City of BROKEN ARROW
Where opportunity lives

MONTHLY OPERATIONAL REPORT

City of Broken Arrow Lynn Lane Water Reclamation Facility

November-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	Fri	71	0.01	Clear	4.783	5.299	20	7.5	271	11	224	204	2.8	180	70	2,570	19	2.4	180	71	2,540	19	0.115	3,830	13	27.61	3.26	20,300	9,850	51
2	Sat	68	2.65	Cloudy	4.665	4.866	22	7.5	301	19			3.5	190				2.9	180				0.115							
3	Sun	68	3.25	Rain	8.015	4.506	21	7.1	124	11			2.9	100				2.8	150				0.115							
4	Mon	74	1.02	Cloudy	13.198	7.744	22	7.2	175	5.5	344	128	2.6	100	30	3,370	6	2.5	90	25	3,650	6	0.115	7,070	14	33.54	4.26	17,775	8,675	51
5	Tue	63	0.01	Cloudy	12.812	7.803	21	7.3	197	3	138	67.9	2.6	130	35	3,710	17	2.7	130	38	3,420	15	0.115	7,880	14	26.73	3.39			
6	Wed	67	0.00	Clear	9.123	8.054	20	7.4	220	5	184	120	2.9	140	42	3,300	16	3.0	130	22	5,840	28	0.115	6,430	14	17.99	2.28	16,075	8,350	48
7	Thu	66	0.00	Clear	7.515	8.067	21	7.4	240	18	444	186	2.9	140	38	3,710	9	3.0	150	39	3,800	9	0.115	9,410	14	38.47	4.89			
8	Fri	61	2.62	Cloudy	5.983	8.162	21	7.2	252	15	230	215	2.8	150	40	3,720	22	3.3	150	39	3,870	22	0.115	5,960				11,300	6,000	47
9	Sat	69	0.08	Clear	13.214	7.963	20	7.3	182	6.5			3.9	150				4.0	150				0.115							
10	Sun	70	0.00	Clear	11.457	8.142	20	7.4	215	6.5			3.5	160				3.8	160				0.115							
11	Mon	71	0.00	Clear	9.176	8.307	21	7.4	244	8	154	140	3.7	150	37	4,090	23	3.6	150	35	4,230	24	0.115	6,120				3,225	8,425	
12	Tue	70	0.00	Clear	6.912	8.492	20	7.3	244	12	180	217	1.5	160	38	4,170	27	1.4	160	36	4,440	29	0.115	6,800						
13	Wed	68	0.00	Cloudy	6.448	8.472	21	7.3	240	13	172	333	2.0	150	24	6,130	44	2.3	160	34	4,650	34	0.115	6,690	15	30.74	4.18	14,175	7,900	44
14	Thu	66	0.00	Clear	6.204	8.577	20	7.3	244	14	276	197	2.5	160	39	4,150	19	3.1	180	42	4,290	20	0.115	6,350	15	28.79	3.92			
15	Fri	67	0.00	Clear	6.005	8.486	20	7.3	245	14	294	222	3.1	160	38	4,220	19	2.6	170	39	4,320	20	0.115	7,870	15	33.10	4.50	1,650	6,950	
16	Sat	69	0.00	Clear	5.629	8.649	20	7.4	292	17			4.0	160				4.0	170				0.115							
17	Sun	72	0.00	Cloudy	5.542	8.680	21	7.4	270	16			3.3	170				3.1	180				0.115							
18	Mon	67	2.86	Cloudy	7.137	8.559	21	7.0	174	16	244	184	1.4	180	44	4,070	19	1.4	180	43	4,190	19	0.115	9,870	16	14.10	2.05	16,800	8,425	50
19	Tue	66	0.01	Clear	14.510	8.378	20	7.3	223	6.5	186	113	2.7	180	42	4,240	13	2.6	190	41	4,680	14	0.115	8,160	16	15.57	2.26			
20	Wed	58	0.00	Clear	8.701	8.463	19	7.3	234	10	190	152	2.8	200	46	4,360	21	2.9	200	40	4,950	24	0.115	10,680	16		0.00	20,500	7,300	64
21	Thu	56	0.00	Clear	7.019	8.552	18	7.4	246	10	250	176	3.4	200	49	4,080	19	2.9	200	45	4,430	20	0.115	6,930	16	26.81	3.89			
22	Fri	57	0.00	Clear	6.526	8.526	18	7.4	263	6.5	226	142	2.8	200	47	4,270	23	3.1	200	46	4,340	24	0.115	6,560	16			3,125	7,650	
23	Sat	69	0.00	Clear	6.448	8.499	19	7.3	260	5			3.0	200				3.4	200				0.115							
24	Sun	74	0.00	Clear	6.193	8.509	20	7.4	258	7			3.2	170				3.5	170				0.115							
25	Mon	63	0.00	Cloudy	6.347	7.907	19	7.4	268	6	146	131	2.4	220	50	4,380	38	3.0	220	51	4,280	37	0.115	6,880	17	16.72	2.58	5,450	7,425	
26	Tue	55	0.00	Clear	6.009	8.378	20	7.4	248	7.5	268	116	2.5	220	45	4,850	24	2.7	220	49	4,470	22	0.115	6,680	17	29.57	4.56			
27	Wed	59	0.00	P Cloudy	5.954	8.695	19	7.3	246	7.5	192	139	2.5	240	59	4,040	28	2.7	240	54	4,420	31	0.115	6,960	17	29.40	4.53	14,275	7,675	46
28	Thu	44	0.00	Clear	6.094	8.520	19	7.4	256	5	96	140	2.7	270	67	4,060	56	3.3	270	64	4,210	58	0.115	5,540						
29	Fri	49	0.00	Clear	5.695	8.493	19	7.3	263	34	278	313	3.0	280	69	4,080	21	3.4	270	74	3,670	19	0.115	5,830				15,500	7,725	50
30	Sat	57	0.00	Cloudy	5.568	8.444	20	7.4	261	23			3.3	290				3.5	290				0.115							
TOTAL :			12.51		228.882																		3.450			369.14	50.56			
MIN :		44	0.00		4.665	4.506	18	7.0	124	3	96	67.9	1.4		24	2,570	6	1.4		22	2,540	6	0.115	3,830	13	24.00				44
MAX :		74	3.25		14.510	8.695	22	7.5	301	34	444	333	4.0		70	6,130	56	4.0		74	5,840	58	0.115	10,680	17	38.47	4.89			64
AVG :		64			7.629	8.006	20			11	225	173			45	4,075				44	4,223		0.115	7,071	15	26.37	3.37			50

	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	21	7.4			7.1	68								0.05	0	4.163	0.224
2	22	7.1			7.1	60	2.00	71.76	2.80	100.46				0.02	0	4.302	0.224
3	22	6.0	380	13,193	7.0	56	2.00	132.64	3.80	252.01	0.00005	0.0033		0.03	0	7.952	0.207
4	22	7.6			7.2	75	2.00	172.42	3.20	275.87			10.9	0.03	0	10.337	0.235
5	22	7.7			7.3	94	5.30	497.36	3.00	281.53				0.02	0	11.252	0.252
6	20	8.0			7.4	96	4.00	271.92	3.20	217.53				0.02	0	8.151	0.257
7	20	8.1			7.4	90	2.00	112.67	2.00	112.67				0.02	0	6.755	0.241
8	21	7.9			7.3	82								0.02	0	5.523	0.204
9	21	7.8			7.2	78								0.02	0	9.322	0.179
10	21	7.9			7.4	101	2.10	175.07	2.10	175.07				0.02	0	9.996	0.169
11	21	7.5			7.4	105	2.30	156.26	2.60	176.64				0.02	0	8.146	0.370
12	21	7.7			7.4	100	2.00	101.90	2.60	132.47			1.0	0.02	0	6.109	0.174
13	21	7.6			7.3	93	2.00	98.80	2.00	98.80				0.02	0	5.923	0.194
14	20	8.0			7.3	85	2.00	92.12	2.60	119.76				0.02	0	5.523	0.248
15	20	8.0			7.4	94								5.67	0	5.149	0.219
16	20	8.0			7.3	81								0.02	0	5.051	0.216
17	20	8.0			7.3	76	2.80	119.35	4.20	179.03				0.03	0	5.111	0.192
18	22	6.5			7.1	85	3.40	190.33	3.00	167.93			4.1	0.02	0	6.712	0.196
19	20	7.7			7.3	105	2.00	221.59	2.00	221.59				0.02	0	13.285	0.207
20	20	8.2			7.4	111	2.00	127.97	2.00	127.97				0.02	0	7.672	0.189
21	19	8.2			7.4	106	2.00	105.90	2.00	105.90				0.02	0	6.349	0.220
22	19	8.3			7.3	98								0.02	0	5.714	0.154
23	20	8.1			7.3	94								0.02	0	5.618	0.181
24	20	7.7			7.3	85	2.00	96.99	2.20	106.69				0.04	0	5.815	0.157
25	20	7.8			7.3	87	2.00	99.86	2.00	99.86			1.0	0.02	0	5.987	0.165
26	19	8.1			7.3	99	2.00	91.64	2.00	91.64				0.02	0	5.494	0.185
27	19	7.6			7.3	90	2.00	91.56	2.90	132.76				0.02	0	5.489	0.213
28	19	7.9			7.3	95	2.00	95.53	2.30	109.86				0.02	0	5.727	0.215
29	18	8.2			7.3	95								0.02	0	5.099	0.187
30	19	8.1			7.2	81								0.02	0	5.028	0.191
TOTAL :													2.6		0	202.754	6.265
MIN :	18	6.0			7.0	56	2.00		2.00				1.0	0.02		4.163	0.154
MAX :	22	8.3	380		7.4	111	3.06		3.04		0.05000		10.9	5.67		13.285	0.370
AVG :			380	13,193			2.38	148.74	2.60	156.48	0.05000	0.0033				6.758	0.209

NOTES	
Electrical Usage :	39,535
Labor :	80,158
Natural Gas :	212
Communications:	476
Chemical, Laboratory Supplies & Services :	5,176
Repairs, Maintenance, Services & Admin. :	62,087
Sludge (Generation & Transportation) :	15,802
TOTAL COSTS :	203,445
COSTS - 1,000 GAL. TREATED :	1.00
Non-Potable Water Use Savings :	5,238

11-15 Cleaned algae from Clarifier Weir with 12.5% Sodium Hypochlorite.

PARTIAL WEEKLY AVG.NO.'s

Date	Week No.		TSS	BOD
WEEK	1	2	3	4	5
TSS	3.06	2.08	2.44	2.00	
BOD	3.04	2.38	2.64	2.28	

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

Signed : Laurie Handy

Title : *Lynn Lane Water Reclamation Facility Manager (WRF)*