

New York City MSW Composting Report

Appendix E

Data on New York City's Biosolids (2001/2002)

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2001 Wet Ton Production of all NYC Wastewater Treatment Plants

Date	Wards Island					North River					Hunts Point					26th Ward				
	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day
Jan-01	2,865	2.0	1,805	7,220	233	2,523	1.0	795	3,179	103	1,362	2.1	901	3,604	116	745	2.5	586	2,346	76
Feb-01	2,352	2.3	1,704	6,816	243	2,287	1.1	792	3,170	113	1,139	2.5	897	3,589	128	798	2.7	678	2,713	97
Mar-01	3,014	2.3	2,184	8,735	282	2,190	1.3	897	3,587	116	1,210	2.5	952	3,810	123	749	2.7	637	2,548	82
Apr-01	3,422	2.1	2,264	9,054	302	2,285	1.3	936	3,743	125	1,431	2.7	1,217	4,869	162	775	2.8	683	2,734	91
May-01	3,685	1.8	2,090	8,358	270	2,083	1.3	853	3,412	110	2,030	2.5	1,599	6,395	206	774	2.3	561	2,244	72
Jun-01	4,188	1.8	2,375	9,499	317	2,232	1.3	914	3,655	122	1,681	2.4	1,270	5,082	169	769	2.8	678	2,712	90
Jul-01	3,854	1.6	1,942	7,770	251	2,839	1.2	1,073	4,293	138	1,864	2.2	1,292	5,167	167	776	2.5	611	2,446	79
Aug-01	3,984	1.5	1,882	7,530	243	2,598	1.2	982	3,929	127	1,646	2.2	1,141	4,562	147	1,053	1.9	631	2,522	81
Sep-01	4,467	1.5	2,111	8,443	281	2,274	1.4	1,003	4,011	134	1,894	1.9	1,133	4,533	151	851	1.9	509	2,038	68
Oct-01	4,056	1.5	1,917	7,666	247	2,565	1.3	1,050	4,201	136	1,791	2.1	1,185	4,738	153	740	1.9	443	1,772	57
Nov-01	3,216	1.7	1,722	6,888	230	2,416	1.5	1,141	4,566	152	1,805	2.0	1,137	4,548	152	771	1.9	462	1,846	62
Dec-01	3,415	1.7	1,829	7,315	236	2,275	1.3	931	3,726	120	1,513	2.0	953	3,813	123	903	1.9	541	2,162	70

Date	Red Hook					Jamaica					Tailman Island					Bowery Bay				
	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day
Jan-01	437	2.1	289	1,155	37	1,387	1.7	742	2,970	96	1,130	2.0	712	2,848	92	1,376	2.1	910	3,641	117
Feb-01	427	2.4	323	1,292	46	1,245	1.3	510	2,039	73	876	2.2	607	2,429	87	1,138	2.2	788	3,153	113
Mar-01	592	2.4	447	1,790	58	1,641	1.3	672	2,688	87	955	2.4	722	2,887	93	1,426	2.7	1,213	4,853	157
Apr-01	463	2.0	292	1,167	39	1,396	1.8	791	3,165	105	1,112	2.4	840	3,362	112	1,430	2.5	1,126	4,504	150
May-01	385	2.1	255	1,019	33	1,613	1.8	914	3,657	118	1,419	2.1	939	3,755	121	2,087	2.0	1,315	5,258	170
Jun-01	341	2.3	247	989	33	1,535	1.8	870	3,481	116	1,103	2.0	695	2,781	93	1,952	2.0	1,230	4,919	164
Jul-01	398	2.1	263	1,053	34	1,720	1.7	921	3,684	119	1,224	1.9	733	2,931	95	2,263	1.7	1,212	4,848	156
Aug-01	474	2.1	313	1,254	40	1,698	1.7	909	3,636	117	1,381	1.9	826	3,305	107	2,450	1.7	1,312	5,247	169
Sep-01	405	2.2	280	1,122	37	1,480	1.8	839	3,357	112	1,242	1.7	665	2,659	89	2,071	1.6	1,044	4,175	139
Oct-01	468	1.9	280	1,120	36	1,712	1.7	917	3,667	118	1,125	1.6	567	2,269	73	2,036	1.6	1,026	4,105	132
Nov-01	550	1.8	312	1,247	42	1,593	1.7	853	3,411	114	1,221	1.8	692	2,769	92	1,730	1.6	872	3,487	116
Dec-01	572	1.6	288	1,154	37	1,550	1.6	781	3,124	101	1,098	1.8	623	2,491	80	1,560	1.7	835	3,341	108

Values Based on Thickened Sludge Production
Total solid value used to calculate wet tons per day is 25%.

2001 Wet Ton Production of all NYC Wastewater Treatment Plants

Date	Coney Island					Owls Head					Newtown Creek				
	Cu Ft	%	Dry	Wet	Wet	Cu Ft	%	Dry	Wet	Wet	Cu Ft	%	Dry	Wet	Wet
	x 1000	Solids to Dewatering	Tons	Tons Month	Tons day	x 1000	Solids to Dewatering	Tons	Tons Month	Tons day	x 1000	Solids to Dewatering	Tons	Tons Month	Tons day
Jan-01	1,505	1.7	806	3,224	104	1,678	1.9	1,004	4,016	130	2,471	1.9	1,479	5,915	191
Feb-01	1,282	1.9	767	3,070	110	1,463	2.1	968	3,872	138	2,408	2.1	1,593	6,372	228
Mar-01	1,271	1.9	761	3,043	98	1,672	2.1	1,106	4,425	143	2,520	2.1	1,667	6,669	215
Apr-01	1,055	2.1	698	2,791	93	1,820	2.0	1,146	4,585	153	2,342	2.2	1,623	6,492	216
May-01	1,359	1.9	813	3,252	105	1,930	1.9	1,155	4,620	149	2,327	2.1	1,539	6,156	199
Jun-01	1,584	1.9	948	3,791	126	1,887	2.1	1,248	4,992	166	2,351	2.3	1,704	6,814	227
Jul-01	1,721	1.7	922	3,686	119	2,317	1.7	1,240	4,962	160	2,358	2.3	1,708	6,833	220
Aug-01	1,987	1.5	939	3,755	121	2,514	1.5	1,188	4,751	153	2,476	2.0	1,560	6,238	201
Sep-01	1,883	1.5	890	3,559	119	1,719	1.6	866	3,466	116	2,469	2.2	1,711	6,844	228
Oct-01	2,013	1.4	888	3,551	115	2,204	1.5	1,041	4,165	134	2,217	2.0	1,396	5,586	180
Nov-01	1,838	1.4	811	3,243	108	2,390	1.3	979	3,914	130	2,317	2.0	1,460	5,839	195
Dec-01	1,736	1.6	875	3,500	113	2,065	1.7	1,106	4,422	143	2,437	2.1	1,612	6,447	208

Date	Rockaway					Oakwood Beach					Port Richmond				
	Cu Ft	%	Dry	Wet	Wet	Cu Ft	%	Dry	Wet	Wet	Cu Ft	%	Dry	Wet	Wet
	x 1000	Solids to Dewatering	Tons	Tons Month	Tons day	x 1000	Solids to Dewatering	Tons	Tons Month	Tons day	x 1000	Solids to Dewatering	Tons	Tons Month	Tons day
Jan-01	203	1.5	96	384	12	727	1.4	321	1,283	41	561	1.5	259	1,038	33
Feb-01	192	1.4	85	338	12	595	1.3	244	974	35	459	1.6	228	910	33
Mar-01	208	1.5	98	393	13	740	1.5	350	1,399	45	484	1.7	256	1,024	33
Apr-01	233	1.6	117	469	16	715	1.7	383	1,530	51	460	1.7	249	995	33
May-01	258	1.6	130	520	17	812	1.4	358	1,432	46	496	1.6	253	1,012	33
Jun-01	185	1.5	87	350	12	767	1.3	314	1,257	42	481	1.7	255	1,021	34
Jul-01	188	1.5	89	355	11	795	1.3	325	1,302	42	499	1.7	262	1,046	34
Aug-01	189	1.6	95	382	12	779	1.2	294	1,178	38	360	1.6	187	747	24
Sep-01	212	1.4	93	373	12	753	1.3	308	1,233	41	540	1.7	289	1,156	39
Oct-01	216	1.4	95	381	12	713	1.3	292	1,168	38	531	1.4	241	965	31
Nov-01	226	1.4	99	398	13	677	1.3	277	1,109	37	459	1.4	209	835	28
Dec-01	222	1.4	98	392	13	749	1.2	283	1,132	37	490	1.4	223	892	29

Values Based on Thickened Sludge Production
Total solid value used to calculate wet tons per day is 25%.

2002 Wet Ton Production of all NYC Wastewater Treatment Plants

Date	Wards Island					North River					Hunts Point					26th Ward				
	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day
Jan-02	3,574	1.7	1,914	7,656	247	2,414	1.2	912	3,648	118	1,525	2.0	961	3,844	124	704	1.7	377	1,508	49
Feb-02	3,244	1.7	1,737	6,948	248	2,033	1.5	960	3,840	137	1,335	2.2	925	3,700	132	769	1.6	387	1,548	55
Mar-02	3,873	1.8	2,196	8,784	314	2,173	1.4	958	3,832	137	1,665	2.3	1,207	4,828	172	625	1.6	315	1,260	45

Date	Red Hook					Jamaica					Tallman Island					Bowery Bay				
	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day
Jan-02	497	1.6	250	1,000	32	1,573	1.7	842	3,368	109	1,121	2.1	741	2,964	96	1,449	1.6	730	2,920	94
Feb-02	343	1.5	162	648	23	1,433	1.7	767	3,068	110	1,030	2.0	649	2,596	93	1,107	1.9	663	2,652	95
Mar-02	320	1.5	151	604	22	1,533	1.7	821	3,284	117	996	2.0	627	2,508	90	1,231	2.0	775	3,100	111

Date	Coney Island					Owls Head					Newtown Creek				
	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day
Jan-02	1,629	1.6	821	3,284	106	1,754	1.7	939	3,756	121	3,180	2.0	2,004	8,016	259
Feb-02	1,518	1.7	813	3,252	116	1,643	1.8	932	3,728	133	2,841	2.0	1,790	7,160	256
Mar-02	1,713	1.7	917	3,668	131	1,996	1.6	1,006	4,024	144	2,962	2.0	1,866	7,464	267

Date	Rockaway					Oakwood Beach					Port Richmond				
	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day	Cu Ft x 1000	% Solids to Dewatering	Dry Tons	Wet Tons Month	Wet Tons day
Jan-02	202	1.5	95	380	12	745	1.5	352	1,408	45	445	1.2	167	668	22
Feb-02	176	1.6	89	356	13	614	1.6	309	1,236	44	477	1.1	171	684	24
Mar-02	227	1.5	107	428	15	722	1.6	364	1,456	52	496	1.3	364	1,456	52

Values Based on Thickened Sludge Production
Total solid value used to calculate wet tons per day is 25%

DEP Biosolids Data
Percent Total Solids
per Dewatering Facility
2001-2002

MONTHLY PERCENT TOTAL SOLIDS DATA FROM DEWATERING FACILITIES

Plant Month- Year	Wards Island	Hunts Point	26th Ward	Red Hook	Jamaica	Tallman Island	Bowery Bay	Oakwood Beach	Systemwide Weighted Avg. (dry tons)	Systemwide Weighted Avg. (wet tons)	Systemwide Arithmetic Avg.	Plant Month- Year
Jan-01	26.2%	27.9%	24.1%	21.5%	24.4%	22.9%	24.4%	24.1%	25.5%	25.5%	24.4%	Jan-01
Feb-01	27.1%	28.4%	24.8%	21.6%	24.6%	23.4%	24.3%	25.6%	26.2%	26.2%	25.0%	Feb-01
Mar-01	26.9%	28.3%	25.8%	21.5%	26.7%	23.5%	25.4%	26.0%	26.6%	26.5%	25.5%	Mar-01
Apr-01	28.2%	29.1%	26.2%	24.1%	27.7%	24.4%	27.9%	26.4%	27.7%	27.6%	26.8%	Apr-01
May-01	27.5%	27.3%	26.6%	23.2%	26.9%	24.3%	25.7%	26.4%	26.8%	26.7%	26.0%	May-01
Jun-01	27.1%	28.7%	27.3%	22.3%	25.9%	25.1%	26.7%	27.1%	27.2%	27.2%	26.3%	Jun-01
Jul-01	27.3%	28.2%	27.4%	23.0%	25.8%	24.8%	25.6%	26.6%	27.0%	27.0%	26.1%	Jul-01
Aug-01	28.0%	28.4%	26.4%	22.9%	26.1%	24.8%	25.5%	26.0%	27.1%	27.0%	26.0%	Aug-01
Sep-01	27.9%	28.2%	26.3%	23.1%	26.1%	25.0%	25.9%	26.0%	27.1%	27.0%	26.1%	Sep-01
Oct-01	26.5%	27.8%	26.4%	22.5%	25.2%	23.5%	24.5%	25.4%	26.2%	26.1%	25.2%	Oct-01
Nov-01	26.2%	27.0%	25.7%	20.9%	25.2%	23.5%	22.9%	23.7%	25.4%	25.4%	24.4%	Nov-01
Dec-01	26.4%	28.0%	25.2%	19.1%	26.3%	22.0%	23.9%	22.6%	25.6%	25.4%	24.2%	Dec-01
Jan-02	25.7%	26.8%	24.6%	18.8%	26.6%	22.2%	23.0%	23.7%	25.1%	25.1%	23.9%	Jan-02
Feb-02	25.9%	26.7%	25.9%	19.9%	26.2%	22.2%	25.7%	25.0%	25.8%	25.7%	24.7%	Feb-02
Mar-02	25.7%	27.2%	25.8%	20.3%	26.4%	22.5%	23.4%	24.8%	25.6%	25.5%	24.5%	Mar-02
Apr-02												Apr-02
May-02												May-02
Jun-02												Jun-02
Jul-02												Jul-02
Aug-02												Aug-02
Sep-02												Sep-02
Oct-02												Oct-02
Nov-02												Nov-02
Dec-02												Dec-02
Average	26.8%	27.9%	25.9%	21.6%	26.0%	23.6%	25.0%	25.3%	26.3%	26.3%	25.3%	Average
Minimum	25.7%	26.7%	24.1%	18.8%	24.4%	22.0%	22.9%	22.6%	25.1%	25.1%	23.9%	Minimum
Maximum	28.2%	29.1%	27.4%	24.1%	27.7%	25.1%	27.9%	27.1%	27.7%	27.6%	26.8%	Maximum

DEP Biosolids Data
Nutrient Data
26th Ward Facility
2001-2002

New York City Department of Environmental Protection
26th Ward Dewatering Facility
Monthly Nutrient Concentrations

Month	Liquid Sludge Sources	Total Solids %	Volatile Solids %	Nutrients							pH
				P %	K %	TKN %	NH3 %	Fe %	NO2 mg/Kg	NO3 mg/Kg	
Jan 01	26, CI, JA	23.23	70.75	2.10	0.33	7.64	1.26	2.47	26.25	7.78	7.9
Feb 01	26, CI, JA	24.51	69.03	1.90	0.58	7.43	1.86	2.47	9.92	28.30	8.0
Mar 01	26, CI, JA	26.00	50.48	1.63	1.18	6.43	1.21	2.64	11.10	34.20	7.9
Apr 01	26, CI, JA	25.71	52.89	2.16	0.46	5.40	1.06	2.80	12.52	28.87	8.0
May 01	26, CI	25.45	52.59	2.45	0.16	5.18	1.06	3.15	6.63	7.75	8.0
Jun 01	26, CI	25.94	56.01	2.45	0.13	5.79	1.24	2.84	22.81	43.87	7.9
Jul 01	26, CI, RK	26.38	54.82	2.13	0.10	5.18	1.32	2.94	15.86	37.72	8.1
Aug 01	26, CI	25.75	57.45	2.23	0.10	6.71	1.12	2.99	66.12	28.18	8.0
Sep 01	26, CI, RK	25.71	55.08	2.34	0.29	5.80	1.28	2.99	10.76	87.56	7.8
Oct 01	26, CI, RK, OH	25.63	63.93	2.09	0.09	6.15	1.19	2.88	14.16	21.36	8.0
Nov 01	26, CI, RK, OH, NC	27.64	70.79	2.00	0.25	5.98	1.20	2.64	17.10	33.88	7.9
Dec 01	26, CI, RK, OH	24.33	72.88	2.45	0.09	6.50	1.41	2.40	10.85	22.45	8.3
Jan 02	26, CI, RK, OH	23.89	69.43	3.13	0.12	5.59	1.36	2.57	28.96	16.82	8.1
Feb 02	26, CI, RK, OH	24.95	69.07	1.92	0.14	9.94	0.99	2.86	8.81	15.80	7.9
Average		25.37	61.80	2.21	0.29	6.41	1.25	2.76	18.70	29.61	8.0

Notes:

17-Apr-2002

1. Blank spaces indicate data is unavailable.

2. Plant Key: BB - Bowery Bay, CI - Coney Island, HP - Hunts Point, JA - Jamaica, NC - Newtown Creek, NR - North River, OB - Oakwood Beach,

OH - Owls Head, PR - Port Richmond, RH - Red Hook, RK - Rockaway, TI - Tallman Island, 26 - 26th Ward, WI - Wards Island

DEP Biosolids Data
Nutrient Data
Bowery Bay Facility
2001-2002

Bowery Bay Dewatering Facility
Monthly Nutrient Concentrations

Month	Liquid Sludge Sources	Total Solids %	Volatile Solids %	Nutrients							pH
				P %	K %	TKN %	NH3 %	Fe %	NO2 mg/Kg	NO3 mg/Kg	
Jan 01	BB	23.7	76.2	3.48	0.73	6.85	1.83	2.02	11.57	1.58	8.1
Feb 01	BB	24.4	70.0	1.54	1.21	5.78	1.55	2.07	9.13	49.60	8.0
Mar 01	BB	25.6	45.3	3.20	1.31	5.42	1.74	2.10	16.86	20.39	7.9
Apr 01	BB	27.4	57.1	3.03	0.53	5.19	1.60	1.62	8.91	14.51	8.1
May 01	BB	26.7	62.5	3.00	0.17	6.22	2.28	2.06	10.34	12.30	7.8
Jun 01	BB	26.6	58.2	2.56	0.16	6.31	1.51	1.72	6.14	0.93	7.9
Jul 01	BB	25.8	70.2	1.73	0.09	7.57	1.73	2.12	17.67	28.03	8.1
Aug 01	BB	25.3	57.8	2.20	0.11	8.35	1.84	2.41	0.66	3.44	7.7
Sep 01	BB	25.7	59.4	1.34	0.11	7.50	2.40	2.36	0.83	0.68	7.4
Oct 01	BB	24.8	60.2	3.29	0.11	7.77	2.10	2.12	2.61	1.15	8.0
Nov-01	BB	23.6	83.1	1.47	0.11	8.72	1.29	1.89	2.64	0.70	7.6
Dec-01	BB	25.8	74.8	3.69	0.09	6.45	2.89	1.56	0.55	0.11	7.8
Jan 02	BB	23.6	73.5	1.78	0.10	6.62	1.94	2.10	6.51	11.22	7.9
Feb 02	BB	24.1	70.9	2.55	0.14	6.59	2.21	2.34	4.75	8.05	7.9
Average		25.22	65.64	2.49	0.36	6.81	1.92	2.04	7.08	10.91	7.9

Notes:

- Blank spaces indicate data is unavailable.
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17-Apr-2002

DEP Biosolids Data
Nutrient Data
Hunts Point Facility
2001-2002

New York City Department of Environmental Protection
Hunts Point Dewatering Facility
Monthly Nutrient Concentrations

Month	Liquid Sludge Sources	Total Solids %	Volatile Solids %	Nutrients							pH
				P %	K %	TKN %	NH3 %	Fe %	NO2 mg/Kg	NO3 mg/Kg	
Jan 01	HP, OH, NC	27.1	71.5	1.86	0.14	4.94	1.05	3.44	17.78	32.13	8.2
Feb 01	HP, OH, NC	29.1	65.8	2.47	0.33	4.52	1.51	2.69	13.99	17.77	8.1
Mar 01	HP, OH, NC	28.3	47.1	2.42	0.90	5.73	1.76	2.50	10.23	16.31	7.9
Apr 01	HP, OH, NC	28.6	50.1	2.58	0.92	3.99	1.38	2.54	11.47	25.07	7.9
May 01	HP, OH, NC	26.6	57.6	2.81	0.18	5.59	1.49	3.09	10.65	12.48	7.9
Jun 01	HP, OH, NC	27.3	53.0	2.69	0.14	5.44	1.56	3.00	12.55	20.65	8.0
Jul 01	HP, OH, NC	26.4	57.7	2.49	0.11	6.49	1.59	2.63	8.95	21.77	7.5
Aug 01	HP, OH, NC	26.4	56.1	2.48	0.11	6.21	1.39	2.85	14.45	22.61	8.0
Sep 01	HP, NC	26.7	47.2	2.60	0.11	8.88	1.88	3.05	12.75	24.43	8.0
Oct 01	HP, NC	27.7	46.0	2.81	0.13	8.16	1.66	3.41	6.22	5.11	7.9
Nov 01	HP, NC	26.0	71.1	1.44	0.13	10.51	1.90	3.15	14.65	9.46	7.7
Dec 01	HP, NC, OH	27.3	68.1	6.24	0.13	4.96	2.70	3.71	0.27	0.54	8.4
Jan 02	HP, NC, RH	25.5	65.2	3.83	0.12	5.15	1.81	2.90	7.20	11.48	8.1
Feb 02	HP, NC, RH, OH	27.4	67.5	3.24	0.13	5.66	1.61	2.73	3.23	7.09	8.0
Average		27.2	58.8	2.85	0.26	6.16	1.66	2.98	10.31	16.21	8.0

Notes:

17-Apr-2002

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OH - Owls Head, PR - Port Richmond, RH - Red Hook, RK - Rockaway, TI - Tallman Island, 26 - 26th Ward, WI - Wards Island

DEP Biosolids Data
Nutrient Data
Jamaica Bay Facility
2001-2002

New York City Department of Environmental Protection
Jamaica Dewatering Facility
Monthly Nutrient Concentrations

Month	Liquid Sludge Sources	Total Solids %	Volatile Solids %	Nutrients							pH
				P %	K %	TKN %	NH3 %	Fe %	NO2 mg/Kg	NO3 mg/Kg	
Jan 01	JA	23.8	73.2	2.98	0.38	5.36	2.47	2.19	26.84	7.35	8.2
Feb 01	JA	24.8	72.5	2.49	0.77	6.39	2.08	2.45	7.98	5.31	8.0
Mar 01	JA	27.0	72.4	3.55	0.10	5.92	2.53	2.20	6.77	7.32	8.1
Apr 01	JA	27.2	59.4	2.58	0.42	5.98	1.63	2.13	5.81	13.71	7.9
May 01	JA	27.0	58.4	1.96	0.19	6.40	1.33	2.24	4.22	1.48	8.0
Jun 01	JA	25.8	70.7	2.50	0.20	5.27	1.83	1.63	4.91	3.89	8.2
Jul 01	JA	26.0	59.5	2.51	0.29	6.05	2.46	2.33	6.39	6.41	8.1
Aug 01	JA	26.1	44.1	1.37	0.26	10.23	1.20	1.52	8.52	15.06	8.0
Sep 01	JA	26.5	45.1	2.38	0.25	10.59	2.20	2.21	5.45	15.80	7.9
Oct 01	JA	25.5	60.9	2.46	0.30	9.93	2.15	2.52	6.10	7.03	8.1
Nov 01	JA	23.8	70.2	1.45	0.51	3.93	2.38	2.36	23.80	8.76	7.9
Dec 01	JA	25.8	74.7	2.18	0.31	9.01	1.97	2.22	3.62	3.92	8.0
Jan 02	JA	26.0	71.1	3.54	0.30	5.76	1.91	1.10	5.36	10.81	8.2
Feb 02	JA	26.4	71.5	2.10	0.25	6.38	1.76	1.97	4.06	7.25	8.2
Average		25.8	64.5	2.43	0.32	6.94	1.99	2.08	8.56	8.15	8.0

Notes:

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2. Plant Key: BB - Bowery Bay, CI - Coney Island, HP - Hunts Point, JA - Jamaica, NC - Newtown Creek, NR - North River, OB - Oakwood Beach,

17-Apr-2002

DEP Biosolids Data
Nutrient Data
Oakwood Beach Facility
2001-2002

New York City Department of Environmental Protection
Oakwood Beach Dewatering Facility
Monthly Nutrient Concentrations

Month	Liquid Sludge Sources	Total Solids %	Volatile Solids %	Nutrients							pH
				P %	K %	TKN %	NH3 %	Fe %	NO2 mg/Kg	NO3 mg/Kg	
Jan 01	OB, PR, OH	23.8	62.9	2.84	0.42	5.4	1.27	1.9	23.9	16.9	7.9
Feb 01	OB, PR, OH	26.5	70.7	3.67	0.32	4.82	1.26	2.25	9.92	28.32	8.4
Mar 01	OB, PR, OH	25.7	61.0	2.95	0.87	6.55	1.55	2.23	16.2	45.9	8.2
Apr 01	OB, PR, OH	26.3	48.1	4.55	0.5	5.38	1.29	2.21	8.03	216.8	8.3
May 01	OB, PR, OH	26.2	47.7	3.73	0.13	5.99	1.15	2.47	6.13	17.5	8.1
Jun 01	OB, PR, OH	27.1	59.1	2.28	0.27	6.25	1.33	2.24	5.89	16.24	8.2
Jul 01	OB, PR, OH	26.7	47.5	2.28	0.27	5.48	1.33	2.36	5.14	41.1	7.9
Aug 01	OB, PR, OH	25.8	63.5	1.19	0.1	4.79	0.87	2.63	4.34	0.9	7.8
Sep 01	OB, PR, OH	24.9	44.2	1.24	0.41	6.15	1.44	2.48	6.38	14.82	8.1
Oct 01	OB, PR, OH	25.3	42.3	1.84	0.23	6.35	1.33	2.38	8.88	13.81	7.9
Nov-01	OB, PR, OH	23.4	72.3	1.21	0.41	5.44	0.89	2.48	7.99	15.57	7.0
Dec-01	OB, PR, OH	22.5	73.9	1.80	0.27	5.71	1.39	2.23	4.15	13.34	8.0
Jan 02	OB, PR, OH, NR	22.7	71.1	3.26	0.09	7.19	1.24	2.16	5.98	21.43	7.5
Feb 02	OB, PR, OH	24.8	69.5	3.46	0.12	5.68	1.15	2.52	5.41	23.00	7.9
Average		25.1	59.6	2.59	0.32	5.80	1.25	2.32	8.45	34.69	7.9

Notes:

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DEP Biosolids Data
Nutrient Data
Red Hook Facility
2001-2002

New York City Department of Environmental Protection
Red Hook Dewatering Facility
Monthly Nutrient Concentrations

RED HOOK DEWATERING FACILITY

Month	Liquid Sludge Sources	Tot. Solids %	Vol. solids %	P %	K %	TKN %	NH3 %	Fe %	NUTRIENTS		pH
									NO2 mg/Kg	NO3 mg/Kg	
Jan 01	RH	21.86	65.33	1.98	0.37	6.21	1.27	3.02	19.54	17.42	8.0
Feb 01	RH	22.17	66.67	2.49	0.18	5.00	1.75	2.83	15.53	30.73	8.0
Mar 01	RH	21.96	57.37	2.49	1.23	5.94	2.02	2.77	13.27	53.10	8.1
Apr 01	RH	24.07	59.81	2.56	0.42	4.74	1.26	2.91	16.58	25.17	8.1
May 01	RH	23.79	57.16	2.47	0.19	2.47	1.13	2.79	17.33	14.47	8.1
Jun 01	RH	22.78	58.24	2.11	0.15	5.91	1.20	2.49	12.99	23.29	8.1
Jul 01	RH	23.38	57.47	2.15	0.11	5.46	1.50	2.51	13.44	32.58	8.1
Aug 01	RH	22.63	63.45	2.14	0.11	5.56	1.19	2.72	55.00	135.92	8.1
Sep 01	RH	21.20	51.90	2.37	0.12	5.08	1.56	3.34	11.17	21.87	7.97
Oct 01	RH	21.34	56.08	2.24	0.12	5.77	1.61	2.83	9.70	15.48	8.07
Nov 01	RH	21.01	68.16	1.78	0.12	5.46	1.06	2.49	21.31	42.04	8.13
Dec 01	RH	19.33	64.51	2.28	0.12	6.18	1.49	2.44	14.99	32.06	8.01
Jan 02	RH	19.20	52.47	2.11	0.11	6.03	1.14	2.49	26.33	52.67	8.1
Feb 02	RH	20.56	70.16	2.39	0.15	6.42	1.58	2.03	13.30	25.68	7.9
Average		21.81	60.63	2.25	0.25	5.45	1.41	2.69	18.61	37.32	8.06

Notes:

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DEP Biosolids Data
Nutrient Data
Tallman Island Facility
2001-2002

New York City Department of Environmental Protection
Tallman Island Dewatering Facility
Monthly Nutrient Concentrations

MONTH	Liquid Sludge Sources	Tot. Solids %	Vol. solids %	P %	K %	TKN %	NUTRIENTS NH3 %	Fe %	NO2 mg/Kg	NO3 mg/Kg	pH
Jan 01	TI	22.9	66.1	2.42	0.46	6.38	1.78	2.24	42.18	15.07	8.1
Feb 01	TI	23.6	69.9	2.44	0.45	5.97	1.62	2.27	12.22	19.62	8.0
Mar 01	TI	24.6	56.2	3.22	0.63	4.71	1.58	2.40	10.34	17.64	7.8
Apr 01	TI	23.8	57.2	2.55	0.56	5.10	1.69	2.46	6.96	25.75	7.9
May 01	TI	23.8	60.2	2.06	0.18	6.29	1.51	2.43	6.73	7.46	6.6
Jun 01	TI	24.5	57.1	2.55	0.27	5.11	1.10	2.90	5.38	7.46	7.6
Jul 01	TI	25.9	55.2	3.12	0.14	5.45	1.47	2.87	2.67	1.32	8.0
Aug 01	TI	24.9	53.9	2.17	0.15	5.66	1.05	2.89	6.83	10.99	8.0
Sep 01	TI	24.6	60.3	1.74	0.64	5.48	1.49	2.57	7.4	11.9	7.7
Oct 01	TI	23.1	51.5	3.30	0.14	6.46	1.16	1.78	10.4	8.19	8.0
Nov-01	TI	24.1	70.4	1.78	0.14	4.45	1.72	2.42	15.76	20.87	7.8
Dec-01	TI	22.7	72.3	2.48	0.14	7.97	1.31	2.15	3.56	3.49	8.0
Jan 02	TI	22.9	74.1	4.73	0.16	6.48	1.64	2.33	6.02	11.97	8.0
Feb 02	TI	22.5	68.9	3.98	0.17	6.11	1.78	2.53	6.61	11.18	8.1
Average		23.8	62.4	2.75	0.30	5.83	1.49	2.45	10.22	12.35	7.8

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OH - Owls Head, PR - Port Richmond, RH - Red Hook, RK - Rockaway, TI - Tallman Island, 26 - 26th Ward, WI - Wards Island

DEP Biosolids Data
Nutrient Data
Wards Island Facility
2001-2002

New York City Department of Environmental Protection
Wards Island Dewatering Facility
Monthly Nutrient Concentrations

Month	Liquid Sludge Sources	Total Solids %	Volatile Solids %	Nutrients							pH
				P %	K %	TKN %	NH3 %	Fe %	NO2 mg/Kg	NO3 mg/Kg	
Jan 01	WI, OH, NR, NC, RK	25.6	70.7	2.71	0.14	6.27	0.56	2.26	18.76	20.69	8.1
Feb 01	WI, OH, NR, RK	26.0	67.7	3.04	0.39	5.91	1.46	2.54	12.65	22.79	8.1
Mar 01	WI, OH, NR, RK, NC	26.2	64.4	2.75	0.66	6.11	1.33	2.40	188.84	42.34	8.0
Apr 01	WI, OH, NR, RK	26.8	57.0	3.27	0.38	4.95	1.18	2.60	14.60	28.93	7.6
May 01	WI, OH, NR, RK	25.4	52.3	3.27	0.13	5.77	1.61	1.76	11.38	16.96	8.0
Jun 01	WI, OH, NR, RK	27.3	51.7	3.15	0.12	5.38	1.50	2.57	8.13	11.40	7.9
Jul 01	WI, OH, NR, RK	25.6	57.9	2.38	0.09	6.76	1.42	2.02	12.28	20.32	8.1
Aug 01	WI, OH, NR, RK	25.7	60.3	1.82	0.08	10.34	2.01	2.51	17.65	23.77	8.0
Sep 01	WI, OH, NR, RK	27.3	52.9	1.88	0.38	8.56	1.36	2.57	7.79	10.48	7.5
Oct 01	WI, OH, NR, RK	27.6	60.1	2.48	0.45	8.13	1.49	2.65	5.30	4.24	7.9
Nov 01	WI, OH, NR, RK	25.0	70.9	1.89	0.18	7.35	1.06	2.31	15.83	28.46	7.9
Dec 01	WI, OH, NR, RK	25.5	71.3	2.14	0.10	7.46	1.16	2.28	10.67	18.19	7.8
Jan 02	WI, OH, NR, RK, RH	24.9	66.8	3.28	0.35	5.97	1.23	1.85	14.84	22.98	7.9
Feb 02	WI, OH, NR, RH, PR	26.5	72.1	2.29	0.11	6.11	1.20	2.29	4.17	7.64	8.0
Average		26.1	62.6	2.60	0.25	6.79	1.33	2.33	24.49	19.94	7.9

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17-Apr-2002

DEP Biosolids Data
Metals Data
26th Ward Facility
2001-2002

CITY OF NEW YORK				BIOSOLIDS QUALITY				26TH WARD DEWATERING FACILITY			
DEPT. OF ENVIRONMENTAL PROTECTION											
BUREAU OF WASTEWATER TREATMENT											
MONTH	METALS										
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg	
Jan-01	4.8	4.4	34	605	129	2.1	4.8	23	2.6	793	
Feb- 01	4.1	5.1	43	582	177	2.5	7.5	26	2.9	828	
Mar-01	2.7	4.4	57	627	190	1.9	7.6	26	3.7	837	
Apr-01	3.5	3.5	43	610	217	2.1	7.1	27	3.1	923	
May-01	3.4	3.8	53	687	214	2.0	6.6	26	2.9	937	
Jun-01	4.5	4.0	56	701	248	2.2	12.1	28	5.0	1,043	
Jul-01	4.8	5.7	51	662	259	2.3	11.2	29	4.2	1,076	
Aug-01	4.6	4.8	58	726	225	1.9	11.3	29	4.4	1,081	
Sep-01	10.3	4.6	38	685	213	2.5	10.4	23	5.3	1,043	
Oct-01	9.4	4.0	40	734	185	3.3	9.4	24	4.9	1,091	
Nov-01	6.0	3.2	48	711	185	3.3	10.3	26	5.4	957	
Dec-01	4.3	3.5	45	734	161	2.3	12.0	25	4.1	949	
Jan-02	3.7	4.8	43	667	151	2.5	11.1	25	10.0	945	
Feb- 02	3.0	4.4	39	703	165	2.7	10.7	24	7.0	901	
Average	4.9	4.3	46	674	194	2.4	9.4	26	4.7	957	

DEP Biosolids Data
Metals Data
Bowery Bay Facility
2001-2002

Metals Data per Dewatering Facility

CITY OF NEW YORK
DEPT. OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTEWATER TREATMENT

BIOSOLIDS QUALITY

BOWERY BAY DEWATERING FACILITY

MONTH	METALS									
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg
Jan-01	2.9	1.1	52	582	84	1.5	42.0	28	2.8	761
Feb-01	2.7	7.8	94	670	178	2.1	7.1	54	5.4	878
Mar-01	3.3	6.1	155	736	177	0.9	2.3	50	9.2	863
Apr-01	4.2	4.3	109	676	201	1.5	7.7	54	5.4	1,016
May-01	4.7	4.5	98	720	177	2.1	9.5	59	6.6	1,029
Jun-01	5.0	4.6	88	761	210	1.4	7.3	59	4.2	1,069
Jul-01	4.8	4.4	72	724	196	2.5	12.0	45	3.8	897
Aug-01	1.9	3.2	74	631	182	1.3	8.7	47	3.7	1,021
Sep-01	2.2	3.7	69	804	180	2.1	9.9	47	7.3	1,037
Oct-01	2.0	2.9	81	817	170	2.3	9.9	48	6.6	927
Nov-01	1.7	2.6	143	826	135	2.5	9.2	44	5.8	879
Dec-01	2.9	2.9	47	598	108	2.2	8.9	30	2.7	703
Jan-02	3.0	3.3	39	728	125	4.3	9.9	42	3.3	922
Feb-02	2.4	5.3	56	741	136	2.6	10.6	35	5.2	974
Average	3.1	4.1	84	715	161	2.1	11.1	46	5.1	927

DEP Biosolids Data
Metals Data
Hunts Point Facility
2001-2002

CITY OF NEW YORK				BIOSOLIDS QUALITY				HUNTS POINT DEWATERING FACILITY			
DEPT. OF ENVIRONMENTAL PROTECTION											
BUREAU OF WASTEWATER TREATMENT											
MONTH	METALS										
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg	
Jan-01	3.8	5.2	62	717	163	2.4	11.0	33	3.2	1,050	
Feb- 01	5.3	7.4	83	780	248	2.7	13.0	56	4.3	1,077	
Mar-01	2.8	7.9	85	733	231	2.6	13.0	45	2.8	1,080	
Apr-01	4.1	6.7	71	655	276	2.5	13.0	47	2.8	1,051	
May-01	4.4	5.6	91	750	210	2.6	15.0	51	4.7	1,126	
Jun-01	6.0	6.0	85	820	272	2.3	19.0	48	5.3	1,221	
Jul-01	4.5	6.7	85	785	270	2.5	16.0	42	3.7	1,181	
Aug-01	5.0	5.8	81	812	253	2.5	17.0	48	4.3	1,221	
Sep-01	4.8	6.0	75	829	270	2.7	19.0	44	6.4	1,238	
Oct-01	3.5	6.7	98	901	304	3.1	19.0	46	5.8	1,459	
Nov-01	4.1	4.7	84	899	230	3.1	17.0	50	4.7	1,219	
Dec-01	3.9	7.2	83	900	241	3.2	21.0	49	3.3	1,231	
Jan-02	3.2	7.0	80	912	229	2.9	16.0	46	4.4	1,243	
Feb- 02	2.7	8.2	77	823	222	3.3	19.0	35	5.8	1,189	
Average	4.2	6.5	81	808	244	2.7	16.3	46	4.4	1,185	

DEP Biosolids Data
Metals Data
Jamaica Bay Facility
2001-2002

Metals Data per Dewatering Facility

CITY OF NEW YORK				BIOSOLIDS QUALITY				JAMAICA DEWATERING FACILITY		
DEPT. OF ENVIRONMENTAL PROTECTION										
BUREAU OF WASTEWATER TREATMENT										
MONTH	METALS									
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg
Jan-01	3.9	2.9	24	623	102	2.9	8.9	15	4.4	912
Feb-01	4.0	3.9	46	645	173	3.1	10	27	3.8	919
Mar-01	5.0	3.4	33	296	133	3.2	11	20	5.2	908
Apr-01	1.6	4.0	35	608	174	1.6	4.2	23	1.8	925
May-01	1.8	3.9	27	650	138	1.6	4.1	19	1.1	968
Jun-01	1.4	4.5	26	483	123	2.8	8	23	2.1	770
Jul-01	3.3	3.7	34	723	183	2.2	12	23	3.9	1,061
Aug-01	2.6	3.6	25	641	143	1.4	10.4	18	3.4	979
Sep-01	3.2	4.0	27	713	164	2.6	11.6	18	5.7	1,077
Oct-01	3.1	3.7	30	727	162	3	11	21	7.2	1,077
Nov-01	4.2	6.6	33	802	143	3.3	12.6	21	6.3	1,067
Dec-01	2.9	4.7	30	777	149	2.6	12	20	3.4	1,053
Jan-02	2.7	4.6	25	745	108	2.4	10.5	19	4.4	1,131
Feb-02	2.0	5.5	21	662	119	2.5	8.4	14	6.9	931
Average	3.0	4.2	30	650	144	2.5	9.6	20	4.3	984

DEP Biosolids Data
Metals Data
Oakwood Beach Facility
2001-2002

CITY OF NEW YORK			BIOSOLIDS QUALITY						OAKWOOD BEACH DEWATERING FACILITY	
DEPT. OF ENVIRONMENTAL PROTECTION										
BUREAU OF WASTEWATER TREATMENT										
MONTH	METALS									
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg
Jan-01	4.7	2.1	37	484	126	1.9	4.8	29	2.8	666
Feb- 01	4.4	2.0	42	475	126	2.3	8.5	55	3.5	673
Mar-01	4.2	2.6	54	490	132	2.2	8.2	56	4.2	720
Apr-01	6.2	2.6	63	482	183	2.1	8.5	70	4.3	792
May-01	4.5	3.2	54	523	137	2.0	6.4	52	4.0	703
Jun-01	5.0	2.5	48	542	150	1.2	8.6	49	3.5	728
Jul-01	3.9	3.3	42	539	138	1.6	7.0	49	3.0	779
Aug-01	3.7	2.1	47	591	135	1.1	10.5	48	3.8	799
Sep-01	4.0	3.1	46	719	151	2.1	11.1	54	5.8	1,051
Oct-01	2.9	2.6	46	623	141	1.9	8.2	36	4.4	856
Nov-01	3.4	2.6	50	708	123	2.7	12.1	37	4.1	892
Dec-01	2.9	3.0	41	598	116	1.6	11.8	37	2.5	808
Jan-02	3.0	3.1	42	715	135	1.7	12.0	47	2.3	933
Feb- 02	3.6	4.1	35	543	107	2.0	10.6	54	5.3	727
Average	4.0	2.8	46	574	136	1.9	9.2	48	3.8	795

DEP Biosolids Data
Metals Data
Red Hook Facility
2001-2002

Metals Data per Dewatering Facility

CITY OF NEW YORK				BIOSOLIDS QUALITY				RED HOOK DEWATERING FACILITY			
DEPT. OF ENVIRONMENTAL PROTECTION											
BUREAU OF WASTEWATER TREATMENT											
MONTH	METALS										
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg	
Jan-01	5.8	5.7	41	778	224	2.5	9.0	29	2.8	1,042	
Feb-01	6.7	5.8	49	814	261	3.4	13.0	24	9.5	1,117	
Mar-01	3.3	5.6	53	728	264	2.8	9.0	29	4.0	977	
Apr-01	4.8	5.8	55	707	283	2.2	8.0	32	2.9	1,100	
May-01	5.3	6.1	51	770	305	4.0	10.0	28	3.2	1,110	
Jun-01	7.3	6.0	48	875	346	2.3	15.0	32	8.2	1,211	
Jul-01	7.6	13.1	53	888	363	3.1	15.0	35	3.7	1,229	
Aug-01	8.2	18.3	47	948	337	2.8	12.0	33	2.9	1,258	
Sep-01	7.9	12.9	51	957	361	3.7	16.0	36	6.5	1,278	
Oct-01	6.6	11.2	51	983	400	4.5	13.0	34	6.6	1,347	
Nov-01	6.8	7.8	45	926	266	3.1	15.0	28	7.0	1,171	
Dec-01	6.1	8.6	46	864	271	3.1	15.0	32	5.1	1,049	
Jan-02	5.9	15.8	42	858	264	3.5	15.0	32	17.0	1,006	
Feb-02	4.7	7.8	36	744	224	2.7	12.0	25	7.5	966	
Average	6.2	9.3	48	846	298	3.1	12.6	31	6.2	1,133	

DEP Biosolids Data
Metals Data
Tallman Island Facility
2001-2002

CITY OF NEW YORK			BIOSOLIDS QUALITY							TALLMAN ISLAND DEWATERING FACILITY	
DEPT. OF ENVIRONMENTAL PROTECTION											
BUREAU OF WASTEWATER TREATMENT											
MONTH	METALS										
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg	
Jan-01	5.0	4.4	58	662	125	2.7	9.8	26	5.7	1,017	
Feb- 01	3.4	4.4	73	640	147	2.5	11.1	29	5.1	1,031	
Mar-01	5.0	4.8	76	671	135	2.4	11.0	31	54.0	972	
Apr-01	4.9	5.2	72	641	142	1.7	6.4	31	4.1	1,062	
May-01	3.9	5.9	65	696	153	2.0	7.1	32	3.2	1,069	
Jun-01	3.5	4.8	61	660	164	1.8	5.9	35	2.0	996	
Jul-01	2.2	5.7	58	700	151	1.8	6.8	37	2.2	1,282	
Aug-01	3.0	5.5	61	854	149	1.9	9.5	31	4.8	1,060	
Sep-01	4.5	5.4	63	835	149	3.3	11.5	27	5.8	1,046	
Oct-01	3.5	4.9	61	842	157	2.9	9.9	31	6.3	981	
Nov-01	5.4	5.2	58	826	129	2.6	11.9	27	5.2	1,034	
Dec-01	3.9	4.4	50	702	112	2.9	11.0	24	3.2	835	
Jan-02	4.0	4.5	54	805	147	2.7	11.2	27	3.9	1,061	
Feb- 02	3.1	6.5	56	805	140	2.9	12.7	29	4.7	971	
Average	4.0	5.1	62	739	143	2.4	9.7	30	7.9	1,030	

DEP Biosolids Data
Metals Data
Wards Island Facility
2001-2002

Metals Data per Dewatering Facility

CITY OF NEW YORK				BIOSOLIDS QUALITY				WARDS ISLAND DEWATERING FACILITY			
DEPT. OF ENVIRONMENTAL PROTECTION											
BUREAU OF WASTEWATER TREATMENT											
MONTH	METALS										
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg	
Jan-01	4.3	2.9	34	597	153	2.6	26.0	26	3.6	917	
Feb- 01	4.1	4.7	52	748	205	3.5	16.0	28	5.0	999	
Mar-01	4.6	4.6	52	740	202	2.8	14.0	32	6.7	959	
Apr-01	5.1	4.4	56	717	250	2.9	15.0	39	4.7	1,070	
May-01	3.5	4.4	56	631	215	3.0	17.0	34	4.9	965	
Jun-01	5.0	4.2	53	812	252	2.6	20.0	35	4.5	1,051	
Jul-01	4.5	4.2	45	808	251	2.7	16.6	29	4.0	1,053	
Aug-01	3.8	5.9	45	812	232	4.0	16.4	30	3.6	1,097	
Sep-01	2.9	3.2	37	714	358	2.8	62.1	29	6.2	1,044	
Oct-01	4.0	3.4	58	823	220	3.2	12.6	30	5.9	1,019	
Nov-01	4.2	3.3	64	854	184	2.5	15.9	28	5.7	975	
Dec-01	4.1	4.0	49	813	179	3.0	17.4	27	4.3	947	
Jan-02	3.8	4.2	33	758	148	2.8	21.0	27	7.0	960	
Feb- 02	2.5	4.4	39	837	159	2.6	13.0	27	6.5	1,083	
Average	4.0	4.1	48	762	215	2.9	20.2	30	5.2	1,010	

Biosolids Data

Compost Quality Data

Compost Made with NYC Biosolids

Wetzel County Facility, WV

2002

MICROBAC LABORATORIES, INC.
209 SENATE AVE, SUITE 105
CAMP HILL, PA 17011
(717) 763-0582

PA DEP Certification No. 21-133

JP Mascaro Sons, Inc.
Attn: Dennis McVeigh
320 Godshall Drive
Harleysville, PA 19483

Client Number: 3576
Project Number: 63141
Sample Number: 164695
Date Received: 02/22/02
Time Received: 10:34
Discard Date: 03/29/02

LABORATORY ANALYSIS REPORT

March 15, 2002

Sample Identification: Screened Compost JB Wetzel Co
Date Collected: 02/21/02 Time: 13:00 Collected By: MH

ANALYSIS	RESULTS	MEASUREMENT UNITS	QUANTIFICATION LIMIT	ANALYSIS METHOD	ANALYSIS DATE	ANALYST
PCBS-POLYCHLORINATED BIPHENOLS						
Aroclor 1216	None Detected	ug/kg Dry Wt.	3600	SW-846 8082	03/13/02	RMS
Aroclor 1221	None Detected	ug/kg Dry Wt.	3600	SW-846 8082	03/13/02	RMS
Aroclor 1222	None Detected	ug/kg Dry Wt.	3600	SW-846 8082	03/13/02	RMS
Aroclor 1242	None Detected	ug/kg Dry Wt.	3600	SW-846 8082	03/13/02	RMS
Aroclor 1248	None Detected	ug/kg Dry Wt.	3600	SW-846 8082	03/13/02	RMS
Aroclor 1254	None Detected	ug/kg Dry Wt.	3600	SW-846 8082	03/13/02	RMS
Aroclor 1260	None Detected	ug/kg Dry Wt.	3600	SW-846 8082	03/13/02	RMS
JP MASCARO MONTHLY METALS						
Arsenic, Total	5.39	ug/kg Dry Wt.	.02	SW-846 7060A	02/01/02	VBC
Cadmium, Total	2.88	ug/kg Dry Wt.	.04	SW-846 7120	02/28/02	VBC
Chromium, Total	40.0	ug/kg Dry Wt.	.07	SW-846 6010B	02/27/02	DJA
Copper, Total	569.	ug/kg Dry Wt.	.07	SW-846 6010B	02/26/02	DJA
Iron, Total	22280.	ug/kg Dry Wt.	.1	SW-846 6010B	02/27/02	DJA
Lead, Total	140.	ug/kg Dry Wt.	.4	SW-846 6010B	02/27/02	DJA
Mercury, Total	2.0	ug/kg Dry Wt.	.015	SW-846 7471A	02/28/02	VBC
Molybdenum, Total	10.	ug/kg Dry Wt.	.1	SW-846 6010B	03/01/02	DJA
Nickel, Total	33.0	ug/kg Dry Wt.	.1	SW-846 6010B	02/27/02	DJA
Potassium, Total	9.183	% Dry Wt.	.00007	SW-846 6010B	03/01/02	DJA
Selenium, Total	0.5	ug/kg Dry Wt.	.4	SW-846 6010B	02/28/02	DJA
Zinc, Total	637.	ug/kg Dry Wt.	.04	SW-846 7950	02/28/02	VBC
JP MASCARO MONTHLY WET CHEM						
Ammonia Nitrogen, Total	0.350	% Dry Wt.	.00099	SW-846 4500BF	02/01/02	BBO
Chloride	710.	mg/kg Dry Wt.	2	EPA 300.0	02/27/02	MBS
Density	1.05	g/ml			02/22/02	GLF
Kjeldahl Nitrogen, Total	1.02	% Dry Wt.	.0091	SW-846 4500B	02/28/02	BBO
Nitrate Nitrogen	None Detected	ug/kg Dry Wt.	100	EPA 300.0	02/27/02	MBS
Nitrite Nitrogen	95.	ug/kg Dry Wt.	.4	EPA 300.0	02/27/02	MBS
Nitrogen - Organic, Total	2.07	% Dry Wt.	.0091	SW-846 4500BF	03/01/02	BBO
pH	7.80	pH Units		SW-846 5045C	02/22/02	GLF
Phosphorus, Total	2.17	% Dry Wt.	.0004	SW-846 4500B	02/28/02	BBO
Solids, Total	54.8	%	.01	SW-846 2540Q	02/26/02	GLF
Solids, Total Volatile	57.6	%	.01	SW-846 2540Q	02/26/02	GLF

Landscapers' Advantage Class A Compost

Uses and application rates

Landscaper Advantage Class A Compost is an organic humus that improves the physical structure of soils and supplies nutrients for plant growth. This material is the product of aerobic biological decomposition of biosolids, yard waste and wood chips.

Typical uses and application rates:

- Lawn maintenance - broadcast a half (0.5) pound of Class A Compost per square foot of lawn, per year.
- New lawns, flower gardens - till one (1) pound of Class A Compost per square foot of lawn or flower bed.
- Nursery and house plants - mix one part Landscapers Advantage Class A Compost with three parts soil.
- Tree and shrub mulching - broadcast and or mix one (1) pound of Landscapers Advantage Class A Compost for every square foot of bed.

Compost and fertilizer application rates and pH adjustment requirements are influenced by plant selection, soil/media and site characteristics, compost quality and feed stock, and other factors.

For best results, before planting have your compost, soil, and soil/compost blends tested by a reputable laboratory and discuss the results of the tests with a trained agricultural professional.

40 CFR Part 503.140(2) prohibits the application of material derived from exceptional quality sewage sludge to the land except in accordance with these instructions.

Landscapers Advantage Class A Compost should not be applied during periods of rain, applied on frozen or snow covered ground or stored or applied in a manner as to cause run off of compost material.

Typical analysis	(dry weight)
Total Nitrogen	2-4%
Phosphorous	1-2%
Potassium	0.3-0.5%
pH varies from 6.0 to 9.0	

Concentration of metals do not exceed PA DEP - Exceptional Quality Sludge Guidelines Table 3 meets class A Pathogen Reduction 40 CFR 503.32 (a) (7).

Organic Soil Conditioner

Compost produced at one or more of the following:

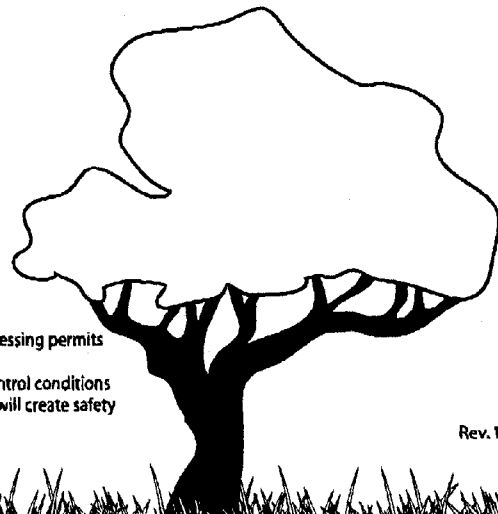
Brooke County Compost Facility
RD #2, Box 410
Colliers, WV 26035 304-748-2140

A & M Composting
2022 Mountain Road
Manheim, PA 17545 717-664-2073

Wetzel County Compost Facility
Route 1, Box 156A
New Martinsville, WV 26155 304-455-3800

Mixing or blending of this material in Pennsylvania may require additional processing permits from the Pennsylvania Department of Environmental Protection.

Bulk storage of EQ Biosolids must be done in a manner that will minimize or control conditions that are harmful to the public health, public safety or the environment, or which will create safety hazards, odors, dust, or other public nuisances.



Rev. 12-01

**New York State Department of Environmental Conservation
6 NYCRR Part 360.5 Composting and Other Class A
Organic Waste Processing Facilities**

Extended Parameters List for Analysis - Biosolids

VOLATILE ORGANIC COMPOUNDS

	POLLUTANT	CAS
1	Acrolein	107-02-8
2	Acrylonitrile	107-13-1
3	Benzene	71-43-2
4	Bromoform	75-25-2
5	Carbon tetrachloride	56-23-5
6	Chlorobenzene	108-90-7
7	Chlorodibromomethane	124-48-1
8	Chloroethane	75-00-3
9	2-chloroethylvinyl ether	110-75-8
10	Chloroform	67-66-3
11	Dichlorobromomethane	75-27-4
12	1,1-dichloroethane	75-34-3
13	1,2-dichloroethane	107-06-2
14	Trans-1,2-dichloroethylene	156-60-5
15	1,1-dichloroethylene	75-35-4
16	1,2-dichloropropane	78-87-5
17	1,3-dichloropropene	542-75-6
18	Ethylbenzene	100-41-4
19	Methyl bromide	74-83-9
20	Methyl chloride	74-87-3
21	Methylene chloride	75-09-2
22	1,1,2,2-tetrachloroethane	79-34-5
23	Tetrachloroethylene	127-18-4
24	Toluene	108-88-3
25	1,1,1-trichloroethane	71-55-6
26	1,1,2-trichloroethane	79-00-5
27	Trichloroethylene	79-01-6
28	Vinyl chloride	75-01-4

ACID-BASE-NEUTRAL COMPOUNDS

	POLLUTANT	CAS
	* Acid-extractable compounds	
1	4-chloro-3-methylphenol	59-50-7
2	2-chlorophenol	95-57-8
3	2,4-dichlorophenol	120-83-2
4	2,4-dimethylphenol	105-67-9
5	4,6-dinitro-2-methylphenol	534-52-1
6	2,4-dinitrophenol	51-28-5
7	2-nitrophenol	88-75-5
8	4-nitrophenol	100-02-7
9	Pentachlorophenol	87-86-5
10	Phenol	108-95-2
11	2,4,6-trichlorophenol	88-06-2
	*Base-Neutral compounds	
12	Acenaphthene	83-32-9
13	Acenaphthylene	208-96-8
14	Anthracene	120-12-7
15	Benzidine	92-87-5
16	Benzo(a)anthracene	56-55-3
17	Benzo(a)pyrene	50-32-8
18	Benzo(b)fluoranthene	205-99-2
19	Benzo(g,h,i)perylene	191-24-2
20	Benzo(k)fluoranthene	207-08-9
21	Bis(2-chlorethoxy)methane	111-91-1
22	Bis(2-chloroethyl) ether	111-44-4
23	Bis(2-chloroisopropyl) ether	108-60-1
24	Bis(2-ethylhexyl) phthalate	117-81-7
25	4-bromophenyl phenyl ether	101-55-3
26	Butyl benzyl phthalate	85-68-7
27	2-chloronaphthalene	91-58-7
28	4-chlorophenyl phenyl ether	7005-72-3
29	Chrysene	218-01-9
30	Di-n-butyl phthalate	84-74-2
31	Di-n-Octyl phthalate	117-84-0
32	Dibenzo(a,h)anthracene	53-70-3

ACID-BASE-NEUTRAL COMPOUNDS continued

	POLLUTANT	CAS
33	1,2-dichlorobenzene	95-50-1
34	1,3-dichlorobenzene	541-73-1
35	1,4-dichlorobenzene	106-46-7
36	3,3'-dichlorobenzidine	91-94-1
37	Diethyl phthalate	84-66-2
38	Dimethyl phthalate	131-11-3
39	2,4-dinitrotoluene	121-14-2
40	2,6-dinitrotoluene	606-20-2
41	1,2-diphenylhydrazine	122-66-7
42	Fluoranthene	206-44-0
43	Fluorene	86-73-7
44	Hexachlorobenzene	118-74-1
45	Hexachlorobutadiene	87-68-3
46	Hexachlorocyclopentadiene	77-47-4
47	Hexachloroethane	67-72-1
48	Indeno(1,2,3-cd)pyrene	193-39-5
49	Isophorone	78-59-1
50	Naphthalene	91-20-3
51	Nitrobenzene	98-95-3
52	N-nitrosodipropylamine	621-64-7
53	N-nitrosodimethylamine	62-75-9
54	N-nitrosodiphenylamine	86-30-6
55	Phenanthrene	85-01-8
56	Pyrene	129-00-0
57	1,2,4-trichlorobenzene	120-82-1

PESTICIDES/PCBs

	POLLUTANT	CAS
1	Aldrin	309-00-2
2	Alpha-BHC	319-84-6
3	Beta-BHC	319-85-7
4	Delta-BHC	319-86-8
5	Gamma-BHC [Lindane]	58-89-9
6	Alpha-chlordane	5103-71-9
7	Gamma-chlordane	5103-74-2
8	4,4'-DDD [p,p'-TDE]	72-54-8
9	4,4'-DDE [p,p'-DDX]	72-55-9
10	4,4'-DDT	50-29-3
11	Dieldrin	60-57-1
12	Alpha-endosulfan	959-98-8
13	Beta-endosulfan	33213-65-9
14	Endosulfan sulfate	1031-07-8
15	Endrin	72-20-8
16	Endrin aldehyde	7421-93-4
17	Heptachlor	76-44-8
18	Heptachlor epoxide	1024-57-3
19	PCB-1016 (Arochlor 1016)	12674-11-2
20	PCB-1221 (Arochlor 1221)	11104-28-2
21	PCB-1232 (Arochlor 1232)	11141-16-5
22	PCB-1242 (Arochlor 1242)	53469-21-9
23	PCB-1248 (Arochlor 1248)	12672-29-6
24	PCB-1254 (Arochlor 1254)	11097-69-1
25	PCB-1260 (Arochlor 1260)	11096-82-5
26	Toxaphene	8001-35-2

METALS (Total Recoverable) and CYANIDE

	POLLUTANT	CAS
1	Antimony	7440-36-0
2	Beryllium	7440-41-7
3	Silver	7440-22-4
4	Thallium	7440-28-0
5	Cyanide	57-12-5