City of BROKEN ARROW
Where opportunity lives

MONTHLY OPERATIONAL REPORT

City of Broken Arrow Lynn Lane Water Reclamation Facility

September-24

		WEATHER			INFLUENT								EAST OXIDATION DITCH					WEST OXIDATION DITCH					SLUDGE WASTING					DIGESTER		
Date	Day	°F	Rain	Cloud Conditions	Flow (MGD)	RAS (MGD)	°C	pH	Alk.	Sett. Solids	TSS (mg/L)	BOD (mg/L)	D.O. (mg/L)	30 Min. Settl.	SVI (ml/gm)	MLSS (mg/L)	Sl. Age (Days)	D.O. (mg/L)	30 Min. Settl.	SVI (ml/gm)	MLSS (mg/L)	Sl. Age (Days)	WAS (MGD)	WAS MLSS (mg/L)	CAKE (%)	LANDFILL (Tons)	LANDFILL (D.M. Tons)	THK EFFL MLVSS (mg/L)	BP FEED MLVSS (mg/L)	VECTOR ATT RED. (%)
1	Sun	90	0.01	Cloudy	4.797	5.341	24	7.3	256	17			1.5	250				2.5	250				0.145							
2	Mon	86	0.00	Clear	4.806	5.382	23	7.3	255	5	258	273	2.8	230	100	2,290	15	3.2	250	109	2,300	15	0.145	3,410						
3	Tue	78	0.00	Cloudy	5.230	5.245	24	7.2	230	18	114	194	1.2	280	112	2,490	33	1.9	280	109	2,570	34	0.145	4,860	16	14.28	2.07			
4	Wed	87	0.00	Cloudy	5.122	4.912	24	7.3	232	15	356	250	1.0	260	106	2,460	11	1.5	280	108	2,600	11	0.145	4,690	15	21.86	2.97	11,875	8,325	30
5	Thu	91	0.00	Clear	5.153	4.782	24	7.3	218	10	234	252	1.6	270	114	2,370	16	2.0	270	113	2,380	16	0.145	3,660	16	35.74	5.19			
6	Fri	86	0.00	Clear	4.906	4.781	24	7.4	252	7.5	182	241	1.0	280	105	2,670	24	1.7	260	103	2,530	23	0.145	3,970	17	17.08	2.63	13,425	8,325	38
7	Sat	80	0.00	Clear	4.711	6.995	23	7.4	275	23			2.9	270				3.3	260				0.145							
8	Sun	81	0.00	Clear	4.579	6.992	22	7.4	270	25			3.1	310				3.7	310				0.145							
9	Mon	82	0.00	Clear	4.886	7.618	23	7.4	248	20	258	257	1.5	330	134	2,460	16	1.7	330	134	2,470	16	0.145	3,970	14	8.15	1.04	11,350	8,200	28
10	Tue	85	0.00	Clear	4.775	7.230	23	7.3	248	17	344	273	2.0	320	126	2,530	12	2.6	320	121	2,650	13	0.145	3,680	16	7.16	1.04	11,600	8,825	24
11	Wed	88	0.00	Clear	4.640	6.713	23	7.4	270	18	368	265	2.2	300	115	2,610	12	2.8	310	121	2,570	12	0.145	3,810	14	38.48	4.89	11,600	8,025	31
12	Thu	88	0.00	Clear	4.585	6.813	23	7.4	254	27	370	344	1.5	310	119	2,610	12	2.4	310	126	2,470	12	0.145	3,790	15					
13	Fri	89	0.00	Clear	4.645	2.962	23	7.3	260	27	412	460	0.7	400	149	2,680	11	0.8	430	158	2,730	11	0.145	6,130	15	13.89	1.89			
14	Sat	89	0.00	Clear	4.546	2.736	23	7.4	269	20			1.7	350				2.7	360				0.145							
15	Sun	90	0.00	Clear	4.654	2.798	23	7.4	252	30			0.8	370				1.9	380				0.145							
16	Mon	88	0.00	P Cloudy	4.976	2.759	24	7.3	258	19	364	259	0.8	330	129	2,560	11	1.7	310	126	2,470	11	0.145	5,370						
17	Tue	84	0.00	Cloudy	4.715	2.660	24	7.3	243	19	268	184	1.5	300	106	2,830	18	2.0	300	114	2,640	17	0.145	6,150	16			14,775	8,175	45
18	Wed	89	0.00	Clear	4.698	2.776	23	7.3	245	23	254	238	1.6	290	116	2,490	17	2.7	280	106	2,650	18	0.145	5,160	18	20.98	3.43	13,850	8,750	37
19	Thu	97	0.13	Clear	4.846	2.706	24	7.3	234	12	276	245	1.3	300	115	2,620	16	2.6	290	108	2,690	16	0.145	5,760	18	34.95	5.71	10,200	6,325	38
20	Fri	97	0.00	Clear	5.011	2.611	24	7.3	241	20	246	261	1.5	300	115	2,600	17	2.5	300	118	2,550	17	0.145	5,730						
21	Sat	96	0.00	Clear	5.022	2.608	24	7.4	252	20			2.1	300				3.0	290				0.145							
22	Sun	87	0.07	Clear	4.808	2.231	24	7.3	253	20			2.0	300				3.0	270				0.145							
23	Mon	66	0.61	Cloudy	4.963	2.529	23	7.4	248	21	252	251	2.0	270	103	2,630	17	2.8	260	99	2,620	17	0.145	5,330	17	15.89	2.45	13,900	8,325	40
24	Tue	77	0.33	Clear	5.070	2.533	23	7.4	237	20	322	260	2.2	250	98	2,560	13	3.3	240	101	2,370	12	0.145	5,820	16	17.98	2.61			
25	Wed	81	0.01	P Cloudy	5.204	2.403	23	7.4	242	19	284	211	2.2	240	90	2,660	14	3.0	240	96	2,510	14	0.145	6,110	14	39.13	4.97	13,900	8,150	41
26	Thu	82	0.00	Clear	4.912	2.341	23	7.4	251	19	246	262	2.8	260	109	2,380	16	3.3	220	98	2,240	15	0.145	5,740	15	30.55	4.16			
27	Fri	84	0.00	Clear	4.798	2.297	22	7.4	250	25	368	261	2.7	220	94	2,330	11	3.3	220	96	2,290	10	0.145	5,170	15	33.10	4.50	11,450	8,500	26
28	Sat	86	0.00	Cloudy	5.047	2.252	24	7.4	262	25			3.0	240				3.7	230				0.145							
29	Sun	87	0.00	Clear	4.273	2.248	23	7.4	296	25			2.9	260				3.6	240				0.145							
30	Mon	86	0.00	Clear	4.962	2.244	23	7.3	238	26	264	316	1.3	210	87	2,410	15	1.8	210	95	2,210	13	0.145	5,560	15	37.96	5.17			
TOTAL :			1.16		145.340																		4.350			387.18	54.71			
MIN :		66	0.00		4.273	2.231	22	7.2	218	5	114	184	0.7		87	2,290	11	0.8		95	2,210	10	0.145	3,410	14	27.00				24
MAX :		97	0.61		5.230	7.618	24	7.4	296	30	412	460	3.1		149	2,830	33	3.7		158	2,730	34	0.145	6,150	18	39.13	5.71			45
AVG :		86			4.845	3.950	23			20	288	265			112	2,535				112	2,500		0.145	4,946	16	24.20	3.42			34

	FINAL EFFLUENT																
Date	°C	D.O. (mg/L)	TDS (mg/L)	TDS (lbs)	pH	Alk.	TSS (mg/L)	TSS (lbs)	BOD (mg/L)	BOD (lbs)	Hg (mg/L)	Hg (lbs.)	E.Coli	Cl2 Res	CL2 lbs/day	Effl. Flow (MGD)	Non-Potable (MGD)
1	25	6.3			7.2	60	2.00	51.79	2.00	51.79				0.03	0	3.105	0.218
2	25	6.6	454	11,711	7.2	61	2.00	51.59	2.00	51.59	0.00005	0.0013		0.02	0	3.093	0.260
3	24	6.4			7.3	89	2.00	56.21	2.60	73.08			9.7	0.02	0	3.370	0.252
4	24	6.4			7.3	87	2.00	47.44	2.60	61.67			11.0	0.02	0	2.844	0.381
5	24	6.1			7.2	73	2.00	49.11	2.10	51.56				0.02	0	2.944	0.318
6	25	5.8			7.4	105								0.03	0	2.480	0.203
7	23	7.2			7.2	58								0.02	0	2.694	0.115
8	24	7.2			7.6	52	2.00	46.32	2.00	46.32				0.02	0	2.777	0.122
9	23	6.6			7.1	59	2.00	50.16	2.10	52.66			22.6	0.02	0	3.007	0.129
10	23	7.2			7.1	58	2.00	45.35	2.40	54.42			30.9	0.03	0	2.719	0.156
11	23	6.8			7.1	51	2.00	42.30	3.00	63.45				0.02	0	2.536	0.151
12	24	6.6			7.0	49	2.00	43.00	3.70	79.55				0.02	0	2.578	0.151
13	24	6.2			7.2	75								0.02	0	2.607	0.169
14	24	6.3			7.5	131								0.03	0	2.579	0.131
15	24	6.0			7.4	109	2.70	69.92	3.40	88.05				0.02	0	3.105	0.135
16	25	6.1			7.4	112	2.00	55.59	2.00	55.59			35.9	0.02	0	3.333	0.136
17	25	6.4			7.4	98	2.00	47.40	2.00	47.40			5.2	0.04	0	2.842	0.152
18	24	6.8			7.3	80	2.00	47.84	2.00	47.84				0.02	0	2.868	0.180
19	24	6.7			7.3	76	2.00	50.36	2.00	50.36				0.04	0	3.019	0.190
20	24	6.5			7.2	78								0.02	0	3.395	0.210
21	25	6.7			7.3	84								0.03	0	3.133	0.175
22	25	6.7			7.3	79	2.00	55.09	2.50	68.87				0.02	0	3.303	0.171
23	24	6.8			7.3	86	2.00	54.44	2.50	68.05			29.8	0.02	0	3.264	0.167
24	23	7.1			7.3	85	2.00	49.77	2.40	59.73			31.7	0.03	0	2.984	0.205
25	23	7.2			7.3	78	2.00	57.43	2.80	80.40				0.02	0	3.443	0.205
26	23	7.2			7.2	66	2.00	52.59	3.10	81.52				0.03	0	3.153	0.196
27	23	6.9			7.1	55								0.04	0	2.990	0.220
28	23	6.9			7.2	50								0.02	0	2.951	0.240
29	23	6.8			7.2	48	2.00	49.89	4.20	104.77				0.03	0	2.991	0.145
30	23	6.3			7.2	67	2.00	52.78	2.40	63.33			7.3	0.02	0	3.164	0.183
TOTAL :																	
MIN :	23	5.8			7.0	48	2.00		2.00				16.6		0	89.271	5.666
MAX :	25	7.2	454		7.6	131	2.14		2.66		0.05000		35.9	0.04		3.443	0.381
AVG :			454	11,711			2.03	51.20	2.54	63.73	0.05000	0.0013				2.976	0.189

NOTES	
Electrical Usage :	47,941
Labor :	70,334
Natural Gas :	166
Communications:	401
Chemical, Laboratory Supplies & Services :	11,550
Repairs, Maintenance, Services & Admin. :	30,007
Sludge (Generation & Transportation) :	16,802
TOTAL COSTS :	177,201
COSTS - 1,000 GAL. TREATED :	1.98
Non-Potable Water Use Savings :	4,737

PARTIAL WEEKLY AVG.NO.'s

Date	Week No.	TSS	BOD

WEEK	1	2	3	4	5
TSS	2.00	2.00	2.14	2.00	
BOD	2.26	2.64	2.28	2.66	

I hereby certify the above to be correct to the best of my knowledge.

Signed :

Title : Lynn Lane Water Reclamation Facility Manager (WRF)