



August 20, 2021

Bridgett Carver
Surface Water Quality Division
Michigan Department of EGLE
301 East Louis Glick Highway
Jackson, Michigan 49201

**Re: Monitoring Report #291
July 1 – July 31, 2021**

Dear Ms. Carver:

Pursuant to the National Pollutant Discharge Elimination System (NPDES) Permit No. MI0048453, please find the enclosed Monitoring Report for the period of July 1 through July 31, 2021.

Should you have any questions or concerns regarding this report, please contact me at 269-993-7585.

Sincerely,

FLEIS & VANDENBRINK

A handwritten signature in blue ink, appearing to read "Jim Brode", is written over a light blue horizontal line.

Jim Brode, CPG
Senior Project Manager

cc: Dan Hamel, EGLE
Supervisor, Scio Twp.
City of Ann Arbor

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TABLE #1

UNIT D2 UPGRADIENT EXTRACTION DATA

Month of: Jul-21

Date	Horizontal Well Extraction			TW-9			TW-5			TW-21			Daily Flow	Daily Total
	HW-S	GPM	Run Hrs.	TW-9	GPM	Run Hrs.	TW-5	GPM	Run Hrs.	TW-21	GPM	Run Hrs.	GPM	Gallons
	Gallons			Gallons			Gallons			Gallons				
Thu-7/1/21	-	-	-	-	-	-	-	-	-	144,400	100	24.00	100	144,400
Fri-7/2/21	-	-	-	-	-	-	-	-	-	144,357	100	24.00	100	144,357
Sat-7/3/21	-	-	-	-	-	-	-	-	-	144,345	100	24.00	100	144,345
Sun-7/4/21	-	-	-	-	-	-	-	-	-	144,406	100	24.00	100	144,406
Mon-7/5/21	-	-	-	-	-	-	-	-	-	144,436	100	24.00	100	144,436
Tue-7/6/21	-	-	-	-	-	-	-	-	-	144,467	100	24.00	100	144,467
Wed-7/7/21	-	-	-	-	-	-	-	-	-	144,428	100	24.00	100	144,428
Thu-7/8/21	-	-	-	-	-	-	-	-	-	144,375	100	24.00	100	144,375
Fri-7/9/21	-	-	-	-	-	-	-	-	-	144,346	100	24.00	100	144,346
Sat-7/10/21	-	-	-	-	-	-	-	-	-	144,363	100	24.00	100	144,363
Sun-7/11/21	-	-	-	-	-	-	-	-	-	144,275	100	24.00	100	144,275
Mon-7/12/21	-	-	-	-	-	-	-	-	-	144,320	100	24.00	100	144,320
Tue-7/13/21	-	-	-	-	-	-	-	-	-	144,353	100	24.00	100	144,353
Wed-7/14/21	-	-	-	-	-	-	-	-	-	144,392	100	24.00	100	144,392
Thu-7/15/21	-	-	-	-	-	-	-	-	-	144,386	100	24.00	100	144,386
Fri-7/16/21	-	-	-	-	-	-	-	-	-	144,314	100	24.00	100	144,314
Sat-7/17/21	-	-	-	-	-	-	-	-	-	144,354	100	24.00	100	144,354
Sun-7/18/21	-	-	-	-	-	-	-	-	-	144,351	100	24.00	100	144,351
Mon-7/19/21	-	-	-	-	-	-	-	-	-	144,376	100	24.00	100	144,376
Tue-7/20/21	-	-	-	-	-	-	-	-	-	144,402	100	24.00	100	144,402
Wed-7/21/21	-	-	-	-	-	-	-	-	-	144,346	100	24.00	100	144,346
Thu-7/22/21	-	-	-	-	-	-	-	-	-	143,868	100	24.00	100	143,868
Fri-7/23/21	-	-	-	-	-	-	-	-	-	144,314	100	24.00	100	144,314
Sat-7/24/21	-	-	-	-	-	-	-	-	-	144,362	100	24.00	100	144,362
Sun-7/25/21	-	-	-	-	-	-	-	-	-	144,383	100	24.00	100	144,383
Mon-7/26/21	-	-	-	-	-	-	-	-	-	144,370	100	24.00	100	144,370
Tue-7/27/21	-	-	-	-	-	-	-	-	-	144,375	100	24.00	100	144,375
Wed-7/28/21	-	-	-	-	-	-	-	-	-	144,388	100	24.00	100	144,388
Thu-7/29/21	-	-	-	-	-	-	-	-	-	144,392	100	24.00	100	144,392
Fri-7/30/21	-	-	-	-	-	-	-	-	-	144,331	100	24.00	100	144,331
Sat-7/31/21	-	-	-	-	-	-	-	-	-	144,311	100	24.00	100	144,311
TOTALS	-	-	-	-	-	-	-	-	-	4,474,886	100	744.00	100	4,474,886

TOTAL VOLUME EXTRACTED :	4,474,886 GALLONS
DAYS IN MONTH :	31 DAYS
MONTHLY AVERAGE FLOW RATE :	100.24 GPM

UNIT D2 DOWNGRAIDENT EXTRACTION DATA

Month of: Jul-21

Date	LB-1			LB-4			Daily	Daily
	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	Flow GPM	Total Gallons
Thu-7/1/21	-	-	-	144,197	100	24.00	100	144,197
Fri-7/2/21	-	-	-	144,216	100	24.00	100	144,216
Sat-7/3/21	-	-	-	144,211	100	24.00	100	144,211
Sun-7/4/21	-	-	-	144,179	100	24.00	100	144,179
Mon-7/5/21	-	-	-	144,205	100	24.00	100	144,205
Tue-7/6/21	-	-	-	144,195	100	24.00	100	144,195
Wed-7/7/21	-	-	-	144,203	100	24.00	100	144,203
Thu-7/8/21	-	-	-	144,208	100	24.00	100	144,208
Fri-7/9/21	-	-	-	144,184	100	24.00	100	144,184
Sat-7/10/21	-	-	-	144,228	100	24.00	100	144,228
Sun-7/11/21	-	-	-	144,203	100	24.00	100	144,203
Mon-7/12/21	-	-	-	144,207	100	24.00	100	144,207
Tue-7/13/21	-	-	-	144,228	100	24.00	100	144,228
Wed-7/14/21	-	-	-	144,210	100	24.00	100	144,210
Thu-7/15/21	-	-	-	144,222	100	24.00	100	144,222
Fri-7/16/21	-	-	-	144,231	100	24.00	100	144,231
Sat-7/17/21	-	-	-	144,226	100	24.00	100	144,226
Sun-7/18/21	-	-	-	144,197	100	24.00	100	144,197
Mon-7/19/21	-	-	-	144,212	100	24.00	100	144,212
Tue-7/20/21	-	-	-	144,231	100	24.00	100	144,231
Wed-7/21/21	-	-	-	144,222	100	24.00	100	144,222
Thu-7/22/21	-	-	-	144,183	100	24.00	100	144,183
Fri-7/23/21	-	-	-	144,234	100	24.00	100	144,234
Sat-7/24/21	-	-	-	144,193	100	24.00	100	144,193
Sun-7/25/21	-	-	-	144,202	100	24.00	100	144,202
Mon-7/26/21	-	-	-	144,214	100	24.00	100	144,214
Tue-7/27/21	-	-	-	144,187	100	24.00	100	144,187
Wed-7/28/21	-	-	-	144,183	100	24.00	100	144,183
Thu-7/29/21	-	-	-	144,182	100	24.00	100	144,182
Fri-7/30/21	-	-	-	144,188	100	24.00	100	144,188
Sat-7/31/21	-	-	-	144,191	100	24.00	100	144,191
TOTALS	-	-	-	4,470,372	100	744.00	100	4,470,372

TOTAL VOLUME EXTRACTED :	4,470,372 GALLONS
DAYS IN MONTH :	31 DAYS
MONTHLY AVERAGE FLOW RATE :	100.14 GPM

TABLE #3
CORE AREA EXTRACTION DATA

Month of: Jul-21

Core Area Well Extraction																				Daily	Daily				
Date	TW-1			TW-2 (Dolph)			TW-3			TW-10			TW-14			TW-20			TW-24			Flow	Total		
	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	Gallons	GPM	Run Hrs.	GPM	Gallons		
Thu-7/1/21	-	-	-	57,566	40	24.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	57,566	
Fri-7/2/21	-	-	-	57,225	40	24.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	57,225	
Sat-7/3/21	-	-	-	56,827	39	24.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39	56,827	
Sun-7/4/21	-	-	-	56,330	39	24.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39	56,330	
Mon-7/5/21	-	-	-	55,743	39	24.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39	55,743	
Tue-7/6/21	-	-	-	55,230	38	24.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38	55,230	
Wed-7/7/21	-	-	-	54,831	38	24.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38	54,831	
Thu-7/8/21	-	-	-	54,807	38	24.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38	54,807	
Fri-7/9/21	-	-	-	53,198	37	24.00	-	-	-	-	-	-	-	-	5,904	10	9.68	-	-	-	-	-	42	60,711	
Sat-7/10/21	-	-	-	53,443	37	24.00	-	-	-	-	-	-	-	-	14,394	10	24.00	-	-	-	-	-	47	67,592	
Sun-7/11/21	-	-	-	52,984	37	24.00	-	-	-	-	-	-	-	-	14,271	10	24.00	-	-	-	-	-	47	67,714	
Mon-7/12/21	-	-	-	51,543	36	24.00	-	-	-	-	-	-	-	-	14,211	10	24.00	-	-	-	-	-	47	67,195	
Tue-7/13/21	-	-	-	51,033	35	24.00	-	-	-	-	-	-	-	-	19,948	14	24.00	-	-	-	-	-	50	71,491	
Wed-7/14/21	-	-	-	50,181	35	24.00	-	-	-	-	-	-	-	-	21,946	15	24.00	-	-	-	-	-	51	72,979	
Thu-7/15/21	-	-	-	49,863	35	24.00	-	-	-	-	-	-	-	-	26,557	18	24.00	-	-	-	-	-	53	76,738	
Fri-7/16/21	-	-	-	49,247	34	24.00	-	-	-	-	-	-	-	-	28,758	20	24.00	-	-	-	-	-	55	78,621	
Sat-7/17/21	-	-	-	48,715	34	24.00	-	-	-	-	-	-	-	-	29,052	20	24.00	-	-	-	-	-	54	78,299	
Sun-7/18/21	-	-	-	48,010	33	24.00	-	-	-	-	-	-	-	-	28,976	20	24.00	-	-	-	-	-	54	77,691	
Mon-7/19/21	-	-	-	47,644	33	24.00	-	-	-	-	-	-	-	-	28,945	20	24.00	-	-	-	-	-	53	76,955	
Tue-7/20/21	-	-	-	47,218	33	24.00	-	-	-	-	-	-	-	-	28,887	20	24.00	-	-	-	-	-	53	76,531	
Wed-7/21/21	-	-	-	46,482	32	24.00	-	-	-	-	-	-	-	-	28,676	20	24.00	-	-	-	-	-	53	75,894	
Thu-7/22/21	-	-	-	44,915	31	24.00	-	-	-	-	-	-	-	-	28,746	20	24.00	-	-	-	-	-	52	75,228	
Fri-7/23/21	-	-	-	45,538	32	24.00	-	-	-	-	-	-	-	-	28,769	20	24.00	-	-	-	-	-	51	73,684	
Sat-7/24/21	-	-	-	45,133	31	24.00	-	-	-	-	-	-	-	-	26,408	20	21.90	-	-	-	-	-	50	71,946	
Sun-7/25/21	-	-	-	44,420	31	24.00	-	-	-	-	-	-	-	-	29,236	20	24.00	-	-	-	-	-	52	74,369	
Mon-7/26/21	-	-	-	43,616	30	24.00	-	-	-	-	-	-	-	-	28,901	20	24.00	-	-	-	-	-	51	73,321	
Tue-7/27/21	-	-	-	42,966	30	24.00	-	-	-	-	-	-	-	-	34,349	24	24.00	-	-	-	-	-	54	77,965	
Wed-7/28/21	-	-	-	42,325	29	24.00	-	-	-	-	-	-	-	-	36,261	25	24.00	-	-	-	-	-	55	79,227	
Thu-7/29/21	-	-	-	41,937	29	24.00	-	-	-	-	-	-	-	-	36,186	25	24.00	-	-	-	-	-	55	78,511	
Fri-7/30/21	-	-	-	40,991	28	24.00	-	-	-	-	-	-	-	-	21,689	25	14.43	-	-	-	17,375	26	11.22	56	81,001
Sat-7/31/21	-	-	-	40,509	28	24.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36,012	25	24.00	53	77,003
TOTALS	-	-	-	1,530,470	34	744.00	-	-	-	-	-	-	-	-	561,070	19	502.02	-	-	-	36,008	25	24.00	53	76,517

TOTAL VOLUME EXTRACTED :	2,180,935	GALLONS
DAYS IN MONTH :	31	DAYS
MONTHLY AVERAGE FLOW RATE :	48.85	GPM

7/1/21-7/8/21 - TW-20 was shut down to control pond level.
 7/9/21 - New extraction well TW-24 was started.
 7/23/21 - TW-20 was shut down briefly for maintenance.
 7/29/21-7/31/21 - TW-20 was shut down to control pond level.

MARSHY AREA EXTRACTION DATA

Month of: Jul-21

Marshy Well Extraction				Daily	Daily
Date	PW-1			Flow	Total
	Gallons	GPM	Run Hrs.	GPM	Gallons
Thu-7/1/21	5,354	4	24.00	4	5,354
Fri-7/2/21	5,246	4	24.00	4	5,246
Sat-7/3/21	5,193	4	24.00	4	5,193
Sun-7/4/21	5,156	4	24.00	4	5,156
Mon-7/5/21	5,146	4	24.00	4	5,146
Tue-7/6/21	5,018	3	24.00	3	5,018
Wed-7/7/21	4,889	3	24.00	3	4,889
Thu-7/8/21	4,815	3	24.00	3	4,815
Fri-7/9/21	4,844	3	24.00	3	4,844
Sat-7/10/21	4,777	3	24.00	3	4,777
Sun-7/11/21	4,738	3	24.00	3	4,738
Mon-7/12/21	4,742	3	24.00	3	4,742
Tue-7/13/21	4,803	3	24.00	3	4,803
Wed-7/14/21	4,778	3	24.00	3	4,778
Thu-7/15/21	4,716	3	24.00	3	4,716
Fri-7/16/21	4,951	3	24.00	3	4,951
Sat-7/17/21	4,979	3	24.00	3	4,979
Sun-7/18/21	4,864	3	24.00	3	4,864
Mon-7/19/21	4,978	3	24.00	3	4,978
Tue-7/20/21	5,078	4	24.00	4	5,078
Wed-7/21/21	5,145	4	24.00	4	5,145
Thu-7/22/21	5,124	4	24.00	4	5,124
Fri-7/23/21	5,125	4	24.00	4	5,125
Sat-7/24/21	5,082	4	24.00	4	5,082
Sun-7/25/21	5,036	3	24.00	3	5,036
Mon-7/26/21	4,922	3	24.00	3	4,922
Tue-7/27/21	4,844	3	24.00	3	4,844
Wed-7/28/21	4,785	3	24.00	3	4,785
Thu-7/29/21	4,701	3	24.00	3	4,701
Fri-7/30/21	4,602	3	24.00	3	4,602
Sat-7/31/21	4,504	3	24.00	3	4,504
TOTALS	152,935	3	744.00	3	152,935

TOTAL VOLUME EXTRACTED :	152,935 GALLONS
DAYS IN MONTH :	31 DAYS
MONTHLY AVERAGE FLOW RATE :	3.43 GPM

