

Poon, Peter

From: Lake Maintenance <lake.maint@lake-santee.com>
Sent: Friday, June 21, 2024 5:18 PM
To: Poon, Peter
Subject: IN5216003 Lake Santee RWWD May 2024 MRO
Attachments: IN5216003_01_2024_05.pdf

**** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ****

Attached is the May 2024 MRO for Lake Santee RWWD.

Thanks,
Brandon Litmer
Lake Santee RWWD



IE/LT1 SWTR COMBINED FILTER EFFLUENT TURBIDITY

State Form 53294 (6-07)
 Indiana Department of Environmental Management (IDEM)
 Office of Water Quality - Drinking Water Branch - Compliance Section

INSTRUCTIONS: Please submit completed forms to: IDEM OWQ Drinking Water, Mail Code 66-34, 100 N Senate Ave, Indianapolis, IN 46204-2251

PWSID:	System Name:
I N 5 2 1 6 0 0 3	L A K E S A N T E E R W W D
Plant Number: 0 1	Plant Name:

This form must be completed and submitted to IDEM within the first ten (10) days after the end of the monitoring period in which the samples were collected.

Monitoring Period (MM/DD/YYYY) :

0 5 / 0 1 / 2 0 2 4

Please submit completed form to:
 IDEM OWQ - Drinking Water Branch
 100 N Senate Avenue
 Indianapolis, IN 46204-2251

Day	Hours of Operation	Raw Water Turbidity	Record Combined Effluent Turbidity Every Four Hours on a Daily Basis						Daily Max	Number >0.3 NTU
			1st	2nd	3rd	4th	5th	6th		
1	10.9	15.7	0.10	0.10	0.10					
2	12.1	15.5	0.10	0.10	0.10	0.10				
3	8.0	15.3	0.10	0.10	0.10					
4	9.0	15.2	0.10	0.10	0.10					
5	10.0	14.8	0.10	0.10	0.10					
6	7.4	14.7	0.10	0.10						
7	7.7	14.5	0.11	0.11						
8	7.9	14.5	0.10	0.10						
9	9.5	14.7	0.11	0.11	0.11					
10	8.1	15.2	0.11	0.11	0.11					
11	8.9	15.1	0.11	0.11	0.11					
12	13.0	14.8	0.11	0.11	0.11	0.11				
13	12.6	14.7	0.11	0.11	0.11	0.11				
14	12.1	14.5	0.11	0.11	0.11	0.11				
15	7.3	14.6	0.11	0.11						
16	14.2	14.4	0.11	0.11	0.11	0.11				
17	15.1	14.2	0.11	0.11	0.11	0.11				
18	11.6	14.1	0.11	0.11	0.11					
19	14.2	14.0	0.11	0.11	0.11	0.11				
20	14.8	13.8	0.11	0.11	0.11	0.11				
21	15.1	13.6	0.11	0.11	0.11	0.11				
22	14.2	13.5	0.11	0.11	0.11	0.11				
23	12.9	13.3	0.11	0.11	0.11	0.11				
24	14.1	13.2	0.11	0.11	0.11	0.11				
25	13.6	13.4	0.11	0.11	0.11	0.11				
26	12.8	13.3	0.11	0.11	0.11	0.11				
27	12.8	13.1	0.11	0.11	0.11	0.11				
28	13.4	13.0	0.11	0.11	0.11	0.11				
29	13.1	12.7	0.11	0.11	0.11	0.11				
30	12.9	12.6	0.11	0.11	0.11	0.11				
31	12.6	12.8	0.11	0.11	0.11	0.11				

I hereby certify that all the information submitted herein is true and accurate to the best of my knowledge.

Completed By: Brandon Litmer Date: 6/10/24 Reviewed by: Brandon Litmer



Membrane Systems Monthly Report (Direct Integrity Testing - Pressure Decay Tests)

State Form 99991 (2-09)
Indiana Department of Environmental Management
Office of Water Quality - Drinking Water Branch

PWSID Number: **IN5216003** System Name: **Lake Santee RWWD**

Skid Number: **1** Skid UCL: **2** (psi/min)

Reporting Period: May-24

Instructions: Submit one form for each skid/rack that you operated this month. Enter initial and final pressure, TMP, and temperature. The log removal achieved during that particular PDT test, will be calculated based on the system constants. Submit completed forms to IDEM Drinking Water Branch, Compliance Section, 100 N Senate Ave, Indianapolis, IN 46204.

System Constants:	
Design Flow:	200 gpm
System-specific Decay Test (PDTi):	0.01 psi/min
System Volume:	34.35 gallons
PDT Test Duration:	2.0 minutes
System Backpressure:	2.00 psi
Location Atmospheric Pressure:	14.1575 psi

Day	Pressure (psi)		TMP (psi)	Temp (°F)	ΔP (test) (psi/min)	Is it within UCL (Yes/No)?	Corrective Action? (if required)	Verified LRV
	P (initial)	P (final)						
1								
2								
3	13.382	11.432	4.2	17.6	1.930	Yes		4.71
4								
5								
6								
7								
8								
9	13.377	11.426	4.0	18.9	1.931	Yes		4.72
10								
11								
12								
13								
14	13.374	11.422	4.0	20.3	1.932	Yes		4.71
15								
16								
17								
18								
19	13.371	11.419	3.8	21.8	1.932	Yes		4.72
20								
21								
22								
23								
24	13.368	11.416	2.7	23.4	1.932	Yes		4.86
25								
26								
27								
28	13.365	11.412	2.9	24.1	1.933	Yes		4.81
29								
30								
31								
Min	13.365	11.412	2.7	17.6	1.930			4.71
Max	13.382	11.432	4.2	24.1	1.933			4.86
Avg	13.373	11.421	3.6	21.0	1.932			4.76

Prepared By: Brandon Litmer Date: 6-10-24

Reviewed By: Brandon Litmer



Membrane Systems Monthly Report (Direct Integrity Testing - Pressure Decay Tests)

State Form 99991 (2-09)

Indiana Department of Environmental Management

Office of Water Quality - Drinking Water Branch

PWSID Number: **IN5216003**

System Name: **Lake Santee RWWD**

Skid Number: **2**

Skid UCL: **2** (psi/min)

Reporting Period: May-24

Instructions: Submit one form for each skid/rack that you operated this month. Enter initial and final pressure, TMP, and temperature. The log removal achieved during that particular PDT test, will be calculated based on the system constants. Submit completed forms to IDEM Drinking Water Branch, Compliance Section, 100 N Senate Ave, Indianapolis, IN 46204.

System Constants:	
Design Flow:	200 gpm
System-specific Decay Test (PDTi):	0.01 psi/min
System Volume:	34.35 gallons
PDT Test Duration:	2.0 minutes
System Backpressure:	2.00 psi
Location Atmospheric Pressure:	14.1575 psi

Day	Pressure (psi)		TMP (psi)	Temp (°F)	ΔP (test) (psi/min)	Is it within UCL (Yes/No)?	Corrective Action? (if required)	Verified LRV
	P (initial)	P (final)						
1	13.234	11.292	4.0	17.4	1.922	Yes		4.73
2								
3								
4								
5								
6								
7	13.232	11.289	3.9	18.7	1.923	Yes		4.73
8								
9								
10								
11								
12	13.230	11.286	3.8	20.2	1.924	Yes		4.73
13								
14								
15								
16								
17	13.227	11.282	3.7	21.7	1.925	Yes		4.73
18								
19								
20								
21								
22	13.225	11.279	2.8	23.3	1.926	Yes		4.83
23								
24								
25								
26	13.228	11.280	2.9	24.0	1.928	Yes		4.82
27								
28								
29								
30								
31	13.224	11.274	2.9	24.2	1.930	Yes		4.81
Min	13.224	11.274	2.8	17.4	1.922			4.73
Max	13.234	11.292	4.0	24.2	1.930			4.83
Avg	13.229	11.283	3.4	21.4	1.925			4.77

Prepared By: Brandon Litmer Date: 6-10-24

Reviewed By: Brandon Litmer



Membrane Systems Monthly Report (Indirect Integrity Monitoring Trigger Events)

State Form 99992 (2-09)

Indiana Department of Environmental Management

Office of Water Quality - Drinking Water Branch

PWSID Number: **IN5216003**

System Name: **Lake Santee RWWD**

Skid Number: **1**

Skid Turbidity UCL: **0.150** NTU

Reporting Period: May-24

Instructions: Submit one form for each skid/rack that you operated this month. Report events triggering either direct integrity testing or causing the skid to be taken out-of-line for repairs or module replacement. If no events happened that day click "No Event". Submit completed forms to IDEM Drinking Water Branch, Compliance Section, 100 N Senate Ave, Indianapolis, IN 46204.

INDIRECT INTEGRITY TESTING MONITORING											
Day	No Event	1st Triggering Event of the Day					2nd Triggering Event of the Day				
		Time	NTU (t)	NTU (t+15)	Action Taken	Initials	Time	NTU (t)	NTU (t+15)	Action Taken	Initials
1	x										
2	x										
3	x										
4	x										
5	x										
6	x										
7	x										
8	x										
9	x										
10	x										
11	x										
12	x										
13	x										
14	x										
15	x										
16	x										
17	x										
18	x										
19	x										
20	x										
21	x										
22	x										
23	x										
24	x										
25	x										
26	x										
27	x										
28	x										
29	x										
30	x										
31	x										
Min											
Max											
Avg											

Prepared By: Brandon Litzner

Date: 6-10-24

Reviewed By: Brandon Litzner



Membrane Systems Monthly Report (Indirect Integrity Monitoring Trigger Events)

State Form 99992 (2-09)

Indiana Department of Environmental Management

Office of Water Quality - Drinking Water Branch

PWSID Number: **IN5216003**

System Name: **Lake Santee RWWD**

Skid Number: **2**

Skid Turbidity UCL: **0.150** NTU

Reporting Period: May-24

Instructions: Submit one form for each skid/rack that you operated this month. Report events triggering either direct integrity testing or causing the skid to be taken out-of-line for repairs or module replacement. If no events happened that day click "No Event". Submit completed forms to IDEM Drinking Water Branch, Compliance Section, 100 N Senate Ave, Indianapolis, IN 46204.

INDIRECT INTEGRITY TESTING MONITORING											
Day	No Event	1st Triggering Event of the Day					2nd Triggering Event of the Day				
		Time	NTU (t)	NTU (t+15)	Action Taken	Initials	Time	NTU (t)	NTU (t+15)	Action Taken	Initials
1	x										
2	x										
3	x										
4	x										
5	x										
6	x										
7	x										
8	x										
9	x										
10	x										
11	x										
12	x										
13	x										
14	x										
15	x										
16	x										
17	x										
18	x										
19	x										
20	x										
21	x										
22	x										
23	x										
24	x										
25	x										
26	x										
27	x										
28	x										
29	x										
30	x										
31	x										
Min											
Max											
Avg											

Prepared By: **Brandon Litmer** Date: **6-10-24**

Reviewed By: **Brandon Litmer**