

# PUMP STATION 196

may	22	PS 196	
		METER READING	24 HOUR FLOW
SUN	1	18821630	0.235780
MON	2	19057410	0.233360
TUE	3	19290770	0.222860
WED	4	19513630	0.226370
THU	5	19740000	0.223570
FRI	6	19963570	0.223630
SAT	7	20187200	0.247870
SUN	8	20435070	0.260290
MON	9	20695360	0.236620
TUE	10	20931980	0.222510
WED	11	21154490	0.233600
THU	12	21388090	0.231010
FRI	13	21619100	0.223320
SAT	14	21842420	0.233580
SUN	15	22076000	0.239940
MON	16	22315940	0.233590
TUE	17	22549530	0.251038
WED	18	22800568	0.111272
THU	19	22911840	0.127070
FRI	20	23038910	0.125150
SAT	21	23164060	0.129290
SUN	22	23293350	0.132140
MON	23	23425490	0.143066
TUE	24	23568556	0.200184
WED	25	23768740	0.235290
THU	26	24004030	0.243620
FRI	27	24247650	0.280000
SAT	28	24527650	0.292040
SUN	29	24819690	0.297540
MON	30	25117230	0.289050
TUE	31	25406280	0.254430
TOTAL		25660710	gallons to Lewes
COUNT		6.839080	6,071,092 total gals.
AVERAGE		31	
		0.220615	gallons back to WolfeNeck
MINIMUM		0.111272	767,988 total gals.
MAXIMUM		0.297540	

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)



PERMITTEE NAME/ADDRESS (include Facility Name/Location if different):

NAME: Howard Seymour Water Reclamation Plant  
 ADDRESS: 116 American Legion Road, Lewes, DE 19958 US  
 FACILITY: Howard Seymour Water Reclamation Plant  
 LOCATION: 116 American Legion Road, Lewes, DE 19958 US

DE0021512 PERMIT NUMBER  
 001 DISCHARGE NUMBER  
 MONITORING PERIOD  
 FROM 2022 04 01 TO 2022 04 30

REPORT DESIGNATOR: A  
 DATA ENTRY COMPLETE: 5/27/2022  
 REPORT SUBMITTED BY: richardplack  
 STATUS OF SUBMISSION: Submitted for Signature

#	PARAMETER	NDI	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
			AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
1/1	Flow	SAMPLE MEASUREMENT	0.741	0.96	Mil Gal/Day				--	0	99/99	RCOTOT
	Gross Effluent (50050)	PERMIT REQUIREMENT	No Limit   Monitoring Req'd	No Limit   Monitoring Req'd	Mil Gal/Day	No Monitoring Required	No Monitoring Required	No Monitoring Required	--	--	99/99	RCOTOT
1/2	Dissolved oxygen (DO)	SAMPLE MEASUREMENT			--	4.88		7.69	mg/l	0	99/99	Imersion
	Gross Effluent (00300)	PERMIT REQUIREMENT	No Monitoring Required	No Monitoring Required	--	No Limit   Monitoring Req'd	No Monitoring Required	No Limit   Monitoring Req'd	mg/l	--	99/99	Imersion
1/3	pH	SAMPLE MEASUREMENT			--	7		7.5	Std pH Units	0	01/01	Grab
	Gross Effluent (00400)	PERMIT REQUIREMENT	No Monitoring Required	No Monitoring Required	--	6	No Monitoring Required	9	Std pH Units	--	01/01	Grab
1/4	Enterococcus	SAMPLE MEASUREMENT			--		<1	<1	CFU/100 ML	0	01/07	Grab
	Gross Effluent (31639)	PERMIT REQUIREMENT	No Monitoring Required	No Monitoring Required	--	No Monitoring Required	10	104	CFU/100 ML	--	01/07	Grab
1/5	BOD5	SAMPLE MEASUREMENT	<15	16	lbs/Day		<2.4	<2.4	mg/l	0	01/07	Composite 24
	Gross Effluent (00310)	PERMIT REQUIREMENT	188	288	lbs/Day	No Monitoring Required	15	23	mg/l	--	01/07	Composite 24
1/6	BOD5	SAMPLE MEASUREMENT			--		317	317	mg/l	0	01/30	Composite 24
	Raw Sewage (00310)	PERMIT REQUIREMENT	No Monitoring Required	No Monitoring Required	--	No Monitoring Required	No Limit   Monitoring Req'd	No Limit   Monitoring Req'd	mg/l	--	01/30	Composite 24
1/7	TSS	SAMPLE MEASUREMENT	<3	4	lbs/Day		<0.5	0.6	mg/l	0	01/07	Composite 24
	Gross Effluent (00530)	PERMIT REQUIREMENT	188	288	lbs/Day	No Monitoring Required	15	23	mg/l	--	01/07	Composite 24

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.	[ATTACH DIGITAL SIGNATURE RECEIPT FROM CROMERR]	TELEPHONE	DATE	
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		YEAR	MO

NDI (No Data Indicator) Reasons: 8 - No Sample (Other); 9 - No Sample (Monitoring Not Required this Monitoring Period); B - Not Detected; C - No Sample (No Discharge)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)



PERMITTEE NAME/ADDRESS (include Facility Name/Location if different):

NAME: Howard Seymour Water Reclamation Plant  
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DE0021512 PERMIT NUMBER  
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REPORT DESIGNATOR: A  
 DATA ENTRY COMPLETE: 5/27/2022  
 REPORT SUBMITTED BY: richardplack  
 STATUS OF SUBMISSION: Submitted for Signature

#	PARAMETER	MEASUREMENT TYPE	NDI	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
				AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS
2/1	TSS	SAMPLE MEASUREMENT				--		252	252	mg/l	0	01/30	Composite 24
	Raw Sewage (00530)	PERMIT REQUIREMENT	-	No Monitoring Required	No Monitoring Required	--	No Monitoring Required	No Limit   Monitoring Req'd	No Limit   Monitoring Req'd	mg/l	--	01/30	Composite 24
2/2	Total Nitrogen	SAMPLE MEASUREMENT		33.6	33.6	lbs/Day		5.05	5.05	mg/l	0	01/30	Composite 24
	Gross Effluent (00600)	PERMIT REQUIREMENT	-	100	No Limit   Monitoring Req'd	lbs/Day	No Monitoring Required	8	No Limit   Monitoring Req'd	mg/l	--	01/30	Composite 24
2/3	Phosphorus, Total	SAMPLE MEASUREMENT		0.9	0.9	lbs/Day		0.14	0.14	mg/l	0	01/30	Composite 24
	Gross Effluent (00665)	PERMIT REQUIREMENT	-	25	No Limit   Monitoring Req'd	lbs/Day	No Monitoring Required	2	No Limit   Monitoring Req'd	mg/l	--	01/30	Composite 24

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

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		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		YEAR	MO	DAY

NDI (No Data Indicator) Reasons: 8 - No Sample (Other); 9 - No Sample (Monitoring Not Required this Monitoring Period); B - Not Detected; C - No Sample (No Discharge)

# Monthly Operations Report: April 2022

Site: LEWES WWTP

FINAL EFFLUENT OUTFALL 001																	
DATE	DAY	Flow	BOD		TSS		Enteroc.	Total P		Total N		Ammonia as N		Nitrite + Nitrate		TKN	
		MGD	mg/L	lbs	mg/L	lbs	col/100ml	mg/L	lbs	mg/L	lbs	mg/L	lbs	mg/L	lbs	mg/L	lbs
1	Fri.	0.910															
2	Sat.	0.612															
3	Sun.	0.721															
4	Mon.	0.753															
5	Tue.	0.798	<2.4	<16	0.5	3		0.1	0.93	5.1	33.61	0.3	2	4.0	27	1.0	7
6	Wed.	0.928					<1.0										
7	Thu.	0.852															
8	Fri.	0.886															
9	Sat.	0.809															
10	Sun.	0.779															
11	Mon.	0.827															
12	Tue.	0.821	<2.4	<16	<0.5	<3											
13	Wed.	0.796					<1.0										
14	Thu.	0.647															
15	Fri.	0.667															
16	Sat.	0.643															
17	Sun.	0.545															
18	Mon.	0.804															
19	Tue.	0.714	<2.4	<14	0.6	4											
20	Wed.	0.960					<1.0										
21	Thu.	0.442															
22	Fri.	0.745															
23	Sat.	0.725															
24	Sun.	0.699															
25	Mon.	0.665															
26	Tue.	0.700	<2.4	<14	<0.5	<3											
27	Wed.	0.636					<1.0										
28	Thu.	0.695															
29	Fri.	0.709															
30	Sat.	0.749															
TOTAL		22.2370															
AVERAGE		0.7412	<2.40	<15.18	<0.53	<3.30	1.0	0.14	0.93	5.05	33.61	0.34	2.26	4.03	26.82	1.02	6.79
MAXIMUM		0.9600	<2.40	<16.40	0.60	3.60	<1.00	0.14	0.93	5.05	33.61	0.34	2.26	4.03	26.82	1.02	6.79
MINIMUM		0.4420	<2.40	<14.00	<0.50	<2.90	<1.00	0.14	0.93	5.05	33.61	0.34	2.26	4.03	26.82	1.02	6.79
Removal (%)			99.2		99.8												

INFLUENT						
DATE	DAY	Flow	BOD		TSS	
		MGD	mg/L	lbs	mg/L	lbs
1	Fri.	0.649				
2	Sat.	0.708				
3	Sun.	0.708				
4	Mon.	0.689				
5	Tue.	0.690	317.0	1824	252.0	1450
6	Wed.	0.914				
7	Thu.	0.758				
8	Fri.	0.792				
9	Sat.	0.775				
10	Sun.	0.766				
11	Mon.	0.772				
12	Tue.	0.757				
13	Wed.	0.749				
14	Thu.	0.589				
15	Fri.	0.548				
16	Sat.	0.546				
17	Sun.	0.497				
18	Mon.	0.667				
19	Tue.	0.714				
20	Wed.	0.642				
21	Thu.	0.650				
22	Fri.	0.658				
23	Sat.	0.665				
24	Sun.	0.645				
25	Mon.	0.623				
26	Tue.	0.620				
27	Wed.	0.685				
28	Thu.	0.723				
29	Fri.	0.743				
30	Sat.	0.735				
TOTAL		20.6770				
AVERAGE		0.69	317	1,824	252	1,450
MAXIMUM		0.91	317	1,824	252	1,450
MINIMUM		0.50	317	1,824	252	1,450
Removal (%)						

**LEWES WWTF  
NUTRIENT OFFSET REPORT      2022**

Month	Days	Average Monthly Flow	Monthly Average TN	Total Monthly TN Discharged	TN Based 16.9 lbs Manure Offset Required	Monthly Average TP	Total Monthly TP Discharged	TP Based 285 lbs Manure Offset Required	Max Manure Equivalent	Poultry Manure Relocated	Poultry Manure Offset Balance
											Tons
Carry Over		MGD	mg/L	lbs	Tons	mg/L	lbs	Tons	Tons	Tons	Tons
January	31	0.7485	3.37	652.15	5.51	0.09	17.42	2.48	5.51	-	540.16
February	28	0.6951	5.52	896.01	7.57	0.12	19.48	2.78	7.57	-	5.51
March	31	0.6898	3.63	647.38	5.47	0.05	8.92	1.27	5.47	-	7.57
April	30	0.7412	5.05	936.51	7.91	0.14	25.96	3.70	7.91	-	5.47
May	31	-	-	-	-	-	-	-	-	-	7.91
June	30	-	-	-	-	-	-	-	-	-	-
July	31	-	-	-	-	-	-	-	-	-	-
August	31	-	-	-	-	-	-	-	-	-	-
September	30	-	-	-	-	-	-	-	-	-	-
October	31	-	-	-	-	-	-	-	-	-	-
November	30	-	-	-	-	-	-	-	-	-	-
December	31	-	-	-	-	-	-	-	-	-	-
<b>Year Balance</b>											<b>513.70</b>

Comments:

*Richard Plack*

*[Signature]*

Authorized Signatory

5/27/22

Date

# Submission Receipt

**Copy of Record: 75448 Confirmation ID: r202252775448**

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Site: Howard Seymour Water Reclamation  
Plant

Site ID: DE0021512

Submission: Discharge Monitoring Report for DE0021512 Howard Seymour  
Water Reclamation Plant Outfall: 001, April, 2022

File Name: 20224-3377-60749445

File Type: .pdf

Report: DMR

Status: Signed

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Hash of Data Document:

2f90d88d40b149c5d7e336f760be2a4f5c827c88c61a2218d040bc6d0a43874a

---

Data Entry Completed: 5/27/2022  
4:03 PM

By: Richard Plack (richardplack)

E-Mail of Submitter: Richard.Plack@Inframark.com From: 172.31.25.193

Signed: 5/27/2022 4:09 PM

By: Richard Plack (richardplack)

E-Mail of Signator: Richard.Plack@Inframark.com From: 172.31.25.193

Token Used When Signed: K+Ulhmqx05gJsrY3rsZOQBZ0W+4Fm1v6UDBZ24WV0=



# LEWES BPW WWTP Biweekly InSight Report

Date: 6/1/2022

From: Erin Horocholyn - Suez Water Technologies & Solutions  
To: Austin Calaman BPW, Inframark  
cc: Matt Stapleford - Suez Water Technologies & Solutions

## System Equipment

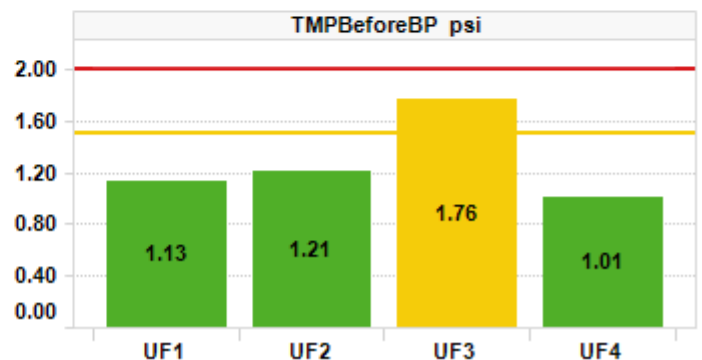
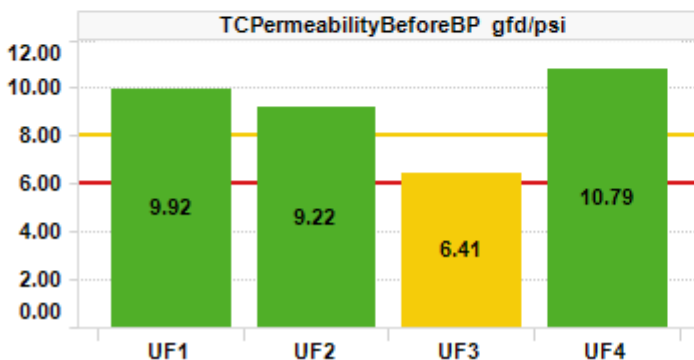
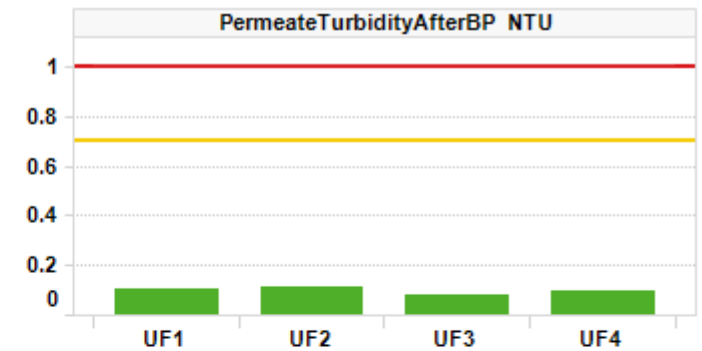
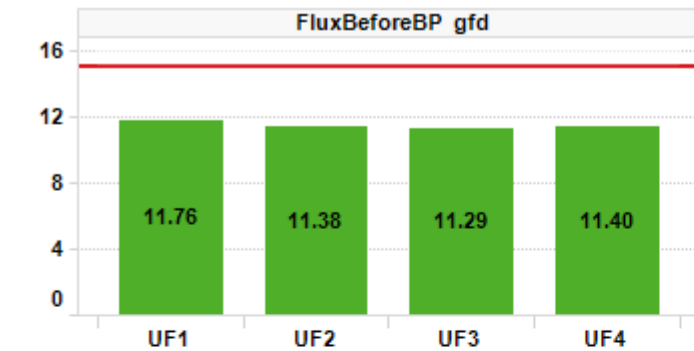
4 × ZW trains, each train consists of 4 - 500D cassettes, 120 modules x 370 sq. ft. per train (surface area 44,400 sq. ft. per train)  
Replacement membranes installed Q1 2020 on trains UF3 and UF4

## Cleaning Strategy

Recovery cleaning - 2 NaOCl @ 2000 ppm dose/1000 ppm soak per year, 1 Citric acid @ 2000 ppm per year  
Maintenance cleaning - 1 NaOCl per week @ 200 ppm, 1 Citric acid per week @ 2000 ppm

## KPI Dashboard – Avg values through reporting period

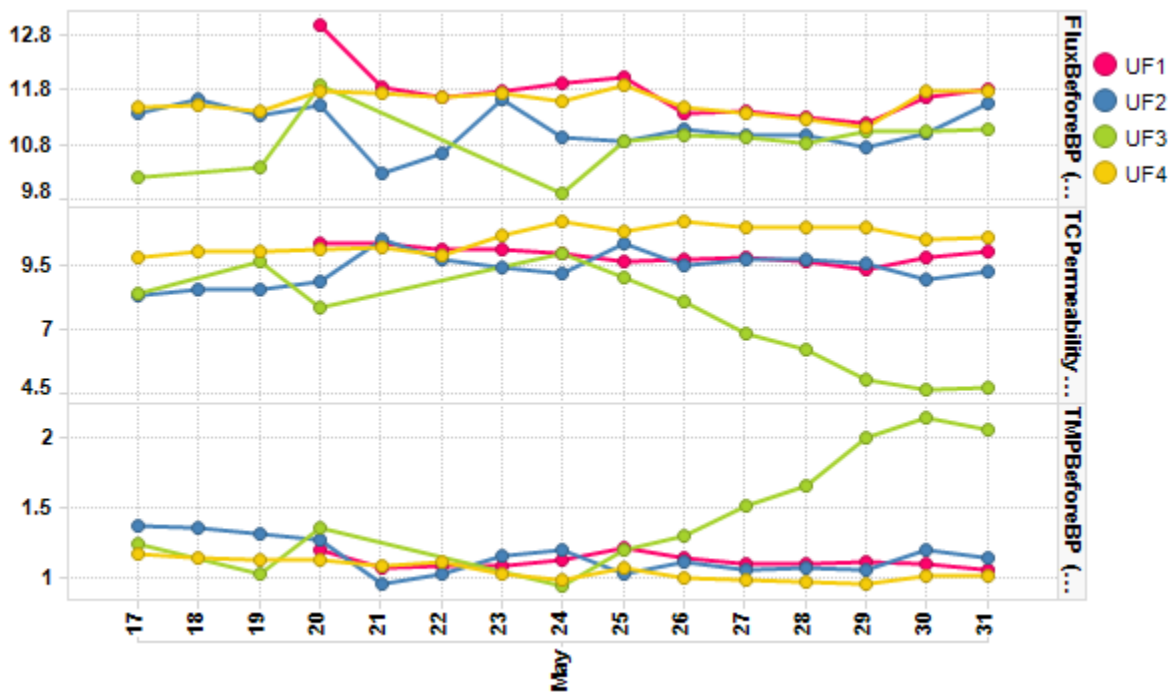
■ Action Required  
■ Caution  
■ No Limits  
■ Normal



## Plant Summary

UF3’s TMP has risen +1 psi over one week, and should be inspected. More maintenance cleans can be scheduled for UF3 to improve performance and lower TMPs. Maintenance cleans were run on all online trains in this report.

- Daily permeate production averaged 0.78 MGD. Permeate temperature averaged 72°F (+6°F). All trains are in Backpulse with constant LEAP Hi aeration. Flux averages ranged 11.3 – 11.8 gfd. Maintenance cleans were run on all online trains in this reporting period
- Permeate turbidity ABP averages ranged from 0.08 – 0.11 NTU with stable trends
- TMP BBP averaged 1.1, 1.2, 1.8, and 1.0 psi on UF1,2,3,4
- TC permeability BBP averages were  $\geq 8$  gfd/psi on all trains except UF3. TCP on UF1,2,3,4 averaged 9.9, 9.2, 6.4, and 10.8 gfd/psi
- UF3’s TMP increased over May 25 – 31, increasing from 1 psi to 2 psi in one week without a correlated change in flow rate. This train should be inspected for accumulated solids and have extra hypochlorite maintenance cleans scheduled if the membranes do not have excess solids



**Table 1.** Record of maintenance cleans (MCs) run.

Train	UF1	UF2	UF3	UF4
# of Hypochlorite MCs	2	2	1	1
# of Citric Acid MCs	1	1	2	2

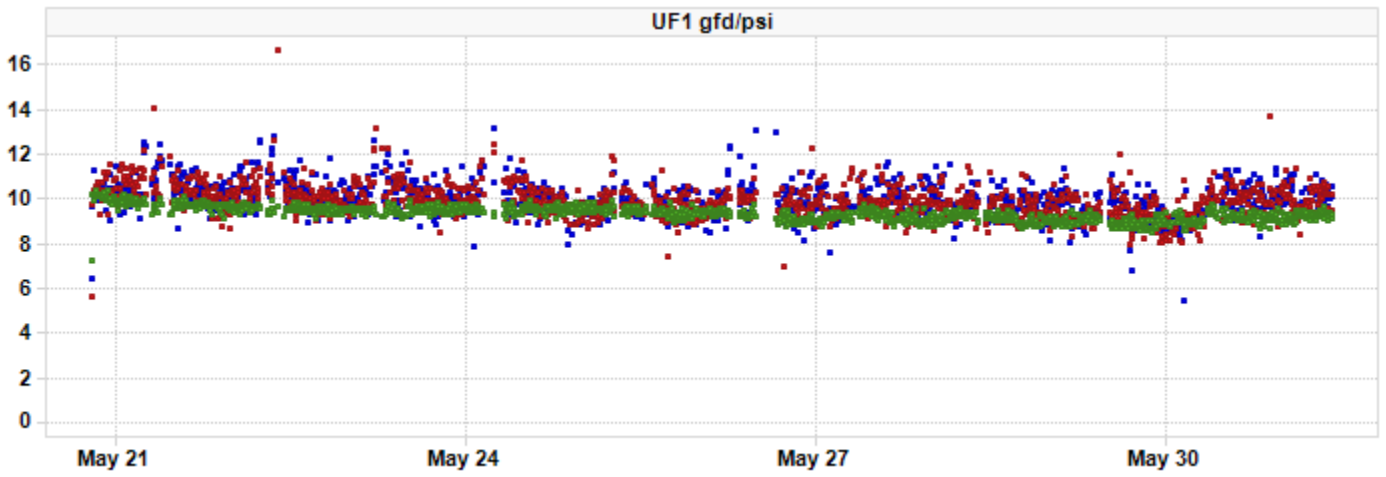
- Aerobic dissolved oxygen averaged 0.68 ppm in tank 1 and 1.51 ppm in tank 2. Tank 1’s aerobic DO is low and less than 1 ppm; aeration should be increase in this tank and zone. The pre-anoxic zone’s DO averages were 0.64 ppm in tank 1, and 1.26 ppm in tank 2. Tank 2’s pre-anoxic zone DO is high for nitrification and should be closer to 0.5 ppm



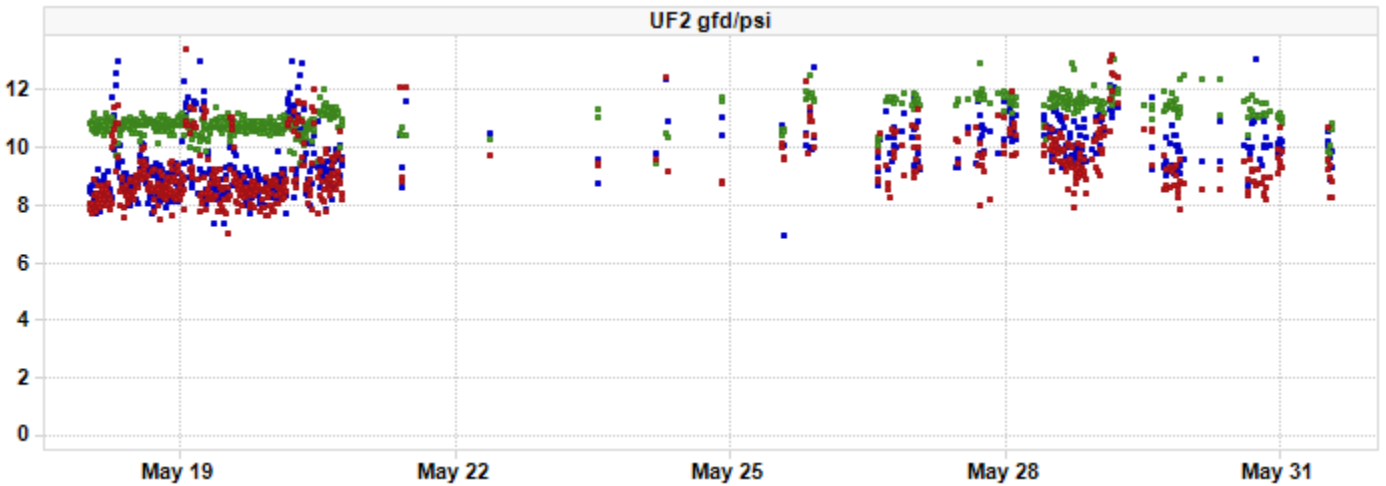


### TC Permeability Trends By Train

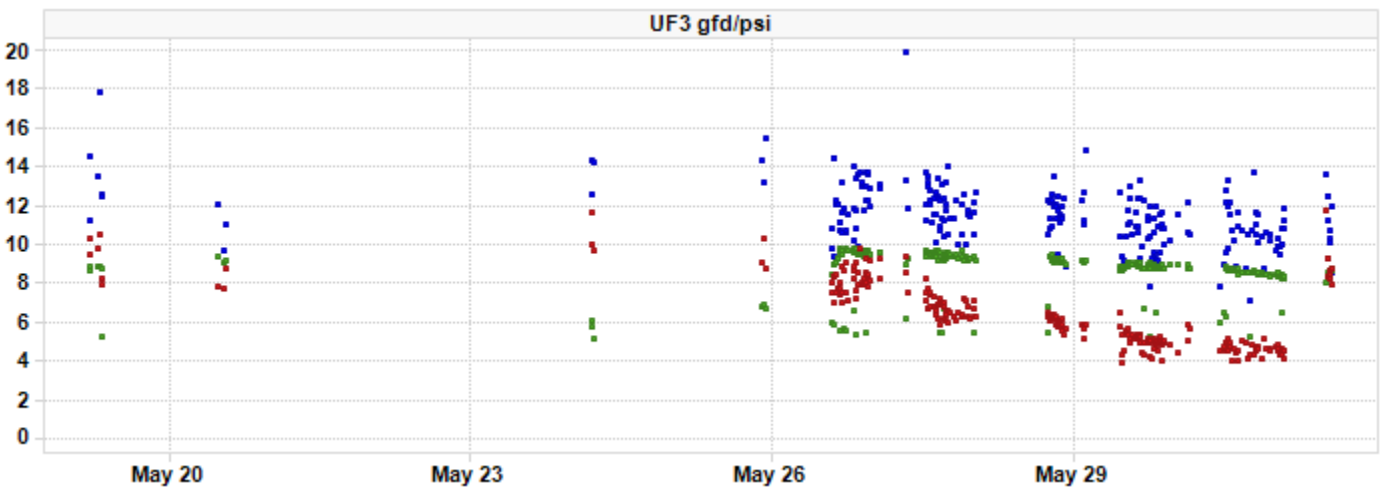
■ TCPermeabilityAfterBP  
■ TCPermeabilityBeforeBP  
■ TCPermeabilityDuringBP



■ TCPermeabilityAfterBP  
■ TCPermeabilityBeforeBP  
■ TCPermeabilityDuringBP

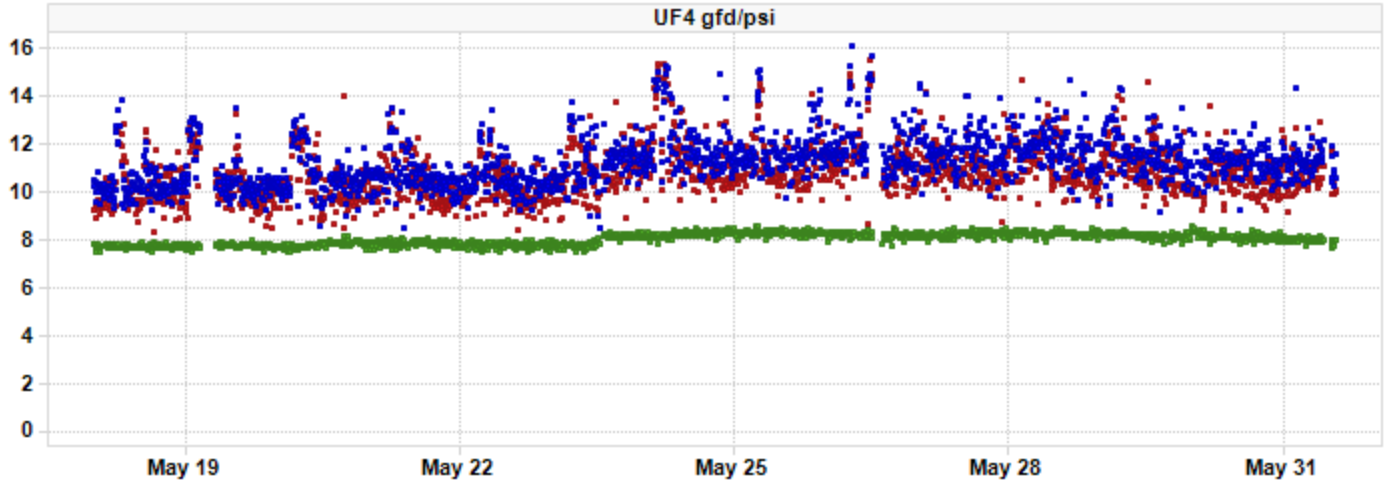


■ TCPermeabilityAfterBP  
■ TCPermeabilityBeforeBP  
■ TCPermeabilityDuringBP

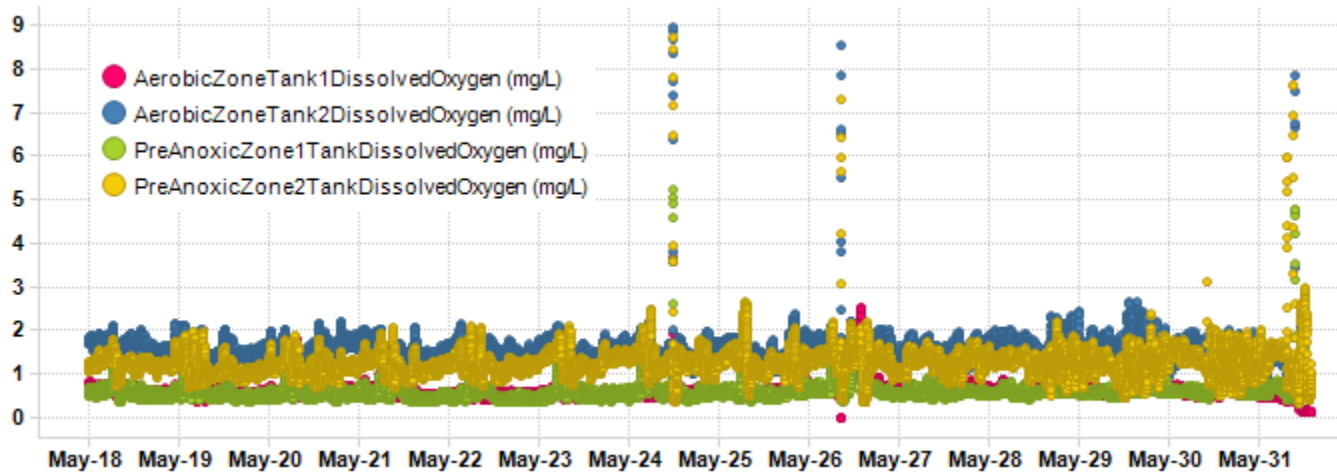




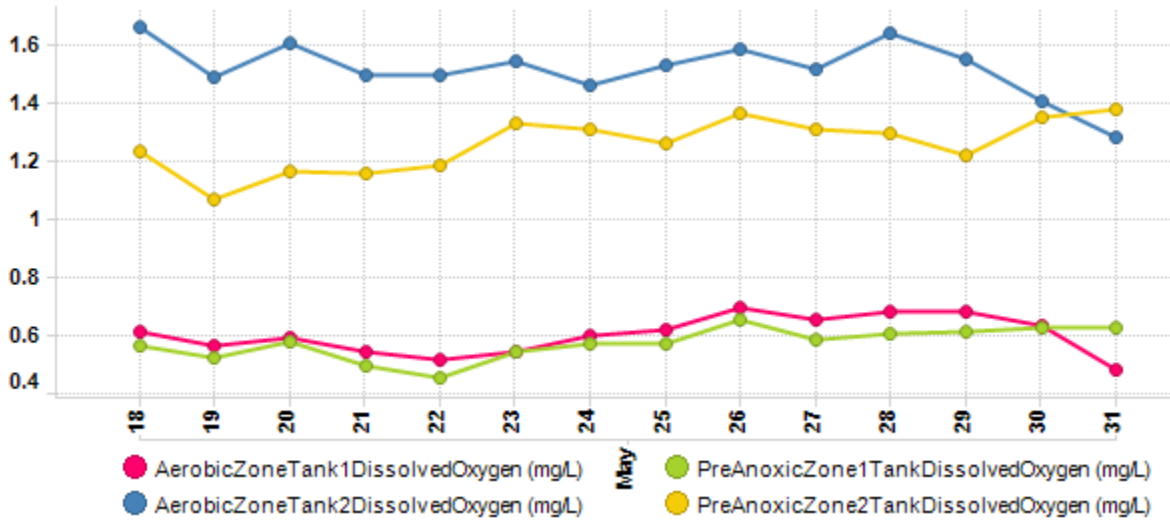
■ TCPermeabilityAfterBP  
■ TCPermeabilityBeforeBP  
■ TCPermeabilityDuringBP



### Bioreactor Dissolved Oxygen

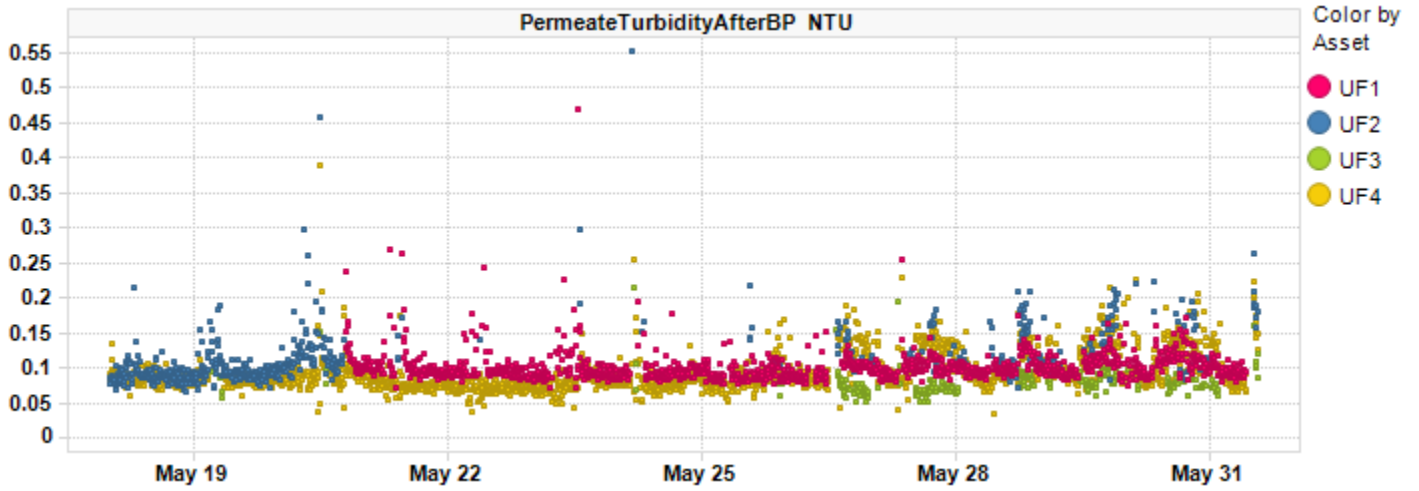


### Daily median average values below

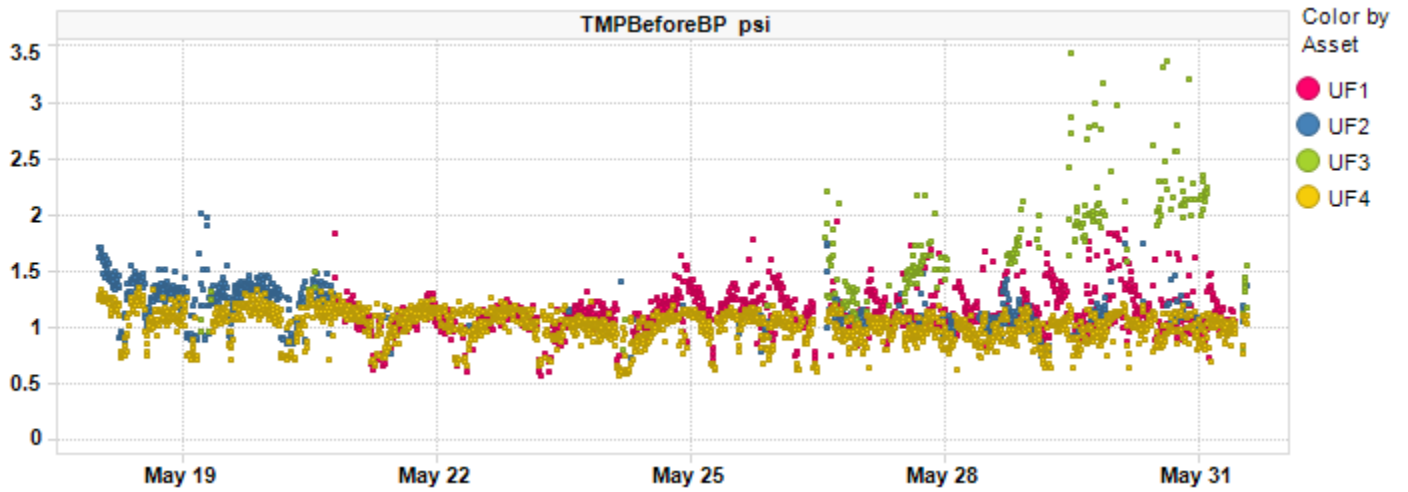




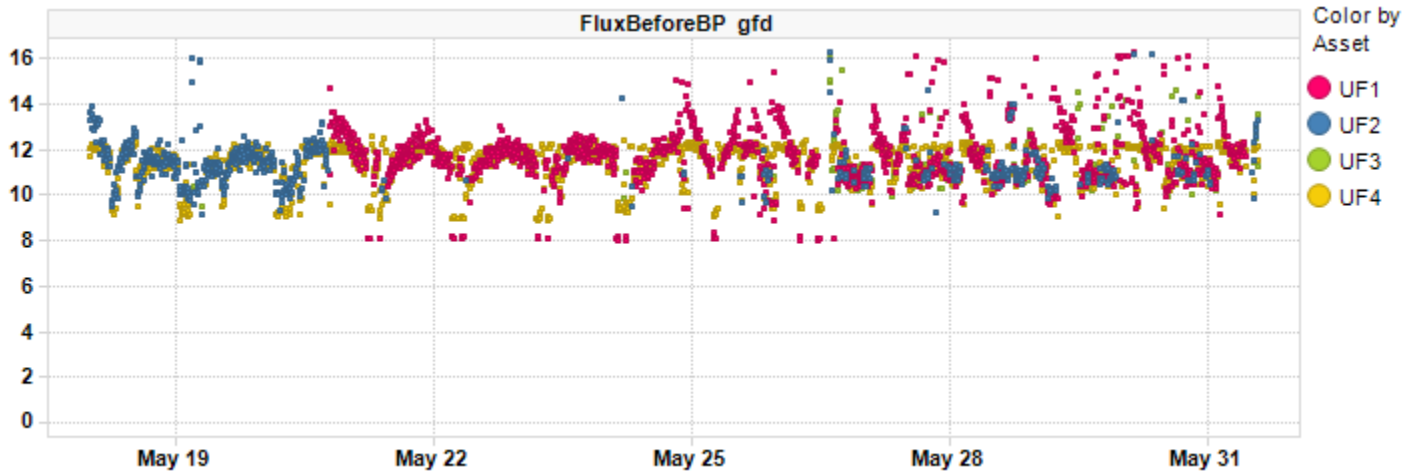
### Permeate Turbidity Trend



### Before BPTMP Trend

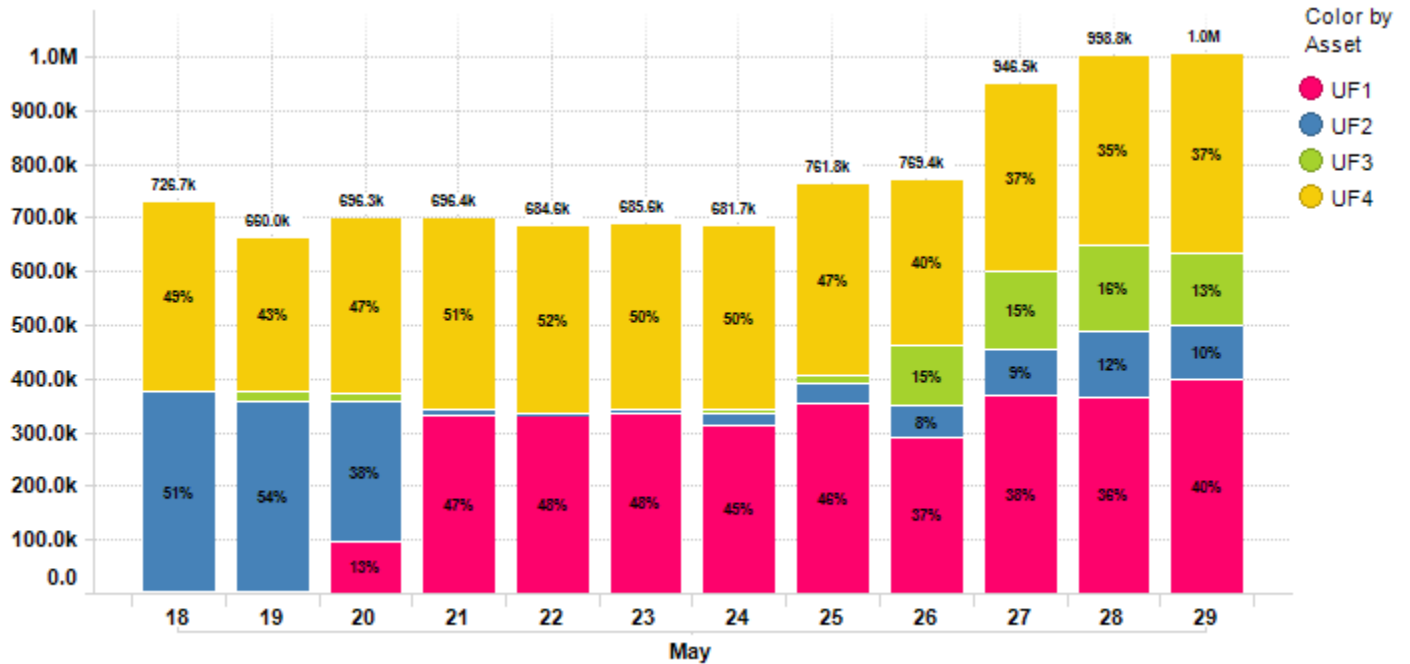


### Before BP Flux Trend





### Daily Permeate Flow



Average Daily permeate flow from 5/18/2022 to 5/31/2022 is 776.0k gal with a maximum daily flow of 1.0M gal.

### Asset Summary

KPI Parameters	Value/Ch...	UF1	UF2	UF3	UF4
FluxBeforeBP gfd	Value	11.76	11.38	11.29	11.40
	Change		0.60%	6.37%	5.93%
FluxDuringBP gfd	Value	18.77	18.50	17.58	18.71
	Change		-0.01%	-2.22%	-0.29%
PermeateTurbidityAfterBP NTU	Value	0.10	0.11	0.08	0.09
	Change		17.61%	19.89%	-26.2...
TCPPermeabilityBeforeBP gfd/psi	Value	9.92	9.22	6.41	10.79
	Change		13.57%	-29.7...	12.17%
TMPBeforeBP psi	Value	1.13	1.21	1.76	1.01
	Change		-23.1...	18.92%	-16.5...
TotalPermeateFlowDaily gal	Value	262.5...	120.3...	67.20k	342.6...
	Change		100.0...	-191....	-207....

### Plant Summary

KPI Parameters	Value/Change	UF Plant
PermeateTemperature °F	Value	71.96
	Change	8.25%
TotalPermeateFlowDaily gal	Value	849.59k
	Change	-13.54%



Contract Expiry Date : 08/11/2021

For InSight technical assistance please email [insight.src@suez.com](mailto:insight.src@suez.com) or please call technical support at 1 866 271 5425 or 905 469 7723 and follow the prompts, if you require after hours assistance please contact the 24/7 Emergency number provided in your plant documentation. This email is a summary of issues identified during a manual review of InSight data from the time period above. This review is an analysis of data that is logged by InSight and identifies key plant performance issues determined from this data. This data review was not focused on minor data issues but on identifying possible existing and/or upcoming critical operational issues.

This review was prepared by SUEZ Water Technologies & Solutions solely to assist water treatment plant owners and/or operators in analyzing and optimizing plant performance and is not intended to be used or relied upon for regulatory compliance or any other purpose. The content of this review is based in whole or in part on operation data obtained from the plant using InSight software. SUEZ Water Technologies & Solutions makes no representations or warranties as to the accuracy of the plant data utilized in the preparation of this review. SUEZ Water Technologies & Solutions accepts no liability for consequences or actions taken in whole or in part by any person on the basis of this review or its contents

# LEWES BPW WWTP Biweekly InSight Report

Date: 5/18/2022

From: Erin Horocholyn - Suez Water Technologies & Solutions  
 To: Austin Calaman BPW, Inframark  
 cc: Matt Stapleford - Suez Water Technologies & Solutions

## System Equipment

4 × ZW trains, each train consists of 4 - 500D cassettes, 120 modules x 370 sq. ft. per train (surface area 44,400 sq. ft. per train)

Replacement membranes installed Q1 2020 on trains UF3 and UF4

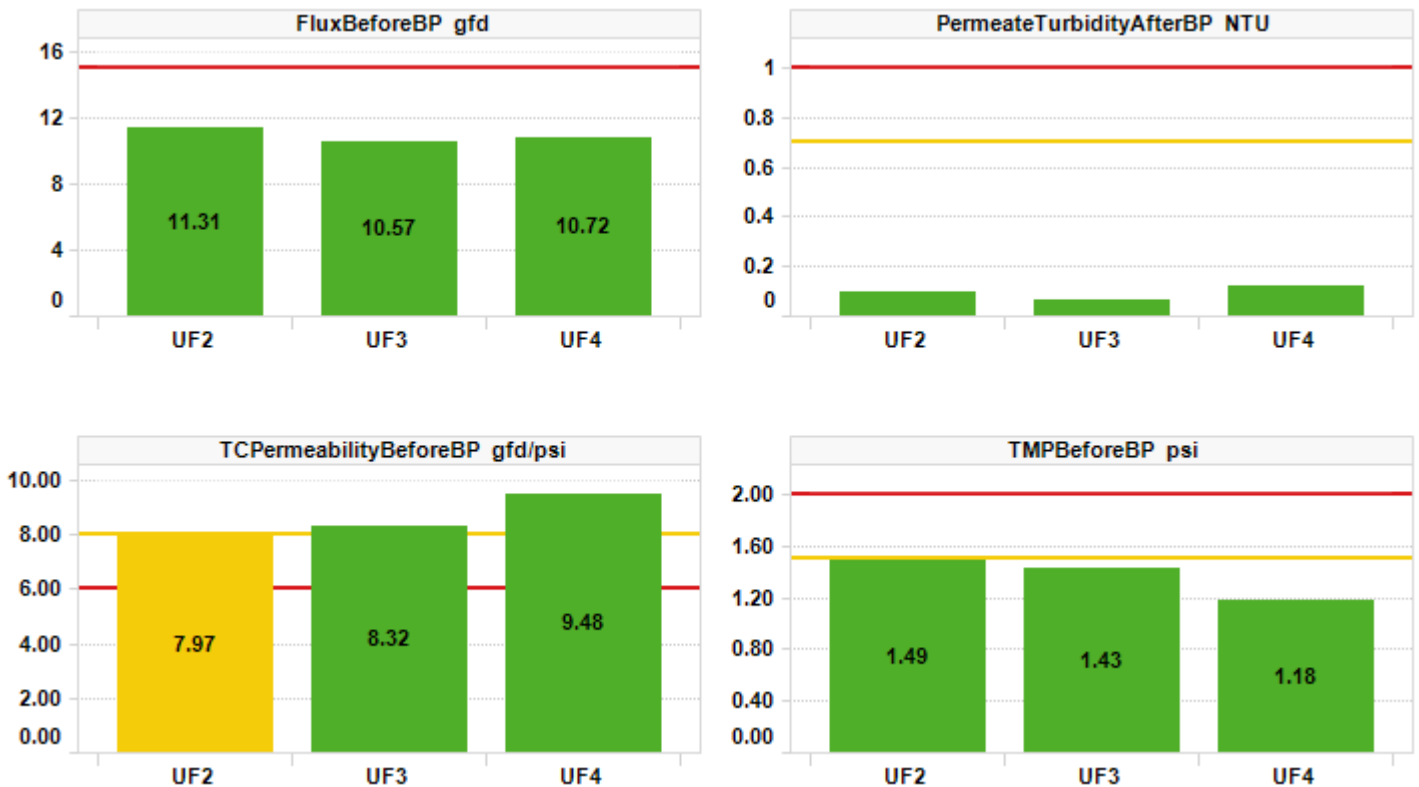
## Cleaning Strategy

Recovery cleaning - 2 NaOCl @ 2000 ppm dose/1000 ppm soak per year, 1 Citric acid @ 2000 ppm per year

Maintenance cleaning - 1 NaOCl per week @ 200 ppm, 1 Citric acid per week @ 2000 ppm

## KPI Dashboard – Avg values through reporting period

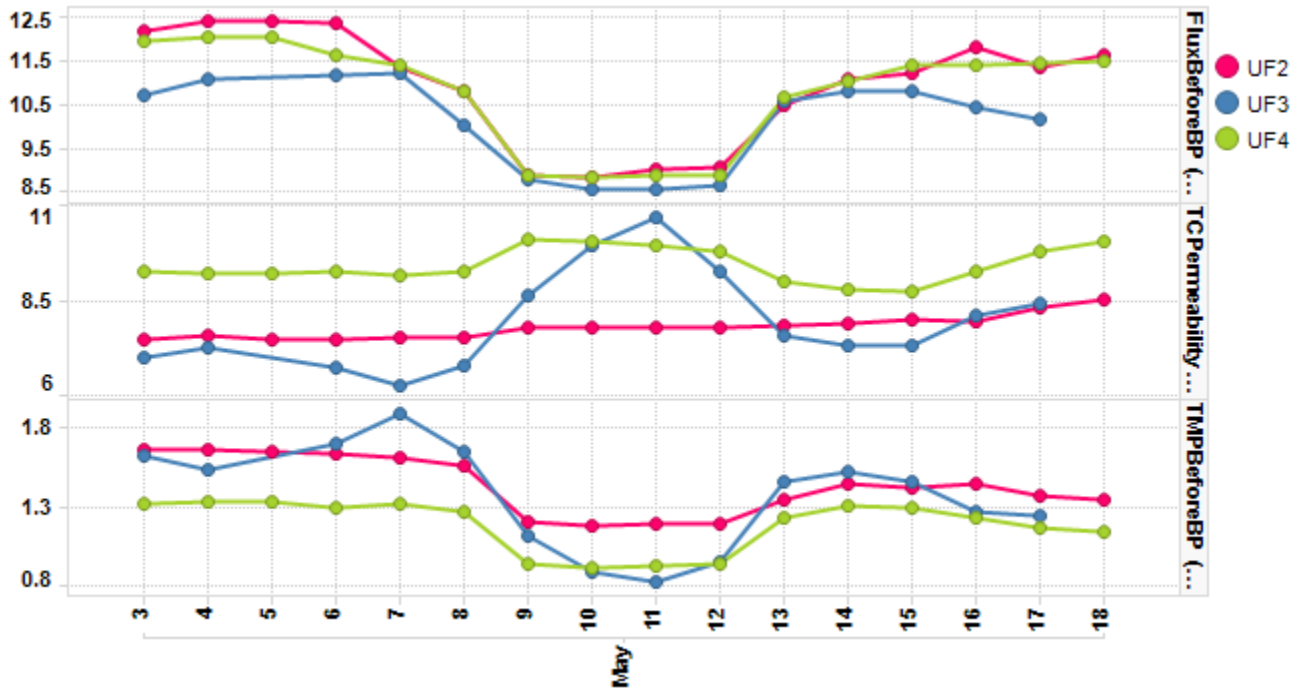
■ Action Required  
■ Caution  
■ No Limits  
■ Normal



## Plant Summary

Maintenance cleans were run on all online trains in this report which resulted in performance improvement. Dissolved oxygen should be increased in the aerobic zone Tank 1 to at or above 1 mg/L for biomass health. Damaged fibers were repaired on UF1.

- Daily permeate production averaged 0.87 MGD. Permeate temperature averaged 66°F (+1°F). All online trains are in Backpulse with constant LEAP Hi aeration. Flux averages ranged 10.7 – 11.3 across trains. UF1 is offline since April 2
- Maintenance cleans were run on all online trains in this reporting period. MCs should be regularly scheduled to maintain membrane performance and manage fouling between recovery cleans
- Permeate turbidity ABP averages ranged from 0.06 – 0.12 NTU
- TMP BBP averaged 1.5, 1.4, and 1.2 psi on UF2,3,4. Trains UF2 and UF3 saw lowered TMPs with the two MCs run on each train in this report. TMPs were lower on all trains during periods of lower flux
- TC permeability BBP averages were  $\geq 8$  gfd/psi on all trains. TCP on UF2,3,4 averaged 8.0, 8.3, and 9.5 gfd/psi. The plot below displays daily median averages

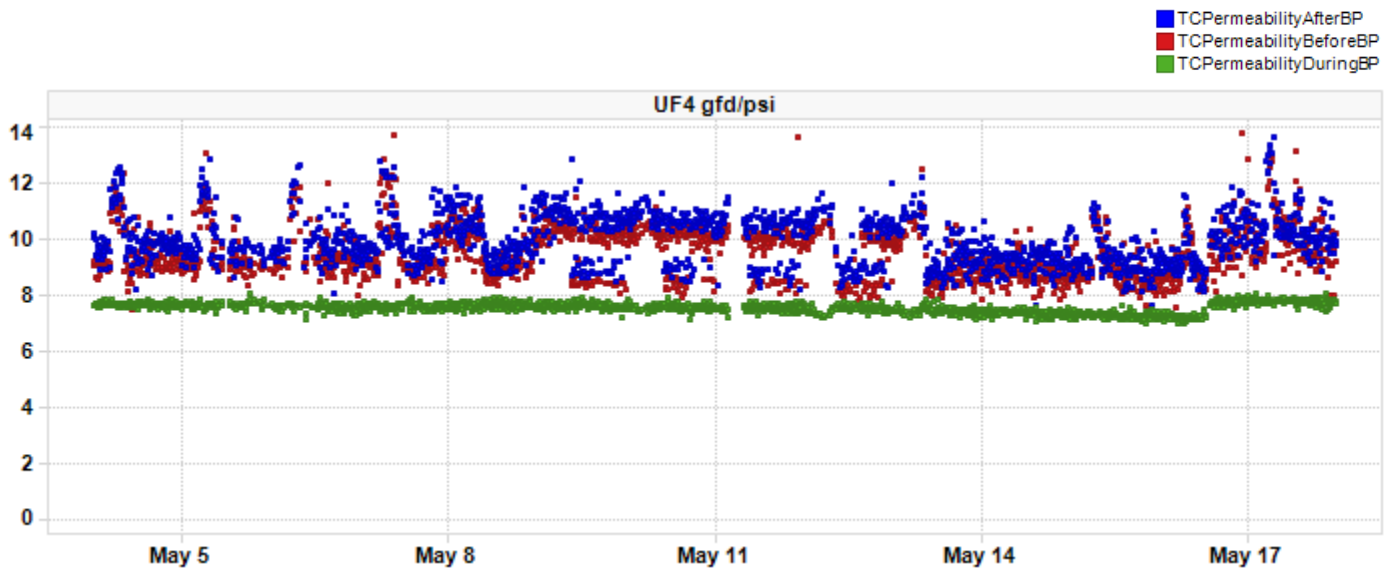
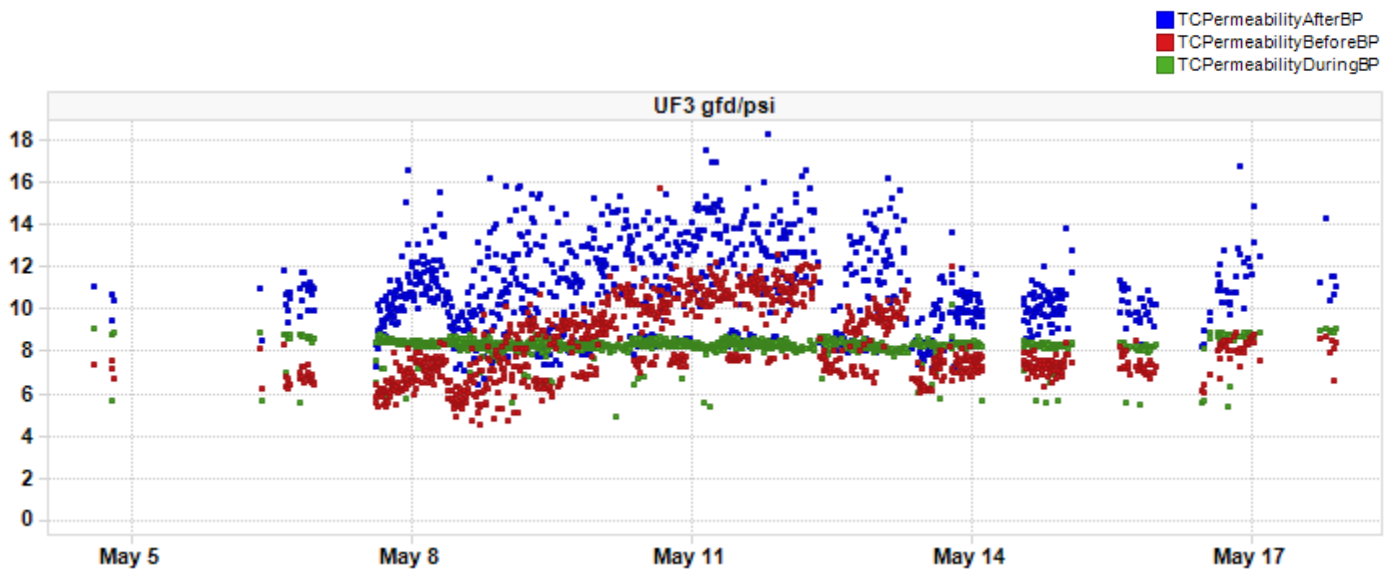
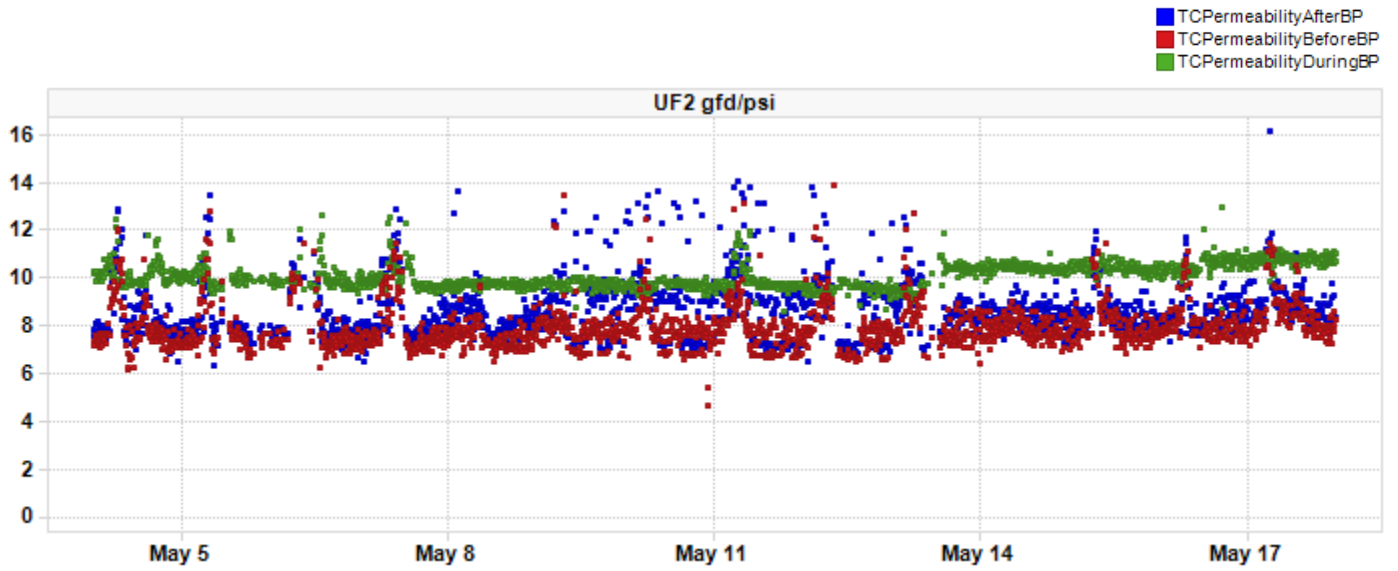


**Table 1.** Record of maintenance cleans (MCs) run.

Train	UF1	UF2	UF3	UF4
# of Hypochlorite MCs	0	1	1	1
# of Citric Acid MCs	0	1	1	0

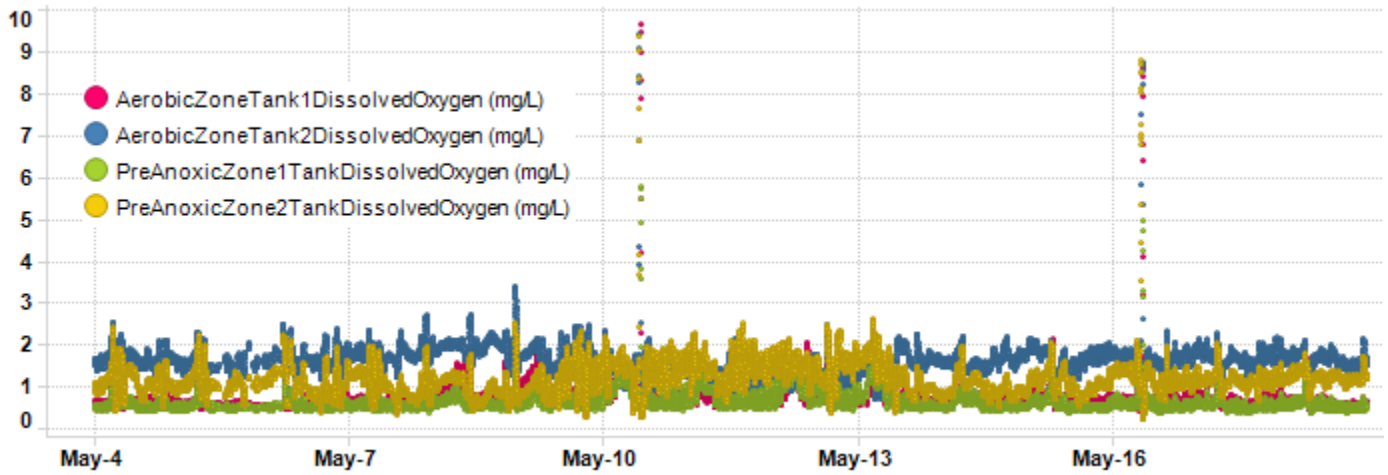
- Aerobic dissolved oxygen averaged 0.79 ppm in tank 1 and 1.62 ppm in tank 2. Tank 1’s aerobic DO is low and less than 1 ppm; aeration should be increase in this tank and zone. The pre-anoxic zone’s DO averages were 0.67 ppm in tank 1, and 1.21 ppm in tank 2. Tank 2’s pre-anoxic zone DO is high for nitrification and should be closer to 0.5 ppm

### TC Permeability Trends By Train

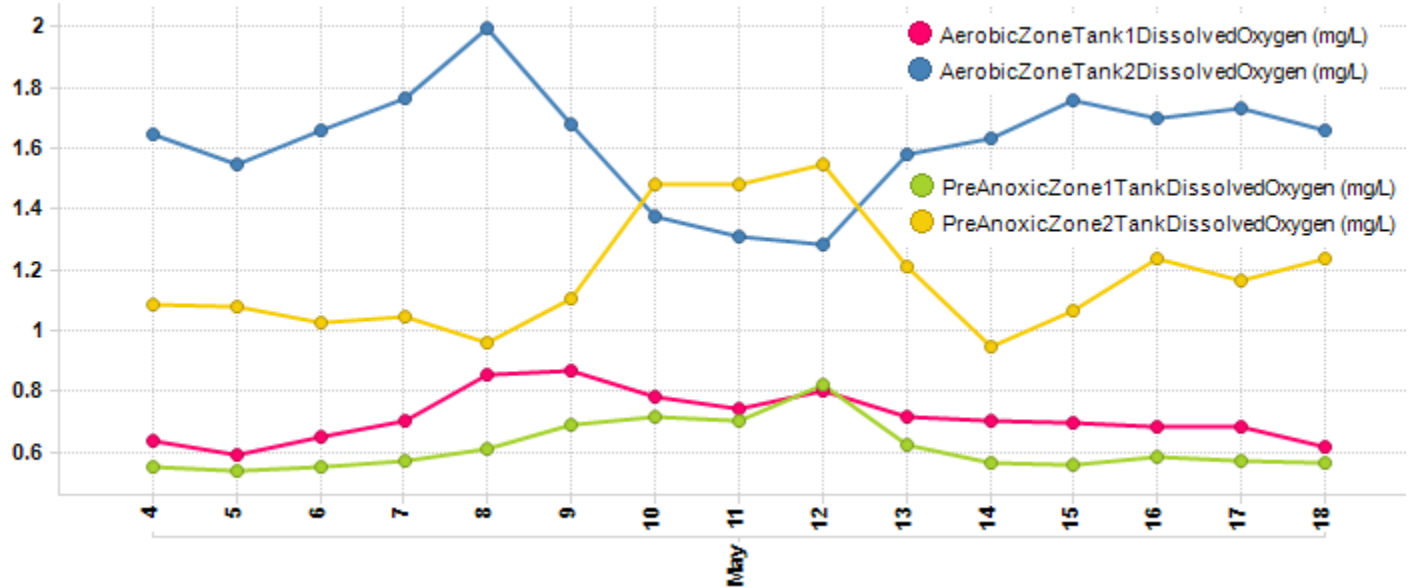




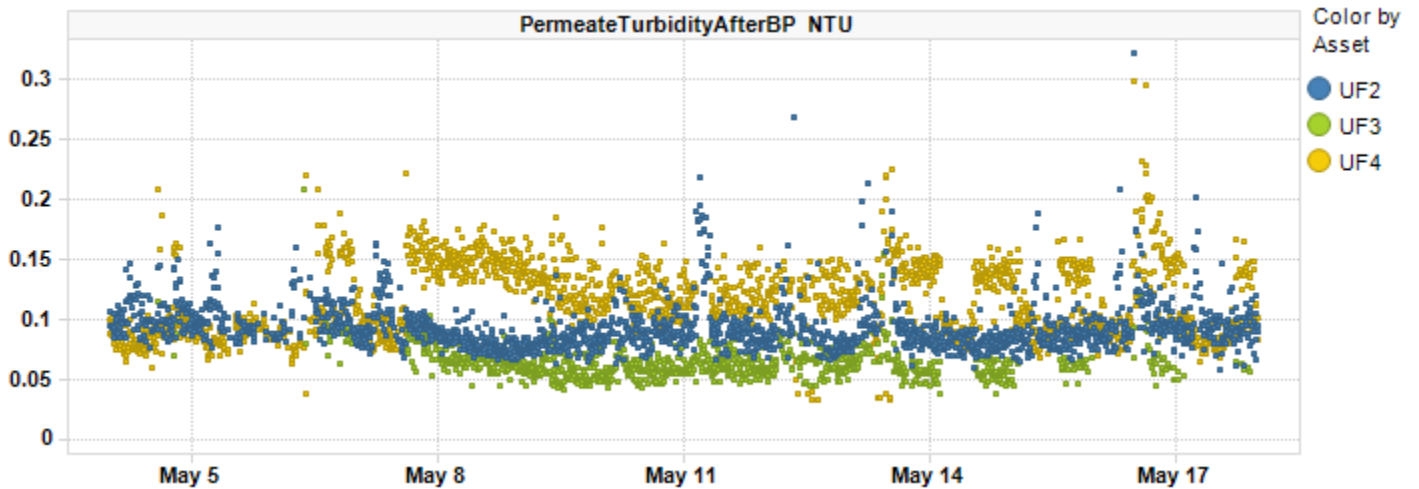
### Bioreactor Dissolved Oxygen



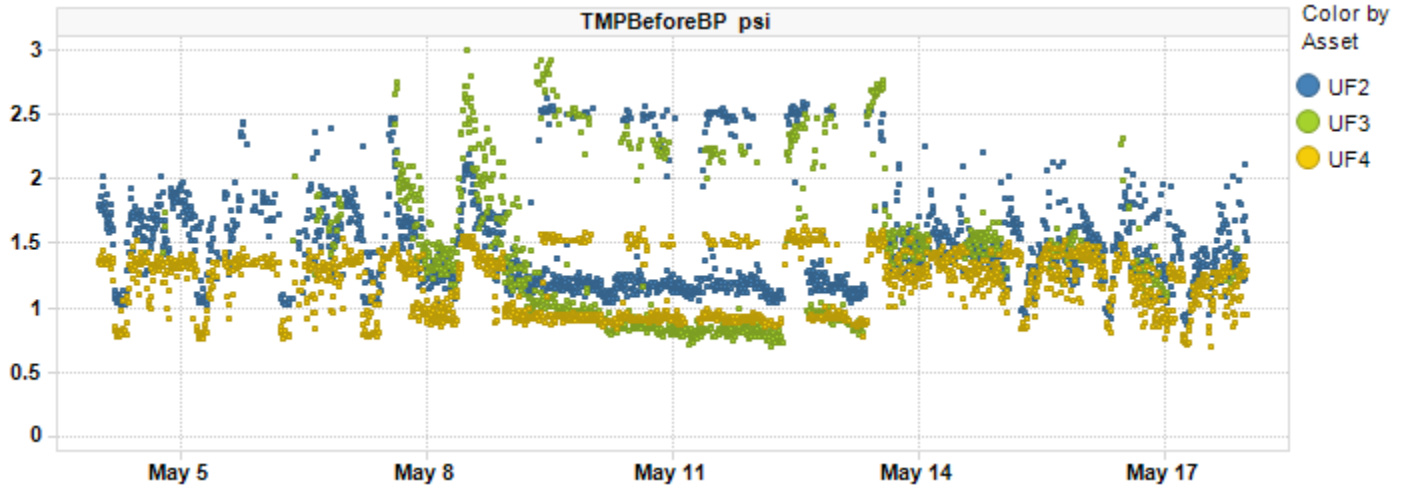
### Daily median average values below



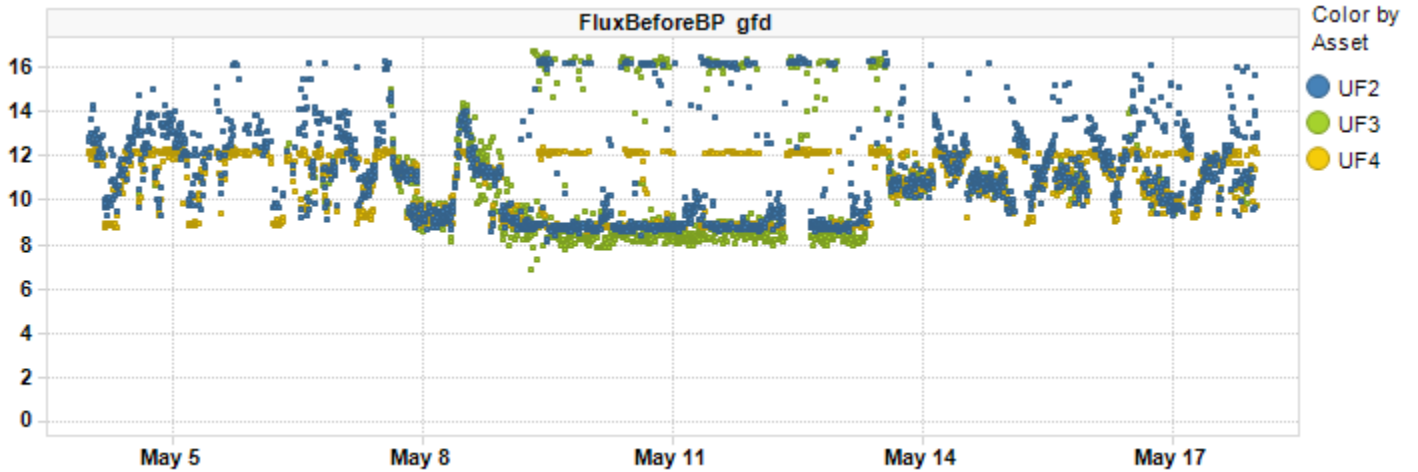
### Permeate Turbidity Trend



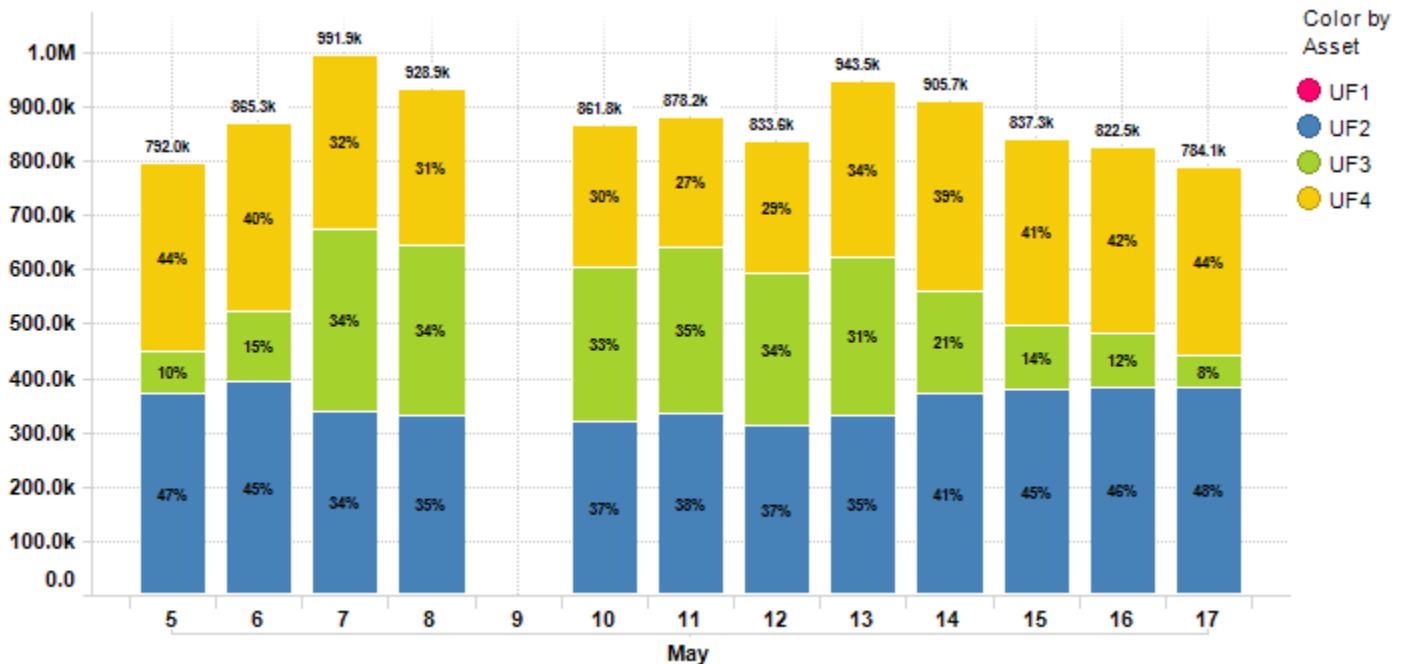
**Before BPTMP Trend**



**Before BP Flux Trend**



**Daily Permeate Flow**



Average Daily permeate flow from 5/4/2022 to 5/17/2022 is 870.4k gal with a maximum daily flow of 991.9k gal.

## Asset Summary

KPI Parameters	Value/Ch...	UF1	UF2	UF3	UF4
FluxBeforeBP gfd	Value		11.31	10.57	10.72
	Change		-5.53%	-11.9...	-5.46%
FluxDuringBP gfd	Value		18.50	17.97	18.76
	Change		0.05%	8.83%	0.17%
PermeateTurbidityAfterBP NTU	Value		0.09	0.06	0.12
	Change		-33.8...	-18.5...	20.81%
TCPPermeabilityBeforeBP gfd/psi	Value		7.97	8.32	9.48
	Change		-1.97%	16.48%	-11.1...
TMPBeforeBP psi	Value		1.49	1.43	1.18
	Change		-5.91%	-26.9...	3.10%
TotalPermeateFlowDaily gal	Value	0.00	350.7...	206.9...	312.7...
	Change	0.00%	-7.77%	86.97%	-8.95%

## Plant Summary

KPI Parameters	Value/Change	UF Plant
PermeateTemperature °C	Value	18.90
	Change	3.47%
TotalPermeateFlowDaily gal	Value	964.59k
	Change	16.26%

Contract Expiry Date : 08/11/2021

For InSight technical assistance please email [insight.src@suez.com](mailto:insight.src@suez.com) or please call technical support at 1 866 271 5425 or 905 469 7723 and follow the prompts, if you require after hours assistance please contact the 24/7 Emergency number provided in your plant documentation. This email is a summary of issues identified during a manual review of InSight data from the time period above. This review is an analysis of data that is logged by InSight and identifies key plant performance issues determined from this data. This data review was not focused on minor data issues but on identifying possible existing and/or upcoming critical operational issues.

This review was prepared by SUEZ Water Technologies & Solutions solely to assist water treatment plant owners and/or operators in analyzing and optimizing plant performance and is not intended to be used or relied upon for regulatory compliance or any other purpose. The content of this review is based in whole or in part on operation data obtained from the plant using InSight software. SUEZ Water Technologies & Solutions makes no representations or warranties as to the accuracy of the plant data utilized in the preparation of this review. SUEZ Water Technologies & Solutions accepts no liability for consequences or actions taken in whole or in part by any person on the basis of this review or its contents