



**Monthly Report of Operation  
Vertical Loop Reactor  
Wastewater Treatment Plant**

State Form 10829 (R/1-2005)

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Name of Facility Clay Township Regional Waste Dist.		Permit Number IN 0055760	
Month January	Year 2007	Plant Design Flow 2.55 mgd	Telephone Number 317/873-0564
Facility's e-mail address (if available): <a href="mailto:scot@ctrwd.org">scot@ctrwd.org</a>			
Certified Operator: Name Scot S. Watkins		Class III	Certificate Number WW018132
		Expiration Date 6/30/2008	

Day Of Month	Day of Week	Man-Hours at Plant (Plants less than 1 MGD only)	Air Temperature	Precipitation - Inches	Bypass At Plant Site ("X" If Occurred)	Collection System Overflow ("X" If Occurred)	CHEMICALS USED			RAW SEWAGE								
							Chlorine - Lbs	Alum Gal	Lbs or Gal	Influent Flow Rate (MGD)	pH	CBOD5 - mg/l	CBOD5 - lbs	Susp. Solids - mg/l	Susp. Solids - lbs	Phosphorus - mg/l	Ammonia - mg/l	
29	Fri									1.924								
30	Sat	Fill in December's effluent data on page 3 as necessary for correct weekly average calculations.									2.06							
31	Sun										2.218							
1	Mon		41	0.01					40	1.899	7.4							
2	Tue		45						35	1.995	7.6	186	3094.7	156	2595.6	4.91	14	
3	Wed		50	0.02					45	1.959	7.6	203	3316.6	168	2744.8	6.08	15	
4	Thu		52	0.14					45	2.03	7.6	216	3656.9	294	4977.5	10.48	16.2	
5	Fri		58	0.79					35	2.415	7.6							
6	Sat			0.01					25	2.165								
7	Sun			0.14					35	1.963								
8	Mon		41						35	2.055	7.6							
9	Tue		34	0.01					50	1.895	7.6	170	2686.7	172	2718.3	5.03	16.9	
10	Wed		38						55	1.812	7.6	175	2644.6	160	2417.9	5	17.2	
11	Thu		48	0.05					30	1.801	7.6	194	2913.9	188	2823.8	4.92	19.3	
12	Fri		51	0.55					30	2.032	7.6							
13	Sat			0.59					40	2.424								
14	Sun			1.05					35	2.691								
15	Mon		42	0.56	X				45	2.935	7.5							
16	Tue		29						40	2.073	7.6	171	2956.4	128	2213	4.07	12.4	
17	Wed		30						40	1.94	7.6	198	3203.6	132	2135.7	4.24	11.7	
18	Thu		38						10	1.872	7.5	189	2950.8	166	2591.7	4.69	14.4	
19	Fri		30						50	2.012	7.5							
20	Sat								25	1.837								
21	Sun			0.06					50	1.621								
22	Mon		36	0.06					45	1.78	7.3							
23	Tue		33	0.02					50	1.637	7.5	290	3959.2	192	2621.3	5.44	19.4	
24	Wed		32						35	1.676	7.5	224	3131	220	3075.1	5.61	18.1	
25	Thu		30						45	1.711	7.5	212	3025.2	230	3282	6.16	19.6	
26	Fri		38						40	1.856	7.5							
27	Sat								35	1.803								
28	Sun								50	1.556								
29	Mon		18						35	1.626	7.6							
30	Tue		18						15	1.59	7.6	195	2585.8	220	2917.3	6.84	25.9	
31	Wed		18						40	1.624	7.6	190	2573.4	244	3304.8	6.26	22.8	
Average									38.226	1.94468		201	3049.9	191	2887.1	5.695	17.35	
Maximum				1.05					55	2.935	7.6	290	3959.2	294	4977.5	10.48	25.9	
Minimum									10	1.556	7.3	170	2573.4	128	2135.7	4.07	11.7	
No. of Data			15	0	1	0	31	0	31	23	14	14	14	14	14	14	0	

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 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.

(SIGNATURE OF CERTIFIED OPERATOR) (DATE)

(SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT) (DATE)

**Monthly Report of Operation  
Vertical Loop Reactor  
Wastewater Treatment Plant**

Name of Facility: Clay Township Regional Waste Disposal  
 Permit Number: IN 0055760  
 For Month Of: January  
 Year: 2007

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(SIGNATURE OF CERTIFIED OPERATOR) (DATE)  
 (SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT) (DATE)

Day Of Month	Temperature in Reactors	REACTOR # 1				REACTOR # 2				REACTOR DATA			RETURN SLUDGE		FINAL EFFLUENT				
		Settleable Solids % in 30 minutes	Susp. Solids - mg/l	Sludge Vol. Index - ml/gm	Dissolved Oxygen - mg/l	Settleable Solids % in 30 minutes	Susp. Solids - mg/l	Sludge Vol. Index - ml/gm	Dissolved Oxygen - mg/l	#1 Reactor ORP mV	#1 Reactor OUR mg//min	#2 Reactor OUR mg//min	Volume - MG	Susp. Solids - mg/l	Residual Chlorine - Contact Tank	Residual Chlorine - Final	E. Coli - colony/100 ml	pH	
1	14	69			0.1	68			2.6	-383			0.965					7.6	
2	14	70	4100	171	0.1	69	4040	171	3.0	-397			1.083	10760				7.6	
3	14	70	4060	172	0.1	68	4000	170	3.1	-389			1.09	10740				7.6	
4	14	66	3980	166	0.1	63	3940	160	3.1	-347			1.174	9700				7.6	
5	15	67			0.1	67			2.8	-390			1.248					7.6	
6									2.4				1.153						
7									3.8				1.087						
8	14	72			0.1	71			3.4	-378			1.074					7.6	
9	14	68	3900	174	0.1	67	3920	171	3.1	-341			1.007	9340				7.6	
10	13	63	3880	162	0.1	65	3760	173	3.0	-249			1.149	9820				7.7	
11	13	56	3860	145	0.1	57	3840	148	3.6	-235	0.51	#####	0.2	1.376	9220			7.6	
12	14	55			0.1	56			3.5	-281			1.183					7.6	
13									3.0				1.906						
14									3.4				1.62						
15	13	51			0.1	55			3.6	-181			1.669					7.6	
16	13	64	3740	171	0.1	68	3660	186	5.1	-201			1.343	10520				7.6	
17	13	55	3680	149	0.1	65	3700	176	5.7	-169			1.441	9920				7.7	
18	13	63	3740	168	0.1	61	4000	153	5.1	-442			1.283	9760				7.7	
19	13	60			0.1	60			4.0	-454			1.5					7.7	
20									3.7				1.324						
21									3.4				1.199						
22	13	67			0.1	71			3.1	-458			1.308					7.6	
23	13	67	6240	107	0.1	68	6440	106	2.7	-462			1.272	16040				7.6	
24	13	60	4060	148	0.1	60	3760	160	2.7	-436			1.183	9640				7.6	
25	13	60	3840	156	0.1	60	3840	156	2.9	-405			1.23	8900				7.7	
26	13	56			0.1	56			2.7	-367			1.446					7.7	
27									2.7				1.412						
28									2.8				1.27						
29	12	50			0.1	67			3.0	-373			1.253					7.6	
30	12	65	3780	172	0.1	65	4100	159	3.0	-339			1.1	9560				7.7	
31	12	50	3960	126	0.1	54	3920	138	3.3	-308			1.294	8820				7.7	
Avg.	13.3	62	4059	156	0.1	64	4066	159	3.322		1	0.23	1	10196					
Max.	15	72	6240	174	0.1	71	6440	186	5.74		0.51	0.23	1.906	16040				7.7	
Min.	12	50	3680	107	0.1	54	3660	106	2.43		0.51	0.23	0.965	8820				7.6	
Data	23	23	14	14	23	23	14	14	31	23	1	1	1	31	14	0	0	0	23

Comments for the Month (major repairs, breakdowns, process upsets and their causes, inplant treatment process bypass, etc.):  
 1. Old return flow meter repaired on Jan. 10th. Flow is now actual. 2. Bypass / Overflow Incident Report faxed in on 01/15/07. 3. Phosphorus was over 1.00 on two occasions, increasing the waste seemed to help. There was no phosphorus violation.

**Monthly Report of Operation  
Vertical Loop Reactor  
Wastewater Treatment Plant**

(SIGNATURE OF CERTIFIED OPERATOR)

(DATE)

Name of Facility: Clay Township Regional Waste Dist.  
 Permit Number: IN 0055760  
 For Month Of: January  
 Year: 2007

(SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT) (DATE)

Day Of Month	FINAL EFFLUENT																
	Flow		Dissolved Oxygen - mg/l	Phosphorus - mg/l	BOD				Total Suspended Solids				Ammonia				
	Effluent Flow Rate (MGD)	Effluent Flow Weekly Average			CBOD5 - mg/l	CBOD5 - mg/l Weekly Average	CBOD5 - lbs	CBOD5 - lbs/day Weekly Average	Susp. Solids - mg/l	Susp. Solids - mg/l Weekly Average	Susp. Solids - lbs	Susp. Solids - lbs/day Weekly Average	Ammonia - mg/l	Ammonia - mg/l Weekly Average	Ammonia - lbs	Ammonia - lbs/day Weekly Average	
29	1.896																
30	1.885																
31	2.111																
1	1.73		10.58														
2	1.732		10.8	0.33	2.46		35.556	3		43.361		0.1		1.4454			
3	1.737		9.39	0.52	2.61		37.833	3.6		52.183		0.1		1.4495			
4	1.833		8.53	1.02	2.6		39.771	3		45.889		0.1		1.5296			
5	2.181		8.25														
6	1.941	1.895	9.83			2.5567	37.72		3.2	47.144		0.1		1.4748			
7	1.773		10.68														
8	1.942		10.78														
9	1.723		10.93	0.4	2.65		38.103	3.4		48.887		0.1		1.4378			
10	1.624		9.46	0.5	2.57		34.829	4.4		59.63		0.1		1.3552			
11	1.669		8.72	0.68	2.82		39.276	4.2		58.497		0.1		1.3928			
12	1.895		8.4														
13	2.302	1.84686	10.11			2.68	37.403		4	55.671		0.1		1.3953			
14	2.564		10.88														
15	2.714		10.95														
16	1.969		11	0.69	2.77		45.515	3.8		62.439		0.1		1.6431			
17	1.902		10.28	0.93	2.65		42.061	3.6		57.14		0.1		1.5872			
18	1.685		9.1	1.59	2.24		31.497	3.7		52.027		0.1		1.4061			
19	1.895		8.67														
20	1.674	2.05757	10.52			2.5533	39.691		3.7	57.202		0.1		1.5455			
21	1.521		11.43														
22	1.591		11.22														
23	1.636		11.19	0.21	3.16		43.142	3.6		49.149		0.1		1.3652			
24	1.444		9.72	0.3	3.35		40.368	7		84.351		0.1		1.205			
25	1.573		7.93	0.24	2.58		33.867	4.3		56.445		0.1		1.3127			
26	1.756		8.45														
27	1.712	1.60471	9.66			3.03	39.126		4.9667	63.315		0.1		1.2943			
28	1.504		10.1														
29	1.46		10.35														
30	1.435		10.47	0.36	2.64		31.614	5		59.875		0.1		1.1975			
31	1.485	1.48814	7.49	0.47	2.29	2.56	28.378	31.518	4.4	4.5	54.526	55.31	0.1	0.1	1.2392	1.2312	
Avg	1.79361		9.8668	0.5886	2.6707		37.272		4.0714	56.028		0.1		1.3976			
Max	2.714	2.05757	11.43	1.59	3.35	3.03	45.515	39.691	7	4.9667	84.351	63.315	0.1	0.1	1.6431	1.5455	
Min	1.435	1.48814	7.49	0.21	2.24	2.5533	28.378	31.518	3	3.2	43.361	47.144	0.1	0.1	1.1975	1.2312	
Data	31	5	31	14	14	5	14	5	14	5	14	5	14	5	14	5	0

MONTHLY REMOVAL SUMMARY					
	BOD5	S.S.	Ammonia	Phosphorus	Total Monthly Flow: (million gallons) 55.602
Percent Removal	99	98	99	89.7	
					Percent Capacity (actual flow/design) 70%

Phosphorus limit would be 1 mg/l. (compliance achieved)

**Monthly Report of Operation  
Vertical Loop Reactor  
Wastewater Treatment Plant**

(SIGNATURE OF CERTIFIED OPERATOR)	(Date)
(SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT)	(Date)

Name of Facility Clay Township Regiona	Permit Number IN 0055760	For Month Of: January	Year 2007
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Day Of Month	SLUDGE TO DIGESTER		DIGESTER OPERATION											
	Waste Act. Sludge Gal. x 1000	pH	Anaerobic Only			Supernatant Withdrawn hrs. or Gal. x 1000	Supernatant BOD5 mg/l or NH3-N mg/l	Total Solids in Incoming Sludge - %	Total Solids in Digested Sludge - %	Volatile Solids in Incoming Sludge - %	Volatile Solids in Digested Sludge - %	Digested Sludge Withdrawn hrs. or Gal. x 1000		
			Gas Production Cubic Ft. x 1000	Temperature - F										
1	40													
2	36													
3	46													
4					72									
5	45													
6														
7														
8	40						1		75					
9	44						1.1		75					
10	45													
11	31						1		74					
12					79									
13					32									
14														
15	46													
16	46						1		75					
17							1.1		75					
18	39						1.1		75					
19					86									
20					27									
21														
22	48						1.2		75					
23	45						1.1		75					
24	41						1.1		75					
25	42						1		75					
26					76									
27					29									
28														
29	40						1.1		75					
30	42						1.1		76					
31														
Avg.	42.118				57.286		1.075		75					
Max.	48				86		1.2		76					
Min.	31				27		1		74					
Data	0	17	0	0	0	7	0	12	0	12	0	0	0	0

Send completed forms by the 28th of the month to:  
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER QUALITY, DATA MANAGEMENT SECTION  
P.O. BOX 6015  
INDIANAPOLIS, INDIANA 46206-6015