

APPENDIX 4G

SSWWTP VOLATILE SOLIDS REDUCTION ANALYSIS

DATE	GIVEN ¹ :		CALCULATED ² :		ANALYZED ³ :	
	Digester Feed	DSD	Digester Feed	DSD	TS	VS
	TS TPD	TS TPD	VS TPD	VS TPD	Destruction %	Destruction %
1/1/2003	82.25	25.44	62.51	16.79	69.07%	73.14%
1/2/2003	63.37	21.55	48.16	14.22	65.99%	70.47%
1/3/2003	88.13	41.80	66.98	27.59	52.57%	58.81%
1/4/2003	89.43	39.91	67.97	26.34	55.37%	61.24%
1/5/2003	92.62	31.69	70.39	20.92	65.78%	70.29%
1/6/2003	89.98	35.26	68.38	23.27	60.82%	65.97%
1/7/2003	90.62	22.47	68.87	14.83	75.21%	78.47%
1/8/2003	68.92	34.72	54.45	21.87	49.63%	59.83%
1/9/2003		21.89				
1/10/2003	81.06	59.87	64.03	37.72	26.13%	41.09%
1/11/2003	76.93	25.68	60.77	16.18	66.62%	73.38%
1/12/2003	89.30	55.88	70.55	35.20	37.43%	50.10%
1/13/2003	105.41	30.26	83.27	19.07	71.29%	77.10%
1/14/2003	74.09	16.47	58.53	10.38	77.77%	82.27%
1/15/2003	74.76	15.61	59.81	9.99	79.12%	83.29%
1/16/2003	72.44	11.91	57.95	7.62	83.56%	86.85%
1/17/2003	88.03	16.88	70.43	10.80	80.83%	84.66%
1/18/2003	77.96	23.42	62.37	14.99	69.96%	75.97%
1/19/2003	75.16	7.08	60.13	4.53	90.58%	92.46%
1/20/2003	71.39	8.75	57.11	5.60	87.74%	90.19%
1/21/2003	83.10	13.15	66.48	8.42	84.17%	87.34%
1/22/2003	79.09	13.12	61.69	8.53	83.41%	86.18%
1/23/2003	83.39	12.88	65.04	8.37	84.55%	87.13%
1/24/2003	76.04	14.37	59.31	9.34	81.10%	84.25%
1/25/2003	66.81	10.96	52.11	7.12	83.60%	86.33%
1/26/2003	61.85	10.11	48.24	6.57	83.66%	86.38%
1/27/2003	61.13	13.85	47.68	9.00	77.34%	81.12%
1/28/2003	91.15	16.47	71.09	10.70	81.94%	84.95%
1/29/2003	70.76	23.32	57.31	15.16	67.04%	73.55%
1/30/2003	107.14	14.55	86.79	9.46	86.42%	89.11%
1/31/2003	55.76	16.90	45.17	10.99	69.69%	75.67%
2/1/2003	70.25	12.51	56.90	8.13	82.19%	85.71%
2/2/2003	65.86	11.38	53.35	7.40	82.71%	86.13%
2/3/2003	52.69	12.51	42.68	8.13	76.26%	80.95%
2/4/2003	64.50	12.76	52.24	8.29	80.22%	84.12%
2/5/2003	83.41	16.28	65.89	10.75	80.48%	83.69%
2/6/2003	73.45	14.34	58.03	9.47	80.47%	83.68%
2/7/2003	76.49	12.82	60.42	8.46	83.23%	85.99%
2/8/2003	83.34	13.24	65.84	8.74	84.11%	86.73%
2/9/2003	48.38	10.76	38.22	7.10	77.76%	81.42%
2/10/2003	64.09	19.64	50.63	12.96	69.35%	74.40%
2/11/2003	78.19	16.20	61.77	10.69	79.28%	82.69%
2/12/2003	77.86	12.80	59.95	7.04	83.57%	88.26%
2/13/2003	88.85	12.22	68.41	6.72	86.24%	90.17%
2/14/2003	88.09	14.13	67.83	7.77	83.96%	88.54%
2/15/2003	136.99	11.31	105.48	6.22	91.75%	94.10%
2/16/2003	121.96	12.09	93.91	6.65	90.08%	92.92%
2/17/2003	100.27	9.04	77.21	4.97	90.98%	93.56%
2/18/2003	94.55	49.04	72.81	26.97	48.14%	62.95%
2/19/2003	92.58	66.68	67.58	44.01	27.97%	34.88%
2/20/2003	103.90	72.18	75.85	47.64	30.53%	37.19%
2/21/2003	95.45	72.62	69.68	47.93	23.91%	31.21%
2/22/2003	115.92	106.52	84.62	70.30	8.11%	16.92%
2/23/2003	114.41	61.33	83.52	40.48	46.39%	51.53%
2/24/2003	52.16	18.13	38.07	11.96	65.24%	68.58%
2/25/2003	62.44	32.46	45.58	21.42	48.02%	53.01%
2/26/2003	73.79	17.47	54.60	11.53	76.33%	78.89%
2/27/2003	73.11	57.24	54.10	37.78	21.71%	30.18%
2/28/2003	55.42	17.86	41.01	11.79	67.77%	71.26%
3/1/2003	63.03	21.27	46.64	14.04	66.26%	69.91%

	GIVEN ¹ :		CALCULATED ² :		ANALYZED ³ :	
	Digester Feed	DSD	Digester Feed	DSD	TS	VS
	TS	TS	VS	VS	Destruction	Destruction
3/2/2003	74.44	22.64	55.08	14.94	69.58%	72.87%
3/3/2003	73.65	27.27	54.50	18.00	62.97%	66.98%
3/4/2003	75.11	28.04	57.09	17.11	62.67%	70.03%
3/5/2003	87.11	18.18	66.20	11.09	79.13%	83.25%
3/6/2003	108.62	27.55	82.55	16.81	74.63%	79.64%
3/7/2003	113.15	22.41	85.99	13.67	80.19%	84.10%
3/8/2003	127.92		97.22			
3/9/2003	79.04	24.76	60.07	15.11	68.67%	74.85%
3/10/2003	67.98	16.08	51.66	9.81	76.35%	81.02%
3/11/2003	85.00	74.02	64.60	45.15	12.92%	30.10%
3/12/2003	110.97	71.92	84.34	46.03	35.19%	45.42%
3/13/2003	122.32	46.45	92.96	29.73	62.02%	68.02%
3/14/2003	126.74	51.52	96.32	32.97	59.35%	65.77%
3/15/2003	139.17	50.74	105.77	32.47	63.54%	69.30%
3/16/2003	154.10	66.76	117.12	42.72	56.68%	63.52%
3/17/2003	130.90	86.52	99.48	55.37	33.90%	44.34%
3/18/2003	128.19	75.88	97.43	48.57	40.81%	50.15%
3/19/2003	120.96	66.37	96.77	42.48	45.13%	56.10%
3/20/2003	151.20	71.53	120.96	45.78	52.69%	62.15%
3/21/2003	146.93	56.31	117.54	36.04	61.68%	69.34%
3/22/2003	141.01	75.21	112.81	48.13	46.67%	57.33%
3/23/2003	128.36	77.06	102.69	49.32	39.97%	51.97%
3/24/2003	121.57	69.18	97.26	44.28	43.09%	54.47%
3/25/2003	112.94	82.11	90.35	52.55	27.29%	41.84%
3/26/2003	118.86	27.23	93.90	17.97	77.09%	80.86%
3/27/2003	93.24	21.04	73.66	13.88	77.44%	81.15%
3/28/2003	114.06	73.56	90.10	48.55	35.51%	46.12%
3/29/2003	88.39	74.70	69.83	49.30	15.49%	29.39%
3/30/2003	72.70	98.84	57.44	65.23		
3/31/2003	74.82	36.89	59.11	24.35	50.69%	58.81%
4/1/2003	102.89	93.48	81.28	61.70	9.15%	24.10%
4/2/2003	97.17	69.18	76.76	44.27	28.81%	42.32%
4/3/2003	93.71	31.19	74.03	19.96	66.71%	73.03%
4/4/2003	80.78	48.38	63.81	30.96	40.11%	51.48%
4/5/2003	110.15	63.78	87.02	40.82	42.09%	53.09%
4/6/2003	97.18	22.92	76.78	14.67	76.42%	80.89%
4/7/2003	70.46	26.26	55.67	16.81	62.73%	69.80%
4/8/2003	76.60	18.74	60.51	11.99	75.54%	80.18%
4/9/2003	79.87	28.16	62.30	17.74	64.75%	71.53%
4/10/2003	92.88	51.90	72.45	32.70	44.12%	54.87%
4/11/2003	101.90	48.19	79.48	30.36	52.71%	61.80%
4/12/2003	98.19	58.50	76.59	36.85	40.42%	51.88%
4/13/2003	101.14	63.00	78.89	39.69	37.71%	49.69%
4/14/2003	45.00	74.04	35.10	46.64	-64.51%	-32.87%
4/15/2003	64.74	77.69	50.50	48.94	-20.00%	3.08%
4/16/2003	123.37	56.29	96.22	36.03	54.37%	62.56%
4/17/2003	84.82	55.32	66.16	35.41	34.78%	46.48%
4/18/2003	100.16	38.41	78.13	24.58	61.65%	68.54%
4/19/2003	116.43	61.31	90.81	39.24	47.34%	56.80%
4/20/2003	122.24	49.95	95.35	31.97	59.14%	66.47%
4/21/2003	122.52	54.07	95.57	34.61	55.87%	63.79%
4/22/2003	99.00	97.13	77.22	62.17	1.88%	19.49%
4/23/2003	96.42	98.88	73.28	63.28		
4/24/2003	105.91	86.87	80.49	55.59	17.98%	30.93%
4/25/2003	104.82	94.58	79.66	60.53	9.77%	24.02%
4/26/2003	104.69	53.75	79.57	34.40	48.66%	56.77%
4/27/2003	102.36	56.23	77.80	35.99	45.07%	53.74%
4/28/2003	106.53	58.80	80.96	37.63	44.81%	53.52%
4/29/2003	116.10	88.36	88.23	56.55	23.89%	35.91%
4/30/2003	119.61	74.30	93.30	44.58	37.88%	52.22%
5/1/2003	117.64	82.04	91.76	49.23	30.26%	46.35%
5/2/2003	122.73	96.65	95.73	57.99	21.25%	39.42%
5/3/2003	138.85	67.19	108.30	40.31	51.61%	62.78%
5/4/2003	163.60	52.52	127.61	31.51	67.90%	75.31%
5/5/2003	124.07	110.59	96.77	66.35	10.87%	31.44%

	GIVEN ¹ :		CALCULATED ² :		ANALYZED ³ :	
	Digester Feed	DSD	Digester Feed	DSD	TS	VS
	TS	TS	VS	VS	Destruction	Destruction
5/6/2003	100.29	75.06	78.23	45.04	25.16%	42.43%
5/7/2003	76.35	47.19	54.97	25.95	38.19%	52.79%
5/8/2003	97.34	49.56	70.09	27.26	49.09%	61.11%
5/9/2003	110.61	78.41	79.64	43.12	29.11%	45.85%
5/10/2003	104.07	65.40	74.93	35.97	37.16%	52.00%
5/11/2003	115.76	49.17	83.35	27.04	57.53%	67.55%
5/12/2003	77.14	97.22	55.54	53.47		
5/13/2003	140.12	62.45	114.90	38.09	55.43%	66.84%
5/14/2003	140.02	49.54	114.81	30.22	64.62%	73.68%
5/15/2003	130.88	113.60	107.33	69.30	13.20%	35.43%
5/16/2003	142.43	108.79	116.79	66.36	23.62%	43.18%
5/17/2003	105.97	99.12	86.90	60.46	6.47%	30.42%
5/18/2003	91.59	86.31	75.10	52.65	5.76%	29.90%
5/19/2003	87.54	77.00	71.78	46.97	12.04%	34.57%
5/20/2003	112.58	82.07	92.32	50.06	27.10%	45.77%
5/21/2003	114.04	85.52	90.09	53.88	25.00%	40.19%
5/22/2003	83.37	40.72	65.86	25.65	51.16%	61.05%
5/23/2003	94.84	96.00	74.92	60.48		
5/24/2003	86.94	53.08	68.69	33.44	38.95%	51.31%
5/25/2003	88.18	74.36	69.67	46.84	15.68%	32.76%
5/26/2003	84.49	40.71	66.75	25.64	51.82%	61.58%
5/27/2003	93.92	46.27	74.19	29.15	50.74%	60.71%
5/28/2003	103.70	80.32	85.03	51.41	22.54%	39.55%
5/29/2003	91.22	99.36	74.80	63.59		
5/30/2003	103.36	70.58	84.75	45.17	31.71%	46.70%
5/31/2003	101.97	43.45	83.62	27.81	57.39%	66.74%
6/1/2003	100.08	38.96	82.06	24.94	61.07%	69.62%
6/2/2003	111.12	99.68	91.12	63.80	10.29%	29.98%
6/3/2003	106.18	91.64	87.07	58.65	13.69%	32.64%
6/4/2003	105.91	70.12	84.73	43.47	33.79%	48.69%
6/5/2003	74.43	20.42	59.55	12.66	72.56%	78.73%
6/6/2003	77.34	91.07	61.87	56.47		
6/7/2003	84.92	72.36	67.93	44.86	14.79%	33.96%
6/8/2003	97.06	45.05	77.65	27.93	53.59%	64.03%
6/9/2003	93.44	49.76	74.75	30.85	46.74%	58.72%
6/10/2003	107.59	46.94	86.07	29.10	56.37%	66.19%
6/11/2003	110.60	73.19	88.48	45.38	33.82%	48.71%
6/12/2003	89.84	81.55	71.87	50.56	9.22%	29.65%
6/13/2003	99.96	64.73	79.97	40.13	35.24%	49.81%
6/14/2003	91.34	63.45	73.07	39.34	30.53%	46.16%
6/15/2003	73.15	50.64	58.52	31.40	30.77%	46.34%
6/16/2003	79.41	47.01	63.53	29.14	40.81%	54.13%
6/17/2003	85.73	50.84	68.58	31.52	40.69%	54.03%
6/18/2003	124.15	39.98	99.32	24.39	67.80%	75.44%
6/19/2003	126.11	39.59	100.89	24.15	68.60%	76.06%
6/20/2003	121.79	86.22	97.43	52.60	29.20%	46.02%
6/21/2003	119.96	74.60	95.97	45.51	37.81%	52.58%
6/22/2003	107.27	79.20	85.82	48.31	26.17%	43.71%
6/23/2003	123.08	55.81	98.46	34.05	54.65%	65.42%
6/24/2003	130.67	50.16	104.54	30.60	61.62%	70.73%
6/25/2003	98.84	82.27	79.07	50.19	16.77%	36.53%
6/26/2003	86.82	12.67	69.46	7.73	85.41%	88.87%
6/27/2003	49.90		39.92			
6/28/2003	127.84	80.01	102.27	48.81	37.41%	52.28%
6/29/2003	108.95	84.89	87.16	51.78	22.09%	40.59%
6/30/2003	123.72	59.92	98.98	36.55	51.57%	63.07%
7/1/2003	115.54	47.74	92.43	29.12	58.68%	68.49%
7/2/2003	123.51	41.20	97.57	24.31	66.64%	75.09%
7/3/2003	121.78	48.54	96.21	28.64	60.14%	70.23%
7/4/2003	111.75	55.73	88.29	32.88	50.13%	62.75%
7/5/2003	103.35	80.69	81.65	47.61	21.93%	41.69%
7/6/2003	91.12	61.61	71.99	36.35	32.39%	49.50%
7/7/2003	82.27	87.19	64.99	51.44		
7/8/2003	107.26	55.59	84.73	32.80	48.17%	61.29%
7/9/2003	127.31	53.17	98.03	32.44	58.24%	66.91%

	GIVEN ¹ :		CALCULATED ² :		ANALYZED ³ :	
	Digester Feed	DSD	Digester Feed	DSD	TS	VS
	TS	TS	VS	VS	Destruction	Destruction
7/10/2003	117.80	53.10	90.71	32.39	54.92%	64.29%
7/11/2003	111.77	45.08	86.07	27.50	59.67%	68.05%
7/12/2003	96.58	34.83	74.37	21.25	63.93%	71.43%
7/13/2003	92.24	48.87	71.03	29.81	47.02%	58.03%
7/14/2003	113.85	92.28	87.66	56.29	18.94%	35.78%
7/15/2003	124.98	65.49	96.24	39.95	47.60%	58.49%
7/16/2003	119.64	72.82	89.73	43.69	39.14%	51.31%
7/17/2003	97.53	54.32	73.15	32.59	44.30%	55.44%
7/18/2003	94.72	65.48	71.04	39.29	30.87%	44.70%
7/19/2003	97.87	52.71	73.40	31.63	46.15%	56.92%
7/20/2003	53.28	63.34	39.96	38.01		
7/21/2003	65.34	71.02	49.01	42.61		
7/22/2003	94.98	30.50	71.23	18.30	67.89%	74.31%
7/23/2003	93.63	86.31	73.97	51.79	7.82%	29.99%
7/24/2003	109.55	86.69	86.54	52.01	20.87%	39.90%
7/25/2003	109.65	55.50	86.63	33.30	49.39%	61.56%
7/26/2003	96.36	55.70	76.12	33.42	42.19%	56.09%
7/27/2003	49.81	53.22	39.35	31.93		
7/28/2003	78.81	90.58	62.26	54.35		
7/29/2003	99.77	68.05	79.82	38.79	31.80%	51.41%
7/30/2003	139.21	55.80	111.37	31.81	59.92%	71.44%
7/31/2003	145.24	59.55	116.19	33.94	59.00%	70.79%
8/1/2003	124.79	93.42	99.83	53.25	25.14%	46.66%
8/2/2003	101.02	85.06	80.81	48.48	15.80%	40.01%
8/3/2003	132.43	79.69	105.95	45.42	39.83%	57.13%
8/4/2003	121.95	74.06	97.56	42.22	39.27%	56.73%
8/5/2003	98.49	51.50	71.90	29.87	47.71%	58.46%
8/6/2003	93.69	108.84	68.39	63.13		
8/7/2003	87.42	49.98	63.81	28.99	42.83%	54.58%
8/8/2003	117.72	56.55	85.94	32.80	51.96%	61.83%
8/9/2003	94.67	61.74	69.11	35.81	34.79%	48.19%
8/10/2003	96.54	50.68	70.48	29.39	47.51%	58.30%
8/11/2003	119.74	49.63	87.41	28.79	58.55%	67.07%
8/12/2003	161.99	52.87	118.26	30.14	67.36%	74.52%
8/13/2003	133.96	106.01	97.79	60.43	20.86%	38.21%
8/14/2003	152.31	151.21	111.18	86.19	0.72%	22.48%
8/15/2003	144.30	134.26	105.34	76.53	6.95%	27.35%
8/16/2003	142.22	95.65	103.82	54.52	32.75%	47.49%
8/17/2003	129.08	60.85	94.23	34.69	52.86%	63.19%
8/18/2003	106.92	62.84	78.05	35.82	41.22%	54.11%
8/19/2003	120.66	98.15	88.08	55.94	18.66%	36.49%
8/20/2003	99.16	110.79	75.36	64.26		
8/21/2003	94.41	87.74	71.75	50.89	7.07%	29.08%
8/22/2003	109.04	83.30	82.87	48.31	23.61%	41.70%
8/23/2003	97.53	79.60	74.12	46.17	18.39%	37.72%
8/24/2003	107.44	61.50	81.65	35.67	42.75%	56.31%
8/25/2003	135.89	46.83	103.28	27.16	65.54%	73.70%
8/26/2003	125.94	99.97	95.71	57.98	20.62%	39.42%
8/27/2003	105.80	99.33	78.29	58.61	6.11%	25.14%
8/28/2003	119.01	83.01	88.07	48.97	30.25%	44.39%
8/29/2003	114.50	83.05	84.73	49.00	27.46%	42.17%
8/30/2003	100.74	67.44	74.55	39.79	33.06%	46.63%
8/31/2003	71.95	63.99	53.25	37.75	11.07%	29.09%
9/1/2003	86.76	49.50	64.20	29.20	42.95%	54.51%
9/2/2003	95.95	54.14	71.00	31.94	43.58%	55.01%
9/3/2003	103.06	49.66	74.20	29.30	51.81%	60.51%
9/4/2003	88.63	105.48	63.81	62.24		
9/5/2003	98.34	87.75	70.80	51.77	10.76%	26.88%
9/6/2003	117.48	84.02	84.59	49.57	28.49%	41.40%
9/7/2003	109.37	53.86	78.75	31.78	50.76%	59.65%
9/8/2003	78.28	82.63	56.36	48.75		
9/9/2003	77.51	74.17	55.81	43.76	4.32%	21.59%
9/10/2003	89.34	82.73	64.32	47.16	7.40%	26.69%
9/11/2003	102.63	70.19	73.89	40.01	31.60%	45.85%
9/12/2003	115.94	55.29	83.48	31.52	52.31%	62.24%

	GIVEN ¹ :		CALCULATED ² :		ANALYZED ³ :	
	Digester Feed	DSD	Digester Feed	DSD	TS	VS
	TS	TS	VS	VS	Destruction	Destruction
9/13/2003	161.71	51.29	116.43	29.23	68.29%	74.89%
9/14/2003	134.08	44.48	96.53	25.36	66.82%	73.73%
9/15/2003	142.80	94.35	102.82	53.78	33.93%	47.70%
9/16/2003	164.24	116.50	118.25	66.40	29.07%	43.85%
9/17/2003	148.72	130.96	113.03	72.03	11.94%	36.27%
9/18/2003	130.09	105.21	98.87	57.87	19.12%	41.47%
9/19/2003	124.31	85.82	94.48	47.20	30.97%	50.04%
9/20/2003	116.31	94.52	88.40	51.99	18.73%	41.19%
9/21/2003	120.82	86.91	91.82	47.80	28.07%	47.95%
9/22/2003	114.74	93.73	87.21	51.55	18.31%	40.88%
9/23/2003	127.03	89.50	96.54	49.22	29.55%	49.01%
9/24/2003	125.38	62.37	97.80	35.55	50.26%	63.65%
9/25/2003	115.80	49.44	90.32	28.18	57.31%	68.80%
9/26/2003	125.56	95.40	97.93	54.38	24.02%	44.48%
9/27/2003	129.24	80.39	100.81	45.82	37.80%	54.54%
9/28/2003	91.60	84.91	71.45	48.40	7.31%	32.26%
9/29/2003	80.21	87.25	62.57	49.74		
9/30/2003	97.08	56.14	76.69	33.68	42.17%	56.08%
10/1/2003	104.46	47.59	82.52	28.55	54.45%	65.40%
10/2/2003	114.71	92.32	90.62	55.39	19.52%	38.88%
10/3/2003	105.98	92.93	83.72	55.76	12.31%	33.40%
10/4/2003	95.11	79.62	75.14	47.77	16.29%	36.42%
10/5/2003	93.16	60.29	73.60	36.17	35.28%	50.85%
10/6/2003	101.28	41.13	80.01	24.68	59.39%	69.16%
10/7/2003	103.91	50.39	82.09	28.72	51.51%	65.01%
10/8/2003	120.61	77.43	95.28	44.14	35.80%	53.68%
10/9/2003	101.49	102.90	80.18	58.65		
10/10/2003	109.46	79.61	86.47	45.38	27.27%	47.53%
10/11/2003	125.29	93.35	98.98	53.21	25.50%	46.24%
10/12/2003	105.32	80.62	83.21	45.96	23.45%	44.77%
10/13/2003	85.34	59.60	67.42	33.97	30.17%	49.62%
10/14/2003	98.27	39.65	77.63	22.60	59.65%	70.89%
10/15/2003	146.84	85.62	111.60	48.80	41.69%	56.27%
10/16/2003	123.99	82.31	94.24	46.92	33.62%	50.22%
10/17/2003	105.73	84.43	80.35	48.12	20.15%	40.11%
10/18/2003	119.11	80.16	90.52	45.69	32.69%	49.52%
10/19/2003	100.35	83.35	76.26	47.51	16.93%	37.70%
10/20/2003	94.66	53.83	71.94	30.68	43.13%	57.35%
10/21/2003	105.78	46.45	81.45	27.41	56.09%	66.35%
10/22/2003	110.20	98.48	84.85	58.10	10.63%	31.52%
10/23/2003	76.42	84.73	58.84	49.99		
10/24/2003	84.82	88.62	65.31	52.29		
10/25/2003	127.92	73.57	98.50	43.41	42.48%	55.93%
10/26/2003	90.11	55.82	69.39	32.93	38.05%	52.54%
10/27/2003	97.13	52.87	74.79	31.19	45.57%	58.29%
10/28/2003	95.47	55.86	69.70	31.28	41.49%	55.12%
10/29/2003	81.06	58.95	59.18	33.01	27.28%	44.21%
10/30/2003	92.90	91.59	67.81	51.29	1.41%	24.37%
10/31/2003	99.01	90.29	72.28	50.56	8.81%	30.05%
11/1/2003	89.30	87.36	65.19	48.92	2.17%	24.95%
11/2/2003	76.72	51.93	56.00	29.08	32.31%	48.07%
11/3/2003	98.64	45.48	72.01	25.47	53.89%	64.63%
11/4/2003	84.72	44.88	61.84	25.13	47.02%	59.36%
11/5/2003	123.01	81.51	97.18	47.27	33.74%	51.35%
11/6/2003	132.01	90.85	104.29	52.69	31.18%	49.47%
11/7/2003	147.17	93.00	116.27	53.94	36.81%	53.61%
11/8/2003	109.48	90.88	86.49	52.71	16.99%	39.05%
11/9/2003	89.99	89.01	71.09	51.62	1.09%	27.38%
11/10/2003	82.98	56.01	65.56	32.49	32.50%	50.44%
11/11/2003	77.06	39.29	60.87	22.79	49.01%	62.56%
11/12/2003	104.86	46.24	81.79	27.28	55.91%	66.65%
11/13/2003	94.19	92.06	73.47	54.31	2.26%	26.07%
11/14/2003	88.43	83.77	68.98	49.42	5.28%	28.35%
11/15/2003	76.75	74.34	59.87	43.86	3.15%	26.74%
11/16/2003	59.30	75.12	46.25	44.32		

	GIVEN ¹ :		CALCULATED ² :		ANALYZED ³ :	
	Digester Feed TS	DSD TS	Digester Feed VS	DSD VS	TS Destruction	VS Destruction
11/17/2003	72.87	50.72	56.84	29.92	30.40%	47.35%
11/18/2003	92.53	37.47	73.10	23.23	59.50%	68.22%
11/19/2003	89.30	39.83	70.55	24.70	55.40%	65.00%
11/20/2003	98.08	87.78	77.48	54.42	10.50%	29.76%
11/21/2003	116.37	79.02	91.93	48.99	32.09%	46.70%
11/22/2003	106.75	70.57	84.33	43.75	33.89%	48.12%
11/23/2003	108.66	76.94	85.84	47.70	29.20%	44.43%
11/24/2003	89.66	82.78	70.83	51.33	7.67%	27.54%
11/25/2003	104.73	79.18	81.69	48.30	24.40%	40.88%
11/26/2003	109.70	69.05	85.57	42.12	37.06%	50.77%
11/27/2003	80.97	38.28	63.16	23.35	52.72%	63.03%
11/28/2003	85.79	37.13	66.91	22.65	56.71%	66.15%
11/29/2003	92.35	72.50	72.04	44.22	21.50%	38.61%
11/30/2003	86.12	45.69	67.17	27.87	46.95%	58.51%
12/1/2003	94.31		73.57			
12/2/2003	108.76	75.14	84.84	45.83	30.92%	45.98%
12/3/2003	106.79	83.02	80.09	48.98	22.25%	38.84%
12/4/2003	159.09	77.18	119.31	45.54	51.48%	61.83%
12/5/2003	135.17	76.02	101.38	44.85	43.76%	55.76%
12/6/2003	142.11	82.84	106.58	48.88	41.71%	54.14%
12/7/2003	119.20	79.76	89.40	47.06	33.09%	47.36%
12/8/2003	74.99	45.54	56.24	26.87	39.28%	52.23%
12/9/2003	77.29	58.53	57.97	34.53	24.27%	40.43%
12/10/2003	93.67	66.64	72.12	39.32	28.85%	45.49%
12/11/2003	118.04	73.11	90.89	43.14	38.06%	52.54%
12/12/2003	99.66	86.59	76.73	51.09	13.11%	33.42%
12/13/2003	90.45	86.98	69.65	51.32	3.84%	26.32%
12/14/2003	93.74	82.65	72.18	48.76	11.83%	32.44%
12/15/2003	70.60	51.73	54.37	30.52	26.74%	43.87%
12/16/2003	77.13	39.30	59.39	23.19	49.05%	60.96%
12/17/2003	83.08	42.91	64.80	26.61	48.34%	58.94%
12/18/2003	107.57	91.74	83.91	56.88	14.72%	32.21%
12/19/2003	101.67	75.67	79.30	46.92	25.57%	40.84%
12/20/2003	45.31	61.93	35.34	38.40		
12/21/2003	35.97	57.98	28.05	35.95		
12/22/2003	70.26	56.64	54.80	35.12	19.38%	35.92%
12/23/2003	92.33	70.39	73.86	42.23	23.76%	42.82%
12/24/2003	80.11	51.81	64.09	31.09	35.33%	51.49%
12/25/2003	68.03	51.18	54.43	30.71	24.77%	43.58%
12/26/2003	49.23	39.34	39.38	23.60	20.08%	40.06%
12/27/2003	73.23	53.60	58.59	32.16	26.81%	45.11%
12/28/2003	100.71	39.64	80.57	23.79	60.64%	70.48%
12/29/2003	88.71	44.12	70.97	26.47	50.27%	62.70%
12/30/2003	79.25	63.11	63.40	37.87	20.36%	40.27%
12/31/2003	72.24	48.91	57.79	29.35	32.29%	49.22%
AVE	100.06	60.43	77.39	36.45	42.76%	55.24%
Max	164.24	151.21	127.61	86.19	91.75%	94.10%

DEFINITIONS:

TS – Total Solids

VS – Volatile Solids, a portion of the total solids

TPD – Tons per day

NOTES:

1) Given data was taken from the 2003 UWS DWOR

2) Volatile solids were determined by using the percent volatile solids measurement data provided in the MMSD Laboratory Information Management System (LIMS).

LIMS data are only taken approximately once a week while UWS DWOR data are daily. Therefore the analysis assumed:

– %VS was the same for the entire week ending on the date sample taken

– except for last week in December - data from 12/29 extended to end of the year

3) All % Destructions calculated which were negative were dropped out of analysis

Month	COLLECTION_DATE	SOURCE_CODE_SID	SITE_CODE	RESULT_REPORT	SOURCE_CODE_SID	SITE_CODE	RESULT_REPORT
1	1/7/2003	701	SS	76	821	SS	66
	1/14/2003	701	SS	79	821	SS	63
	1/21/2003	701	SS	80	821	SS	64
	1/28/2003	701	SS	78	821	SS	65
				78.25			64.5
2	2/4/2003	701	SS	81	821	SS	65
	2/11/2003	701	SS	79	821	SS	66
	2/18/2003	701	SS	77	821	SS	55
	2/25/2003	701	SS	73	821	SS	66
				77.5			63
3	3/3/2003	701	SS	74	821	SS	66
	3/11/2003	701	SS	76	821	SS	61
	3/18/2003	701	SS	76	821	SS	64
	3/25/2003	701	SS	80	821	SS	64
				76.5			63.75
4	4/1/2003	701	SS	79	821	SS	66
	4/8/2003	701	SS	79	821	SS	64
	4/15/2003	701	SS	78	821	SS	63
	4/22/2003	701	SS	78	821	SS	64
	4/29/2003	701	SS	76	821	SS	64
5				78			64.2
	5/6/2003	701	SS	78	821	SS	60
	5/12/2003	701	SS	72	821	SS	55
	5/20/2003	701	SS	82	821	SS	61
	5/27/2003	701	SS	79	821	SS	63
6				77.75			59.75
	6/3/2003	701	SS	82	821	SS	64
	6/10/2003	701	SS	80	821	SS	62
	6/17/2003	701	SS	80	821	SS	62
	6/24/2003	701	SS	80	821	SS	61
7				80.5			62.25
	7/1/2003	701	SS	80	821	SS	61
	7/8/2003	701	SS	79	821	SS	59
	7/15/2003	701	SS	77	821	SS	61
	7/22/2003	701	SS	75	821	SS	60
	7/28/2003	701	SS	79	821	SS	60
				78			60.2
	8/4/2003	701	SS	80	821	SS	57
	8/11/2003	701	SS	73	821	SS	58
	8/19/2003	701	SS	73	821	SS	57
	8/26/2003	701	SS	76	821	SS	58

Month	COLLECTION_DATE	SOURCE_CODE_SID	SITE_CODE	RESULT_REPORT	SOURCE_CODE_SID	SITE_CODE	RESULT_REPORT
8				75.5			57.5
	9/2/2003	701	SS	74	821	SS	59
	9/9/2003	701	SS	72	821	SS	59
	9/16/2003	701	SS	72	821	SS	57
	9/23/2003	701	SS	76	821	SS	55
	9/29/2003	701	SS	78	821	SS	57
9				74.4			57.4
	10/6/2003	701	SS	79	821	SS	60
	10/14/2003	701	SS	79	821	SS	57
	10/20/2003	701	SS	76	821	SS	57
	10/27/2003	701	SS	77	821	SS	59
10				77.75			58.25
	11/4/2003	701	SS	73	821	SS	56
	11/11/2003	701	SS	79	821	SS	58
	11/17/2003	701	SS	78	821	SS	59
	11/24/2003	701	SS	79	821	SS	62
11				77.25			58.75
	12/2/2003	701	SS	78	821	SS	61
	12/9/2003	701	SS	75	821	SS	59
	12/16/2003	701	SS	77	821	SS	59
	12/22/2003	701	SS	78	821	SS	62
	12/29/2003	701	SS	80	821	SS	60
12				77.6			60.2
2003	Year Average			77.4			60.8

NOTES:

- 1) Data provided by MMSD
- 2) SS Volatile Solids % Measurement Source Code ID:
 - 701 Sludge to Digestion
 - 821 Sludge from Digestion

APPENDIX 4H
UWS STORAGE DIGESTER INVENTORY REVIEW

2003 Storage Inventory	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year End
Average volume in storage	4.90	3.96	3.86	4.90	3.14	4.20	4.32	5.83	6.13	3.49	2.63	4.88	4.35
Maximum volume in storage	5.43	3.96	4.22	5.52	3.56	4.76	4.49	5.83	7.33	4.24	2.77	6.12	7.33
Minimum volume in storage	4.37	3.96	3.54	3.35	2.72	3.88	4.14	5.83	4.90	2.75	2.50	4.10	2.50

Note: Raw data provided by UWS and is included in Table 4H-2, Agri-Life Digester Storage Inventory

AGRI-LIFE DIGESTER STORAGE INVENTORY																					
	DATE		01/03/03		MG		01/31/03		MG		02/10/03		MG		03/05/03		MG		03/18/03		MG
		0.00			6.83	0.00			4.79	0.00			4.52				4.32	0.00			4.71
	DIG.#	Bailey vol. KG	meas.level	meas VOL.		Bailey vol. KG	meas.level	meas VOL.		Bailey vol. KG	meas.level	meas VOL.		Bailey meas.	meas.level	meas VOL.		Bailey vol. KG	meas.level	meas VOL.	
1"=1 2"=2 3"=3 4"=3 5"=4 6"=5 7"=6 8"=7 9"=8 10"=8 11"=9			14.0			21.0				22.6				21.0				13.0			
	1		96.7	0.94		89.7	0.44			88.1	0.33			89.7	0.44			97.7	1.01		
			5.0			11.2				17.0				20.0				20.5			
	2		105.7	1.58		99.5	1.14			93.7	0.73			90.7	0.51			90.2	0.48		
			19.0			18.0				19.5				21.0				17.4			
	3		90.0	0.47		91.0	0.54			89.5	0.43			88.0	0.32			91.6	0.58		
			3.5			9.0				9.4				9.0				13.0			
	4		105.5	1.57		100.0	1.18			99.6	1.15			100.0	1.18			96.0	0.89		
			8.0			14.0				17.5				9.3				10.0			
5		101.0	1.25		95.0	0.82			91.5	0.57			99.7	1.15			99.0	1.10			
	6		Operational			Operational				Operational				Operational				Operational			
CONC			11.0			16.0				7.0				15.5				16.5			
84"=07"	7		98.0	1.03		93.0	0.68			102.0	1.32			93.5	0.71			92.5	0.64		
83"=03"																					
82"=01"	8		Operational			Operational				Operational				Operational				Operational			

Comments:	1/3/2003	1/31/2003	2/10/2003	3/5/2003	3/18/2003
	dig#1 ok	dig#1 thick	dig#1 ok	dig#1 thick	dig#1 ok
	dig#2 12 ft water	dig#2 3-5ft pumpable	dig#2 ok	dig#2 thick	dig#2 ok
	dig#3 5 ft water	dig#3 2-3ft pumpable	dig#3 2ft unpumpable	dig#3 ok	dig#3 consolidate
	dig#4 11 ft water	dig#4 3ft pumpable	dig#4 2ft water/thin	dig#4 2ft water/thin	dig#4 transfer
	dig#5 5 ft thin	dig#5 2-3ft pumpable	dig#5 2ft unpumpable	dig#5 ok	dig#5 7ft water
	dig#7 7 ft thin	dig#7 ok	dig#7 8ft pumpable	dig#7 2ft water/thin	dig#7 ok

pump off volume gal.	1,400,000	420,000	560,000	490,000	490,000
actual sludge volume MG	5.43	4.37	3.96	3.83	4.22

priority	Storage volume to pump off		Volume Balance check	MG	comments
	feet	gallons			
dig#1		0	inventory 1/31		
dig#2		0	P&F runs	58	
dig#3		0			
dig#4		0			
dig#5	7	490,000	calc.decant vol.		
dig#7		0	centrifuge addition		
total (water / thin) vol. in storage		490,000	workable inventory	0.00	

AGRI-LIFE DIGESTER STORAGE INVENTORY																
	DATE		03/25/03	MG		04/01/03	MG		04/15/03	MG		04/17/03	MG		04/28/03	MG
		0.00		4.94	0.00		5.69	0.00		5.46			5.52	0.00		3.56
	DIG.#	Bailey vol. KG	meas.level	meas VOL.	Bailey vol. KG	meas.level	meas VOL.	Bailey vol. KG	meas.level	meas VOL.	Bailey meas.	meas.level	meas VOL.	Bailey vol. KG	meas.level	meas VOL.
1"=1 2"=2 3"=3 4"=3 5"=4 6"=5 7"=6 8"=7 9"=8 10"=8 11"=9	1		14.8			14.5			17.4			17.0			15.0	
			95.9	0.88		96.2	0.91		93.3	0.70		93.7	0.73		95.7	0.87
	2		20.7			20.0			13.4			13.0			18.0	
			90.0	0.47		90.7	0.51		97.3	0.98		97.7	1.01		92.7	0.66
	3		13.9			12.5			12.0			10.0			7.5	
			95.1	0.83		96.5	0.93		97.0	0.96		99.0	1.10		101.5	1.28
	4		16.0			13.0			19.0			21.0			23.0	
			93.0	0.68		96.0	0.89		90.0	0.47		88.0	0.32		86.0	0.18
	5		15.7			11.0			13.0			13.0			21.0	
			93.3	0.70		98.0	1.03		96.0	0.89		96.0	0.89		88.0	0.32
	6															
			Operational			Operational			Operational			Operational			Operational	
CONC	7		6.0			5.5			5.0			5.0			22.0	
84"=07			103.0	1.39		103.5	1.42		104.0	1.46		104.0	1.46		87.0	0.25
83"=03	8															
82"=01				Operational			Operational			Operational			Operational			Operational

Comments:	3/25/2003	4/1/2003	4/15/2003	4/17/2003	4/28/2003
	dig#1	dig#1	dig#1	dig#1	dig#1
	dig#2	dig#2	dig#2	dig#2	dig#2
	dig#3	dig#3	dig#3	dig#3	dig#3
	dig#4	dig#4	dig#4	dig#4	dig#4
	dig#5	dig#5	dig#5	dig#5	dig#5
	dig#7	dig#7	dig#7	dig#7	dig#7
pump off volume gal.	1,400,000	420,000	0		210,000
actual sludge volume MG	3.54	5.27	5.46	5.52	3.35

priority	Storage volume to pump off		Volume Balance check	MG	comments
	feet	gallons			
dig#1		0	inventory 3/5/03	4.32	
dig#2		0	P&F runs 33		thin feed high vol. Consumption
dig#3	3	210,000			
dig#4		0			
dig#5		0	calc.decant vol.	0.42	6 ft from #5
dig#7		0	centrifuge addition		
total (water / thin) vol. in storage		210,000	workable inventory	-0.42	

AGRI-LIFE DIGESTER STORAGE INVENTORY																	
	DATE	05/13/03 MG			05/27/03 MG			06/06/03 MG			06/13/03 MG			06/30/03 MG			
	DIG.#	Bailey vol. KG	meas.level	meas VOL.	Bailey vol. KG	meas.level	meas VOL.	Bailey vol. KG	meas.level	meas VOL.	Bailey meas.	meas.level	meas VOL.	Bailey vol. KG	meas.level	meas VOL.	
1'±.4 2'±.2 3'±.8 4'±.8 5'±.4 6'±.6 7'±.6 8'±.7 9'±.8 10'±.8 11'±.9 QONE 84'±.07 83'±.03 82'±.01	1		23.0			22.5			22.5			18.0			13.2		
			87.7	0.30			88.2	0.34		88.2	0.34		92.7	0.66		97.5	1.00
	2		16.0				17.8			13.0			5.7			8.4	
			94.7	0.80			92.9	0.67		97.7	1.01		105.0	1.53		102.3	1.34
	3		16.0				22.5			22.5			22.5			23.5	
			93.0	0.68			86.5	0.22		86.5	0.22		86.5	0.22		85.5	0.15
	4		23.0				22.0			22.5			22.5			23.0	
			86.0	0.18			87.0	0.25		86.5	0.22		86.5	0.22		86.0	0.18
	5		14.0				14.0			16.0			16.0			15.0	
			95.0	0.82			95.0	0.82		93.0	0.68		93.0	0.68		94.0	0.75
	6		Operational				Operational			Operational			Operational			Operational	
	7		14.5				14.6			5.5			5.0			7.0	
			94.5	0.78			94.4	0.78		103.5	1.42		104.0	1.46		102.0	1.32
	8		Operational				Operational			Operational			Operational			16.5	
			Operational				Operational			Operational			Operational			92.5	0.64

Comments:	5/13/2003	5/27/2003	6/6/2003	6/13/2003	6/30/2003
	dig#1	dig#1	dig#1	dig#1	dig#1
	dig#2	dig#2	dig#2	dig#2	dig#2 10' thin/water
	dig#3	dig#3	dig#3	dig#3	dig#3
	dig#4	dig#4	dig#4	dig#4	dig#4
	dig#5	dig#5 5 ft thin/water	dig#5	dig#5	dig#5
	dig#6	dig#6	dig#6	dig#6	dig#6
	dig#7	dig#7	dig#7	dig#7	dig#7 10' thin/water
	dig#8	dig#8	dig#8	dig#8	dig#8 decant-transfer
pump off volume gal.	0	350,000			1,400,000
actual sludge volume MG	3.56	2.72	3.88	4.76	3.97

priority	Storage volume to pump off		comments
	feet	gallons	
dig#1		0	
dig#2	10	700,000	
dig#3		0	
dig#4		0	
dig#5		0	
dig#6		0	assume same conditions will duplicate experience found in dig#8
dig#7	10	700,000	
dig#8		0	decant efforts so far took down approximately 15'
total (water / thin) vol. in storage		1,400,000	

notes:

digester #8 dome is pulled, estimating 15+ feet of water/thin material to decant off: 5/27/03

reconfirmed status digester #8, estimating 15+ feet of water/thin material, will start decant off to head of plant: 6/6/03tg

pumping started Monday 6/9/03 @meas.3.0ft; check on progress Friday 6/13/03 meas.11.0ft@8:00am tg

digester #7 watch for decant separation, might be some water to pump off in two weeks. 6/6/03tg

AGRI-LIFE DIGESTER STORAGE INVENTORY																
	DATE		07/14/03	MG		07/28/03	MG		08/07/03	MG		09/02/03	MG		09/05/03	MG
		0.00		5.61	0.00		4.49	0.00		6.18			7.33	0.00		6.95
	DIG.#	Bailey vol. KG	meas.level	meas VOL.	Bailey vol. KG	meas.level	meas VOL.	Bailey vol. KG	meas.level	meas VOL.	Bailey meas.	meas.level	meas VOL.	Bailey vol. KG	meas.level	meas VOL.
1" = 1 2" = 2 3" = 3 4" = 3 5" = 4 6" = 5 7" = 6 8" = 7 9" = 8 10" = 8 11" = 9			12.7			14.0			14.0			12.0			14.0	
	1		98	1.03		96.7	0.94		96.7	0.94		98.7	1.08		96.7	0.94
			6.5			17.0			18.0			19.0			20.7	
	2		104.2	1.47		93.7	0.73		92.7	0.66		91.7	0.59		90	0.47
			23.0			22.5			22.5			6.0			12.0	
	3		86.0	0.18		86.5	0.22		86.5	0.22		103.0	1.39		97.0	0.96
			23.0			22.5			16.0			4.5			9.2	
	4		86.0	0.18		86.5	0.22		93.0	0.68		104.5	1.49		99.8	1.16
			14.8			12.0			5.8			8.0			9.5	
	5		94.2	0.76		97.0	0.96		103.2	1.40		101.0	1.25		99.5	1.14
									15.0			20.0			10.0	
6		Operational			Operational			94.0	0.75		89.0	0.39		99.0	1.10	
GONE			6.5			14.5			12.5			9.5			9.0	
84"=.07	7		102.5	1.35		94.5	0.78		96.5	0.93		99.5	1.14		100.0	1.18
83"=.03			16.7			16.5			17.0			27.0			29.0	
82"=.01	8		92.3	0.63		92.5	0.64		92.0	0.61		82.0			80.0	

Comments:	7/14/2003	7/28/2003	8/7/2003	9/2/2003	9/5/2003
	dig#1 7 ft water	dig#1	dig#1	dig#1	dig#1
	dig#2 5 ft water	dig#2	dig#2	dig#2	dig#2
	dig#3	dig#3	dig#3	dig#3	dig#3
	dig#4	dig#4	dig#4 filling	dig#4	dig#4
	dig#5	dig#5	dig#5 5-8 ft water	dig#5	dig#5
	dig#6	dig#6	dig#6 decant done	dig#6	dig#6
	dig#7 9 ft water	dig#7	dig#7	dig#7	dig#7
	dig#8	dig#8	dig#8 decant done	dig#8	dig#8

pump off volume gal.	1,470,000		350,000		
actual sludge volume MG	4.14	4.49	5.83	7.33	6.95

priority	Storage volume to pump off		comments
	feet	gallons	
dig#1		0	
dig#2		0	
dig#3		0	
dig#4		0	
dig#5	5	350,000	
dig#6		0	
dig#7		0	
dig#8		0	

total (water / thin) vol. in storage 350,000

AGRI-LIFE DIGESTER STORAGE INVENTORY																					
	DATE		09/09/03		MG		09/23/03		MG		09/29/03		MG		10/07/03		MG		10/17/03		MG
		0.00			6.94		0.00		6.37		0.00		5.81			5.15		0.00		3.78	
	DIG.#	Bailey vol. KG	meas.level	meas VOL.		Bailey vol. KG	meas.level	meas VOL.		Bailey vol. KG	meas.level	meas VOL.		Bailey meas.	meas.level	meas VOL.		Bailey vol. KG	meas.level	meas VOL.	
1 2 3 4 5 6 7 8 9 10 11	1		11.0			10.0				11.5				12.7				16.5			
			99.7	1.15		100.7	1.22			99.2	1.12			98	1.03			94.2	0.76		
	2		20.0			19.0				19.5				21.5				19.5			
			90.7	0.51		91.7	0.59			91.2	0.55			89.2	0.41			91.2	0.55		
	3		15.5			11.5				13.0				17.0				20.5			
			93.5	0.71		97.5	1.00			96.0	0.89			92.0	0.61			88.5	0.36		
	4		11.0			12.5				13.0				15.0				17.0			
			98.0	1.03		96.5	0.93			96.0	0.89			94.0	0.75			92.0	0.61		
	5		12.0			9.0				11.0				13.0				14.0			
			97.0	0.96		100.0	1.18			98.0	1.03			96.0	0.89			95.0	0.82		
GONE 84 83 82	6		10.0			19.0				19.0				19.0				19.0			
			99.0	1.10		90.0	0.47			90.0	0.47			90.0	0.47			90.0			
	7		5.0			11.5				10.0				11.5				16.0			
		104.0	1.46		97.5	1.00			99.0	1.10			97.5	1.00			93.0	0.68			
		29.0			29.0				29.0				29.0				29.0				
	8		80.0	0.00		80.0	0.00			80.0	-0.25			80.0				80.0			

Comments:	9/9/2003	9/23/2003	9/29/2003	10/7/2003	10/17/2003
	dig#1 dig#2 dig#3 dig#4 dig#5 dig#7	dig#1 7 ft water/thin dig#2 ok dig#3 7+ thin dig#4 7+ thin dig#5 good dig#7 7+ thin dig#8 empty	dig#1 dig#2 dig#3 dig#4 dig#5 dig#7	dig#1 dig#2 dig#3 dig#4 dig#5 dig#7	dig#1 2 ft decanting dig#2 ok dig#3 ok dig#4 5+ thin dig#5 3-4 ft thin dig#7 3 ft thin
pump off volume gal.	910,000	910,000	910,000	910,000	910,000
actual sludge volume MG	6.03	5.46	4.90	4.24	2.87

priority	Storage volume to pump off	
	feet	gallons
dig#1	2	140,000
dig#2		0
dig#3		0
dig#4	5	350,000
dig#5	3	210,000
dig#7	3	210,000
total (water / thin) vol. in storage		910,000

9/9/2003 dig#6 start pumping over to #3, decanted 700,000 gal of thin material from # 4 to mix with heavy mat last week
dig#4 resume decant to head of plant. Maybe another 5 ft of thin
dig#1 WO in for decanting next, maybe 10 ft of thin

AGRI-LIFE DIGESTER STORAGE INVENTORY																
	DATE		<u>10/17/03</u>	MG		<u>10/23/03</u>	MG		<u>11/01/03</u>	MG		<u>11/14/03</u>	MG		<u>12/04/03</u>	MG
		0.00		4.24		0.00	3.71		0.00	3.05			2.50		0.00	4.45
	DIG.#	Bailey vol. KG	meas.level	meas VOL.	Bailey vol. KG	meas.level	meas VOL.	Bailey vol. KG	meas.level	meas VOL.	Bailey meas.	meas.level	meas VOL.	Bailey vol. KG	meas.level	meas VOL.
1"=1' 2"=2' 3"=3' 4"=4' 5"=5' 6"=6' 7"=7' 8"=8' 9"=9' 10"=10' 11"=11'	1		16.5			18.5			22.5			22.5			22.0	
			94.2	0.76		92.2	0.62		88.2	0.34		88.2	0.34		88.7	0.37
	2		19.5			20.0			20.0			20.5			22.0	
			91.2	0.55		90.7	0.51		90.7	0.51		90.2	0.48		88.7	0.37
	3		20.5			23.5			23.5			23.5			17.5	
			88.5	0.36		85.5	0.15		85.5	0.15		85.5	0.15		91.5	0.57
	4		17.0			17.0			18.8			20.5			19.0	
			92.0	0.61		92.0	0.61		90.2	0.48		88.5	0.36		90.0	0.47
	5		14.0			14.5			15.0			17.0			8.5	
			95.0	0.82		94.5	0.78		94.0	0.75		92.0	0.61		100.5	1.21
	6		19.0			19.0			19.0						21.0	
			90.0	0.47		90.0	0.47		90.0			109.0			88.0	
OCNE		16.0			17.5			14.0			17.5			5.0		
84"=07'	7		93.0	0.68		91.5	0.57		95.0	0.82		91.5	0.57		104.0	1.46
88"=03'			29.0			29.0			29.0			29.0			29.0	
82"=01'	8		80.0			empty			empty			empty			empty	

Comments:	10/17/2003		10/23/2003		11/1/2003		11/14/2003		12/4/2003	
	dig#1	2 ft decanting	dig#1	ok pulled decant pump	dig#1		dig#1	good	dig#1	good
	dig#2	ok	dig#2	thick crusted	dig#2	thick crusted	dig#2	thick crusted	dig#2	good
	dig#3	ok	dig#3	thick & rags	dig#3	thick & rags	dig#3	thick	dig#3	5 ft water
	dig#4	5+ thin	dig#4	5+ thin	dig#4	decant pumping	dig#4	1 ft water	dig#4	good
	dig#5	3-4 ft thin	dig#5	2+ thin	dig#5	2-3 ft thin	dig#5	2-3 ft thin	dig#5	good
	dig#7	3 ft thin	dig#7	3-5 thin	dig#7		dig#7	good	dig#7	good
	dig#6	10 ft heavy solids	dig#6	10 ft heavy solids	dig#6	10 ft heavy solids	dig#6	10 ft heavy solids	dig#6	thick
	dig#8	empty	dig#8	empty	dig#8	empty	dig#8	empty	dig#8	empty

pump off volume gal.	140,000	490,000	280,000	0	350,000
actual sludge volume MG	4.10	2.75	2.77	2.50	4.10

priority	Storage volume to pump off	
	feet	gallons
dig#1		0
dig#2		0
dig#3	5	350,000
dig#4		0
dig#5		0
dig#7		0
total (water / thin) vol. in storage		350,000

AGRI-LIFE DIGESTER STORAGE INVENTORY													
	DATE		12/04/03	MG		12/23/03	MG		12/30/03	MG		02/03/04	MG
		0.00		4.45	0.00		6.12	0.00		6.33			5.34
	DIG.#	Bailey vol. KG	meas.level	meas VOL.	Bailey vol. KG	meas.level	meas VOL.	Bailey vol. KG	meas.level	meas VOL.	Bailey meas.	meas.level	meas VOL.
DIGESTER 1	1		22.0			22.5			22.5			22.5	
			88.7	0.37		88.2	0.34		88.2	0.34		88.2	0.34
	2		22.0			21.0			21.0			21.0	
			88.7	0.37		89.7	0.44		89.7	0.44		89.7	0.44
	3		17.5			6.0			5.5			11.0	
			91.5	0.57		103.0	1.39		103.5	1.42		98.0	1.03
	4		19.0			9.0			7.5			10.0	
			90.0	0.47		100.0	1.18		101.5	1.28		99.0	1.10
	5		8.5			6.0			5.5			9.0	
			100.5	1.21		103.0	1.39		103.5	1.42		100.0	1.18
DIGESTER 2	6		21.0			21.0			21.0				
			88.0			88.0			88.0			Operational	
DIGESTER 3	7		5.0			6.0			5.5			8.0	
			104.0	1.46		103.0	1.39		103.5	1.42		101.0	1.25
DIGESTER 4	8		29.0	empty		Operational			Operational			Operational	

Comments:	12/4/2003		12/23/2003		12/30/2003		2/3/2004		3/1/2004	
	dig#1		dig#1		dig#1	ok	dig#1	ok	dig#1	
	dig#2		dig#2		dig#2	ok	dig#2	ok	dig#2	
	dig#3		dig#3	7+ thin	dig#3	hard/frozen crust	dig#3	5-10thin	dig#3	3+
	dig#4		dig#4	6+ thin	dig#4	7+ thin	dig#4	5thin	dig#4	5+pumping
	dig#5		dig#5	5+ thin	dig#5	7+ thin	dig#5	5thin	dig#5	1+
	dig#7		dig#7	8+ thin	dig#7	7+ thin	dig#7	5thin	dig#7	3+
	dig#8		dig#8		dig#8	empty	dig#8	empty	dig#8	
	dig#6		dig#6		dig#6	cleanout process	dig#6	cleanout process	dig#6	
pump off volume gal.		0	0	1,470,000		1,400,000		840,000		
actual sludge volume MG		4.45	6.12	4.86		3.94		3.22		

priority	Storage volume to pump off	
	feet	gallons
	dig#1	0
	dig#2	0
	dig#3	3 210,000
	dig#4	5 350,000
1	dig#5	1 70,000
	dig#7	3 210,000
total (water / thin) vol. in storage		840,000
start decant operation after 1/5/04		

APPENDIX 4I

RAIN EVENT SUMMARY MASTER SPREADSHEET INFORMATION

Month	Number of Rain Events per Month							Average per Month
	1997	1998	1999	2000	2001	2002	2003	
January	1	1	2	0	1	0	0	0.71
February	1	5	2	1	2	2	0	1.86
March	1	4	0	3	2	1	2	1.86
April	2	6	3	2	5	6	3	3.86
May	2	6	5	6	6	5	7	5.29
June	4	5	3	4	3	4	2	3.57
July	3	3	5	5	3	3	6	4.00
August	7	3	4	5	5	3	2	4.14
September	3	3	3	6	5	3	4	3.86
October	2	6	1	3	2	4	3	3.00
November	3	2	2	2	3	1	3	2.29
December	1	1	1	0	2	1	3	1.29
Total	30	45	31	37	39	33	35	

NOTES:

- 1) Data taken from Table 4I-2, Rain Event Summary Master Spreadsheets, in this Appendix, as was provided by MMSD CCO.
- 2) Rain Event defined per MMSD CCO Rain Event Summary Master Spreadsheet included in this Appendix as >10 MG in tunnel.
Therefore, at least one pump required to operate.

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

Contract Administration and Compliance Procedures

Rain Event Report Procedure

Procedure Number:	SOC-CA-04	Date:	March 28, 2000
Procedure Category:	Contract Administration	Revision Date:	April 27, 2000
Procedure Emphasis:	System Operations & Control	Prepared by:	PSW
Procedure Description:	This procedure outlines the process to be followed when documenting rain events.		
Procedure Responsibility:	It is the responsibility of the System Operations & Control Contract Administrator to document each rain event in a Rain Event Report.		
Procedure Purpose:	Rain Event Reports are necessary to document rain events, including whether there were any combined or separate sewage overflows.		

REQUIRED EQUIPMENT & SUPPLIES

Item	Purpose
1. Not applicable	1. Not Applicable

LINKED REFERENCES

Type	Number	Description	Location
Contract Item:	Not applicable		
Attachments:	Attachment A Attachment B Attachment C	Rain Event Report OTREND199 Rain Event Trend Rain Event Master Spreadsheet	SOC-CA-04-A (DM) SOC-CA-04-B (DM) SOC-CA-04-C (DM)
Schedules:			
Forms:			
Tables:			
Figures:			
Checklists:			
Diagrams:			
Contacts:			
File Code:	M1501	Monthly Inspection Reports	
Logic Diagram:			
Other Documentation:			

DEFINITIONS

- **SOCCA** The System Operations & Control Contract Administrator
- **Rain Event** Any precipitation that places more that 10 million gallons into the deep tunnel
- **CSO** Combined sewerage overflow
- **SSO** Separate sewerage overflow
- **MG/D** Million gallons per day

BACKGROUND

Rain Event Reports are prepared by the SOCCA and filed for future reference purposes. They are not automatically distributed. CCO staff uses this information to evaluate/analyze UWS performance during rain events.

PROCEDURE

1. On any day that there is precipitation, the SOCCA goes into the system to look at the OTREND199 program (Rain Event Trend) (Attachment B). This program shows the start date of a rain event, the end date of the rain event and the total number of gallons that went into the deep tunnel.
2. Once the rain event has ended, the SOCCA will take the information from OTREND199 and develop a CCO Rain Event Report (Attachment A).
3. Additionally, the SOCCA will enter the rain event information into a master spreadsheet (Attachment C) that contains data for all rain events, sorted chronologically as well as by size of storm.
4. If a rain event results in a CSO and/or SSO, the SOCCA should contact the UWS Plant Superintendent and request a Storm Event Analysis report. Refer to procedure number *MGMT-CA-08, Storm Event Analysis* for information on analyzing these reports.
4. The CCO Rain Event Report is not distributed. Instead, it is filed in Central Filing and the Records Center as instructed in procedure number *MGMT-CA-02, Contract Records Management*.
5. Upon request, the SOCCA should provide the CCO Rain Event Report and the summary master spreadsheet information. The typical requestor is the District's Legal Services department.



Date: 4/29/00

OPERATIONS: T-RAL ☒ 0-REK-189 189 PUMPOUT EVENT
 SPIN: 30 REFRESH PERIOD: 34"

3/24/88 0:15:40 0:26:00 0:37:38 3:28:58

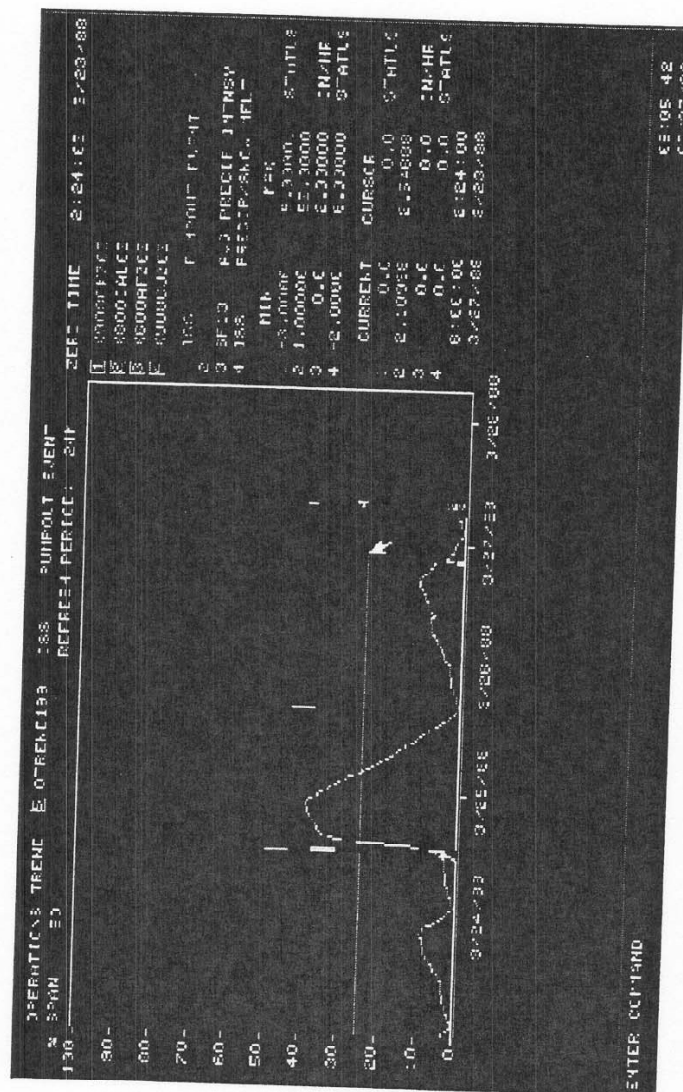
TIME	VALUE
3/24/88	40
0:15:40	40
0:26:00	160
0:37:38	40
3:28:58	40

File Number BO50759.M1501



Rain Event Operational Trend 1999

OTREND199



File Number BO50759.M1501

1997 Rain Events

Event #	Month	Date	Year	Volume Pumped (MG)	Precip	TUNNEL EVENTS		Duration
						CSO	SSO	
1	1	5	97	49.7		no	no	
2	2	20	97	441		no	no	5 days
3	3	9	97	14.6		no	no	
4	4	18	97	10.4		no	no	
5	4	30	97	143		no	no	
6	5	7	97	36.2		no	no	
7	5	28	97	104		no	no	
8	6	6	97	32.4		no	no	
9	6	15	97	241		no	no	
10	6	20	97	657	7.6	yes	yes	10 days
11	6	30	97	1,300	2.3	yes	yes	14 days
12	7	16	97	76.4		no	no	
13	7	21	97	42.5		no	no	
14	7	26	97	71.7		no	no	
15	8	3	97	17.7		no	no	
16	8	9	97	44.6		no	no	
17	8	11	97	159		no	no	
18	8	15	97	67.4		no	no	
19	8	17	97	68.6		no	no	
20	8	24	97	294		no	no	
21	8	30	97	11.7		no	no	
22	9	16	97	92.7		no	no	
23	9	19	97	30.6		no	no	
24	9	22	97	21.4		no	no	
25	10	13	97	20.1		no	no	
26	10	26	97	32.6		no	no	
27	11	5	97	25.5		no	no	
28	11	27	97	23.3		no	no	
29	11	29	97	15.9		no	no	
30	12	3	97	29		no	no	
TOTAL				4174				

Notes:

- 1) Data provided by MMSD Contract Compliance Office
- 2) Reported CSO and SSO volumes presented in Appendix 4J, Wet Weather Event Analysis in Table 4J-2, CSO Events, 1997 through June 30, 2004 and Table 4J-3, SSO Events, 1997 through June 30, 2004.

1998 Rain Events

Event #	Month	Date	Year	Volume Pumped (MG)	Precip	TUNNEL EVENTS		
						CSO	SSO	Duration
1	1	4	98	200		no	no	
2	2	1	98	17.8		no	no	
3	2	11	98	165		no	no	
4	2	16	98	29		no	no	
5	2	17	98	18.2		no	no	
6	2	27	98	92.8		no	no	
7	3	8	98	126		no	no	
8	3	17	98	207		no	no	
9	3	28	98	18.9		no	no	
10	3	30	98	241		no	no	
11	4	8	98	414		no	no	5 days
12	4	13	98	54.8		no	no	
13	4	15	98	393		no	no	
14	4	21	98	55.7		no	no	
15	4	26	98	54.9		no	no	
16	4	30	98	115		no	no	
17	5	7	98	88		no	no	
18	5	12	98	105		no	no	
19	5	19	98	105		no	no	
20	5	24	98	23.4		no	no	
21	5	28	98	157		no	no	
22	5	31	98	113		no	no	
23	6	9	98	91		no	no	
24	6	11	98	106		no	no	
25	6	18	98	112		no	no	
26	6	24	98	63.4		no	no	
27	6	27	98	377		no	no	
28	7	3	98	95.6		no	no	
29	7	15	98	130		no	no	
30	7	19	98	252		no	no	
31	8	4	98	844	8.9	yes	yes	9 days
32	8	14	98	59		no	no	
33	8	24	98	191		no	no	
34	9	1	98	100		no	no	
35	9	14	98	155		no	no	
36	9	30	98	143		no	no	
37	10	3	98	71.9		no	no	
38	10	5	98	160		no	no	
39	10	17	98	16.2		no	no	
40	10	18	98	103		no	no	
41	10	27	98	21.3		no	no	
42	10	29	98	29.9		no	no	
43	11	9	98	531	2.4	yes	yes	6 days
44	11	30	98	26.1		no	no	
45	12	6	98	124		no	no	
TOTAL				6596.9				

Notes:

- 1) Data provided by MMSD Contract Compliance Office
- 2) Reported CSO and SSO volumes presented in Appendix 4J, Wet Weather Event Analysis in Table 4J-2, CSO Events, 1997 through June 30, 2004 and Table 4J-3, SSO Events, 1997 through June 30, 2004.



1999 Rain Events

Event #	Month	Date	Year	Volume Pumped (MG)	Precip	TUNNEL EVENTS	
						CSO	SSO
1	1	16	99	136		no	no
2	1	21	99	840	2.2	yes	no
3	2	2	99	176		no	no
4	2	18	99	75		no	no
5	4	3	99	110		no	no
6	4	8	99	667	3.6	yes	yes
7	4	21	99	692		yes	yes
8	5	6	99	126		no	no
9	5	12	99	131		no	no
10	5	16	99	507		no	no
11	5	23	99	40.3		no	no
12	5	31	99	200		no	no
13	6	6	99	50.6		no	no
14	6	10	99	904	5.9	yes	yes
15	6	28	99	225	1.3	no	no
16	7	6	99	48.4	0.31	no	no
17	7	9	99	358	2.47	no	no
18	7	17	99	188		no	no
19	7	22	99	790	3.84	yes	yes
20	7	31	99	25.2		no	no
21	8	7	99	40.6		no	no
22	8	10	99	98.5		no	no
23	8	19	99	117		no	no
24	8	23	99	52.6		no	no
25	9	12	99	48.4		no	no
26	9	19	99	122		no	no
27	9	27	99	458	3.9	yes	no
28	10	16	99	20.5		no	no
29	11	10	99	98		no	no
30	11	23	99	60.3		no	no
31	12	4	99	209		no	no
TOTAL				7614.4			

Notes:

- 1) Data provided by MMSD Contract Compliance Office
- 2) Reported CSO and SSO volumes presented in Appendix 4J, Wet Weather Event Analysis in Table 4J-2, CSO Events, 1997 through June 30, 2004 and Table 4J-3, SSO Events, 1997 through June 30, 2004.

2000 Rain Events

Event #	Month	Date	Year	Volume Pumped (MG)	TUNNEL EVENTS	
					CSO	SSO
1	2	24	2000	57.4	no	no
2	3	8	2000	179	no	no
3	3	20	2000	52.9	no	no
4	3	24	2000	26.8	no	no
5	4	7	2000	56.4	no	no
6	4	19	2000	442	no	no
7	5	1	2000	16.2	no	no
8	5	8	2000	409	no	no
9	5	17	2000	690	yes	yes
10	5	27	2000	121	no	no
11	5	30	2000	33.3	no	no
12	5	31	2000	603	yes	no
13	6	12	2000	113	no	no
14	6	14	2000	51.7	no	no
15	6	20	2000	28	no	no
16	6	28	2000	53.9	no	no
17	7	2	2000	690	yes	no
18	7	10	2000	61.6	no	no
19	7	14	2000	34.7	no	no
20	7	27	2000	137	no	no
21	7	31	2000	34.9	no	no
22	8	5	2000	481	yes	no
23	8	13	2000	15.3	no	no
24	8	17	2000	265	no	no
25	8	22	2000	16.1	no	no
26	8	26	2000	77.2	no	no
27	9	2	2000	172	no	no
28	9	8	2000	76.6	no	no
29	9	10	2000	68.6	no	no
30	9	11	2000	825	yes	yes
31	9	20	2000	20	no	no
32	9	22	2000	360	no	no
33	10	3	2000	28.6	no	no
34	10	5	2000	25.8	no	no
35	10	7	2000	16.4	no	no
36	11	6	2000	205	no	no
37	11	28	2000	51.5	no	no
TOTAL				6595.9		

Notes:

- 1) Data provided by MMSD Contract Compliance Office
- 2) Reported CSO and SSO volumes presented in Appendix 4J, Wet Weather Event Analysis in Table 4J-2, CSO Events, 1997 through June 30, 2004 and Table 4J-3, SSO Events, 1997 through June 30, 2004.

2001 Rain Events

Event #	Month	Date	Year	Volume Pumped (MG)	TUNNEL EVENTS	
					CSO	SSO
1	1	29	2001	224	no	no
2	2	8	2001	673	yes	yes
3	2	24	2001	350	no	no
4	3	12	2001	35.2	no	no
5	3	31	2001	14.9	no	no
6	4	5	2001	35.6	no	no
7	4	9	2001	404	no	no
8	4	15	2001	13.9	no	no
9	4	20	2001	214.6	no	no
10	4	29	2001	8.37	no	no
11	5	3	2001	74.8	no	no
12	5	7	2001	479	no	no
13	5	21	2001	27.9	no	no
14	5	23	2001	26.5	no	no
15	5	26	2001	119	no	no
16	5	31	2001	111	no	no
17	6	5	2001	173 *	no	no
18	6	11	2001	716	yes	no
19	6	30	2001	40.6	no	no
20	7	4	2001	82	no	no
21	7	17	2001	147	no	no
22	7	20	2001	210	no	no
23	8	1	2001	59	no	no
24	8	9	2001	155	no	no
25	8	16	2001	294	no	no
26	8	22	2001	127	no	no
27	8	25	2001	339	yes	no
28	9	3	2001	40.3	no	no
29	9	6	2001	82.2	no	no
30	9	9	2001	215	no	no
31	9	19	2001	196	no	no
32	9	23	2001	221	no	no
33	10	10	2001	349	no	no
34	10	22	2001	524	no	no
35	11	13	2001	92.6	no	no
36	11	23	2001	83.5	no	no
37	11	28	2001	123	no	no
38	12	5	2001	56.3	no	no
39	12	8	2001	178	no	no
TOTAL				7315.27		

* Per UWS Calculation

Notes:

- 1) Data provided by MMSD Contract Compliance Office
- 2) Reported CSO and SSO volumes presented in Appendix 4J, Wet Weather Event Analysis in Table 4J-2, CSO Events, 1997 through June 30, 2004 and Table 4J-3, SSO Events, 1997 through June 30, 2004.

2002 Rain Events

Event #	Month	Start Date		Year	Month	End Date		Year	Volume TUNNEL EVENTS		
		Date				Date			Pumped (MG)	CSO	SSO
1	2	10		2002	1	12		2002	46.7	no	no
2	2	19		2002	2	23		2002	60.7	no	no
3	3	8		2002	3	13		2002	158	no	no
4	4	2		2002	4	4		2002	23.3	no	no
5	4	7		2002	4	14		2002	621	yes	no
6	4	18		2002	4	20		2002	15	no	no
7	4	21		2002	4	24		2002	40.7	no	no
8	4	24		2002	4	25		2002	16.7	no	no
9	4	27		2002	4	29		2002	43.3	no	no
10	5	1		2002	5	4		2002	67.7	no	no
11	5	8		2002	5	9		2002	42	no	no
12	5	11		2002	5	18		2002	255	no	no
13	5	25		2002	5	26		2002	80.2	no	no
14	5	29		2002	6	1		2002	96.4	no	no
15	6	3		2002	6	9		2002	439	no	yes
16	6	10		2002	6	16		2002	272	no	no
17	6	21		2002	6	22		2002	46.8	no	no
18	6	26		2002	6	29		2002	96	no	no
19	7	9		2002	7	13		2002	320	no	no
20	7	26		2002	7	28		2002	165	no	no
21	7	29		2002	7	30		2002	23	no	no
22	8	4		2002	8	5		2002	20.3	no	no
23	8	12		2002	8	17		2002	481	yes	no
24	8	21		2002	8	25		2002	329	no	no
25	9	2		2002	9	8		2002	245	no	no
26	9	18		2002	9	21		2002	118	no	no
27	9	29		2002	9	30		2002	57.7	no	no
28	10	2		2002	10	4		2002	87.5	no	no
29	10	4		2002	10	5		2002	53.3	no	no
30	10	18		2002	10	19		2002	13.8	no	no
31	10	25		2002	10	26		2002	32.5	no	no
32	11	18		2002	11	23		2002	84.1	no	no
33	12	18		2002	12	19		2002	47.7	no	no
TOTAL									4498.4		

Notes:

- 1) Data provided by MMSD Contract Compliance Office
- 2) Reported CSO and SSO volumes presented in Appendix 4J, Wet Weather Event Analysis in Table 4J-2, CSO Events, 1997 through June 30, 2004 and Table 4J-3, SSO Events, 1997 through June 30, 2004.

2003 Rain Events

Event #	Start Date			Time	End Date			Time	Volume Pumped (MG)	Monthly Total(mg)	TUNNEL EVENTS	
	Month	Date	Year		Month	Date	Year				CSO	SSO
1	3	19	2003	14:48	3	21	2003	6:24	34.3		no	no
2	3	28	2003	9:12	3	29	2003	8:48	16.8	51.1	no	no
3	4	4	2003	1:12	4	5	2003	10:24	27.2		no	no
4	4	19	2003	6:24	4	21	2003	9:36	49.6		no	no
5	4	30	2003	8:24	5	4	2003	9:36	250	326.8	no	no
6	5	4	2003	22:24	5	8	2003	5:12	135		no	no
7	5	9	2003	1:12	5	10	2003	17:12	116		no	no
8	5	11	2003	15:36	5	12	2003	2:24	17.3		no	no
9	5	14	2003	22:48	5	15	2003	9:36	18		no	no
10	5	20	2003	1:12	5	20	2003	8:00	6.75		no	no
11	5	28	2003	18:05	5	29	2003	3:12	7.98		no	no
12	5	30	2003	19:12	6	1	2003	15:12	59.7	360.7	no	no
13	6	8	2003	3:36	6	11	2003	9:45	82.4		no	no
14	6	27	2003	17:36	6	29	2003	0:24	39.5	121.9	no	no
15	7	4	2003	7:36	7	5	2003	22:24	33.7		no	no
16	7	6	2003	9:36	7	7	2003	6:24	27.8		no	no
17	7	7	2003	8:00	7	8	2003	4:00	14.9		no	no
18	7	8	2003	10:24	7	9	2003	5:12	20.1		no	no
19	7	15	2003	3:12	7	16	2003	6:00	19.2		no	no
20	7	21	2003	9:36	7	23	2003	1:36	23.8	139.5	no	no
21	8	1	2003	6:00	8	7	2003	7:12	157		no	no
22	8	25	2003	18:48	8	26	2003	7:12	13.5	170.5	no	no
23	9	12	2003	16:24	9	14	2003	0:00	40.3		no	no
24	9	14	2003	6:00	9	16	2003	9:12	77.6		no	no
25	9	22	2003	2:48	9	25	2003	2:24	45.5		no	no
26	9	26	2003	17:12	9	27	2003	6:24	12.4	175.8	no	no
27	10	3	2003	11:36	10	4	2003	4:05	9.75		no	no
28	10	14	2003	1:14	10	16	2003	6:48	37.2		no	no
29	10	24	2003	17:36	10	26	2003	6:24	69.6	116.6	no	no
30	11	1	2003	22:24	11	8	2003	18:15	347		no	no
31	11	17	2003	23:36	11	22	2003	2:48	98.3		no	no
32	11	23	2003	9:12	11	23	2003	19:12	6.4	451.7	no	no
33	12	9	2003	14:24	12	14	2003	20:00	226		no	no
34	12	16	2003	4:48	12	17	2003	6:48	10.6		no	no
35	12	28	2003	5:12	12	29	2003	9:36	13.4	250	no	no
TOTAL										2164.6		

Notes:

- 1) Data provided by MMSD Contract Compliance Office
- 2) Reported CSO and SSO volumes presented in Appendix 4J, Wet Weather Event Analysis in Table 4J-2, CSO Events, 1997 through June 30, 2004 and Table 4J-3, SSO Events, 1997 through June 30, 2004.



2004 Rain Events

<u>Start Date</u>					<u>End Date</u>				Volume Pumped (MG)	Monthly Total(mg)	<u>TUNNEL EVENTS</u>	
Event #	Month	Date	Year	Time	Month	Date	Year	Time			CSO	SSO
1	3	1	2004	16:00	3	3	2004	6:15	23.7		no	no
2	3	4	2004	18:40	3	12	2004	9:36	359		no	no
3	3	25	2004	23:12	3	28	2004	2:00	107		no	no
4	3	28	2004	15:12	4	2	2004	12:00	152	641.70	no	yes
5	4	17	2004	3:12	4	18	2004	3:12	29.2		no	no
6	4	20	2004	17:12	4	26	2004	10:20	196	225.20	no	yes
7	5	8	2004	7:36	5	10	2004	5:12	87.3		no	no
8	5	10	2004	14:48	6	3	2004	8:00	1522	1609.00	yes	yes
9	6	10	2004	11:12	6	13	2004	16:00	150		no	no
10	6	14	2004	2:00	6	18	2004	6:48	124		no	no
11	6	21	2004	10:43	6	23	2004	8:09	45.4		no	no
12	6	24	2004	10:48	6	25	2004	9:49	14.1		no	no
13	6	27	2004	22:34	6	28	2004	10:15	12.3	345.80	no	no
14	7	3	2004	17:17	7	10	2004	19:12	439.9		no	yes
15	7	11	2004	21:04	7	18	2004	10:51	218.8		no	yes
16	7	21	2004	13:55	7	24	2004	14:16	60.9	719.60	no	no
17	8	3	2004	20:30	8	7	2004	16:22	200.9		no	yes
18	8	24	2004	20:53	8	30	2004	3:30	270.9	471.80	no	no
19	9	15	2004	21:11	9	17	2004	3:26	27.9	27.90	no	no
20	10	1	2004	21:24	10	2	2004	9:24	18.7		no	no
21	10	23	2004	2:13	10	24	2004	12:45	35		no	no
22	10	30	2004	1:34	10	30	2004	16:30	15.6	69.30	no	no
23	11	1	2004	12:30	11	8	2004	5:18	95.6		no	no
24	11	19	2004	10:35	11	20	2004	16:33	29.7	125.30	no	no
25	12	7	2004	5:09	12	12	2004	1:15	120.4	120.40	no	no
TOTAL										4356.00		

Notes:

- 1) Data provided by MMSD Contract Compliance Office
- 2) Reported CSO and SSO volumes presented in Appendix 4J, Wet Weather Event Analysis in Table 4J-2, CSO Events, 1997 through June 30, 2004 and Table 4J-3, SSO Events, 1997 through June 30, 2004.

