

VERMONT WASTEWATER PERMIT PROGRAM

MONTH: May

2026

PERMIT No.: 3-1173

OPERATIONS REPORT

PERMITTEE: Town of Richmond

PREPARED BY: Brad Snow

CERTIFICATE No. _____

618

APPROVED BY: Josh Arneson, Town Manager

Name, Title of Authorized Representative

SMALL ACTIVATED SLUDGE WASTEWATER TREATMENT FACILITIES

DATE	WEATHER		RAW WASTEWATER (INFLUENT)										AERATION TANKS										SECONDARY CLARIFIERS								
	CONDITIONS		FLOW					Temperature in °C	pH S.U.	Settleable Solids in mL	Grit Removed in cubic yards	Kilowatt Hours daily read (KWH)	MLSS Spin Multiplier	Septage received in 1000 gallons	SUSPENDED SOLIDS mg/L		VOLATILE SUSPENDED SOLIDS mg/L		SETTLED SLUDGE VOLUME mL		DISSOLVED OXYGEN mg/L		Wasted Sludge in Gallons		RETURN RATE MGD		RAS Suspended Solids mg/l				
	Clear	Overcast	Max. MGD	Min MGD	Total Daily MGD	Bypass Hours	Bypass MGD								Spin mg/L	PAD mg/L	Unit # 1	Unit # 2	Unit # 1	Unit # 2	Unit # 1	Unit # 2	Unit # 1	Unit # 2	pH	Clarifier #1	Clarifier #2	Clarifier #1	Clarifier #2	Clarifier #1	Clarifier #2
Rain	Snow	Inches of Precipitation	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
1	c						14	7.95	15		572		14700								270		2.64	6.9	1300				0.1		
2	r						14	7.49	3		590		0								290		0.88	6.84	1600				0.09		
3	o						13	7.87	21		606		0								280		0.97	6.85	2200				0.09		
4	r						15	7.82	12		620		0								300		0.9	6.88	1400				0.1		
5	r						15	7.88	40		638		9100								300		2.68	6.84	2900				0.12		
6	r						16	7.32	20		652		31000								280		0.92	6.83	1400				0.08		
7	c						15	7.84	18		675		0								320		0.9	6.58	3000				0.1		
8	o						13	7.82	19		694		5700								300		1.68	6.86	2600				0.09		
9	c						13	7.7	8		709		0								270		2.18	6.92	2800				0.09		
10	o						14	8.07	10		724		0								280		1.12	6.88	1300				0.1		
11	c						15	7.3	2		738		12600								290		0.89	6.92	2800				0.1		
12	c						15	7.74	1		756		6200								290		0.92	7.05	1400				0.1		
13	r						14	7.82	1		775		8600								280		0.9	7	2200				0.1		
14	o						14	7.35	65		793		20400								280		0.85	6.97	1500				0.09		
15	o						15	7.59	3		811		11300								290		1.34	6.8	2000				0.1		
16	c						14	7.72	11		834		0								280		0.83	6.69	1400				0.09		
17	c						14	7.85	4		852		1300								270		0.83	6.95	1400				0.08		
18	o						16	7.25	1		867		20800								260		0.83	6.79	1500				0.11		
19	o						15	7.81	15		891		25200								310		0.75	6.75	1500				0.1		
20	r						17	7.88	20		907		19900								250		0.74	6.77	1000				0.09		
21	c						16	7.7	17		926		36700								240		0.75	6.65	1100				0.1		
22	c						16	7.31	5		951		39300								270		0.75	6.54	1000				0.1		
23	o						17	7.25	1		977		0								270		2.4	6.84	1200				0.11		
24	o						15	7.24	12		998		0								260		1.08	6.94	1100				0.11		
25	o						15	7.77	8		11		0								250		0.94	6.91	1000				0.06		
26	c						14	7.76	33		31		23100								250		1.02	6.88		1000			0.11		
27	o						16	7.68	15		52		23900								230		0.77	6.5		0			0.11		
28	c						17	7.84	8		69		32500								200		0.8	6.56		0			0.08		
29	o						17	7.53	5		93		27200								270		0.75	6.77		500			0.11		
30	o						15	8.37	10		115		0								260		1.23	6.88		700			0.09		
31	o						14	7.94	18		130		0								250		1.06	6.95		900			0.1		
TOTAL							463	238.5	421		19057																				
Average							14.94	7.692	13.58		614.74			11919							272.26		1.1387	6.8223	1704	516.67			0.096	0.1	
Max							17	8.37	65		998			39300							320		2.68	7.05	3000	1000			0.12	0.11	
Min							13	7.24	1		11			0							200		0.74	6.5	1000	0			0.06	0.08	

PERMITTEE: Town of Richmond

PERMIT No: 3-1173

Month/Year: _____

May-26

DATE	INFLUENT		EFFLUENT																SIZE AND TYPE OF PRIMARY FLOW DEVICE Flow Check Performed on Effluent Meter				
	BOD mg/l 1	TSS mg/l 2	BOD		TSS		Total Nitrogen		Total Phosphorous		TKN mg/l 11	UOD lbs 12	E. coli #/100 ml 13 14	Settleable Solids ml/l 15	pH S.U. 16	Chlorine 7-day avg mg/l 17	Chlorine Total Residual mg/l 18	Total Flow MGD 19	Date	Head in Inches	Actual Flow in MGD	Chart Flow in MGD	(Actual - Chart) / Actual x 100 = % Error
			mg/l 3	lbs 4	mg/l 5	lbs 6	mg/l 7	lbs 8	mg/l 9	lbs 10													
1														< 0.1	7.20			0.0310					
2														< 0.1	7.30			0.0270					
3														< 0.1	7.30			0.0240					
4	190	125	3	0.7	12	3.2			0.74	0.20			67.7	< 0.1	7.30			0.0320	Factory Calibration Date:		By:		
5													23.8	< 0.1	7.20			0.0400	COMMENTS AND EXPLANATIONS OF ANY VIOLATIONS				
6														< 0.1	7.20			0.0500	Reference all attachments here				
7														< 0.1	7.00			0.0500					
8														< 0.1	7.50			0.0280					
9														< 0.1	7.40			0.0240					
10														< 0.1	7.20			0.0240					
11														< 0.1	7.40			0.0260					
12														< 0.1	7.30			0.0310					
13														< 0.1	7.30			0.0350					
14														< 0.1	7.10			0.0350					
15														< 0.1	7.30			0.0560					
16														< 0.1	7.30			0.0320					
17														< 0.1	7.40			0.0260					
18														< 0.1	7.10			0.0390					
19														< 0.1	6.90			0.0640					
20														< 0.1	7.10			0.0380					
21														< 0.1	7.10			0.0250					
22														< 0.1	7.00			0.0440					
23														< 0.1	7.20			0.0250					
24														< 0.1	7.30			0.0240	5/25/26 Swapped clarifier in use				
25														< 0.1	7.20			0.0540					
26														< 0.1	7.40			0.0450					
27														< 0.1	7.00			0.0550					
28														< 0.1	7.20			0.0420	I certify under penalty of law that I have personally examined, and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.				
29														< 0.1	6.70			0.0480					
30														< 0.1	6.90			0.0640					
31														< 0.1	7.30			0.0300					
TOTAL	190	125	3	0.7	12	3.2			0.74	0.20			91.5	3.1				1.168	PREPARED BY: <i>[Signature]</i> 6/1/26				
Average	190	125	3	0.7	12	3.2			0.74	0.20			46	0.1				0.0377					
Max	190	125	3	0.7	12	3.2			0.74	0.20			67.7	0.1	7.50			0.064	APPROVED BY: <i>[Signature]</i> 6/1/26				
Min	190	125	3	0.7	12	3.2			0.74	0.20			23.8	0.1	6.70			0.024	Authorized Agent for the Permittee				
AVERAGE % REMOVAL			98.7%		90.4%		UOD lbs = (1.43 X BOD lbs) + (4.57 X TKN lbs)																

Total Residual Chlorine (TRC) 7-day is calculated from Sunday through Saturday each week. Report 7-day average on Saturday and Maximum week at bottom of form.

PERMITTEE: Town of Richmond

PERMIT No.: 3-1173

MONTH: May 2026

DATE	ANAEROBIC DIGESTION													Other	SLUDGE HANDLING AND DEWATERING						FINAL SLUDGE DISPOSAL				
	% SOLIDS		VOLATILE SOLIDS		SLUDGE GALLONS		PRIMARY DIGESTER		Volatile Acid to Alkalinity Ratio	GAS PRODUCTION		SUPERNATANT			THICKENER (OUT)		Drying Bed/Dewatering Unit % SOLIDS		VOLUME		HOLDING TANK (gallons)		Volume Pressed 1000 Gallons	Volume Wet Tons	Landfill/ Disposal site
	IN	OUT	IN	OUT	IN	OUT	pH	Temperature °C		Service cu. Ft.	Total cu. ft.	TS %	Volume gal.		% SOLIDS	Volume (gal)	IN	OUT	Gallons IN	cu. Yd. OUT	IN	OUT			
	1	2	3	4	5	6	7	8	9	10	11	12	13		14	15	16	17	18	19	20	21	22	23	24
1																									
2																									
3																							4,000		
4																							2,800		
5																							1,100		
6																							33,700		
7																							0		
8																							40,900		
9																							0		
10																							500		
11																							0		
12																							0		
13																							0		
14																							14,500		
15																							17,000		
16																							2,000		
17																							0		
18																							0		
19																							0		
20																							65,100		
21																							0		
22																							18,400	30.34	CSWD
23																							61,800		
24																							0		
25																							0		
26																							0		
27																							34,200		
28																							29,200		
29																							0		
30																							49,300		
31																							26,900		
TOTAL																							0		
Average																							0		
Max																							401,400	30.34	
Min																							12,948	30.34	
																							65,100	30.34	
																							0	30.34	

