	-	-	-	-	-	497	716,030	24.00	-	-	-	-	-	-	
Tue-11/20/18	3:00 AM		Y	-	-	-	-	-	-	-	496	702,303	23.60	-	-	-	-	-	-	
Wed-11/21/18	3:00 AM		Y	-	-	-	-	-	-	-	497	715,242	24.00	-	-	-	-	-	-	
Thu-11/22/18	3:00 AM		Y	-	-	-	-	-	-	-	497	714,962	24.00	-	-	-	-	-	-	
Fri-11/23/18	3:00 AM		Y	-	-	-	-	-	-	-	497	715,277	24.00	-	-	-	-	-	-	
Sat-11/24/18	3:00 AM	(1)		-	-	-	-	-	-	-	497	715,751	24.00	-	-	-	-	-	-	
Sun-11/25/18	3:00 AM	(1)		-	-	-	-	-	-	-	497	715,755	24.00	-	-	-	-	-	-	
Mon-11/26/18	3:00 AM		Y	-	-	-	-	-	-	-	483	580,013	20.00	-	-	-	-	-	-	
Tue-11/27/18	12:02 PM		Y	-	-	-	-	-	-	-	496	714,610	24.00	-	-	-	-	-	-	
Wed-11/28/18	3:00 AM		Y	-	-	-	-	-	-	-	496	714,544	24.00	-	-	-	-	-	-	
Thu-11/29/18	3:00 AM		Y	-	-	-	-	-	-	-	496	714,734	24.00	-	-	-	-	-	-	
Fri-11/30/18	3:00 AM		Y	-	-	-	-	-	-	-	478	688,800	24.00	-	-	-	-	-	-	
<b>TOTALS</b>												<b>20,730,133</b>	<b>715</b>							

Daily readings are collected by the Operator at various times of the day, resulting in varied readings and calculations.

(1) Manual readings were not taken due to weekend and/or holiday.

**TABLE #13**  
**Daily Discharge Monitoring Report**

	(Daily)	Quarterly	(Effluent - Outfall)	(Influent - Red Pond)	(Effluent - Outfall)	(Effluent - Outfall)	(Weekly)	(2 x Week)	(4 x Week)	(4 x Week)	(5 X Week)	(2 X Week)	
PARAMETER NAME	Flow	Total Barium	Total Barium	1,4-Dioxane	1,4-Dioxane	Hydrogen Peroxide	Hydrogen Peroxide	Outfall Observation	Equipment Inspection	pH (Min. Daily)	pH (Max. Daily)	Bromate	Sodium Bisulfite Dose Rate
PARAMETER CODE	50050	1007	1007	82388	82388	00139	00139	84130	46478	00400	00400	99814	99798
MONITORING PT.	001A	001A	001A	001A	001A	001A	001A	001A	001A	001A	001A	001A	001A
STAGE CODE	1	1	1	1	G	1	1	1	1	1	1	1	1
UNIT	MGD	ug/l	lbs/day	ug/l	mg/l	ug/l	lbs/day	yes/no	yes/no	S.U.	S.U.	ug/l	mg/l
11/1/2018	0.422	*G	*G	6.3		<50	<0.16	yes	yes	6.6	6.6	<5	60
11/2/2018	0.546					<50	<0.16		yes	6.7	6.7		50
11/3/2018	0.625												
11/4/2018	0.717			9.8								<5	
11/5/2018	0.716			7.9	0.320	<50	<0.16	yes	yes	6.8	6.8	5.1	60
11/6/2018	0.708			6.2		<50	<0.16			6.6	6.6	6.5	
11/7/2018	0.716			6.2		<50	<0.16		yes	6.7	6.7	6.4	60
11/8/2018	0.716			5.6		<50	<0.16			6.7	6.7	7.9	
11/9/2018	0.716					<50	<0.16			6.8	6.8		
11/10/2018	0.716												
11/11/2018	0.716			6.4								6.9	
11/12/2018	0.716			5.8								7.3	
11/13/2018	0.714			8.4	0.290	<50	<0.16	yes	yes	6.6	6.6	6.3	45
11/14/2018	0.716			7.6		<50	<0.16			6.7	6.7	5.8	
11/15/2018	0.716			6.1		<50	<0.16		yes	6.7	6.7	6.1	50
11/16/2018	0.716					<50	<0.16			6.8	6.8		
11/17/2018	0.716												
11/18/2018	0.714			8.0								7	
11/19/2018	0.716			7	0.340	<50	<0.16	yes	yes	6.8	6.8	7.4	20
11/20/2018	0.702			6		<50	<0.16			6.7	6.7	7.4	
11/21/2018	0.715			6		<50	<0.16		yes	6.8	6.8	7.9	30
11/22/2018	0.715			7								8	
11/23/2018	0.715												
11/24/2018	0.716												
11/25/2018	0.716			6								7.6	
11/26/2018	0.580			7	0.260	<50	<0.16	yes	yes	6.7	6.7	7.4	40
11/27/2018	0.715			6		<50	<0.16			6.8	6.8	8.2	
11/28/2018	0.715			5.8		<50	<0.16		yes	6.7	6.7	7.8	46
11/29/2018	0.715			5.3		<50	<0.16			6.7	6.7	8.6	
11/30/2018	0.689					<50	<0.16			6.7	6.7		
<b>Discharged (mg)</b>	<b>20.729</b>												
<b>Monthly Avg</b>				<b>6.7</b>								<b>6.5</b>	