City of BROKEN ARROW
Where opportunity lives

MONTHLY OPERATIONAL REPORT

City of Broken Arrow Lynn Lane Water Reclamation Facility

December-24

		WEATHER			INFLUENT								EAST OXIDATION DITCH					WEST OXIDATION DITCH					SLUDGE WASTING				
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)
1	Sun	47	0.00	Cloudy	5.519	8.482	20	7.4	258	27			2.9	310				3.3	310				0.115				
2	Mon	49	0.00	Clear	5.722	8.096	19	7.3	225	22	272	237	1.5	340	74	4,610	24	2.6	340	84	4,050	21	0.115	6,340	17	18.32	2.83
3	Tue	49	0.00	Clear	5.865	8.364	19	7.4	248	22	234	235	2.9	360	80	4,490	26	3.3	380	85	4,460	26	0.115	6,310			
4	Wed	64	0.00	Clear	5.322	8.307	19	7.4	245	23	272	206	2.8	340	80	4,240	23	2.4	340	75	4,520	25	0.115	6,130	17	31.90	4.92
5	Thu	47	0.00	Clear	5.673	8.241	18	7.3	251	24	350	212	2.4	340	75	4,530	18	3.0	340	73	4,650	19	0.115	6,120	17	18.01	2.78
6	Fri	49	0.00	Clear	5.417	8.656	18	7.3	250	26	318	295	3.1	310	64	4,840	22	3.0	340	76	4,460	21	0.115	8,830			
7	Sat	61	0.00	Clear	5.259	8.281	19	7.4	255	32			3.7	350				3.7	340				0.115				
8	Sun	49	0.04	Rain	5.324	8.150	18	7.4	251	28			2.4	320				2.7	320				0.115				
9	Mon	51	0.09	Cloudy	5.566	8.267	19	7.3	251	7.5	238	183	1.3	360	86	4,180	25	2.1	350	86	4,080	25	0.115	6,260	18		
10	Tue	47	0.00	Cloudy	5.377	8.353	18	7.3	248	30	540	423	1.9	350	83	4,210	12	2.7	380	90	4,230	12	0.115	5,900	18	34.19	5.58
11	Wed	50	0.00	Clear	5.279	8.181	18	7.3	248	25	384	283	2.4	340	82	4,160	16	2.3	360	85	4,240	17	0.115	11,260	17		
12	Thu	62	0.00	Clear	5.455	8.201	19	7.4	240	35	362	369	3.2	310	80	3,890	16	3.7	340	87	3,930	16	0.115		17	15.38	2.37
13	Fri	52	0.08	Cloudy	4.280	8.418	19	7.3	239	29	356	398	3.8	300	75	4,010	21	4.1	310	73	4,230	22	0.115	4,990	17	14.39	2.22
14	Sat	59	0.09	Cloudy	4.794	8.181	19	7.3	283	35			3.0	320				3.4	330				0.115				
15	Sun	61	0.00	P Cloudy	5.255	8.119	18	7.3	287	29			3.0	310				2.9	300				0.115				
16	Mon	67	0.04	P Cloudy	5.631	8.127	20	7.3	265	2	272	216	1.8	310	81	3,850	20	2.6	300	75	4,020	21	0.115	5,710	17	27.71	4.27
17	Tue	59	0.00	Cloudy	4.924	8.146	20	7.2	250	25	302	274	0.9	280	75	3,720	20	1.5	280	73	3,850	21	0.115	5,610	17	32.82	5.06
18	Wed	54	0.00	P Cloudy	5.332	7.960	19	7.4	233	5	125	125	1.7	290	73	4,000	48	3.0	290	73	3,980	48	0.115	5,760	17	18.92	2.92
19	Thu	57	0.00	Clear	5.231	7.940	19	7.4	263	29	344	284	1.8	270	73	3,690	16	2.7	270	67	4,050	18	0.115	4,940	17	15.42	2.38
20	Fri	44	0.00	Clear	5.029	7.446	19	7.4	251	4	158	218	2.3	270	70	3,830	39	3.3	270	68	3,980	40	0.115	5,350	17	14.99	2.31
21	Sat	47	0.00	Clear	5.022	8.467	19	7.4	270	10			2.7	260				3.8	260				0.115				
22	Sun	55	0.00	Clear	5.125	8.264	19	7.4	266	13			2.2	270				3.2	260				0.115				
23	Mon	59	0.00	Cloudy	5.248	8.290	19	7.2	263	15	316	268	1.2	270	58	4,680	23	2.3	270	66	4,120	20	0.115	6,500	17	12.46	1.92
24	Tue	52	0.75	Cloudy	5.607	8.315	18	7.0	163	24	358	171	1.2	270	69	3,890	16	1.7	280	71	3,940	16	0.115	7,310			
25	Wed	47	0.01	Cloudy	6.762	8.198	18	7.3	271	20	314	278	1.5	290	68	4,250	16	2.1	290	68	4,260	16	0.115	5,630			
26	Thu	54	0.10	Cloudy	5.540	8.263	19	7.2	266	25	332	343	1.2	280	65	4,290	19	2.3	280	66	4,220	18	0.115	6,250	17	33.81	5.21
27	Fri	54	0.00	Cloudy	5.995	8.172	18	7.3	239	25	304	467	1.3	270	68	3,950	17	2.2	290	66	4,370	19	0.115	6,280	17	36.20	5.58
28	Sat	58	0.00	Cloudy	5.863	8.192	19	7.3	273	26			1.4	290				2.1	290				0.115				
29	Sun	62	0.02	Cloudy	5.782	8.185	19	7.3	280	24			1.5	290				2.4	290				0.115				
30	Mon	67	0.00	Cloudy	5.690	8.299	19	7.3	257	23	360	243	1.3	290	73	3,980	16	2.0	290	67	4,310	17	0.115	5,650	17	17.66	2.72
31	Tue	54	0.00	Cloudy	5.714	8.293	18	7.3	260	26	348	273	1.6	290	62	4,660	19	2.5	300	66	4,520	18	0.115	5,790	18	38.54	6.29
TOTAL :			1.22		168.602																		3.565			380.72	59.38
MIN :		44	0.00		4.280	7.446	18	7.0	163	2	125	125	0.9		58	3,690	12	1.5		66	3,850	12	0.115	4,940	17	29.00	
MAX :		67	0.75		6.762	8.656	20	7.4	287	35	540	467	3.8		86	4,840	48	4.1		90	4,650	48	0.115	11,260	18	38.54	6.29
AVG :		54			5.439	8.221	19			22	312	273			73	4,180				75	4,203		0.115	6,330	17	23.80	3.71

		DIGESTER			FINAL EFFLUENT																
Date	Day	THK EFFL MLVSS (mg/L)	BP FEED MLVSS (mg/L)	VECTOR ATT RED. (%)	°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	Sun				19	7.9	499	21,137	7.2	73	2.00	84.72	3.20	135.55	0.00005	0.0021		0.03	0	5.079	0.189
2	Mon	15,350	7,950	48	18	8.1			7.2	79	2.00	87.04	2.00	87.04			1.0	0.03	0	5.218	0.191
3	Tue				17	8.1			7.1	75	2.00	88.60	2.00	88.60				0.02	0	5.312	0.227
4	Wed	14,825	8,475	43	19	7.9			7.1	69	2.00	82.77	2.00	82.77				0.02	0	4.962	0.184
5	Thu				18	8.0			7.1	62	2.00	84.73	2.00	84.73				0.02	0	5.080	0.322
6	Fri				17	8.1			7.0	58								0.02	0	3.852	0.217
7	Sat				18	8.1			7.0	59								0.03	0	3.810	0.190
8	Sun				18	7.8			7.0	52	2.00	66.69	2.00	66.69				0.03	0	3.998	0.191
9	Mon	14,625	8,525	42	19	7.7			7.1	63	2.00	73.48	2.00	73.48			2.0	0.02	0	4.405	0.191
10	Tue				18	7.9			7.1	62	2.00	70.46	2.00	70.46				0.02	0	4.224	0.216
11	Wed	11,200	8,725	22	18	7.9			7.0	56	2.00	64.85	2.00	64.85				0.02	0	3.888	0.201
12	Thu				18	8.1			7.0	57	2.00	53.44	2.40	64.13				0.02	0	3.204	0.213
13	Fri	11,000	9,250	16	18	8.2			7.0	54								0.02	0	2.819	0.233
14	Sat				19	6.8			6.9	56								0.04	0	3.271	0.381
15	Sun				18	7.8			7.0	52	2.00	58.03	2.00	58.03				0.02	0	3.479	0.188
16	Mon	11,750	9,000	23	20	7.5			7.1	65	2.00	68.47	2.00	68.47			12.2	0.02	0	4.105	0.195
17	Tue				19	7.4			7.2	80								0.03	0	3.193	0.192
18	Wed	10,950	8,850	19	19	8.0			7.2	70	2.00	65.27	2.10	68.53				0.02	0	3.913	0.185
19	Thu				18	7.9			7.1	69	2.00	51.27	2.00	51.27				0.02	0	3.074	0.152
20	Fri	11,075	9,600	13	18	8.1			7.1	64								0.02	0	3.498	0.121
21	Sat				16	8.1			7.1	64	2.00	56.31	2.00	56.31				0.02	0	3.376	0.111
22	Sun				17	8.0			7.1	62	2.00	59.75	2.00	59.75				0.02	0	3.582	0.114
23	Mon	13,725	9,100	34	18	7.8			7.1	73	2.00	65.39	2.00	65.39			7.5	0.02	0	3.920	0.118
24	Tue				18	7.5			7.1	91	2.00	74.06	2.00	74.06				0.02	0	4.440	0.147
25	Wed	15,850	8,175	48	18	7.7			7.3	105	2.00	89.17	2.00	89.17				0.02	0	5.346	0.114
26	Thu				18	7.6			7.3	107	2.00	71.31	2.00	71.31				0.03	0	4.275	0.119
27	Fri	14,575	9,850	32	18	7.5			7.3	106								0.02	0	4.690	0.186
28	Sat				19	7.5			7.3	109								0.02	0	4.532	0.189
29	Sun				19	7.7			7.3	110	2.00	73.29	2.00	73.29				0.04	0	4.394	0.168
30	Mon	12,450	10,325	17	19	7.5			7.3	110	2.00	70.74	2.00	70.74			122.3	0.02	0	4.241	0.167
31	Tue				18	7.8			7.3	115	2.00	71.86	2.10	75.45				0.03	0	4.308	0.203
TOTAL :																	7.4		0	127.488	5.815
MIN :				13	16	6.8			6.9	52	2.00		2.00				1.0	0.02		2.819	0.111
MAX :				48	20	8.2	499		7.3	115	2.00		2.24		0.05000		122.3	0.04		5.346	0.381
AVG :				30			499	21,137			2.00	70.94	2.08	73.92	0.05000	0.0021				4.113	0.188

NOTES	
Electrical Usage :	42,826
Labor :	72,411
Natural Gas :	483
Communications:	501,94
Chemical, Laboratory Supplies & Services :	14,238
Repairs, Maintenance, Services & Admin. :	90,918
Sludge (Generation & Transportation) :	16,828
TOTAL COSTS :	238,206
COSTS - 1,000 GAL. TREATED :	1.87
Non-Potable Water Use Savings :	4,861

PARTIAL WEEKLY AVG.NO.'s

Date	Week No.	TSS	BOD
1-Jan	5	2.00	2.00
2-Jan	5	2.00	2.00

WEEK	1	2	3	4	5
TSS	2.00	2.00	2.00	2.00	2.00
BOD	2.24	2.08	2.02	2.00	2.02

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

Signed :

Title : Lynn Lane Water Reclamation Facility Manager (WRF)