



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 December	Year 2007	Plant Design Flow 2.55 mgd	Telephone Number 317/873-0564		
Facility's e-mail address (if available): scot@ctrwd.org					
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	Total= 4.56	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			
1	Sat								40		1.463										
2	Sun			0.63					45		1.449										
3	Mon								70		1.503	7.5	458	5741	902	11307	12.17	23.2			
4	Tue								40		1.51	7.5	587	7392.3	1312	16523	10.4	26.2			
5	Wed								50		1.501	7.5	355	4444	492	6159	9.35	21.9			
6	Thu			0.05					40		1.47	7.5	224	2746.2	236	2893.3	7.11	29.1			
7	Fri			0.04					45		1.543	7.5	313	4027.9	244	3139.9	6.38	26.6			
8	Sat			0.19					40		1.574										
9	Sun			0.41					55		1.694										
10	Mon			0.11					30		1.659	7.5	216	2988.6	228	3154.6	6.28	20.7			
11	Tue			0.46					40		1.97	7.5	210	3450.3	240	3943.2	6.35	17.9			
12	Wed			0.34					40		2.035	7.5	191	3241.6	218	3699.9	4.86	15.2			
13	Thu			0.4					50		1.942	7.6	227	3676.6	322	5215.2	5.78	15.9			
14	Fri								50		1.813	7.6	290	4384.9	358	5413.1	6.64	18.6			
15	Sat								50		1.831										
16	Sun								30		1.828										
17	Mon								45		1.769	7.6	342	5045.7	426	6285	5.42	20.3			
18	Tue			0.44					55		1.772	7.5	264	3901.5	352	5202	7.45	22			
19	Wed			0.08					25		1.746	7.5	310	4514.1	330	4805.3	7.06	21.3			
20	Thu			0.02					65		1.871	7.5	284	4431.6	300	4681.2	7.1	22.5			
21	Fri								50		2.012	7.6	386	6477.1	476	7987.3	1.89	19.8			
22	Sat			0.21					55		2.251										
23	Sun			0.53					50		2.356										
24	Mon								40		1.871	7.6	218	3401.7	180	2808.7	1.96	15.5			
25	Tue								45		1.674	7.5	227	3169.2	180	2513	5.59	20.2			
26	Wed								50		1.854	7.5	182	2814.1	244	3772.8	5.56	21.7			
27	Thu			0.26					40		1.851	7.5	126	1945.1	224	3458	4.97	21			
28	Fri			0.22					40		2.293	7.5	173	3308.4	236	4513.2	5.44	18.2			
29	Sat								50		1.631										
30	Sun								45		1.851										
31	Mon			0.17					55		1.74	7.6	228	3308.6	230	3337.7	5.44	17			
1	Tue	Fill in January's effluent data on page 3 as needed for weekly average calculations.										1.703									
2	Wed											1.769									
3	Thu											1.688									
Average									45.968		1.78474		277	4019.6	368	5276.7	6.343	20.7			
Maximum				0.63					70		2.356	7.6	587	7392.3	1312	16523	12.17	29.1			
Minimum									25		1.449	7.5	126	1945.1	180	2513	1.89	15.2			
No. of Data				17		0	0	0	31	0	31	21	21	21	21	21	21	21	21	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 D
 Permit Number: IN 0055760
 For Month Of: December
 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	0	#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													1.553						
2										0.58		0.2	1.507						
3	15.6	71	3780	188	0.1	74	3820	194	3.6	-287			1.486	9860				7.6	
4	15.4	70	3840	182	0.1	67	3660	183	3.1	40			1.498	11100				7.6	
5	15.5	62	3660	169	0.1	62	3780	164	2.4	46			1.521	10420				7.6	
6	15.1	58	3360	173	0.1	55	3300	167	4.2	70			1.572	9540				7.6	
7	15.2	60	3420	175	0.1	57	3480	164	4.0	72			1.637	10000				7.6	
8													1.63						
9										0.69		0.2	1.637						
10	15.6	67	3880	173	0.1	71	3980	178	2.6	-12			1.618	10900				7.6	
11	15.6	61	3660	167	0.1	62	3800	163	2.8	-269			1.655	11000				7.6	
12	15.7	52	3280	159	0.1	51	3180	160	4.0	-134			1.633	11180				7.5	
13	15.6	54	3240	167	0.1	54	3160	171	4.1	-183			1.557	9580				7.6	
14	15.1	50	3080	162	0.1	57	3120	183	4.9	-133	0.4	#####	0.2	1.478	8100			7.6	
15													1.346						
16													1.234						
17	14.4	35	2520	139	0.3	41	2600	158	4.7	-158			1.6	7260				7.6	
18	14.2	53	3380	157	0.2	54	3100	174	4.5	75			1.531	8880				7.6	
19	14.7	46	3020	152	0.2	47	3160	149	4.4	90			1.616	9080				7.6	
20	14.7	46	3400	135	0.2	47	3000	157	4.2	83			1.586	8280				7.6	
21	15	50	3220	155	0.1	51	3200	159	2.8	28			1.678	8200				7.5	
22													1.775						
23										0.39		0.1	1.809						
24	14	54	3400	159	0.2	64	3460	185	4.9	76			1.426	9260				7.7	
25	14	58	3520	165	0.1	58	3440	169	4.0	-239			1.352	9160				7.7	
26	14.3	51	3380	151	0.1	50	3300	152	3.5	-282			1.527	9220				7.6	
27	14.6	52	3320	157	0.1	49	2940	167	3.4	-284			1.566	8440				7.6	
28	14.7	54	3560	152	0.1	51	3240	157	3.7	-290	0.36	#####	0.0	1.902	9280			7.6	
29													1.364						
30													1.622						
31	14.3	60	3740	160	0.1	55	3760	146	3.2	-315			1.378	10260				7.6	
Avg.	14.9	55	3412	162	0.129	56	3356	167	3.765		0	0.142	1.558	9476.2					
Max.	15.7	71	3880	188	0.3	74	3980	194	4.9		0.69	0.21	1.902	11180				7.7	
Min.	14	35	2520	135	0.1	41	2600	146	2.4		0.36	0	1.234	7260				7.5	
Data	21	21	21	21	21	21	21	21	21	21	5	2	5	31	21	0	0	0	21

Comments for the Month (major repairs, breakdowns, process upsets and their causes, inplant treatment process bypass, etc.):

1. Low level mercury test were performed on samples from December 28th. Influent results were 0.293 ng/L. Effluent results were <0.200 gn/L. Samples were analyzed on January 4th by Environmental Laboratories, Inc.

**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: December 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
1	1.375															
2	2.316															
3	1.423		8.73	0.8	2.87		34.081		8.3		98.562		0.1		1.1875	
4	1.443		8.17	0.55	1.6		19.267		6		72.251		0.1		1.2042	
5	1.387		8.05	0.59	2.97		34.376		11.3		130.79		0.015		0.1736	
6	1.334		8.33	0.58	1.96		21.819		4.8		53.435		0.048		0.5343	
7	1.414		7.96	0.72	1.75		20.65		4		47.199		0.1		1.18	
8	1.436	1.53614				2.23		26.039		6.88		80.448		0.0726		0.8559
9	1.579															
10	1.539		8.56	0.69	2.21		28.383		5.4		69.352		0.176		2.2604	
11	1.78		7.91	0.68	1.88		27.926		6.2		92.095		0.1		1.4854	
12	1.891		8.08	0.48	1.84		29.036		4.9		77.324		0.1		1.578	
13	1.78		8.27	0.58	1.22		18.122		3.2		47.533		0.1		1.4854	
14	1.782		8.52	1.05	1.62		24.091		4.7		69.893		0.1		1.4871	
15	1.644	1.71357				1.754		25.511		4.88		71.239		0.1152		1.6593
16	1.864															
17	1.651		8.96	1.2	4.83		66.546		19.4		267.29		0.1		1.3778	
18	1.625		8.4	0.41	1.45		19.663		5.7		77.296		0.1		1.3561	
19	1.667		8.07	0.44	1.59		22.119		7.9		109.9		0.1		1.3911	
20	1.83		7.76	0.73	3.61		55.13		13.7		209.22		0.1		1.5271	
21	1.926		8.22	0.76	3.51		56.414		13.3		213.76		0.139		2.2341	
22	2.249	1.83029				2.998		43.974		12		175.49		0.1078		1.5772
23	1.467															
24	2.38		8.04	0.46	2.44		48.461		5.7		113.21		0.1		1.9861	
25	1.596		7.79	0.46	1.86		24.773		3.2		42.62		0.1		1.3319	
26	1.829		7.81	0.43	2.55		38.921		5.3		80.894		0.1		1.5263	
27	1.836		7.66	0.32	2.7		41.368		4.7		72.011		0.1		1.5321	
28	2.253		7.65	0.32	1.84		34.594		4.7		88.366		0.1		1.8801	
29	1.586	1.84957				2.278		37.623		4.72		79.42		0.1		1.6513
30	2.076															
31	1.654		7.9	0.31	2.72		37.543		5.2		71.774		0.1		1.3803	
1	1.439				2.11		25.33784		4.7		56.439739		0.16		1.9213528	
2	1.571				2.09		27.39989		5.5		72.104973		0.1		1.3109995	
3	1.788				3.12		46.553083		5.7		85.048902		0.1		1.492086	
Avg	1.72942		8.1352	0.5981	2.3343		33.49		7.0286		100.23		0.099		1.4333	
Max	2.38	1.84957	8.96	1.2	4.83	2.998	66.546	43.974	19.4	12	267.29	175.49	0.176	0.1152	2.2604	1.6593
Min	1.334	1.53614	7.65	0.31	1.22	1.754	18.122	25.511	3.2	4.72	42.62	71.239	0.015	0.0726	0.1736	0.8559
Data	31	4	21	21	21	4	21	21	4	21	4	21	4	21	4	0

MONTHLY REMOVAL SUMMARY					Total Monthly Flow:
	BOD5	S.S.	Ammonia	Phosphorus	(million gallons) 53.612
Percent Removal	99	98	100	90.6	
Phosphorus limit would be 1 mg/l. (compliance achieved)					Percent Capacity (actual flow/design) 68%

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

Name of Facility: Clay Township Regional Waste Dist. Permit Number: IN 005760 For Month Of: November Year: 2007

(SIGNATURE OF CERTIFIED OPERATOR)

(SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT)

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Day Of Month	Temperature in Reactors	Orbal #1			Orbal #3					RETURN SLUDGE				Flow Vol.			
		ORP mV	Dissolved Oxygen - mg/L	OUR gm/L/Min	Settleable Solids % in 30 Minutes	Susp. Solids - mg/L	Sludge Vol. Index - mg/gm	Dissolved Oxygen - mg/L	OUR gm/L/min	Volume - MG	Susp. Solids - mg/L	Orbal Influent Flow - MGD					
1													1	1.012			
2								0.17					0.951	0.937			
3	14.6	-51	0.53		73	4340	168	1.5				1	6260	0.961			
4	14.4	-235	0.52		70	3380	207	1.2				1	2920	0.946			
5	14.5	-304	0.52		64	3700	173	1.1				1.013	2320	0.934			
6	14.1	-316	0.52		56	3340	168	1.1				1.021	3600	0.908			
7	14.2	-318	0.52		62	3160	196	1.1				1.052	3840	0.926			
8												1.036		0.933			
9								0.34				0.989		0.964			
10	14.6	-319	0.53		68	3560	191	1.1				1.067	3860	0.976			
11	14.6	-291	0.53		65	3480	187	1.2				0.987	5400	1.088			
12	14.7	-196	0.63		52	3120	167	1.3				0.929	6060	1.156			
13	14.6	-228	0.54		55	3020	182	3.9				0.927	3700	1.14			
14	14.1	-184	0.53		53	2900	183	5.0	0.15			0.781	5820	1.095			
15												0.666		1.077			
16												0.525		0.979			
17	13.4	-162	0.52		52	2920	178	2.0				1.023	7500	1.131			
18	13.2	-306	0.52		53	3200	166	1.5				0.948	3980	1.089			
19	13.7	-324	0.53		48	2940	163	1.3				1.01	6260	1.091			
20	13.7	-280	0.52		49	2860	171	1.4				0.875	1920	1.105			
21	14	-322	0.52		51	3120	163	1.2				0.918	4900	1.167			
22												0.92		1.303			
23								0.17				0.902		1.38			
24	13	-332	0.52		65	3580	182	3.0				0.814	3600	1.152			
25	13	-75	0.52		58	3400	171	1.8				0.798	3100	1.057			
26	13.3	-296	0.52		50	3020	166	1.2				0.891	3860	1.184			
27	13.6	-277	0.52		49	2960	166	1.1				0.859	3780	1.186			
28	13.7	-215	0.52		51	3220	158	1.1	0.02			1.027	4840	1.439			
29												0.743		1.024			
30												0.915		1.223			
31	13.3	3	0.52		57	3680	155	1.2				0.803	6040	1.124			
Avg.	13.919		1		57.19	3281	174	2	0.17			0.92	4455.2	1.0867			
Max.	14.7		0.63		73	4340	207.1	5	0.34			1.067	7500	1.439			
Min.	13		0.52		48	2860	154.89	1	0.02			0.525	1920	0.908			
Data	21	21	21	0	21	21	21	21	5	0	0	0	0	31	21	31	0