pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0101737**
Facility Type	**Non-Municipal**	APS ID	**1056818**
Major / Minor	**Minor**	Authorization ID	**1385262**

Applicant and Facility Information

Applicant Name	**Wilderness MHP, LLC**	Facility Name	**Wilderness MHP**
Applicant Address	100 Mountain Laurel Village	Facility Address	213 Wilderness Drive
	Spring Brook Township, PA 18444-6373		Clarendon, PA 16313
Applicant Contact	Tia Martini-Spangenberg	Facility Contact	Tim Bunta (Operator)
Applicant Phone	(570) 702-6171	Facility Phone	(724) 859-3920
Client ID	368204	Site ID	244126
Ch 94 Load Status	Not Overloaded	Municipality	Pleasant Township
Connection Status	No Exceptions Allowed	County	Warren
Date Application Received	April 2, 2021	EPA Waived?	Yes
Date Application Accepted	April 10, 2021d	If No, Reason	

Purpose of Application: Renewal/Transfer of a NPDES Permit for an existing discharge of treated sewage

Summary of Review

This STP services a privately owned mobile home park. The MHP was sold/transferred in February 2022.

The NPDES and WQM Permit will be transferred concurrently with the renewal of this NPDES Permit.

There are currently open violations for ammonia nitrogen limit exceedances that need to be addressed prior to final issuance of this permit. *There are also open violations with the Safe Drinking Water Program that need to be addressed prior to final issuance of this permit. CWY*

The facility has had three ownership changes in the last three years.

Sludge use and disposal description and location(s): Liquid Sludge is hauled offsite by a contractor for disposal.

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Approve	Deny	Signatures	Date
X		Adam J. Pesek Adam J. Pesek, E.I.T. / Project Manager	June 13, 2023
X		Chad W. Yurisic Chad W. Yurisic, P.E. / Environmental Engineer Manager	6/14/2023

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.02
Latitude	41º 48' 45"	Longitude	79º 9' 30"
Quad Name	Warren	Quad Code	0412
Wastewater Description:	Sewage Effluent		

Receiving Waters	Unnamed tributary to Morrison Run	Stream Code	---
NHD Com ID	112377307	RMI	0.5
Drainage Area	0.15 mi^2	Yield (cfs/mi^2)	0.04346
Q_{7-10} Flow (cfs)	0.006519	Q_{7-10} Basis	USGS Streamstats
Elevation (ft)	1766	Slope (ft/ft)	0.1072
Watershed No.	16-B	Chapter 93 Class.	EV
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)	6.3	4/18/02 sample 100 feet above Outfall 001
Temperature (°C)	20	Default
Ammonia Nitrogen (mg/L)	0.02	4/18/02 sample 100 feet above Outfall 001
$CBOD_5$ (mg/L)	1.1	4/18/02 sample 100 feet above Outfall 001

Nearest Downstream Public Water Supply Intake		Aqua Pennsylvania, Inc. – Emlenton	
PWS Waters	Allegheny River	Flow at Intake (cfs)	1450
PWS RMI	90.0	Distance from Outfall (mi)	103

Changes Since Last Permit Issuance:

Other Comments:

Treatment Facility Summary

Treatment Facility Name: Wilderness MHP

WQM Permit No.	Issuance Date
6274403-T-2	8/27/2018

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration w/ Sand Filter	Hypochlorite	0.02

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.04	129.2	Not Overloaded		Other WWTP

Changes Since Last Permit Issuance:

Other Comments: Treatment consists of a package extended aeration sewage treatment plant, sludge holding tank, dosing tank with two alternating submersible pumps, intermittent sand filtration, disinfection, flow measuring device, and outfall sewer.

Treatment plant was designed for two phases, each phase to be rated to treat 0.02 MGD. Only phase one has been constructed to date.

This WQM Permit will be transferred concurrently with the NPDES Permit renewal.

Compliance History	
Summary of DMRs:	An NOV was sent on 2/7/2023 for effluent violations that occurred in 2022 (5 for ammonia nitrogen – 1 for TRC). One additional ammonia exceedance was reported in April 2023.
Summary of Inspections:	Last site inspection was on 6/02/2023. The inspection noted numerous violations mostly related to record keeping and reporting, as well as instrument calibration and not maintaining treatment units in operable condition.

Other Comments:

Compliance History

DMR Data for Outfall 001 (from May 1, 2022 to April 30, 2023)

Parameter	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22
Flow (MGD) Average Monthly	0.004806	0.00784	0.00491	0.01021	0.03753	0.00902	0.00622	0.00809	0.00466	0.00458	0.00612	0.00565
Flow (MGD) Daily Maximum	0.008806	0.0105	0.0105	0.08806	0.0105	0.0105	0.0105	0.0105	0.0105	0.0105	0.0105	0.008806
pH (S.U.) Daily Minimum	6.75	6.82	6.86	6.82	6.91	7.19	7.41	7.53	6.74	7.78	7.8	7.76
pH (S.U.) Daily Maximum	6.82	6.87	6.9	6.91	7.18	7.63	7.54	7.55	7.77	7.85	7.85	7.81
DO (mg/L) Daily Minimum	7.13	7.13	7.12	7.13	7.02	6.93	6.81	6.75	6.73	7.63	7.68	7.77
TRC (mg/L) Average Monthly	0.01	0.01	0.01	0.02	0.01	< 0.01	0.01	< 0.02	0.03	< 0.01	0.01	< 0.01
TRC (mg/L) Instantaneous Maximum	0.020	0.0200	0.0200	0.100	0.1000	0.0200	0.0200	0.020	0.140	0.021	0.0200	0.020
CBOD5 (mg/L) Average Monthly	20.4	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	21.0	16.0
TSS (mg/L) Average Monthly	19.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	29.0	20.0
Fecal Coliform (No./100 ml) Geometric Mean	4.0	< 1614	< 67.0	< 1.0	< 461	< 867.0	12.32	< 144.00	< 1.0	75.0	18.0	10.0
Fecal Coliform (No./100 ml) Instantaneous Maximum	5.0	2420	132.0	< 1.0	921	1733	120.0	286	< 1.0	147.0	18.0	10.0
Total Nitrogen (mg/L) Annual Average					< 1.0							
Ammonia (mg/L) Average Monthly	16.93	1.37	0.31	< 0.1	0.62	< 0.33	< 4.37	4.5	< 2.43	1.06	19.01	4.25
Total Phosphorus (mg/L) Annual Average					3.68							

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .02
Latitude 41º 48' 6.00" **Longitude** -79º 9' 30.00"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)
E. Coli	Report (No./100 ml)	IMAX	-	92a.61

Comments: Monitoring for E. Coli is placed in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

Water Quality-Based Limitations

The following limitations were determined through water quality modeling (output files attached):

Parameter	Limit (mg/l)	SBC	Model
Ammonia Nitrogen	2.5	Average Monthly	WQM 7.0 Version 1.0b
Dissolved Oxygen	6.0	Minimum	WQM 7.0 Version 1.0b
Total Residual Chlorine	0.040	Average Monthly	TRC Evaluation Spreadsheet
Total Residual Chlorine	0.129	IMAX	TRC Evaluation Spreadsheet

Comments: A seasonal multiplier of "3" will be applied to ammonia nitrogen in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

Best Professional Judgment (BPJ) Limitations

Comments: Monitoring for total nitrogen and total phosphorus were added in this permit renewal in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

Anti-Backsliding

N/A

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	1/day	Grab
DO	XXX	XXX	6.0 Daily Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.04	XXX	0.129	1/day	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	30.0	XXX	60	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	7.5	XXX	15	2/month	8-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	2.5	XXX	5	2/month	8-Hr Composite

Outfall 001 , Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Total Phosphorus	XXX	XXX	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite

Compliance Sampling Location: Outfall 001 (after disinfection)

Other Comments:

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
16B	56498	MORRISON RUN	**3.600**	1766.00	0.15	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.043	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	6.30	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Wilderness MHP	PA0101737	0.0200	0.0000	0.0000	0.000	20.00	8.30

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	1.10	0.00	1.50
Dissolved Oxygen	4.00	8.24	0.00	0.00
NH3-N	25.00	0.02	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
16B	56498	MORRISON RUN	**3.100**	1483.00	0.29	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.043	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	6.30	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
16B	56498	MORRISON RUN

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH
Q7-10 Flow												
3.600	0.01	0.00	0.01	.0309	0.10720	.35	1.64	4.69	0.07	0.468	20.00	7.04
Q1-10 Flow												
3.600	0.00	0.00	0.00	.0309	0.10720	NA	NA	NA	0.06	0.485	20.00	7.20
Q30-10 Flow												
3.600	0.01	0.00	0.01	.0309	0.10720	NA	NA	NA	0.07	0.452	20.00	6.94

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	☑
WLA Method	EMPR	Use Inputted W/D Ratio	☐
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	☐
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	☑
D.O. Saturation	90.00%	Use Balanced Technology	☑
D.O. Goal	6		

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
16B	56498	MORRISON RUN

NH3-N Acute Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
3.600	Wilderness MHP	13.75	15.58	13.75	15.58	0	0

NH3-N Chronic Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
3.600	Wilderness MHP	1.93	2.47	1.93	2.47	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	CBOD5		NH3-N		Dissolved Oxygen		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
3.60	Wilderness MHP	25	25	2.47	2.47	6	6	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
16B	56498	MORRISON RUN

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
3.600	0.020	20.000	7.043
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
1.638	0.350	4.688	0.065
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
20.88	1.480	2.05	0.700
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
6.387	24.382	Owens	6
Reach Travel Time (days)			
0.468			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.047	19.48	1.98	6.85
0.094	18.18	1.92	7.09
0.140	16.96	1.85	7.25
0.187	15.82	1.79	7.38
0.234	14.77	1.74	7.49
0.281	13.78	1.68	7.60
0.328	12.86	1.63	7.69
0.374	12.00	1.57	7.78
0.421	11.19	1.52	7.87
0.468	10.44	1.47	7.95

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
16B	56498	MORRISON RUN

RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
3.600	Wilderness MHP	PA0101737	0.020	CBOD5	25		
				NH3-N	2.47	4.94	
				Dissolved Oxygen			6

1A	B	C	D	E	F	G
2	**TRC EVALUATION**			Wilderness MHP		
3	Input appropriate values in B4:B8 and E4:E7					
4	0.006519	**= Q stream (cfs)**		**0.5**	**= CV Daily**	
5	0.02	**= Q discharge (MGD)**		**0.5**	**= CV Hourly**	
6	30	**= no. samples**		**1**	**= AFC_Partial Mix Factor**	
7	0.3	**= Chlorine Demand of Stream**		**1**	**= CFC_Partial Mix Factor**	
8	0	**= Chlorine Demand of Discharge**		**15**	**= AFC_Criteria Compliance Time (min)**	
9	**0.5**	**= BAT/BPJ Value**		**720**	**= CFC_Criteria Compliance Time (min)**	
	0	**= % Factor of Safety (FOS)**		**0**	**=Decay Coefficient (K)**	
10	Source	Reference	AFC Calculations		Reference	CFC Calculations
11	TRC	**1.3.2.iii**	WLA afc =	0.086	**1.3.2.iii**	WLA cfc = 0.077
12	PENTOXSD TRG	**5.1a**	LTAMULT afc =	0.373	**5.1c**	LTAMULT cfc = 0.581
13	PENTOXSD TRG	**5.1b**	LTA_afc=	0.032	**5.1d**	LTA_cfc = 0.044
14						
15	Source		Effluent Limit Calculations			
16	PENTOXSD TRG	**5.1f**	AML MULT =	1.231		
17	PENTOXSD TRG	**5.1g**	AVG MON LIMIT (mg/l) =	0.040	AFC	
18			INST MAX LIMIT (mg/l) =	0.129		

WLA afc	**(.019/e(-k*AFC_tc)) + [(AFC_Yc*Qs*.019/Qd*e(-k*AFC_tc))...**
	...+ Xd + (AFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)
LTAMULT afc	EXP((0.5*LN(cvh^2+1))-2.326*LN(cvh^2+1)^0.5)
LTA_afc	wla_afc*LTAMULT_afc
WLA_cfc	**(.011/e(-k*CFC_tc) + [(CFC_Yc*Qs*.011/Qd*e(-k*CFC_tc))...**
	...+ Xd + (CFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)
LTAMULT_cfc	EXP((0.5*LN(cvd^2/no_samples+1))-2.326*LN(cvd^2/no_samples+1)^0.5)
LTA_cfc	wla_cfc*LTAMULT_cfc
AML MULT	EXP(2.326*LN((cvd^2/no_samples+1)^0.5)-0.5*LN(cvd^2/no_samples+1))
AVG MON LIMIT	MIN(BAT_BPJ,MIN(LTA_afc,LTA_cfc)*AML_MULT)
INST MAX LIMIT	**1.5*((av_mon_limit/AML_MULT)/LTAMULT_afc)**

Wilderness MHP
Pleasant Township, Warren County
PA0101737 Discharge pH

Outfall 001

Date	pH min	pH max	10^ -pH min	10^ -pH max	& pH max)	-Log (Ave pH)
Jul-20	8.29	8.4	5.13E-09	3.98E-09	4.55E-09	**8.3**
Aug-20	8.3	8.38	5.01E-09	4.17E-09	4.59E-09	**8.3**
Sep-20	8.28	8.36	5.25E-09	4.37E-09	4.81E-09	**8.3**
Jul-21	8.0	8.04	1E-08	9.12E-09	9.56E-09	**8.0**
Aug-21	8.01	8.3	9.77E-09	5.01E-09	7.39E-09	**8.1**
Sep-21	8.18	8.25	6.61E-09	5.62E-09	6.12E-09	**8.2**
Jul-22	7.78	7.85	1.66E-08	1.41E-08	1.54E-08	**7.8**
Aug-22	6.74	7.77	1.82E-07	1.7E-08	9.95E-08	**7.0**
Sep-22	7.53	7.55	2.95E-08	2.82E-08	2.88E-08	**7.5**
					Median:	**8.3**