

**Table D-1
W12A Landfill Surface Water Samples
DRAINAGE DITCH #1**

AVG	8.0	605	4.1	22	2	79	40	179	206	16.6	51.3	2.5	26.6	5.7	80	0.02	0.4	0.21	2.5	0.3	0.54	
STD	0.3	222	2	7	13	61	25	44	70	3	15	0	0	1	113	0.04	0.7	0.49	7.0	0.6	0.83	
# of samples	101	101	91	60	97	102	65	60	64	42	42	1	1	2	91	88	88	88	59	88	27	
Parameter	pH	CONDUCTIVITY	BOD	COD	PHENOLS	Cl	SO ₄	ALKALINITY	HARDNESS	Mg	Ca	K	Na	DOC	SS	NO ₂	NO ₃	NH ₃	TKN	TP	As	
Storm Sewer Bylaw	6 to 10.5	-	15	-	20	1,500	-	-	-	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	15	-	-	-	-	0.4		
PWQO	6 to 8.5	-	-	-	1	-	-	-	-	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	-	(MG/L)	(MG/L)	(MG/L)	(MG/L)	0.03	(UG/L)	
Units		(uS/cm)	(MG/L)	(MG/L)	(UG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(UG/L)	
10/Jan/83	6.6	440			0.0	43			214													
21/Feb/83	7.8	510			0.0	41			220													
7/Apr/83																						
26/May/83																						
29/Jun/83																						
28/Jul/83																						
25/Aug/83																						
28/Sep/83																						
11/Jul/84																						
14/May/85																						
24/Jul/85																						
18/Sep/85																						
18/Nov/85	7.7	1,090			46	62			490													
12/May/86																						
28/Jul/86																						
30/Sep/86																						
3/Nov/86																						
21/Jul/87																						
21/Sep/87																						
12/Nov/87																						
27/Nov/87																						
27/Jul/88																						
19/Sep/88																						
17/Nov/88	7.9	608			2	61			529													
30/May/89	8.3	625			5	86			223													
27/Jul/89																						
14/Sep/89																						
6/Nov/89	8.0	496			5	71			228	18	61			4.5								
7/Nov/89	8.0	496			5	71			228													
15/Jan/90	7.4	419			8	26			195													
9/May/90																						
23/Jul/90																						
17/Sep/90																						
12/Nov/90	7.8	457			8	33			192	14	53			6.8								
15/Oct/91			5.6		1										67				1.7			
28/Oct/91			8.4		0										280				2.7			
21/Nov/91	7.8	360				86			290													
9/Jul/92	7.0	273			3	20			185													
8/Sep/92	7.5	353				28			192													
2/Nov/92	6.9	305			9	16			210													
5/May/93	7.7	560	5		0	13									135	0.01	0.02	0.01	1.3	0.05		
16/Oct/93	7.7	580	4		0	64									16	0.01	0.23	0.16	1.1	0.11		
15/Nov/93	8.0	250	5		0	84									22	0.02	0.19	0.13	1.1	0.05		
9/May/94	8.2	220	6		0	134									22	0.02	1.10	0.07	1.4	0.06		
4/Aug/94	8.2	448	3		2	144									42	0.01	0.09	0.16	0.9	0.05		
27/Sep/94	8.1	850	7		1	125									454	0.02	0.74	0.05	2.4	0.38		
17/Jan/96	7.9	430	5		15	45									148	0.09	1.20	0.46	2.1	0.59		
30/Apr/96	7.9	457	1		0	170									116	0.01	0.42	0.12	1.5	0.04		
15/Jul/96	7.9	818	9		0	260									270	0.02	0.08	0.17	6.3	0.91		
19/Jul/96			3			49									272							
9/Sep/96	8.0	497	7		0	170									76	0.02	0.73	0.84	1.4	0.34		
12/Sep/96	8.0	796	2		0	180									2	0.00	0.04	0.22	1.3	0.13		
23/Oct/96	8.1	378	4		0	305									160	0.07	0.47	0.11	4.5	0.42		
12/Dec/96	8.1	1,088	3		0	180									10	0.00	0.10	0.05	0.9	0.06		
6/May/97	8.2	548	4		0	85									138	0.00	0.67	0.17	2.7	0.00		
10/Sep/97	8.1	490	5		0	125									292	0.00	0.30	0.15	0.5	0.42		
2/Dec/97	7.8	1,514	2		0	317									38	0.00	0.36	0.06	1.1	0.04		
9/Jan/98	8.2	531	2		2	51									80	0.00	0.49	0.20	0.8	0.21		
25/Mar/98	7.6	557	6		0	96									668	0.00	0.53	0.15	3.6	0.55		
5/Apr/98	7.5	352	10		1	36									436	0.02	0.79	0.08	1.0	0.32		
21/Dec/98	8.0	1,031	5		0	256									80	0.03	0.72	0.18	2.4	0.16		
26/May/99																						
29/Jun/99	7.7	740	3		0	132									108	0.02	0.62	0.21	1.5	0.18		
30/Sep/99																						
14/Dec/99	7.5	690	4		0	99									442	0.04	0.66	0.09	3.3	0.40		

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.

Table D-1
W12A Landfill Surface Water Samples
DRAINAGE DITCH #1

AVG	31	58.0	0.03	0.8	8	0.6	170	7.9	2	8	0.0	486	4.5	122	11.1	8.1	0.006	
STD	6	22.5	0.15	1.8	16	2	575	9	12	18	0.0	119	5.3	171	6.2	0.6	0.018	
# of samples	27	27	39	38	39	54	26	8	39	39	27	52	52	38	54	54	54	
Parameter	Ba	B	Cd	Cr	Cu	Fe(tot.)	Fe (filt.)	Ni	Pb	Zn	Hg	Field Cond.	Field DO	Flow	Field Temp	Field pH	un-ionized NH ₃	REMARKS
Storm Sewer Bylaw PWQO			8	200	40	-	1	80	120	50							-	
Units	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(MG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(uS/cm)	(MG/L)	L/MIN	(°C)		(MG/L)	
10/Jan/83																		No flow
21/Feb/83																		No flow
7/Apr/83																		No flow
26/May/83																		No flow
29/Jun/83																		No flow
28/Jul/83																		No flow
25/Aug/83																		No flow
28/Sep/83																		No flow
11/Jul/84																		No flow
14/May/85																		No flow
24/Jul/85																		No flow
18/Sep/85																		No flow
18/Nov/85																		No flow
12/May/86																		No flow
28/Jul/86																		No flow
30/Sep/86																		No flow
3/Nov/86																		No flow
21/Jul/87																		No flow
21/Sep/87																		No flow
12/Nov/87																		No flow
27/Nov/87																		No flow
27/Jul/88																		No flow
19/Sep/88																		No flow
17/Nov/88																		No flow
30/May/89																		No flow
27/Jul/89																		No flow
14/Sep/89																		No flow
6/Nov/89																		No flow
7/Nov/89																		No flow
15/Jan/90																		No flow
9/May/90																		No flow
23/Jul/90																		No flow
17/Sep/90																		No flow
12/Nov/90																		No flow
15/Oct/91																		No flow
28/Oct/91																		No flow
21/Nov/91																		No flow
9/Jul/92																		No flow
8/Sep/92																		No flow
2/Nov/92																		No flow
5/May/93																		No flow
16/Oct/93																		No flow
15/Nov/93																		No flow
9/May/94																		No flow
4/Aug/94																		No flow
27/Sep/94																		No flow
17/Jan/96																		MOEE Data
30/Apr/96																		MOEE Data
15/Jul/96																		MOEE Data
19/Jul/96																		MOEE Data
9/Sep/96																		MOEE Data
12/Sep/96																		MOEE Data
23/Oct/96																		MOEE Data
12/Dec/96																		MOEE Data
6/May/97																		MOEE Data
10/Sep/97																		MOEE Data
2/Dec/97																		MOEE Data
9/Jan/98																		MOEE Data
25/Mar/98																		MOEE Data
5/Apr/98																		MOEE Data
21/Dec/98			0	0	1	0.47		3	13	0								MOEE Data
26/May/99																		MOEE Data
29/Jun/99																		MOEE Data
30/Sep/99																		MOEE Data
14/Dec/99			0	5	28	11.4	110	31	50	95								MOEE Data

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.

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W12A Landfill Surface Water Samples
DRAINAGE DITCH #1

AVG STD # of samples	8.0 0.3 101	605 222 101	4.1 2 91	22 7 60	2 13 97	79 61 102	40 25 65	179 44 60	206 70 64	16.6 3 42	51.3 15 42	2.5 0 1	26.6 0 1	5.7 1 2	80 113 91	0.02 0.04 88	0.4 0.7 88	0.21 0.49 88	2.5 7.0 59	0.3 0.6 88	0.54 0.83 27
Parameter Storm Sewer Bylaw PWQO Units	pH 6 to 10.5 6 to 8.5	CONDUCTIVITY - (uS/cm)	BOD 15 - (MG/L)	COD - - (MG/L)	PHENOLS 20 1 (UG/L)	Cl 1,500 - (MG/L)	SO ₄ - - (MG/L)	ALKALINITY - - (MG/L)	HARDNESS - - (MG/L)	Mg (MG/L)	Ca (MG/L)	K (MG/L)	Na (MG/L)	DOC (MG/L)	SS 15 - (MG/L)	NO ₂ - - (MG/L)	NO ₃ - - (MG/L)	NH ₃ - - (MG/L)	TKN - - (MG/L)	TP 0.4 0.03 (MG/L)	As (UG/L)
27/Mar/00	8.2	976	4		0	191								204	0.00	1.13	0.30	0.8	1.65		
10/May/00	8.1	860	5		0	139	45							8	0.00	0.83	0.05	55.4	0.29		
2/Aug/00	7.9	819	4		0	163	140							110	0.00	0.31	0.08	1.0	0.69		
28/Nov/00	8.2	654	3			85	51							24	0.00	0.34	0.13	0.8	0.22		
9/Feb/01	8.0	548	5			124	45							48	0.00	4.49	0.25	2.9	0.91		
20/Mar/01	8.0	860	7			154	43							16	0.10	0.77	0.19	2.2	0.11		
28/May/01	8.0	969	6	<1.00		188	37	322						188	0.00	0.19	0.01	2.2	0.26		
16/Oct/01	8.2	712	4	<1.00	0	81	143	120						48	0.00	0.19	0.11	1.5	0.08		
14/Dec/01	7.6	630	0		0	34	104	188						24	0.03	0.27	0.05		0.27		
9/Apr/02	8.0	715	3		0	112	72	210						134	0.00	0.73	0.16		1.18		
11/Nov/02	8.2	507	4		0	61	68	104	152					60	0.01	3.58	0.07	2.1	0.19		
4/Feb/03	7.9	394	7		0	35	45	116	151					98	0.02	0.95	0.51		0.37		
2/Apr/03	8.2	717	4		4	78	50	202	277					40	0.00	0.62	0.48		0.03		
6/May/03	8.4	520	3		2	42	56	164	56					32	<0.03	0.19	0.00		5.28	0	
6/Oct/03	8.2	534	8		2	68	73	136	157					54	<0.03	0.56	0.14		0.05	0	
26/Apr/04	7.9	606	3		<1	70	48	156						50	<0.03	0.23	<0.10	1.4	0.11	<2	
8/Jul/04																					
9/Nov/04																					
25/Nov/04																					
15/Dec/04	8.2	637	5		1	63	66	194	225	17	62	3	27	43	0.08	0.63	0.11	1.1	0.11		
4/Jan/05	7.9	492	3		<1	35	44	150						40	<0.03	0.50	<0.10		0.16		
12/Apr/05	8.1	791	3		<1	75	44	240						12	<0.03	0.18	<0.10	1.5	0.16	<0.002	
4/May/05	8.5	649	3		<1	63	41	196						27	<0.03	0.31	<0.10		0.23		
9/Nov/05	8.2	712	3		<1	145	37	88	132	15	28			43	<0.03	<0.06	<0.10	1.4	0.18	0.00	
24/Apr/06	8.2	660	5		<1	88	29	163	192	16	50			28	<0.03	<0.06	0.17	1.3	0.04	<1	
1/Jun/06																					
3/Aug/06	7.9	553	4		<1	84	22	134	148	12	40			103	<0.03	0.59	<0.10		0.22		
9/Nov/06	8.3	561	4		<1	26	24	236	237	18	65			10	0.04	0.25	<0.10	1.6	0.05	<1	
30/Apr/07	8.3	607	<3		<1	47	29	204	222					94	<0.03	0.58	<0.10	1.1	0.07	<1	
19/Jul/07																					
27/Nov/07	8.1	733	3		<1	103	23	146	167					15	<0.03	0.29	<0.10	1.2	0.07	2	
4/Dec/07	7.8	615	6		<1	71	34	152	175					105	0.09	0.98	0.18	1.1	0.15	1	
14/Dec/07	8.0	650	4		<1	62	50	156						26	0.09	1.50	0.15		0.12		
4/Feb/08	8.0	1,090	3		<1	35	34	148	180					38	0.07	0.70	0.12	1.21	0.15		
4-Apr-08	8.1	449	3		1	58	27	208	219					55	<0.03	0.32	0.18	0.82	0.10	1.0	
23-Apr-08																					
12-May-08																					
12/Sep/08	8.0	796	3		18	136	27	158	189	18	46			6	<0.03	0.48	0.38		0.18		
22/May/09	7.7	479	4		<1	39	23	172	271					84	0.11	<0.03	0.17	1.1	0.14	<1	
9/Jul/09	8.6	382	3		11	48	14	117	117	13	25			49	<0.03	0.07	0.25		0.13		
10/Sep/09	7.9	488	3		22	59	16	177	196	15	46			52	<0.03	<0.06	0.26		0.13		
21/Oct/09	8.2	530	3		<1	53	20	176	161	15	40			22	<0.03	<0.06	<0.10		0.11	1	
26/Apr/10	8.2	490	3		<1	36	24	177	173	15	45			45	0.04	0.06	<0.10	1.5	0.11	1	
14/Jul/10	7.6	569	3		7.0	26	7	266	249	21	64			9	0.06	0.06	1.54		0.11		
10/Sep/10	7.6	688	5		<1	46	11	278	271	21	74			81	0.03	<0.06	1.59		0.27		
21/Oct/10	7.8	1,590	6		<1	69	22	186	169	15	44			139	0.04	0.10	0.23	2.0	0.30	3	
19/Apr/11	8.3	590	8		<1	48	34	203	232	17	66			18	<0.03	0.39	<0.10	0.9	0.06	<1	
31/Aug/11	8.0	440	3		<1	52	11	145	142	12	37			92	0.04	0.14	0.27		0.14		
20/Sep/11	8.1	420	2		<1	57	10	123	117	12	28			26	0.04	0.14	<0.10		0.09		
13/Dec/11	8.0	490	3		<1	24	34	225	248	16	73			<2	<0.3	<0.6	0.13	0.6	0.20	<1	
10/May/12	8.7	460	5		<1	50	30	132	154	20	28			8	0.10	<0.06	<0.10		0.06		
1/Aug/12	8.4	520	7		<1	66	26	134	154	22	25			24	0.13	<0.06	<0.10		0.11		
18/Oct/12	8.6	630	3		<1	80	24	168	180	21	37			18	0.04	<0.06	<0.10	1.2	0.10	2	
21/Dec/12	8.0	690	3		<1	42	58	230	283	21	79			42	0.10	0.88	<0.10		0.16		
18/Apr/13	8.2	500	3		16	23	25	201	218	14	64			31	0.10	0.39	0.12	0.8	0.07	1	
24/Jul/13	8.0	380	5		<1	30	18	140	148	17	32			63	0.11	0.08	0.18		0.15		
28/Oct/13	8.2	520	3		<1	22	41	197	217	15	63			6	<0.03	<0.06	<0.10	1.8	0.06	<1	
5/Dec/13	7.9	560	8		<1	21	42	263	269	18	78			21	0.10	0.15	0.12		0.04		
14/Apr/14	8.2	550	3		<1	41	20	204	213	14	62			16	<0.03	0.12	<0.10	0.8	0.05	<1	
9/Jul/14	9.1	340	3		<1	24	34	106	126	12	32			15	<0.03	0.08	<0.10		0.05		
16/Oct/14	8.3	520	3		<1	26	49	174	205	16	55			<3	<0.03	<0.06	<0.10	1.2	0.05	<1.0	
2/Dec/14	8.0	550	3		<1	25	50	210	239	17	69			16	<0.03	0.24	0.23		0.08		
24/Apr/15	8.1	660	5		3	43	45	229	227	21	76			56	<0.03	0.11	<0.10	1.1	0.07	<1.0	
12/Aug/15	7.7	520	3		<1	28	40	182	217	21	53			19	<0.03	0.11	0.15		0.06		
20/Oct/15	8.1	540	7		<1	34	37	193	213	20	52			13	<0.03	0.17	0.10	1.5	0.16	1	
2/Dec/15	8.0	580	3		<1	41	57	171	213	16	59			12	<0.03	0.14	0.20		0.12		
26/Apr/16	8.3	480	5		1	16	39	187	210	16	58			26	<0.03	<0.06	0.10	0.8	0.10	1	
17/Aug/16	7.6	470	2		<1	21	25	176	180	17	45			21	<0.03	<0.06	1.33		0.08		
27/Oct/16	7.8	660	4		<1	88	24	165	185	19	44			60	<0.03	0.13	<0.10	1.6	0.13	1	
5/Dec/16	8.1	650	4		<1	62	36	193	183	19	42			<3	<0.03	0.09	3.30		0.04		
6/Apr/17	8.0	810	4		<1	133	37	166	188	12	55			35	0.08	0.50	0.14	1.2	0.10	<1.0	
12/Oct/17																					
16/Nov/17	8.1	480	2		<1	35	35	157	164	15	41			5	<0.03	<0.4	0.32		0.04		
4/Dec/17	8.3	560	3		<1	31	53	190	217	17	59			10	<0.03	<0.4	<0.10		0.04		

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.

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AVG	31	58.0	0.03	0.8	8	0.6	170	7.9	2	8	0.0	486	4.5	122	11.1	8.1	0.006	
STD	6	22.5	0.15	1.8	16	2	575	9	12	18	0.0	119	5.3	171	6.2	0.6	0.018	
# of samples	27	27	39	38	39	54	26	8	39	39	27	52	52	38	54	54	54	
Parameter	Ba	B	Cd	Cr	Cu	Fe(tot.)	Fe (filt.)	Ni	Pb	Zn	Hg	Field Cond.	Field DO	Flow	Field Temp	Field pH	un-ionized NH ₃	REMARKS
Storm Sewer Bylaw PWQO																		
Units	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(MG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(uS/cm)	(MG/L)	L/MIN	(°C)		(MG/L)	
27/Mar/00			0	4	7		110	3	0	1								
10/May/00			0	4	6		60	6	0	15								
2/Aug/00			0	4	10		80	5	0	2								
28/Nov/00			0	5	7		33	8	0	7								
9/Feb/01			0	2	8		82	3	0	20								
20/Mar/01			0		21		73	4	0	22								
28/May/01			0	2	7		56.4		0	36								
16/Oct/01			0	0	12		86.9		0	4								
14/Dec/01							14.7											
9/Apr/02			0	1	87		93.2		0	8								
11/Nov/02			0	0	36		65.8		0	4								
4/Feb/03							48.6											
2/Apr/03							41.3					722	10.56	270	6.8	8.9	0.0448	
6/May/03	27	33	0.0	0	1.8	0.039	38.5		0	0	0.0		9.11	800	14.4	8.2	0.0000	
6/Oct/03	48	40	0.0	0	22	0.035	35.3		0	0	0.0	500	10.04	20	12.3	7.5	0.0010	
26/Apr/04	29	40	<0.2	<2.0	3	0.022	23.3		<2.0	17	<0.1	533	8.54	135	12.6	8.5	<0.0069	
8/Jul/04																		No flow
9/Nov/04																		No flow
25/Nov/04																		No flow
15/Dec/04	23		<0.2	<2.0	4	0.035	34.9		<2.0	<4.0		361	11.99	135	0.5	8.1	0.0011	
4/Jan/05						0.187	187					313	13.80	>540	2.8	7.9	<0.0008	
12/Apr/05	27	29	<0.2	<2.0	3	0.011	11.4		<2.0	34	<0.1	578	14.41		6.1	8.5	<0.0038	Small trickle
4/May/05						0.032	32.2					619		480	11.5	8.6	<0.0071	
9/Nov/05	18	39	<0.2	<2.0	<2	0.036	36.8		<2.0	<4.0	0	324	9.37	270	11.3	8.1	<0.0023	
24/Apr/06	26	44	<0.2	<2.0	4	0.015	15.1		<0.1	<4.0	<0.1	605	5.88	540	13.6	8.3	0.0079	
1/Jan/06																		No flow, pond sample
3/Aug/06						3.040	3,040					461	6.13	240	25.3	8.6	<0.0194	Steady flow
9/Nov/06	31	45	<0.2	<2.0	15	0.081	8.1		<2.0	<4.0	<0.1	517	10.97		10.7	8.2	<0.0027	Steady flow
30/Apr/07	28	51	<0.2	<1.0	4		9.1		<1.0	<1.0	<0.1	533	8.41	240	15.6	8.1	<0.0035	Steady flow
19/Jul/07																		No flow, no sample
27/Nov/07	26	58	<0.2	<1.0	1	0.050			<1.0	2.2	<0.1	544	0.09	60	4.7	8.1	<0.0016	Steady flow
4/Dec/07	29	42	<0.2	<1.0	7	0.347			1.2	5.6	<0.1	473	0.11	60	3.4	7.2	0.0003	Steady flow
14/Dec/07						0.118						481	6.29		5.0	7.6	0.0007	Steady flow
4/Feb/08						0.052						481	6.29		5.0	7.6	0.0007	Steady flow
4-Apr-08	31.2	32	<0.2	<1.0	1	0.028			<1.0	3.3	<0.1	591	16.27		6.4	8.2	0.0035	Steady flow
23-Apr-08																		No flow
12-May-08																		No flow
12/Sep/08						1.780						623	14.98		18.3	8.2	0.0207	No flow, pond sample
22/May/09	28	59	<0.2	2	2	0.246			<1.0	4.9	<0.1	120	4.20	15	19.2	7.6	0.0027	Trickle flow
9/Jul/09						2.390						401	0.01	40	19.0	8.3	0.0178	Steady flow
10/Sep/09						1.840						560	0.02		18.3	7.4	0.0023	No visible flow
21/Oct/09		97				0.087					<0.1	574	6.55	90	11.1	8.1	<0.0025	Steady flow
26/Apr/10	30	56	<0.2	<1.0	2	0.010			<1.0	1.4	<0.1	485	0.19	120	11.9	8.1	<0.0028	Very fast flow
14/Jul/10						1.230						585	-0.03		21.1	7.6	0.0252	No flow, standing water
10/Sep/10						3.520						644	0.53		13.2	7.0	0.0038	No flow, standing water
21/Oct/10	34	100	<0.2	<1.0	2	0.643			3	6.6	<0.1	439	0.07	70	10.2	7.1	0.0005	
19/Apr/11	34	57	<0.2	<1.0	2	0.183			<1.0	2.5	<0.1	544	17.74	120	5.3	7.7	<0.0006	Heavy flow
31/Aug/11						0.001						415	4.46		20.7	7.3	0.0024	No flow, standing water
20/Sep/11						0.007						431	3.27	70	16.7	7.8	<0.0020	Steady flow
13/Dec/11	33	52	<0.2	<1.0	2	0.082			<1.0	3.6	<0.1	439	0.03	70	4.9	7.1	0.0002	Steady flow
10/May/12						0.164						402	-0.05		11.8	8.4	<0.0046	Trickle flow
1/Aug/12						0.250						439	-0.04		20.5	7.7	<0.0022	Trickle flow
18/Oct/12	33	100	<0.2	2	<1.0	0.133			1	2.0	<0.01	303	5.31	65	12.6	8.8	<0.0124	Steady flow
21/Dec/12						0.046						576	0.04	>150	4.5	7.7	<0.0006	Very fast flow
18/Apr/13	29	43	<0.2	<1.0	2	0.014			<2.0	<2.0	0	410	0.00		10.6	7.8	0.0014	Very heavy flow
24/Jul/13						0.395						335	0.13		19.2	7.6	0.0029	Trickle flow
28/Oct/13	40	78	<0.2	<1.0	1	0.015			<2.0	<2.0	<0.02	451	0.40		6.7	8.8	<0.0075	Steady flow
5/Dec/13						0.047						508	0.26	>150	2.0	8.0	0.0012	Very heavy flow
14/Apr/14	30	40	<0.2	1	1	0.015			<2.0	2.4	<0.1	469	0.34	120	12.3	8.7	<0.0089	Very heavy flow
9/Jul/14						0.091						303	0.51	90	21.8	8.8	<0.0202	Heavy flow
16/Oct/14	24	105	<0.2	<1.0	2	0.011			<2.0	<2.0	<0.1	441	0.11	90	15.1	8.2	<0.0040	Heavy flow
2/Dec/14						0.090						486	0.44	>90	1.9	6.8	0.0001	Heavy flow
24/Apr/15	40	70	<0.2	<1.0	3	0.037			<2.0	2.1	<0.010	600	16.32	70	6.2	8.7	<0.0100	Steady flow
12/Aug/15						0.054						480	1.72	-	18.0	8.5	0.0137	No flow, standing water
20/Oct/15	43	86	<0.2	<1.0	<1.0	0.014			<2.0	<2.0	<0.010	496	0.19	-	12.1	8.9	0.0149	No flow, standing water
2/Dec/15						0.031						522	0.06	70	3.5	7.9	0.0017	Steady flow
26/Apr/16	29	56	<0.2	<1.0	2	0.010			<2.0	<2	<0.01	419	2.65	50	10.8	9.2	<0.0216	Steady flow
17/Aug/16						0.060						434	1.28	-	20.3	8.2	0.0801	Non flow, shallow
27/Oct/16	24	74	<0.2	<1.0	<1.0	0.053			<2.0	6.3	<0.01	587	3.89	-	7.0	8.9	0.0110	No flow, standing water
5/Dec/16						0.086						868	0.69	70	5.6	9.4	0.0577	heavy flow, foam present
6/Apr/17	30	39	<0.2	<1.0	2	0.165			<2.0	6.7	0.01	349	0.04	120	7.4	8.3	0.0022	heavy flow
12/Oct/17																		Dry, no sample acquired
16/Nov/17						0.009						456	1.60		5.0	7.7	0.0047	Steady flow -3 ft deep
4/Dec/17						0.031						546	5.35		5.7	7.8	<0.0023	Moderate flow over weir

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.

**Table D-2
W12A Landfill Surface Water Samples
DRAINAGE DITCH #2**

AVG	0.1	49	44.8	0.1	1.2	12.5	229.6	135	5.9	0.3	10	0.0	1575	4.8	11.4	7.9	0.0019
STD	0.5	20	26.8	0.8	2.5	20.9	914.0	240	3.3	0.9	18	0.0	994	5.0	6.7	0.5	0.0037
# of samples	19	18	19	31	31	31	34	22	7	29	31	19	33	31	33	33	33

Parameter Storm Sewer Bylaw PWQO Units	As (ug/L)	Ba (ug/L)	B (ug/L)	Cd 8 0.2 (ug/L)	Cr 200 100 (ug/L)	Cu 40 5 (ug/L)	Fe(tot.) - (MG/L)	Fe (filt.) 1 0.3 (ug/L)	Ni 80 25 (ug/L)	Pb 120 25 (ug/L)	Zn 50 30 (ug/L)	Hg (ug/L)	Field Cond. uS/cm	Field DO (MG/L)	Flow L/MIN	Field Temp (°C)	Field pH	un-ionized NH ₃ - (MG/L)	REMARKS
10/Jan/83																			No flow
21/Feb/83																			No flow
7/Apr/83																			No flow
26/May/83																			No flow
29/Jun/83																			No flow
28/Jul/83																			No flow
25/Aug/83																			No flow
28/Sep/83																			No flow
11/Jul/84																			No flow
14/May/85																			No flow
24/Jul/85																			No flow
18/Sep/85																			No flow
18/Nov/85																			No flow
12/May/86																			No flow
28/Jul/86																			No flow
30/Sep/86																			No flow
3/Nov/86																			No flow
21/Jul/87																			No flow
27/Sep/87																			No flow
12/Nov/87																			No flow
27/Nov/87																			No flow
27/Jul/88																			No flow
19/Sep/88																			No flow
17/Nov/88																			No flow
30/May/89																			No flow
27/Jul/89																			No flow
14/Sep/89																			No flow
6/Nov/89																			No flow
7/Nov/89																			No flow
15/Jan/90																			No flow
9/May/90																			No flow
23/Jul/90																			No flow
17/Sep/90																			No flow
12/Nov/90																			No flow
15/Oct/91																			No flow
28/Oct/91																			No flow
21/Nov/91																			No flow
9/Jul/92																			No flow
8/Sep/92																			No flow
2/Nov/92																			No flow
31/May/93																			No flow
16/Oct/93																			No flow
15/Nov/93																			No flow
9/May/94																			No flow
4/Aug/94																			No flow
27/Sep/94																			No flow
17/Jan/96																			No data
30/Apr/96																			No data
15/Jul/96																			No data
19/Jul/96																			No data
9/Sep/96																			No data
12/Sep/96																			No data
23/Oct/96																			No data
12/Dec/96																			No data
6/May/97																			No flow
10/Sep/97																			No flow
2/Dec/97																			No flow
9/Jan/98																			No flow
25/Mar/98																			No flow
5/Aug/98																			No flow
21/Dec/98				0.3	0	1	0.540		2	0	6								No flow
26/May/99																			No flow
29/Jun/99																			No flow
30/Sep/99																			No flow
14/Dec/99				0.7	11	70	32.7	380											No flow
27/Mar/00				0.0	2	6		136	6	1	3								No flow
10/May/00				0.0	4	6		84	6	0	1								No flow

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**Table D-2
W12A Landfill Surface Water Samples
DRAINAGE DITCH #2**

Parameter	pH	CONDUCTIVITY	BOD	COD	PHENOLS	Cl	SO ₄	ALKALINITY	HARDNESS	Mg	Ca	K	Na	DOC	SS	NO ₂	NO ₃	NH ₃	TKN	TP	
Storm Sewer Bylaw PWQO Units	6 to 10.5 6 to 8.5	(uS/cm)	15 (MG/L)	- (MG/L)	20 1 (UG/L)	1,500 (MG/L)	- (MG/L)	- (MG/L)	- (MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	15 (MG/L)	- (MG/L)	- (MG/L)	- (MG/L)	- (MG/L)	0.4 0.03 (MG/L)	
2/Aug/00	8.1	511	11		0	61	107								0.00	0.73	0.00		1.74	0.74	
28/Nov/00	7.8	1,374	16		0	265	78								144	0.00	0.33	0.23		3.93	1.04
9/Feb/01	8.5	598	5			159	48								138	0.00	0.80	0.30		2.66	1.34
20/Mar/01	8.2	2,140	4			637	46								64	0.19	0.25	0.08		3.48	1.64
28/May/01	8.1	1,911	6	<1.00		483	27	362							84	0.33	0.15	0.03		2.57	1.94
24/Sep/01	9.1	557	6			230	61								14	0.02	0.00	0.00		1.85	2.24
16/Oct/01	8.2	455	6	57	0	65	33	145							186	0.00	0.28	0.13		1.72	2.54
14/Dec/01	7.4	814	10	166	0	107	62	310							1,800	0.01	0.11	0.26		2.84	
9/Apr/02	7.9	3,410	3	30	1	79	774	360							70	0.00	0.14	0.10		1.27	3.14
11/Nov/02	7.9	1,413	2	32	0	43	82	218	267						12	0.00	0.24	0.09		1.18	
4/Feb/03	7.7	1,581	7	51	0	476	45	70	272						10	0.01	0.66	0.54			1.02
2/Apr/03	8.2	3,210	3	27	4	504	96	242	497						30	0.00	1.64	<0.10			0.35
6/May/03	7.9	2,830	2	28	3	328	48	314	581						20	<0.03	<0.02	<0.10			0.24
6/Oct/03	7.7	2,060	2	17	2	454	127	304	298						2	<0.03	0.60	<0.10			0.21
26/Apr/04	7.9	1,480	3	50	<1	223	48	238							130	<0.03	0.17	<0.10	1.77		0.27
8/Jul/04																					
25/Nov/04	7.9	1,180	2	14	<1	194	80	202	246	14	76	4	157		18	<0.03	0.38	<0.10	0.83		0.18
15/Dec/04																					
4/Jan/05	8.0	6,380	3	20	<1	227	63	150							81	<0.03	0.33	<0.10			0.06
12/Apr/05	8.0	5,430	3	44	<1	1,640	125	348							84	<0.03	0.52	<0.10			0.11
4/May/05	8.3	2,970	5	13	1	558	44	318							40	<0.03	<0.06	<0.10			0.16
9/Nov/05	7.8	1,270	8	37	2	254	46	198	205	10	66				59	<0.03	0.12	<0.10	0.90		0.23
24/Apr/06	8.2	2,470	3	41	<1	461	22	308	349	22	103				38	<0.03	<0.06	0.13	0.62		0.04
1/Jan/06																					
3/Aug/06	7.9	779	4	27	1	119	23	168	158	8	51				28	<0.03	0.12	<0.10			0.24
9/Nov/06	7.8	1,260	3	37	<1	158	35	96	390	24	117				326	0.04	0.17	<0.10	1.87		0.25
30/Apr/07																					
19/Jul/07																					
27/Nov/07																					
4/Dec/07																					
4/Apr/08	7.9	898	3	19	<1	269	19	218	282						7	<0.03	0.55	0.23	1.01		0.10
12/Sep/08	7.8	1,550	6	47	4	297	178	264	344	15	113				40	<0.03	<0.06	0.13			0.19
22/May/09	7.6	5,060	14	76	13	1,490	20	534	649						39	<0.03	0.07	0.10	2.70		0.54
9/Jul/09	7.6	973	3	15	4	133	52	255							72	<0.03	0.11	1.23			0.16
21/Oct/09	7.7	1,180	3	33	<1	176	84	268							56	<0.03	<0.06	0.10			0.12
26/Apr/10	7.9	1,790	3	31	<1	31	25	315	297						27	<0.03	<0.06	<0.10	1		0.11
14/Jul/10	7.6	3,380	4	48	4	744	262	378							34	<0.03	<0.06	0.14			0.08
10/Sep/10																					
21/Oct/10	7.7	1,190	3	26	<1	191	88	215	257						<2	0.03	0.08	<0.10	1		0.07
19/Apr/11																					
31/Aug/11																					
20/Sep/11																					
13/Dec/11																					
10/May/12																					
1/Aug/12																					
21/Dec/12	7.9	1,020	5	67	<1	174	65	170	269	12	88				152	0.12	0.18	0.15			0.24
18/Apr/13	8.0	1,070	14	32	<1	171	37	238	306	19	91				325	<0.03	0.07	0.10	1		0.34
24/Jul/13																					
28/Oct/13																					
5/Dec/13	7.8	620	9	18	<1	110	14	147	158	9	49				49	0.08	0.07	<0.10			0.10
14/Apr/14																					
9/Jul/14																					
16/Oct/14																					
2/Dec/14																					
24/Apr/15																					
12/Aug/15	7.6	2,960	3	42	<1	144	289	291	516	23	169				36	<0.03	<0.06	<0.10			0.10
20/Oct/15	7.8	1,820	5	61	<1	365	70	303	327	16	<0.2				81	<0.03	<0.06	<0.10	2		0.14
2/Dec/15	<1	1,710	<2	26	<1	317	54	324	335	20	102				<3	<0.03	<0.06	<0.10			0.03
26/Apr/16	7.7	1,350	4	26	<1	245	42	263	276	16	85				14	<0.03	<0.06	<0.10	1		0.10
17/Aug/16	7.6	1,360	3	44	<1	202	76	295	309	13	102				6	<0.03	<0.06	<0.10			0.05
27/Oct/16	7.8	890	6	125	<1	125	62	187	345	15	114				292	0.04	0.09	0.14	2		0.38
5/Dec/16	7.7	1,720	<2	38	<1	353	53	224	320	15	103				<3	<0.03	<0.06	<0.10			0.04
6/Apr/17	7.8	730	3	30	<1	121	19	165	176	9	55				47	<0.03	<0.4	<0.10	1		0.09
13/Oct/17																					
16/Nov/17	7.6	1,530	2	21	<1	310	198	167	304	12	102				53	<0.03	<0.4	0.11	1		0.14
4/Dec/17																					

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.

Table D-2
W12A Landfill Surface Water Samples
DRAINAGE DITCH #2

AVG	0.1	49	44.8	0.1	1.2	12.5	229.6	135	5.9	0.3	10	0.0	1575	4.8	11.4	7.9	0.0019
STD	0.5	20	26.8	0.8	2.5	20.9	914.0	240	3.3	0.9	18	0.0	994	5.0	6.7	0.5	0.0037
# of samples	19	18	19	31	31	31	34	22	7	29	31	19	33	31	33	33	33

Parameter Storm Sewer Bylaw PWQO Units	As (ug/L)	Ba (ug/L)	B (ug/L)	Cd 8 0.2 (ug/L)	Cr 200 100 (ug/L)	Cu 40 5 (ug/L)	Fe(tot.) - (MG/L)	Fe (filt.) 1 0.3 (ug/L)	Ni 80 25 (ug/L)	Pb 120 25 (ug/L)	Zn 50 30 (ug/L)	Hg (ug/L)	Field Cond. uS/cm	Field DO (MG/L)	Flow L/MIN	Field Temp (°C)	Field pH	un-ionized NH ₃ - (MG/L)	REMARKS	
2/Aug/00				0.0	3	4		83	6	0	11									
28/Nov/00				0.0	4	8		53	13	0	6									
9/Feb/01				0.0	2	6		161	3	0	0									
20/Mar/01				0.2	3	18		62	5	0	9									
28/May/01				0.0	2	4.4		38		0	13									
24/Sep/01				3.3	0	22.2		221			12									
16/Oct/01				0.0	2	16.5		117		1	3									
14/Dec/01								7												
9/Apr/02				0.0	1	96.9		68		3	101									
11/Nov/02				0.0	0	40.3		38		0	8									
4/Feb/03								60												
2/Apr/03								75												
6/May/03	0	74	0	0.0	0	2.87	0.082			0	8	0.0000	2,910	13.8		10.1	8.6	<0.0075	No flow	
6/Oct/03	0	60	60	0.0	0	19.3		38		0	0	0.0000	2,340	5.6		18.9	7.5	<0.0010	Too shallow	
26/Apr/04	<2	34	60	<0.2	<2.0	3.5	0.024			<2.0	8	<0.1	1,760	8.1		8.7	7.6	<0.0006	No flow	
8/Jul/04													1,592	8.9		15.7	7.8	<0.0019	No flow	
25/Nov/04	<2	34	60	<0.2	<2.0	19.6	0.210			<2.0	9	<0.1	732	11.1		3.6	6.1	<0.0000	No visible flow	
15/Dec/04																				Too shallow
4/Jan/05							0.099						3,510	11.3		1.8	8.0	<0.0009	Too shallow	
12/Apr/05	<0.002	90	0.06	<0.2	<2.0	2.9	0.024	24		<2.0	9	<0.1	4,080	12.3		7.4	8.0	<0.0014	Stagnant water	
4/May/05							0.077	77			40		3,220			18.4	8.3	<0.0060	No visible flow	
9/Nov/05	0	32	0	<0.2	<0.2	5.4	0.040	40		<2.0	6	0.0000	605	6.9		13.3	7.4	<0.0005	Too shallow	
24/Apr/06	<1	47	48	<0.2	<2.0	5.0	0.034	34		<2.0	<4	<0.1	2,160			12.2	8.2	0.0041	No flow	
1/Jan/06																				No flow
3/Aug/06							1.17	1,170					1,166	5.7		25.7	7.6	<0.0021	No flow	
9/Nov/06	<1	42	53	<0.2	<2.0	5.5	0.086	9		<2.0	<4	<0.1	1,107	9.6		13.6	7.5	<0.0008	No flow	
30/Apr/07																				No flow, no sample
19/Jul/07																				No flow, no sample
27/Nov/07																				No flow, no sample
4/Dec/07																				No flow, no sample
4/Apr/08	<1	32	<10	<0.2	<1.0	1.1	26.9			<1.0	13	<0.1	1,229	15.8		5.0	8.1	0.0037	Slow flow	
12/Sep/08							534						713	11.1		18.2	7.8	0.0028		
22/May/09	<5	98	58	<0.2	2	<1.0	5,020			<1.0	5	<1.0	210	8.6		23.1	7.2	0.0008	No flow, shallow	
9/Jul/09							2170													No flow, no sample
21/Oct/09	<1		63				0					<0.1	370	7.2		11.5	7.5	0.0006	No visible flow	
26/Apr/10	<1	62	56	<0.2	<1.0	3	20			<1.0	3	<0.0001	1,795	0.0		16.1	8.0	<0.0029	No flow, standing	
14/Jul/10							2						3,625	0.0		23.7	7.5	0.0023	No flow, standing water	
10/Sep/10																				Too shallow, no sample
21/Oct/10	<1	45	65	<0.2	<1.0	3	0.021			2	5	<0.0001	798	0.1		8.5	7.4	<0.0004		
19/Apr/11																				No flow, no sample
31/Aug/11																				No flow, no sample
20/Sep/11																				No flow, no sample
13/Dec/11																				No flow, no sample
10/May/12																				Dry, heavy vegetation
1/Aug/12																				Dry, heavy vegetation
21/Dec/12							0.047						825	0.1		2.6	8.2	0.0021	Steady flow	
18/Apr/13	1	35	30	<0.2	<1.0	3	0.016			<2.0	5	0.0200	907	0.0		12.4	8.0	0.0020	Steady flow	
24/Jul/13																				Too shallow, no sample
28/Oct/13																				Too shallow, no sample
5/Dec/13							0.106						555	0.2		2.3	8.3	<0.0019	Steady flow	
14/Apr/14																				Too shallow, no sample
9/Jul/14																				Too shallow, no sample
16/Oct/14																				Too shallow, no sample
2/Dec/14																				Too shallow, no sample
24/Apr/15																				Too shallow, no sample
12/Aug/15							0.035						2,728	1.9		19.0	8.2	0.0054	No flow, standing water	
20/Oct/15	<1	62	74	<0.2	<1.0	1	0.026			<2.0	4	<0.010	1,675	0.2		10.8	8.5	0.0052	No flow, standing water	
2/Dec/15							0.078						1,562	0.1		3.5	8.1	0.0013	No flow, standing water	
26/Apr/16	1	42	44	<0.2	<1.0	2	0.020			<2.0	4	<0.01	1,253	0.3		7.9	8.7	0.0072	No flow, standing water	
17/Aug/16							0.006						1,217	0.1		21.0	8.1	0.0047	No flow, standing water	
27/Oct/16	<1.0	31	52	<0.2	<1.0	2	0.020			<2.0	5	0.0450	698	4.4		5.5	7.8	0.0009	No flow, standing water	
5/Dec/16							0.094						1,674	0.1		4.7	9.2	0.0166	No flow, standing water	
6/Apr/17	<1.0	27	24	<0.2	2	3	0.026			<2.0	4	0.0190	469	0.1		6.1	8.0	0.0014	No flow, standing water	
13/Oct/17	1	42	105	<0.2	<1.0	5	0.010			<2.0	7	0.0150	1,057	0.4		14.4	7.4	0.0007	No flow, very murky, 1.5' deep	
16/Nov/17							0.021						1,427	0.8		5.2	7.4	0.0003	Slow flow -4' deep	
4/Dec/17							0.056						1,993	3.5		6.0	7.4	0.0003	Slow flow, -5' deep	

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.

Table D-3
W12A Landfill Surface Water Samples
DRAINAGE DITCH #3

AVG	7.9	827	8	44	3	109	82	201	259	18.2	80.7	4.0	69.3	5.5	128	0.05	0.4	1.0	2.8	0.2
STD	0.3	620	9	91	15	69	38	63	83	4.9	22.5	1.0	21.0	1.3	225	0.09	0.5	2.0	3.0	0.3
# of samples	120	120	112	76	115	121	85	77	77	48	48	2	2	3	109	107	107	109	77	106

Parameter Storm Sewer Bylaw PWQO Units	PH 6 to 10.5 6 to 8.5	CONDUCTIVITY - - (uS/cm)	BOD 15 - (MG/L)	COD - - (MG/L)	PHENOLS 20 1 (UG/L)	Cl 1,500 - (MG/L)	SO ₄ - - (MG/L)	ALKALINITY - - (MG/L)	HARDNESS - - (MG/L)	Mg (MG/L)	Ca (MG/L)	K (MG/L)	Na (MG/L)	DOC (MG/L)	SS 15 - (MG/L)	NO ₂ - - (MG/L)	NO ₃ - - (MG/L)	NH ₃ - - (MG/L)	TKN - - (MG/L)	TP 0.4 0.03 (MG/L)
10/Jan/83																				
21/Feb/83	7.8	440			1	15			159											
7/Apr/83																				
26/May/83																				
29/Jun/83																				
28/Jul/83																				
25/Aug/83																				
28/Sep/83																				
11/Jul/84																				
14/May/85																				
24/Jul/85																				
18/Sep/85																				
18/Nov/85																				
12/May/86																				
28/Jul/86																				
30/Sep/86																				
3/Nov/86																				
21/Jul/87																				
16/Sep/87	8.0	197			1	9			257											
12/Nov/87																				
27/Nov/87	8.0	197			1	4			257	9	88			4						
27/Jul/88																				
19/Sep/88																				
17/Nov/88	8.0	344			0	13			231											
30/May/89	8.0	344			2	15			153											
27/Jul/89																				
14/Sep/89																				
6/Nov/89	8.1	360			3	35			167	12	48			6						
7/Nov/89	8.1	360			3	35			167											
18/Jan/90	7.9	291			0	28			146											
9/May/90																				
23/Jul/90																				
17/Sep/90																				
12/Nov/90	8.0	545			9	39			219	15	63			7						
15/Oct/91			8		0														0.76	
28/Oct/91			5		0									17					1.20	
21/Nov/91	7.5	370																		
9/Jul/92	6.9	440			3	38			228											
8/Sep/92	7.6	305				14			166											
2/Nov/92	6.8	393			10	43			220											
5/May/93	7.6	740	5		0	419								152	0.03	0.00	0.02	1.10	0.40	
16/Oct/93	7.8	495	6		0	51								34	0.02	0.42	0.14	1.11	0.28	
15/Nov/93	7.8	230	5		1	62								50	0.01	0.25	0.22	1.11	0.12	
9/May/94	8.1	370	7		0	269								30	0.02	0.81	0.02	1.04	0.06	
4/Aug/94	7.8	610	11		2	153								74	0.03	0.22	0.25	1.60	0.38	
27/Sep/94	7.9	1,520	7		1	21								116	0.01	0.19	0.09	1.94	0.20	
17/Jan/96	7.9	381	6		13	52								387	0.10	1.10	0.41	2.12	0.62	
30/Apr/96	8.2	468	2		1	205								164	0.02	0.17	0.11	1.44	0.04	
15/Jul/96																				
19/Jul/96	8.0	511	2		0	68								120	0.04	0.44	0.05	1.86	0.21	
9/Sep/96	7.9	610	14		0	85								402	0.02	0.24	5.76	9.12	1.18	
12/Sep/96	8.7	503	5		0	120								44	0.00	0.00	0.27	0.99	0.05	
23/Oct/96	8.1	407	6		2	190											0.05	1.93	1.04	
12/Dec/96	8.2	776	10		11	110								1,160	0.08	0.15	0.03	0.93	0.34	
6/May/97	8.2	546	6		0	110								186	0.09	0.30	0.03	0.93	0.34	
														184	0.38	0.38	0.19	2.50	0.00	

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.

Table D-3
W12A Landfill Surface Water Samples
DRAINAGE DITCH #3

AVG	0.9	41	73.9	0.0	1.0	11.3	192.3	274.8	13.6	1.8	13.9	0.001	807	3.7	46	9.8	7.9	0.0
STD	4.1	14	51.8	0.2	3.9	25.7	983.8	763.9	21.4	17.8	32.9	0.008	338	4.6	66	6.4	1.7	0.0
# of samples	41	35	40	49	50	50	66	30	11	50	50	40	61	57	14	74	74	73

Parameter Storm Sewer Bylaw PWQO Units	As (UG/L)	Ba (UG/L)	B (UG/L)	Cd 8 0.2 (UG/L)	Cr 200 100 (UG/L)	Cu 40 5 (UG/L)	Fe(tot.) - - (MG/L)	Fe (filt.) 1 0.3 (UG/L)	Ni 80 25 (UG/L)	Pb 120 25 (UG/L)	Zn 50 30 (UG/L)	Hg (UG/L)	Field Cond. uS/cm	Field DO (MG/L)	Flow L/MIN	Field Temp (°C)	Field pH	un-ionized NH ₃ - (MG/L)	REMARKS
10/Jan/83																			No flow
21/Feb/83																			No flow
7/Apr/83																			No flow
26/May/83																			No flow
29/Jun/83																			No flow
28/Jul/83																			No flow
25/Aug/83																			No flow
28/Sep/83																			No flow
11/Jul/84																			No flow
14/May/85																			No flow
24/Jul/85																			No flow
18/Sep/85																			No flow
18/Nov/85																			No flow
12/May/86																			No flow
28/Jul/86																			No flow
30/Sep/86																			No flow
3/Nov/86																			No flow
21/Jul/87																			No flow
16/Sep/87																			No flow
12/Nov/87																			No flow
27/Nov/87																			No flow
27/Jul/88																			No flow
19/Sep/88																			No flow
17/Nov/88																			No flow
30/May/89																			No flow
27/Jul/89																			No flow
14/Sep/89																			No flow
6/Nov/89																			No flow
7/Nov/89																			No flow
18/Jan/90																			No flow
9/May/90																			No flow
23/Jul/90																			No flow
17/Sep/90																			No flow
12/Nov/90																			No flow
15/Oct/91																			No flow
28/Oct/91																			No flow
21/Nov/91																			No flow
9/Jul/92																			No flow
8/Sep/92																			No flow
2/Nov/92																			No flow
5/May/93																			No flow
16/Oct/93																			No flow
15/Nov/93																			No flow
9/May/94																			No flow
4/Aug/94																			No flow
27/Sep/94																			No flow
17/Jan/96																			MOEE Data
30/Apr/96																			No data
15/Jul/96																			No data
19/Jul/96																			No data
9/Sep/96																			No data
12/Sep/96																			No data
23/Oct/96																			No data
12/Dec/96																			No data
6/May/97																			No data

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.

Table D-3
W12A Landfill Surface Water Samples
DRAINAGE DITCH #3

	AVG	7.9	827	8	44	3	109	82	201	259	18.2	80.7	4.0	69.3	5.5	128	0.05	0.4	1.0	2.8	0.2
	STD	0.3	620	9	91	15	69	38	63	83	4.9	22.5	1.0	21.0	1.3	225	0.09	0.5	2.0	3.0	0.3
	# of samples	120	120	112	76	115	121	85	77	77	48	48	2	2	3	109	107	107	109	77	106
Parameter Storm Sewer Bylaw PWQO Units	PH 6 to 10.5 6 to 8.5	CONDUCTIVITY - - (uS/cm)	BOD 15 - (MG/L)	COD - - (MG/L)	PHENOLS 20 1 (UG/L)	CI 1,500 - (MG/L)	SO ₄ - - (MG/L)	ALKALINITY - - (MG/L)	HARDNESS - - (MG/L)	Mg (MG/L)	Ca (MG/L)	K (MG/L)	Na (MG/L)	DOC (MG/L)	SS 15 - (MG/L)	NO ₂ - - (MG/L)	NO ₃ - - (MG/L)	NH ₃ - - (MG/L)	TKN - - (MG/L)	TP 0.4 0.03 (MG/L)	
10/Sep/97	7.9	840	52		10	165								232	0.05	0.45	0.16	0.58	0.25		
2/Dec/97	8.0	866	5		0	118								96	0.05	0.86	0.26	1.18	0.11		
9/Jan/98	8.3	532	5		3	54								280	0.00	0.67	0.38	0.60	0.24		
25/Mar/98	8.1	587	9		0	69								294	0.00	0.60	0.63	3.03	0.33		
5/Aug/98	7.3	958	7		1	83								96	0.00	0.00	0.04	3.00	0.67		
21/Dec/98	8.0	1,220	10		0	196								32	0.03	0.66	0.16	18.40	0.11		
26/May/99	7.9	1,101	2		0	37								32	0.06	0.58	0.54	1.35	0.04		
29/Jun/99	8.3	731	4		0	79								84	0.00	0.58	0.15	1.67	0.08		
30/Sep/99	7.5	930	5											48			0.10	1.66			
14/Dec/99	8.2	387	6		2	83								894	0.01	0.99	0.16	3.37	0.60		
27/Mar/00	8.2	716	4		9	96	88							98	0.09	1.56	0.28	1.29	0.20		
10/May/00	7.7	884	3		0	163	69							74	0.00	0.29	0.06	1.11	0.19		
2/Aug/00	8.0	1,109	5		0	201	127							56	0.04	0.81	0.00	3.20	0.20		
28/Nov/00	8.0	1,251	10		0	232	156							80	0.07	1.06	0.61	1.75	0.10		
9/Feb/01	8.3	485	6			72	73							422	0.00	0.82	1.21	5.06	0.90		
20/Mar/01	7.8	634	9			84	57							92	0.12	0.74	1.52	6.23	0.15		
28/May/01	8.1	952	5	<1.00		174	110	184						76	0.11	0.46	2.25	3.86	0.16		
24/Sep/01	8.3	491	4			233	158							80	0.64	0.17	0.37	3.06	0.19		
16/Oct/01	8.2	820	7	<1.00	2	147	108	200						66	0.13	0.35	1.54	3.96	0.18		
14/Dec/01	7.5	777	13	76	0	88	79	228						260	0.02	0.12	1.60		0.17		
9/Apr/02	8.0	805	15	32	5	109	231	240						116	0.00	0.00	0.52	2.34	0.29		
11/Nov/02	8.1	602	4	31	1	86	78	114	162					120	0.02	0.51	0.42	1.88	0.30		
13/Dec/02	8.0	895	4	27	0	110	118	134	218					8	0.04	0.93	0.95	1.35	0.06		
4/Feb/03	7.8	926	12	39	4	109	86	174	140					132	0.01	0.85	5.05		0.60		
2/Apr/03	7.4	1,456	4	165	7	78	99	296	404					112	0.00	0.06	9.12		0.33		
6/May/03	8.1	721	10	50	6	103	89	152	212					6	<0.03	0.37	2.39				
11/Jun/03	7.6	1,160	9	32	0	99	55	248	329					92	0.00	0.08	0.96		0.12		
6/Oct/03	7.4	1,327	8	44	2	63	209	230	335					224	<0.03	0.36	0.00		0.17		
26/Apr/04	7.5	996	13	244	11	138	66	220						54	<0.03	<0.06	3.77	7.22	0.16		
27/May/04	7.4	817	16	300	1	89	69	246							0.05	0.14	0.54	2.30	0.26		
18/Jun/04			6																		
8/Jul/04																					
9/Nov/04	8.0	855	12	55.0	3	101	141	164	289	22	80			62	0.06	1.07	0.20	4.32	0.42		
25/Nov/04	8.0	685	14	43	2	87	101	152	247	20	66	5	48	130	<0.03	1.24	0.58	2.22	0.15		
15/Dec/04	7.7	1,440	<2	22	2	186	142	346	408	28	117	3	90	18	<0.03	0.20	<0.10	0.80	0.06		
4/Jan/05	8.0	764	26	44	9	135	65	160						118	<0.03	0.54	<0.10		0.19		
24/Jan/05			3																		
12/Apr/05	7.7	1,860	3	16	2	319	54	348						56	<0.03	0.06	0.43	2.48	0.12		
4/May/05	8.0	631	5	22	1	84	63	146						13	<0.03	0.58	0.51		0.18		
9/Nov/05	7.8	607	6	35	<1	98	47	90	190	11	58			290	<0.03	1.18	1.28	5.00	1.77		
24/Apr/06	8.1	1,180	9	53	<1	201	56	244	307	20	90			39	<0.03	0.19	0.10	1.36	0.06		
1/Jun/06																					
3/Aug/06	7.9	676	9	23	2	79	63	164	213	12	65			193	0.04	0.57	0.31		0.34		
9/Nov/06	7.7	1,120	3	21	2	104	55	386	367	24	107			76	0.05	0.20	0.12	1.35	0.09		
30/Apr/07	8.0	536	<3	4	<1	62	43	114	150					38	0.03	0.32	<0.10	0.79	0.05		
19/Jul/07	8.0	679	3	23	<1	95	72	102						52	0.07	0.32	<0.10		0.19		
27/Nov/07	7.9	565	25	24	<1	92	24	150	241					9	<0.03	0.21	0.41	1.58	0.09		
4/Dec/07	7.8	903	4	21	<1	142	80	138	215					71	<0.03	0.80	0.53	1.39	0.11		
14/Dec/07	7.9	871	3	20	<1	105	84	150						17	0.11	1.28	0.42		0.12		
9/Jan/08	7.7	745	29	40	7	79	76	170						328	0.08	0.72	2.64	3.6	0.33		
11/Jan/08	7.6	911	56	70	<1	93	87	188						20	0.12	0.61	4.95	5.3	0.39		
14/Jan/08	7.6	1,170	30	60	6	128	97	244	283					13	0.13	0.38	5.26	9.8	0.12		
16/Jan/08	7.6	1,230	21	45	7	162	109	288	321					8	0.12	0.32	11.8	11.6	0.09		
18/Jan/08																					
21/Jan/08																					
25/Jan/08																					
30/Jan/08	7.7	1,080	18	12	5	125	91	258	558					91	0.14	0.53	9.59	11.0	0.03		
1/Jan/08																					
4/Jan/08																					
6/Jan/08	7.8	6,550	14	5	3	68	45	140	165					62	0.09	0.48	3.36	4.4	0.15		
8/Jan/08	7.8	1,020	8	8	4	171	56	150	175					63	0.05	0.48	3.57	4.0	0.17		
11/Jan/08																					

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.

Table D-3
W12A Landfill Surface Water Samples
DRAINAGE DITCH #3

AVG	0.9	41	73.9	0.0	1.0	11.3	192.3	274.8	13.6	1.8	13.9	0.001	807	3.7	46	9.8	7.9	0.0
STD	4.1	14	51.8	0.2	3.9	25.7	983.8	763.9	21.4	17.8	32.9	0.008	338	4.6	66	6.4	1.7	0.0
# of samples	41	35	40	49	50	50	66	30	11	50	50	40	61	57	14	74	74	73

Parameter Storm Sewer Bylaw PWQO Units	As (UG/L)	Ba (UG/L)	B (UG/L)	Cd 8 0.2 (UG/L)	Cr 200 100 (UG/L)	Cu 40 5 (UG/L)	Fe(tot.) - - (MG/L)	Fe (filt.) 1 0.3 (UG/L)	Ni 80 25 (UG/L)	Pb 120 25 (UG/L)	Zn 50 30 (UG/L)	Hg (UG/L)	Field Cond. uS/cm	Field DO (MG/L)	Flow L/MIN	Field Temp (°C)	Field pH	un-ionized NH ₃ - (MG/L)	REMARKS
10/Sep/97																			
2/Dec/97																			
9/Jan/98																			
25/Mar/98																			
5/Aug/98																			
21/Dec/98				0.5	0	0	0.370		4	0	7								
26/May/99																			
29/Jun/99																			
30/Sep/99				0.0	15	120	1.690	130	1	0	8								
14/Dec/99				0.7	10	110	30.300	150	80	80	232								
27/Mar/00				0.0	4	6		86	8	0	1								
10/May/00				0.0	4	12		71	5	0	2								
2/Aug/00				0.0	4	7		78	2	0	15								
28/Nov/00				0.0	6	8		38	13	0	7								
9/Feb/01				0.0	1	4		116	5	4	0								
20/Mar/01				0.0	1	23		61	5	0	31								
28/May/01				0.0	2	2		40		0	15								
24/Sep/01				0.0	0	21		247		0	9								
16/Oct/01				0.0	2	6		78		0	8								
14/Dec/01								15											
9/Apr/02				0.0	2	77		60		0	43								
11/Nov/02					0	16		53		0	6								
13/Dec/02				0.0	0	5		39		0	0		958.0	10.0		2.2	6.4	0.0002	No flow
4/Feb/03								30											0.0273
2/Apr/03								983					1,447		200	8.5	7.2	0.0235	
6/May/03	0	40	258	0.2	0	2	0.056			0	6	0.0	767	7.4		13.2	8.1	0.0722	Too wide
11/Jun/03								997					893	2.9		19.6	7.6	0.0138	No flow, oily sheen
6/Oct/03	0	63	170	0.0	0	13		30		0	0.0	1,190	4.5		8.8	6.7	0.0000	No flow	
26/Apr/04	<2	50	110	<0.2	<2.0	<2.0	0.026	26		<2.0	15	<0.1	860	3.8	75	12.2	7.9	0.0615	
27/May/04	0	38	0	<0.2	<2.0	24	0.101	101		3	12	<0.1	566	4.8	33	20.4	7.9	0.0151	
18/Jun/04													650	4.0	33	21.1	7.8		
8/Jul/04																			No flow
9/Nov/04	<2	30	110	<0.2	<2.0	17	0.010	10		<2.0	32	<0.1	699			7.4	7.5	0.0009	No visible flow
25/Nov/04	<2	36	0.08	<0.2	<2.0	14	0.075	75		<2.0	<4.0	<0.1	406	13.2	<540	1.9	6.1	0.0001	Diesel spill
15/Dec/04	<2	43		0.2	<2.0	<2.0	0.032	32		<2.0	26		890	9.4		0.6	7.7	<0.0004	
4/Jan/05							0.400	400					445	11.8	180	2.1	8.0	<0.0010	
24/Jan/05																			
12/Apr/05	<0.002	74	0.05	<0.2	<2.0	2		20		<2.0	19	<0.1	1,462	4.6		7.4	7.7	0.0035	Flowing
4/May/05							0.017	17					612			11.3	7.7	0.0054	Flowing
9/Nov/05	0.00	20	0.04	<0.2	<2.0	4	0.073	73		<2.0	4	0.002	283	7.2	48	12.3	6.9	0.0020	
24/Apr/06	<1	36	62	<0.2	<2.0	5	14.700			<2.0	25	<0.1	1,086		48	10.9	7.0	0.0002	
1/Jun/06																			No flow, pond sample
3/Aug/06								4,180					466	5.5		23.9	8.0	0.0162	Steady flow
9/Nov/06	<1	47	64	<0.2	<2.0	7	0.098			<2.0	12	<0.1	1,015	7.6		12.7	7.8	0.0015	No flow
30/Apr/07	<1	21	31	<0.2	<1.0	7		7		<1.0	3	<0.1	467	8.7		17.5	7.9	<0.0023	water level the same before & after weir
19/Jul/07							0.084									22.0	8.0	<0.0041	No flow, pond sample
27/Nov/07	<1	39	80	<0.2	<1.0	3	0.005			<1.0	9	<0.1	695	0.2		6.1	7.9	0.0039	Steady flow
4/Dec/07	1	32	63	<0.2	<1.0	19	0.072			<1.0	5	<0.1	711	0.3		2.0	7.6	0.0021	Steady flow
14/Dec/07							0.048						632	7.9		5.0	7.7	0.0025	
9/Jan/08																4.7	7.7	0.0151	
11/Jan/08	<1	57	130	<0.2	1.3	2	33.600		11	<1.0	11	<0.1				4.5	7.6	0.0231	
14/Jan/08	1	42	160	<0.2	<1.0	4	0.008		15	<1.0	15	<0.1				6.3	7.6	0.0290	
16/Jan/08	1		170				0.005					<0.1				3.2	7.6	0.0441	
18/Jan/08																			No Flow
21/Jan/08																			No Flow
25/Jan/08																			No Flow
30/Jan/08	2		120				108.000					<0.1				2.9	7.7	0.0516	Minimal
1/Feb/08																			No Flow
4/Feb/08																			No Flow
6/Feb/08	1		49				128.000					<0.1				4.2	7.8	0.0247	
8/Feb/08	<1		60				4.000					<0.1				4.6	7.8	0.0260	
11/Feb/08																			No Flow

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.

Table D-3
W12A Landfill Surface Water Samples
DRAINAGE DITCH #3

AVG	7.9	827	8	44	3	109	82	201	259	18.2	80.7	4.0	69.3	5.5	128	0.05	0.4	1.0	2.8	0.2
STD	0.3	620	9	91	15	69	38	63	83	4.9	22.5	1.0	21.0	1.3	225	0.09	0.5	2.0	3.0	0.3
# of samples	120	120	112	76	115	121	85	77	77	48	48	2	2	3	109	107	107	109	77	106

Parameter Storm Sewer Bylaw PWQO Units	PH 6 to 10.5 6 to 8.5	CONDUCTIVITY - - (uS/cm)	BOD 15 - (MG/L)	COD - - (MG/L)	PHENOLS 20 1 (UG/L)	Cl 1,500 - (MG/L)	SO ₄ - - (MG/L)	ALKALINITY - - (MG/L)	HARDNESS - - (MG/L)	Mg (MG/L)	Ca (MG/L)	K (MG/L)	Na (MG/L)	DOC (MG/L)	SS 15 - (MG/L)	NO ₂ - - (MG/L)	NO ₃ - - (MG/L)	NH ₃ - - (MG/L)	TKN - - (MG/L)	TP 0.4 0.03 (MG/L)
13/Feb/08																				
15/Feb/08	7.9	758	3	33	5	69	61	250	342					15	0.03	3.72	0.12	0.6	0.06	
19/Mar/08	7.8	357	12	10	4	97	25	124	164					73	0.09	0.44	0.64	1.2	0.15	
20/Mar/08	7.7	418	22	19	4	97	34	90	166					41	0.12	0.73	0.67	2.4	0.12	
24/Mar/08	7.6	486	12	12	3	97	35	176	133					32	0.13	0.43	1.40	3.0	0.07	
31/Mar/08	7.7	637	4	23	3	182	41	194	233	14	70			36	0.09	0.36	2.34		0.1	
8/Apr/08																				
14/Apr/08																				
23/Apr/08																				
12/May/08																				
12/Sep/08	7.8	1,070	8	39	2	165	125	198	301	19	89			33	0.07	<0.03	0.25		0.15	
22/May/09	7.6	1,430	4	28	6	301	45.4	292	532	35	155			36	0.09	<0.03	0.59	1.8	0.11	
9/Jul/09	7.6	973	3	15	4	133	52	255	297	19	88			72	<0.03	0.11	1.23		0.16	
10/Sep/09	7.8	774	8	31	135	123	66	222	229	18	63			187	<0.03	<0.06	0.99		0.04	
21/Oct/09	7.5	870	2	21	2	106	78	216	253	18	72			94	<0.03	0.39	0.63		0.11	
26/Apr/10	7.9	886	4	26	<1	104	83	212	262	22	70			19	0.08	0.64	0.36	1.85	0.09	
12/May/10			8			64	87										0.82			
14/Jul/10	8.0	781	4	36	4	84	85	219	312	21	91			217	0.04	0.07	0.6		0.27	
10/Sep/10	7.9	663	3	23	<1	67	97	130	231	21	59			116	0.04	<0.06	0.16		0.17	
21/Oct/10	7.7	1,110	8	720	2	134	149	246	360	20	112			1780	<0.03	<0.06	0.59	9.55	0.51	
19/Apr/11	8.1	860	3	18	<1	120	58	196	262	19	74			<2	<0.03	0.57	0.44	1.3	0.03	
31/Aug/11																				
20/Sep/11																				
29/Nov/11	8.0	520	4	27	<1	30	66	185	254	15	77			205	0.06	0.36	2.04		0.43	
29/Nov/11	8.1	500	3	23	<1	58	70	183	200	13	58			202	0.06	0.32	1.9		0.24	
13/Dec/11	7.5	1,100	3	19	<1	117	86	400	431	28	126			100	<0.3	<0.6	0.24	0.76	0.30	
10/May/12	7.8	930	3	24	<1	130	67	214	293	25	75			44	0.14	0.18	0.15		0.06	
1/Aug/12	7.8	770	12	38	3	111	50	178	285	24	74			432	0.14	<0.06	0.26		0.50	
18/Oct/12	7.7	1,150	3	20	<1	158	88	271	352	19	109			77	0.11	<0.06	0.32	1.3	0.11	
21/Dec/12	8.0	750	3	26	<1	46	116	196	300	22	84			81	0.1	1.02	1.07		0.12	
18/Apr/13	8.1	620	3	10	<1	51	47	189	239	16	70			81	0.15	0.4	0.92	1.69	0.10	
24/Jul/13	7.9	560	3	25	<1	45	59	169	216	17	59			106	0.13	0.1	0.17		0.16	
28/Oct/13	8.3	460	3	15	<1	25	75	123	175	14	48			13	0.06	<0.06	<0.10	1.4	0.07	
5/Dec/13	7.8	570	8	14	<1	46	46	197	240	16	70			27	0.11	0.2	0.18		0.10	
14/Apr/14	8.0	820	4	23	<1	112	46	203	259	17	76			14	<0.03	0.25	0.12	0.76	0.04	
9/Jul/14	8.2	410	2	18	<1	37	64	92	144	12	37			38	<0.03	0.08	<0.10		0.07	
16/Oct/14	8.0	610	3	21	<1	41	86	164	241	18	67			44	<0.03	0.09	<0.10	1.07	0.07	
2/Dec/14	7.8	670	4	22	1	60	62	208	259	18	74			26	<0.03	0.35	0.15		0.07	
24/Apr/15	7.8	1,120	4	21	<1	169	58	236	320	24	89			11	<0.03	0.18	0.11	0.83	0.04	
12/Aug/15	7.6	1,610	4	28	<1	185	65	182	258	16	76			14	<0.03	<0.06	0.23		0.04	
20/Oct/15	7.9	1,490	2	25	<1	293	47	258	307	21	89			18	<0.03	<0.06	0.19	1.14	0.04	
2/Dec/15	7.8	790	<2	24	<1	102	78	164	224	18	60			29	<0.03	<0.06	<0.10		0.04	
26/Apr/16	8.0	850	4	26	<1	140	49	171	222	16	63			21	<0.03	<0.06	<0.10	0.71	0.10	
17/Aug/16	7.5	940	2	28	<1	107	52	251	260	13	82			20	<0.03	<0.06	0.40		0.08	
27/Oct/16	7.8	870	4	28	<1	83	107	195	308	15	99			88	<0.03	0.06	0.10	1.26	0.15	
5/Dec/16	7.6	1,520	3	17	<1	261	96	251	367	19	116			25	<0.03	<0.06	<0.10		0.12	
6/Apr/17	8.1	660	3	16	<1	61	53	196	237	16	68			21	0.07	0.5	0.12	1.1	0.05	
13/Oct/17						89	157	205	312	13	103			32	<0.03	<0.4	0.17	0.9	0.11	
16/Nov/17	7.5	900	3	20	<1	109	121	185	264	12	86			19	<0.03	<0.4	<0.10		0.08	
4/Dec/17	7.6	1,210	2	20	<1	159	138	260	367	19	116			43	<0.03	<0.4	<0.10		0.07	

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.

Table D-3
W12A Landfill Surface Water Samples
DRAINAGE DITCH #3

AVG	0.9	41	73.9	0.0	1.0	11.3	192.3	274.8	13.6	1.8	13.9	0.001	807	3.7	46	9.8	7.9	0.0
STD	4.1	14	51.8	0.2	3.9	25.7	983.8	763.9	21.4	17.8	32.9	0.008	338	4.6	66	6.4	1.7	0.0
# of samples	41	35	40	49	50	50	66	30	11	50	50	40	61	57	14	74	74	73

Parameter Storm Sewer Bylaw PWQO Units	As (UG/L)	Ba (UG/L)	B (UG/L)	Cd 8 0.2 (UG/L)	Cr 200 100 (UG/L)	Cu 40 5 (UG/L)	Fe(tot.) - - (MG/L)	Fe (filt.) 1 0.3 (UG/L)	Ni 80 25 (UG/L)	Pb 120 25 (UG/L)	Zn 50 30 (UG/L)	Hg (UG/L)	Field Cond. uS/cm	Field DO (MG/L)	Flow L/MIN	Field Temp (°C)	Field pH	un-ionized NH ₃ - (MG/L)	REMARKS
13/Feb/08																			No Flow
15/Feb/08	<1		21				2.600					<0.1				5	7.9	0.0011	No Flow
19/Mar/08	1		30	<0.2	<1.0	2	26.900			<1.0	9.9	<0.1			5	7.8	0.0047		
20/Mar/08	<1	28	42	<0.2	<1.0	3	11.900			<1.0	10.8	<0.1			5	7.7	0.0039		
24/Mar/08	<1	30	43	<0.2	<1.0	<1.0	4.900			<1.0	10.8	<0.1			5	7.6	0.0071		
31/Mar/08							11.500						1,028	15.93		5	8.0	0.0271	
8/Apr/08																			No Flow
14/Apr/08																			No Flow
23/Apr/08																			No Flow
12/May/08																			No Flow
12/Sep/08							1250.000						471			18.0	7.7	0.0042	
22/May/09	<1	62.3	58	<0.2	<1.0	<1.0	916.000			<1.0	6.6	<1	370	11.57		19.8	7.4	0.0057	No visible flow
9/Jul/09							2170.000						996	0.01		17.0	7.4	0.0103	No visible flow
10/Sep/09							7690.000						866	0.02		21.7	7.9	0.0326	No visible flow
21/Oct/09	2		92				0.027					<0.1	906	7.25		12.8	8.1	0.0168	No visible flow
26/Apr/10	1	40.4	82	<0.2	<1.0	1.2	7.700			<1.0	7.2	<0.1	879	0.01		13.1	8.1	0.0110	
12/May/10													670	0.65		9.0	7.8	0.0091	
14/Jul/10							7.770						846	1.22		24.6	7.9	0.0263	~2.5" in weir, very slow flow
10/Sep/10							3.210						621	1	15	14.0	7.5	0.0012	Steady flow
21/Oct/10	19	67	100	<0.2	<1.0	1.4	0.015			1.4	4.9	<0.1	730	0.08	10	7.9	7.5	0.0026	
19/Apr/11	<1	34	68	0.2	<1.0	2	0.226			<1.0	5.2	<0.1	723	17.93		4.9	7.9	0.0045	Slow flow, standing water
31/Aug/11																			No flow, too shallow to sample
20/Sep/11																			No flow, too shallow to sample
29/Nov/11							168.000						440	0.98		6.7	8.0	0.0271	Heavy rain event
29/Nov/11							97.200						436	2.68		6.3	8.2	0.0384	Heavy rain event
13/Dec/11	<1	52	62	<0.2	<1.0	<1.0	0.020			<1.0	14.5	<0.1	985	0.05		2.9	7.1	0.0003	No visible flow
10/May/12							0.102						846	-0.04		13.4	7.9	0.0026	Stagnant water, no flow
1/Aug/12							0.298						664	-0.01		20.2	7.3	0.0020	Stagnant water, no flow
18/Oct/12	1.6	67	65	<0.2	<1.0	<1.0	0.039			<1.0	2.6	<0.01	1416	2.92		12.4	8.0	0.0074	Stagnant water, no flow
21/Dec/12							0.020						615	0.08		2.4	8.1	0.0141	Very heavy flow
18/Apr/13	1	31	46	<0.2	<1.0	2.2	0.012			<2.0	3.1	0.02	741	0.16		11.0	8.1	0.0229	No flow, but large volume in weir
24/Jul/13							0.112						500	0.25		18.1	7.8	0.0038	Very slow flow, heavy sediment
28/Oct/13	1.1	21	99	<0.2	<1.0	1.6	0.012			<2.0	2.2	<0.02	433	0.38		6.3	8.9	<0.0094	Steady flow, heavy sediment
5/Dec/13							0.084						494	0.35		2.9	8.4	0.0042	Very heavy flow
14/Apr/14	<1	38	43	<0.2	<1.0	1.6	0.007			<2.0	6.0	<0.1	706	0.35		12.8	8.5	0.0086	Stagnant water, no flow
9/Jul/14							0.115						371	1.16		8.5	21.7	<0.1000	Steady flow, heavy sediment
16/Oct/14	1.5	40	118	<0.2	<1.0	1.6	0.012			<2.0	2.8	<0.1	524	0.26		14.7	8.5	<0.0076	Steady flow, heavy sediment
2/Dec/14							0.070						591	0.44		1.5	7.2	0.0002	Steady flow
24/Apr/15	<1.0	46.4	54	<0.2	<1.0	2.4	0.077			<2.0	5.1	<0.010	1012	15.22		4.8	8.5	0.0036	Very slow flow
12/Aug/15							0.091						1510	1.69		18.8	8.4	0.0188	Stagnant water, no flow
20/Oct/15	<1	49.3	64	<0.2	<1.0	<1.0	0.007			<2.0	3.4	<0.010	1243	0.19		11.5	8.7	0.0164	Stagnant water, no flow
2/Dec/15							0.055						736	0.06		4.2	8.0	0.0011	Slow flow, standing water
26/Apr/16	0.74	22.2	44	<0.2	<1.0	1.9	0.010			<2.0	2.6	<0.01	837	2.11		8.4	7.9	0.0013	Stagnant water, no flow
17/Aug/16							0.199						552	0.39	-	21.1	7.8	0.0026	Stagnant water, no flow
27/Oct/16	<1.0	37.1	63	<0.2	<1.0	1	0.017			<2.0	5.7	<0.01	1438	2.89	-	7.2	8.4	0.0037	Stagnant water, no flow
5/Dec/16							0.030						2070	0.42	-	6.4	8.4	0.0031	Stagnant water, no flow
6/Apr/17	<1.0	34.3	47	<0.2	<1.0	2	0.009			<2.0	<2.0	<0.01	665	0.04	-	7.4	8.3	0.0033	Stagnant water, no flow
13/Oct/17	0.97	49.6	78	<0.2	<1.0	1.7	0.022			<2.0	12.2	<0.01	1009	0.4		14.3	7.4	0.0011	No flow, dark water, foul smell
16/Nov/17							0.016						904	0.74		5.3	7.3	<0.0002	Flowing ~4' deep
4/Dec/17							0.032						1161	2.05		4.4	7.1	<0.0002	Slight flow, 1" deep, algae

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.

Table D-4
W12A Landfill Surface Water Samples
DRAINAGE DITCH #4

AVG	7.3	446	3.8	27	3	36	87	287	218						325	0.02	0.67	0.28	2.1	0.4
STD	0.5	245	1.4	28	11	31	59	94	125						607	0.03	0.78	0.39	1.7	0.4
# of samples	33	31	27	8	27	31	8	7	7						27	27	27	27	24	27

Parameter	PH	CONDUCTIVITY	BOD	COD	PHENOLS	Cl	SO ₄	ALKALINITY	HARDNESS	MG	Ca	K	Na	DOC	SS	NO ₂	NO ₃	NH ₃	TKN	TP
Storm Sewer Bylaw	6 to 10.5	-	15	-	20	1,500	-	-	-						15	-	-	-	-	0.4
PWQO	6 to 8.5	-	-	-	1	-	-	-	-						-	-	-	-	-	0.03
Units		(uS/cm)	(MG/L)	(MG/L)	(UG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)
9/Jul/92																				
8/Sep/92																				
2/Nov/92	6.6	319			58	47			175											
5/May/93	7.6	460	4.0		0	14								92	0.00	0.00	0.03	1.5	0.29	
16/Oct/93	7.2	760	5.0		0	39								56	0.01	0.38	0.09	1.0	0.19	
15/Nov/93	7.9	180	6.0		0	32								24	0.01	0.27	0.11	1.6	0.06	
9/May/94																				
4/Aug/94																				
27/Sep/94																				
17/Jan/96																				
30/Apr/96	8.1	310	1.0		0	100								44	0.02	0.25	1.80	1.8	0.04	
15/Jul/96																				
19/Jul/96																				
9/Sep/96	8.1	556	4.0		0	110								164	0.01	0.30	0.46	1.7	0.40	
12/Sep/96	8.0	441	4.0		0	105								424	0.01	0.23	0.28	1.4	0.12	
23/Oct/96	7.8	164	6.0		0	20								220	0.11	0.28	0.05	1.7	0.69	
12/Dec/96	8.1	386	2.0		0	80								8	0.01	0.60	1.03	1.5	0.10	
6/May/97	8.2	324	4.0		0	60								38	0.04	3.40	0.11	2.7	0.08	
10/Sep/97	7.8	601	5.0		0	95								40	0.00	0.16	0.15	0.5	0.13	
2/Dec/97																				
9/Jan/98	8.1	221	2.0		0	5								216	0.00	0.89	0.11	0.5	0.31	
25/Mar/98	8.0	209	6.0		0	7								2,444	0.00	1.34	0.13	7.3	0.78	
5/Aug/98	8.0	680	5.0		0	39								20	0.00	0.47	0.04	1.3	0.18	
21/Dec/98	8.0	577	4.0		0	33								116	0.03	1.03	0.18	3.1	0.26	
26/May/99	7.0	1,101	2.0		0	37								12	0.03	0.46	0.02	0.6	0.04	
29/Jun/99																				
30/Sep/99																				
14/Dec/99	8.0	280	4.0		0	10								906	0.00	1.52	0.09	4.1	0.79	
9/Feb/01	8.5	198	5.0			9								90	0.00	1.96	0.50	1.5	0.90	
20/Mar/01	7.9	239	5.0			12								32	0.06	1.71	0.17	2.4	0.00	
28/May/01	8.1	473	2.0	<1		13	30	246						24	0.04	0.23	0.06	2.0	0.04	
24/Sep/01	8.3	204	2.2			26								38	0.00	0.00	0.05	0.3	0.33	
16/Oct/01	8.2	252	4.2	7	1	11	22							398	0.10	0.73	0.51	3.0	0.46	
14/Dec/01	7.4	368	2.4	72	2	12	35	316						2,116	0.04	0.38	0.71		0.71	
9/Apr/02	8.1	438	4.7	76	0	7	164	316						1,012	0.00	0.00	0.45	6.8	0.71	
11/Nov/02	8.0	495	2.0	3	0	21	172	92	199					116	0.08	1.37	0.35	1.6	0.16	
2/Apr/03	7.3	822	3.2	16	4	49	133	286	424					50	0.00	0.11	0.00		0.02	
6/May/03	7.8	909	3.0	20	2	44	98	330	391					46	<0.03	0.03	0.00		2.09	
27/May/03																				
6/Oct/03																				
26/Apr/04	7.1	940	5.0	20	2	23	45	422						42	<0.03	<0.06	<0.10	1.3	0.14	

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.
 No off site flows since July 2004 when surface water was re-routed to stormwater management pond 4.

**Table D-4
W12A Landfill Surface Water Samples
DRAINAGE DITCH #4**

AVG	0.00	41	88	0.15	3	19	11.3	138	19.3	14	45.1	0.0	787	6.8	11.2	7.0	0.0
STD		4	48	0.19	4	21	19.4	101	29.3	23	60.7		40	1.5	2.1	0.7	0.0
# of samples	3	2	2	11	7	10	4	10	4	4	9	1	3	3	3	3	3

Parameter Storm Sewer Bylaw PWQO Units	As (UG/L)	Ba (UG/L)	B (UG/L)	Cd 8 0.2 (UG/L)	Cr 200 100 (UG/L)	Cu 40 5 (UG/L)	Fe(tot.) - - (MG/L)	Fe (filt.) 1 0.3 (UG/L)	Ni 80 25 (UG/L)	Pb 120 25 (UG/L)	Zn 50 30 (UG/L)	Hg (UG/L)	Field Cond. uS/cm	Field DO (MG/L)	Flow L/MIN	Field Temp (°C)	Field pH	un-ionized NH ₃ - (MG/L)	REMARKS
9/Jul/92																			No flow
8/Sep/92																			No flow
2/Nov/92																			
5/May/93																			
16/Oct/93																			
15/Nov/93																			
9/May/94																			No flow
4/Aug/94																			No data
27/Sep/94																			No data
17/Jan/96																			No data
30/Apr/96																			
15/Jul/96																			
19/Jul/96																			No data
9/Sep/96																			
12/Sep/96																			
23/Oct/96																			
12/Dec/96																			
6/May/97																			
10/Sep/97																			
2/Dec/97																			
9/Jan/98																			
25/Mar/98																			
5/Aug/98																			
21/Dec/98				0.52			0.18		1		18								
26/May/99																			
29/Jun/99																			
30/Sep/99																			
14/Dec/99				0.47	13	60	44.8	270	70	50	212								
9/Feb/01				0.00	1	6		253	3	3									
20/Mar/01				0.30	1	37		134	3		27								
28/May/01				0.00	2	2		49			31								
24/Sep/01				0.16	1	39		214			14								
16/Oct/01				0.00	3	4		282		1	7								
14/Dec/01								26											
9/Apr/02				0.00		38		27											
11/Nov/02				0.00		3		59			5								
2/Apr/03								68					839	8.7		8.3	7.68	0.0000	No flow
6/May/03		45	135	0.21		2	0.061				40		781	5.1		13.0	7.29	0.0000	
27/May/03																			Too shallow, no sample
6/Oct/03																			Too shallow, no sample
26/Apr/04	<2	37	40	<0.2	<2	<2	0.023			<2	52	<0.1	742	6.5		12.4	6.03	<0.0000	No flow

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.
No off site flows since July 2004 when surface water was re-routed to stormwater management pond 4.

Table D-5
W12A Landfill Surface Water Samples
DRAINAGE DITCH #5

AVG	7.8	653	3.5	20	2	105	55	185	157	16	71	4	30		243	0.0	0.7	0.1	1.5	0.3	
STD	0.3	392	2.5	18	18	107	69	62	147	6	30	1	18		687	0.2	1.1	0.2	1.4	0.8	
# of samples	69	69	66	45	65	69	45	44	49	25	25	2	2		66	66	66	66	43	66	
Parameter	PH	CONDUCTIVITY	BOD	COD	PHENOLS	Cl	SO ₄	ALKALINITY	HARDNESS	Mg	Ca	K	Na	DOC	SS	NO ₂	NO ₃	NH ₃	TKN	TP	
Storm Sewer Bylaw	6 to 10.5	-	15	-	20	1,500	-	-	-	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	15	-	-	-	-	0.4	
PWQO	6 to 8.5	-	-	(MG/L)	1	-	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	0.03	
Units		(uS/cm)	(MG/L)	(MG/L)	(UG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	
10/Jan/83																					
21/Feb/83	7.9	300			0	12			111												
7/Apr/83																					
26/May/83																					
29/Jun/83																					
28/Jul/83																					
25/Aug/83																					
28/Sep/83																					
11/Jul/84																					
14/May/85																					
24/Jul/85																					
18/Sep/85																					
18/Nov/85																					
12/May/86																					
28/Jul/86																					
30/Sep/86																					
3/Nov/86																					
21/Jul/87																					
16/Sep/87																					
12/Nov/87																					
27/Nov/87																					
27/Jul/88																					
19/Sep/88																					
17/Nov/88																					
30/May/89																					
27/Jul/89																					
14/Sep/89																					
6/Nov/89																					
7/Nov/89																					
18/Jan/90	7.6	343			2	21			156												
9/May/90																					
23/Jul/90																					
17/Sep/90																					
12/Nov/90																					
15/Oct/91																					
28/Oct/91																					
21/Nov/91																					
9/Jul/92																					
8/Sep/92																					
2/Nov/92	6.8	323			4	36			280												
31/May/93	7.6	960	5		0	241								100	0.02	0.73	0.17	1.5	0.65		
16/Oct/93	7.4	1,280	4		0	347								10	0.00	0.10	0.02	0.6	0.08		
15/Nov/93	6.9	450	2		0	463								18	0.00	0.02	0.05	0.5	0.09		
9/May/94	7.8	250	3		0	125								6	0.01	0.74	0.02	0.9	0.06		
4/Aug/94	7.6	1,680	3		2	593								88	0.03	0.97	0.08	0.8	0.08		
27/Sep/94	8.0	502	14		1	181								378	0.04	0.35	0.06	3.1	0.56		
17/Jan/96																					
30/Apr/96	8.2	431	1		0	115								84	0.01	0.15	0.04	1.5	0.03		
15/Jul/96																					
19/Jul/96	8.0	641	2		0	81								4	0.07	1.24	0.07	1.7	0.14		
9/Sep/96	8.1	252	7		0	105								1,062	0.01	0.57	0.44	2.7	0.86		
12/Sep/96																					
23/Oct/96	7.8	269	5		0	130								476	0.27	1.63	0.05	1.7	0.96		
12/Dec/96	8.2	352	3		0	120								58	0.02	0.40	0.05	0.9	0.34		
6/May/97	8.2	674	3		0	115								48	0.06	4.40	0.83	0.1	0.10		
10/Sep/97	8.0	835	5		0	135								336	0.00	0.15	0.09	0.3	0.26		
2/Dec/97	7.7	1,108	2		0	202								40	1.01	0.40	0.38	1.0	0.11		
9/Jan/98	8.1	310	2		0	23								86	0.33	0.79	0.10	0.3	0.30		
25/Mar/98	8.0	256	6		0	20								4,804	0.04	1.24	0.12	2.1	1.20		
5/Aug/98	7.6	512	12		0	85								316	0.02	0.60	0.23	2.3	0.38		
21/Dec/98																					
26/May/99																					

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.

Table D-5
W12A Landfill Surface Water Samples
DRAINAGE DITCH #5

AVG	7.8	653	3.5	20	2	105	55	185	157	16	71	4	30		243	0.0	0.7	0.1	1.5	0.3	
STD	0.3	392	2.5	18	18	107	69	62	147	6	30	1	18		687	0.2	1.1	0.2	1.4	0.8	
# of samples	69	69	66	45	65	69	45	44	49	25	25	2	2		66	66	66	66	43	66	
Parameter	PH	CONDUCTIVITY	BOD	COD	PHENOLS	Cl	SO ₄	ALKALINITY	HARDNESS	Mg	Ca	K	Na	DOC	SS	NO ₂	NO ₃	NH ₃	TKN	TP	
Storm Sewer Bylaw PWQO Units	6 to 10.5 6 to 8.5	(uS/cm)	15 (MG/L)	(MG/L)	20 1 (UG/L)	1,500 (MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	15 (MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	0.4 0.03 (MG/L)	
29/Jun/99	7.8	1,150	2		0	52									8	0.02	0.74	0.05	0.1	0.14	
30/Sep/99																					
14/Dec/99	8.0	466	4		0	69									822	0.01	2.75	0.05	6.6	0.62	
9/Feb/01	8.2	263	4			37									30	0.05	1.73	0.36	1.2	1.03	
20/Mar/01	8.1	347	5			49									108	0.15	1.10	0.10	3.9	0.16	
28/May/01	8.1	658	2	<1.00		100	30	204							16	0.00	0.07	0.01	1.6	0.15	
16/Oct/01	8.3	241	3	26	0	14	12								414	0.05	0.54	0.51	2.6	0.36	
14/Dec/01	7.7	356	3	77	0	19	26	110							2,392	0.04	0.56	0.11		0.83	
9/Apr/02	8.1	1,510	3	98		44	425	130							1,734	0.00	1.36	0.78	6.7	0.56	
4/Feb/03	7.5	381	8	23	0	71	17	46							16	0.01	1.42	0.53		0.72	
2/Apr/03	8.4	787	2	17	4	93	39	200	311						40	0.00	1.48	<0.10		0.03	
6/May/03	8.2	684	3	7	1	66	40	182	229						90	<0.03	1.06	0.15		6.28	
6/Oct/03	7.1	2,250	2	18	2	465	88	348	524						42	<0.03	0.36	<0.10		0.17	
26/Apr/04	8.0	1,320	2	36	<1	197	38	264	0						36	<0.03	<0.06	<0.10	1.5	0.08	
8/Jul/04									0												
9/Nov/04									0												
25/Nov/04	8.0	678	3	20	2	105	56	146	240	14	74	6	48		50	<0.03	0.78	<0.10	1.0	0.24	
15/Dec/04	8.0	588	<2	73	<1	44	81	188	236	13	74	3	11		7	<0.03	6.38	<0.10	1.3	0.13	
4/Jan/05	7.7	512	<2	20	1	62	28	150	0						52	<0.03	3.08	<0.10		0.17	
12/Apr/05	7.3	852	3	11	<1	68	52	240	0						100	<0.03	0.06	<0.10	2.0	0.26	
4/May/05	7.6	879	2	10	<1	79	49	284	0						56	<0.03	<0.06	<0.10		0.09	
9/Nov/05	7.9	315	3	4	<1	29	20	340	138	7	44				665	<0.03	0.26	0.87	1.5	0.62	
24/Apr/06	8.1	751	3	28	<1	87	26	238	262	16	79				52	<0.03	1.06	<0.10	1.4	0.07	
1/Jun/06									0												
3/Aug/06	7.9	269	5	5	<1	13	33	108	132	9	39				246	0.04	0.99	<0.10		0.29	
9/Nov/06	8.1	699	3	15	<1	73	26	226	241	17	69				42	0.05	0.57	0.12	1.2	0.11	
30/Apr/07	8.4	382	<3	15	<1	19	27	132	0						45	0.04	0.55	<0.10	0.9	0.05	
19/Jul/07									0												
27/Nov/07	7.9	661	6	14	<1	111	99	136	0						41	<0.03	0.44	<0.10	0.9	0.13	
4/Dec/07									0												
4/Apr/08	7.9	503	3	16	<1	102	24	150	0						86	0.05	1.46	0.15	0.9	0.18	
12/Sep/08	7.8	361	5	12	5	36	29	90	59	11	5				31	<0.03	<0.06	0.12		0.15	
22/May/09	7.7	324	3	20	<1	18	20	121	0						8	0.07	0.03	<0.10	1.0	0.07	
9/Jul/09	7.7	333	3	<2	1	133	52	174	0						19	<0.03	0.12	0.18		0.08	
10/Sep/09	7.2	346	3	13	109	3	2	184	0						45	<0.03	<0.06	0.23		0.20	
21/Oct/09	7.6	381	2	14	<1	105	77	152	0						3	0.05	0.35	<0.10		0.04	
26/Apr/10	7.8	1,050	3	20	<1	163	37	248	300	20	88				17	<0.03	<0.06	<0.10	1.3	0.08	
14/Jul/10	7.6	366	4	18	<1	15	19	158	0						49	0.04	<0.06	<0.10		0.14	
10/Sep/10									0												
21/Oct/10	7.6	936	3	22	<1	119	77	235	318	18	97				6	0.04	0.07	0.13	0.9	0.10	
19/Apr/11	7.9	740	11	15	2	95	38	193	261	17	77				10	<0.03	0.54	<0.10	0.8	0.04	
17/May/11	8.1	360	2	15	<1	22	22	137	156	10	46				62	<0.03	0.36	0.10		0.09	
31/Aug/11	7.7	440	3	10	<1	20	23	152	157	11	45				29	<0.03	0.08	<0.10		0.07	
20/Sep/11	7.8	330	1	13	<1	21	27	110	130	11	34				29	<0.03	0.07	<0.10		0.05	
13/Dec/11	7.7	450	3	10	<1	31	26	205	229	14	69				126	<0.3	<0.6	<0.10	0.7	0.30	
10/May/12	7.6	1,080	5	14	<1	167	29	278	517	33	153				26	0.10	<0.06	<0.10		0.03	
1/Aug/12																					
18/Oct/12																					
21/Dec/12	7.9	780	3	16	<1	109	41	173	219	14	65				63	0.10	0.34	0.10		0.12	
18/Apr/13	8.1	580	3	11	<1	55	27	178	208	13	63				42	0.15	0.73	0.10	0.9	0.09	
24/Jul/13	7.8	360	3	11	<1	26	21	135	169	12	47				113	0.10	0.10	0.12		0.14	
28/Oct/13																					
5/Dec/13	7.8	500	8	15	<1	55	36	150	190	13	55				64	0.09	0.25	<0.10		0.10	
14/Apr/14	8.0	790	3	21	2	125	29	182	269	18	78				62	<0.03	0.15	<0.10	0.7	0.08	
9/Jul/14																					
16/Oct/14																					
2/Dec/14																					
24/Apr/15																					
12/Aug/15																					
20/Oct/15																					
2/Dec/15																					
26/Apr/16																					
17/Aug/16																					
27/Oct/16	7.7	970	2	19	<1	113	94	213	325	25	89				42	<0.03	<0.06	<0.10	1.0	0.11	
5/Dec/16	7.8	1,120	<2	17	<1	167	88	204	333	27	89				4	<0.03	<0.06	0.10		0.03	
6/Apr/17	8.0	800	3	17	<1	100	69	191	244	17	70				19	0.04	<0.4	0.18	1.3	0.04	
13/Oct/17																					
16/Nov/17	7.5	1,270	<2.0	15	<1	201	118	241	328	19	100				7	<0.03	<0.4	<0.10		0.05	
4/Dec/17	7.5	1,190	<2.0	26	<1	109	255	214	445	29	131				84	<0.03	1.00	<0.10		0.10	

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.

Table D-6
W12A Landfill Surface Water Samples
DRAINAGE DITCH #7

AVG	7.9	819	3.6	39	0	157	45	218	290	14.5	91.2	16.5	151.0	0.0	180	0.03	0.8	0.2	1.8	0.4	
STD	0.4	618	1.8	45	1	175	51	67	124	6.0	44.0	5.5	47.0	0.0	418	0.05	2.2	0.2	1.3	0.7	
# of samples	47	46	46	27	43	46	28	27	17	13	13	2	2	0	46	46	46	46	32	46	
Parameter	PH	CONDUCTIVITY	BOD	COD	PHENOLS	Cl	SO ₄	ALKALINITY	HARDNESS	Mg	Ca	K	Na	DOC	SS	NO ₂	NO ₃	NH ₃	TKN	TP	
Storm Sewer Bylaw	6 to 10.5	-	15	-	20	1,500	-	-	-	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	15	-	-	-	-	0.4	
PWQO	6 to 8.5	-	-	-	1	-	-	-	-	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	-	-	-	-	-	0.03	
Units		(uS/cm)	(MG/L)	(MG/L)	(UG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	
10/Jan/83																					
21/Feb/83																					
7/Apr/83																					
26/May/83																					
29/Jun/83																					
28/Jul/83																					
25/Aug/83																					
28/Sep/83																					
11/Jul/84																					
14/May/85																					
24/Jul/85																					
18/Sep/85																					
18/Nov/85																					
12/May/86																					
28/Jul/86																					
30/Sep/86																					
3/Nov/86																					
21/Jul/87																					
16/Sep/87																					
12/Nov/87																					
27/Nov/87																					
27/Jul/88																					
19/Sep/88																					
17/Nov/88																					
30/May/89																					
27/Jul/89																					
14/Sep/89																					
6/Nov/89																					
7/Nov/89																					
18/Jan/90																					
9/May/90																					
23/Jul/90																					
17/Sep/90																					
12/Nov/90																					
15/Oct/91																					
28/Oct/91																					
21/Nov/91																					
9/Jul/92																					
8/Sep/92																					
2/Nov/92																					
31/May/93	7.9	520	6		0	17								691	0.00	1.00	0.03	1.8	1.8	3.53	
16/Oct/93	7.4	1,340	3		0	491								40	0.03	1.62	0.17	0.6	0.6	0.16	
15/Nov/93	7.3	400	4		0	375								320	0.03	0.93	0.21	0.6	0.6	0.06	
9/May/94	8.1	200	3		0	97								12	0.01	0.44	0.02	1.3	1.3	0.06	
4/Aug/94	7.9	945	4		0	407								84	0.02	1.19	0.11	0.6	0.6	0.08	
27/Sep/94	8.4	478	7		1	111								1,222	0.01	0.39	0.14	1.8	1.8	0.20	
17/Jan/96																					
30/Apr/96	8.3	411	1		0	170								12	0.02	1.47	0.52	2.2	2.2	0.04	
15/Jul/96																					
19/Jul/96																					
9/Sep/96	7.8	1,116	7		0	255								238	0.19	14.19	0.54	2.1	2.1	0.15	
12/Sep/96	7.9	1,081	4		0	295								66	0.02	0.31	0.14	1.5	1.5	0.57	
23/Oct/96	8.2	324	4		1	180								76	0.04	0.15	0.09	1.6	1.6	0.46	
12/Dec/96	8.3	471	2		0	75								12	0.00	0.10	0.03	0.8	0.8	0.08	
6/May/97	8.3	392	3		0	60								22	0.00	0.11	0.10	0.1	0.1	0.08	
10/Sep/97	8.0	1,011	4		0	205								40	0.01	0.33	0.26	0.2	0.2	0.17	
2/Dec/97	6.4	824	1		0	202								12	0.00	0.00	0.39	1.6	1.6	0.11	
9/Jan/98	8.2	291	5		0	6								178	0.00	0.50	0.10	0.3	0.3	0.22	
25/Mar/98	8.0	343	5		0	19								440	0.00	0.54	0.11	4.5	4.5	0.30	
5/Aug/98																					
21/Dec/98																					

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.

**Table D-6
W12A Landfill Surface Water Samples
DRAINAGE DITCH #7**

AVG	0.3	40	16.1	0.02	0.5	16	87.8	167	6.1	1.6	20	0.0	750	5.6	31	11.1	7.7	0.0
STD	0.5	22	11.8	0.09	1.4	44	243.4	394	3.1	11.2	17	0.0	411	5.0	38	6.3	0.6	0.0
# of samples	14	14	14	19	19	19	19	12	2	19	19	14	22	19	9	22	22	23

Parameter Storm Sewer Bylaw PWQO Units	As (ug/L)	Ba (ug/L)	B (ug/L)	Cd 8 0.2 (ug/L)	Cr 200 100 (ug/L)	Cu 40 5 (ug/L)	Fe(tot.) - - (MG/L)	Fe (filt.) 1 0.3 (ug/L)	Ni 80 25 (ug/L)	Pb 120 25 (ug/L)	Zn 50 30 (ug/L)	Hg (ug/L)	Field Cond. uS/cm	Field DO (MG/L)	Flow L/MIN	Field Temp (°C)	Field pH	un-ionized NH ₃ - (MG/L)	REMARKS
10/Jan/83																			
21/Feb/83																			
7/Apr/83																			
26/May/83																			
29/Jun/83																			
28/Jul/83																			
25/Aug/83																			
28/Sep/83																			
11/Jul/84																			
14/May/85																			
24/Jul/85																			
18/Sep/85																			
18/Nov/85																			
12/May/86																			
28/Jul/86																			
30/Sep/86																			
3/Nov/86																			
21/Jul/87																			
16/Sep/87																			
12/Nov/87																			
27/Nov/87																			
27/Jul/88																			
19/Sep/88																			
17/Nov/88																			
30/May/89																			
27/Jul/89																			
14/Sep/89																			
6/Nov/89																			
7/Nov/89																			
18/Jan/90																			
9/May/90																			
23/Jul/90																			
17/Sep/90																			
12/Nov/90																			
15/Oct/91																			No data
28/Oct/91																			
21/Nov/91																			
9/Jul/92																			
8/Sep/92																			
2/Nov/92																			
31/May/93																			
16/Oct/93																			
15/Nov/93																			
9/May/94																			
4/Aug/94																			
27/Sep/94																			
17/Jan/96																			No data
30/Apr/96																			No data
15/Jul/96																			No data
19/Jul/96																			No data
9/Sep/96																			
12/Sep/96																			
23/Oct/96																			
12/Dec/96																			
6/May/97																			
10/Sep/97																			
2/Dec/97																			
9/Jan/98																			
25/Mar/98																			
5/Aug/98																			No flow
21/Dec/98																			No flow

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.

**Table D-6
W12A Landfill Surface Water Samples
DRAINAGE DITCH #7**

AVG	7.9	819	3.6	39	0	157	45	218	290	14.5	91.2	16.5	151.0	0.0	180	0.03	0.8	0.2	1.8	0.4	
STD	0.4	618	1.8	45	1	175	51	67	124	6.0	44.0	5.5	47.0	0.0	418	0.05	2.2	0.2	1.3	0.7	
# of samples	47	46	46	27	43	46	28	27	17	13	13	2	2	0	46	46	46	46	32	46	
Parameter	PH	CONDUCTIVITY	BOD	COD	PHENOLS	Cl	SO ₄	ALKALINITY	HARDNESS	Mg	Ca	K	Na	DOC	SS	NO ₂	NO ₃	NH ₃	TKN	TP	
Storm Sewer Bylaw PWQO Units	6 to 10.5 6 to 8.5	(uS/cm)	15 (MG/L)	(MG/L)	20 1 (UG/L)	1,500 (MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	15 (MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	0.4 0.03 (MG/L)	
14/Dec/99	8.0	418	4		0	47									184	0.01	0.84	0.12	7.2	0.53	
9/Feb/01																					
20/Mar/01	8.2	358	5			35									220	0.08	0.30	0.14	3.1	0.18	
28/May/01	8.2	685	3	<1		74	26	294							184	0.04	0.03	0.07	2.6	0.00	
16/Oct/01	8.3	347	3	250	0	15	22								380	0.08	0.84	0.23	2.8	0.29	
14/Dec/01	7.9	432	4	89	0	21	34	266							2,588	0.03	0.50	0.71		0.68	
9/Apr/02	7.9	805	3	43	1	135	238	282							396	0.00	2.18	0.57	3.0	0.69	
4/Feb/03	7.2	372	9	36	0	65	20	44							30	0.02	1.94	0.66		0.88	
2/Apr/03	8.2	833	2	25	6	95	42	202	293						22	0.00	0.61	<0.10		0.03	
6/May/03	8.3	642	3		1	64	25	216	264						18	<0.03	0.50	<0.10		3.84	
6/Oct/03																					
26/Apr/04	8.0	976	2	56	<1	126	2	290							64	<0.03	<0.06	<0.10		0.12	
8/Jul/04																					
9/Nov/04																					
25/Nov/04	8.0	1,740	2	32	1	251	61	248	400	19	129	22	198		24	<0.03	0.24	<0.10	1.1	0.08	
15/Dec/04	7.8	1,230	<2	33	<1	180	101	230	306	15	98	11	104		89	<0.03	0.43	<0.10	1.3	0.14	
4/Jan/05	7.8	536	<2	15	3	58	33	120							11	<0.03	0.72	<0.10		0.21	
12/Apr/05	7.7	2,410	3	21	<1	599	111	248							40	<0.03	0.34	<0.10		0.21	
4/May/05	8.4	637	2	17		28	25	262							35	<0.03	<0.06	<0.10		0.07	
9/Nov/05	7.8	2,230	8	34	2	446	51	234	384	17	126				53	<0.03	0.18	<0.10	2.3	0.62	
25/Apr/06	8.2	762	2	56	<1	72	14	268	262	13	84				48	<0.03	<0.06	<0.10	1.4	0.21	
1/Jun/06																					
3/Aug/06	7.9	339	5	43	<1	9	8	148	137	6	45				48	<0.03	<0.06	<0.10		0.39	
9/Nov/06	8.0	692	3	26	<1	51	25	264	243	13	75				24	0.05	0.38	<0.10	1.7	0.27	
30/Apr/07																					
19/Jul/07																					
27/Nov/07																					
4/Dec/07																					
4/Apr/08	7.8	438	3	27	<1	55	24	184	189						7	0.06	1.21	0.16	1.2	0.15	
12/Sep/08	8.0	2,950	3	31	2	803	110	346	520	28	162				15	<0.03	0.34	0.66		0.14	
22/May/09	7.5	714	3	27	1	79	23	226	439						46	0.18	0.05	0.23	1.4	0.11	
9/Jul/09	7.7		4	17	<1			115							31		0.19			0.19	
15/Jul/09	7.2	1,550				250	14									<0.03	0.16				
21/Oct/09	7.7	428	2	31	<1	19	11	186							12	<0.03	0.06	<0.10		0.15	
26/Apr/10	8.0	605	5	30	<1	64	18	191	191	11	58				35	0.08	0.09	<0.10	2.0	0.17	
14-Jul-10																					
10-Sep-10																					
21-Oct-10	7.3	2340	3	25.0	<1	468	140	317	560	24	185				20	<0.03	0.09	0.14	1.2	0.08	
19-Apr-11																					
31/Aug/11																					
20/Sep/11																					
13/Dec/11																					
10/May/12																					
1/Aug/12																					
18/Oct/12																					
21/Dec/12	7.8	670	1	24.0	<1	71	18	200	192	9	61				48	0.11	0.26	<0.10		0.26	
18/Apr/13	8.2	440	3	23.0	<1	19	16	175	179	10	56				69	0.08	0.53	0.10	1.5	0.16	
24/Jul/13																					
28/Oct/13																					
5/Dec/13	7.8	330	8	29.0	<1	12	14	147	156	9	48				25	0.09	0.17	<0.10		0.14	
14/Apr/14																					
9/Jul/14																					
16/Oct/14																					
2/Dec/14																					
24/Apr/15																					
12/Aug/15																					
20/Oct/15																					
2/Dec/15																					
26/Apr/16																					
17/Aug/16																					
27/Oct/16																					
5/Dec/16																					
6/Apr/17	8.0	600	4	16.0	<1	49	50	181	205	14	58				36	0.07	<0.4	<0.10	1.1	0.08	
13/Oct/17																					
4/Dec/17																					

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.

**Table D-6
W12A Landfill Surface Water Samples
DRAINAGE DITCH #7**

AVG	0.3	40	16.1	0.02	0.5	16	87.8	167	6.1	1.6	20	0.0	750	5.6	31	11.1	7.7	0.0
STD	0.5	22	11.8	0.09	1.4	44	243.4	394	3.1	11.2	17	0.0	411	5.0	38	6.3	0.6	0.0
# of samples	14	14	14	19	19	19	19	12	2	19	19	14	22	19	9	22	22	23

Parameter Storm Sewer Bylaw PWQO Units	As (ug/L)	Ba (ug/L)	B (ug/L)	Cd 8 0.2 (ug/L)	Cr 200 100 (ug/L)	Cu 40 5 (ug/L)	Fe(tot.) - - (MG/L)	Fe (filt.) 1 0.3 (ug/L)	Ni 80 25 (ug/L)	Pb 120 25 (ug/L)	Zn 50 30 (ug/L)	Hg (ug/L)	Field Cond. uS/cm	Field DO (MG/L)	Flow L/MIN	Field Temp (°C)	Field pH	un-ionized NH ₃ - (MG/L)	REMARKS
14/Dec/99				0.00	4	9	9.2	100	9	30	72								No flow
9/Feb/01																			
20/Mar/01				0.20	1	29		38	3	0	25								
28/May/01				0.0	0	5		45		0	13								
16/Oct/01				0.0	2	2		89		0	3								
14/Dec/01								8											
9/Apr/02				0.0	0	201		23		0	48								
4/Feb/03								46											
2/Apr/03								37					805	9.5	67	11.9	8.9	<0.0134	
6/May/03	0	26	0	0.0	0	4	0.04			0	12	0.0	680	7.0	75	18.4	8.0	<0.0032	
6/Oct/03																			Dry
26/Apr/04	<2	33	<20	<0.2	<2.0	3	0.03			<2.0	32	<0.1	815	9.3	7	15.4	7.6	<0.0011	
8/Jul/04																			Dry
9/Nov/04																			Dry
25/Nov/04	<2	54	20	0.2	<2.0	11	0.05			<2.0	8	<0.1	1,038	11.2	5	3.1	6.5	<0.0000	
15/Dec/04		36		<0.2	<2.0	3	0.02			<2.0	14		7	8.9		1.2	7.0	<0.0001	No visible flow
4/Jan/05							0.56						332	12.2	105	3.6	7.8	<0.0006	
12/Apr/05	<0.002	80	0.035	<0.2	3	4		89		<2.0	37	<0.1	1,674	5.1		8.5	7.8	<0.0010	No visible flow
4/May/05								39					618		5	11.2	8.6	<0.0079	
9/Nov/05	0.00	59	0.024	<0.2	<2.0	5	0.06			<2.0	13	<0.1	1,046	6.0	2	13.0	6.8	<0.0001	
25/Apr/06	1.00	19	20	<0.2	<2.0	9		21		<2.0	15	<0.1	669			11.5	7.8	<0.0013	
1/Jan/06																			No flow, pond sample
3/Aug/06								1,470					499	4.7		26.4	7.4	<0.0016	Low flow
9/Nov/06	<1	26	34	<0.2	<2.0	7	0.19			<2.0	17	<0.1	638	9.0		12.6	8.2	<0.0038	No flow
30/Apr/07																			No flow
19/Jul/07																			No flow
27/Nov/07																			No flow
4/Dec/07																			No flow
4/Apr/08	<1	24	14	<0.2	<1.0	1	0.02			<1.0	6	<0.1	569	17.7	12	5.7	8.2	0.0029	Steady flow
12/Sep/08							665						1,774			18.4	6.9	0.0020	
22/May/09	<1	41	24	<0.2	<1.0	1	85			<1.0	34	<1	210	4.1		16.8	7.2	0.0012	No visible flow
9/Jul/09							907						895	0.0		19.0	7.0	0.0007	No flow
15/Jul/09																			No flow, dry
21/Oct/09	<1		27				0.054					<0.1						<0.0000	
26/Apr/10	1	21	20	<0.2	<1.0	2	0.061			<1.0	13	<0.0001	865	0.03		12.6	7.87	<0.0016	Slow flow, too shallow to measure
14-Jul-10																			No flow, no sample
10-Sep-10																			Too shallow, no sample
21-Oct-10	1	93	38	<0.2	<1.0	2	0.0149			<1.0	15	<0.0001	1,127	0.11		10.9	7.15	0.0004	
19-Apr-11																			Too shallow, no sample
31/Aug/11																			Too shallow, no sample
20/Sep/11																			Too shallow, no sample
13/Dec/11																			Too shallow, no sample
10/May/12																			Too shallow, no sample
1/Aug/12																			Dry, heavy vegetation
18/Oct/12																			Too shallow, no sample
21/Dec/12							0.164						555	0.04		3.5	8.40	<0.0026	
18/Apr/13	1	20	13	<0.2	<1.0	1	0.0253			<2.0	2	0	358	1.07		11.4	8.34	0.0043	Steady flow
24/Jul/13																			Too shallow, no sample
28/Oct/13																			Too shallow, no sample
5/Dec/13							0.174						451	0.31		2.0	8.33	<0.0020	Steady flow
14/Apr/14																			Too shallow, no sample
9/Jul/14																			Too shallow, no sample
16/Oct/14																			Too shallow, no sample
2/Dec/14																			Too shallow, no sample
24/Apr/15																			Too shallow, no sample
12/Aug/15																			Too shallow, no sample
20/Oct/15																			Dry, no sample
2/Dec/15																			Too shallow, no sample
26/Apr/16																			Too shallow, no sample
17/Aug/16																			Dry, heavy vegetation, no sample
27/Oct/16																			Dry, heavy vegetation, no sample
5/Dec/16																			Dry, heavy vegetation, no sample
6/Apr/17	<1.0	29	16	<0.2	<1.0	2	0.0127			<2.0	<2.0	<0.010	875	0.03	-	7.1	8.23	0.0024	Slow flow, shallow
13/Oct/17																			Dry, no sample acquired
4/Dec/17																			Dry, no sample acquired

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.

Table D-7
W12A Landfill Surface Water Samples
DRAINAGE DITCH #10

Parameter	PH	CONDUCTIVITY	BOD	COD	PHENOLS	Cl	SO ₄	ALKALINITY	HARDNESS	Mg	Ca	K	Na	DOC	SS	NO ₂	NO ₃	NH ₃	TKN	TP	
Storm Sewer Bylaw PWQO	6 to 10.5	-	15	-	20	1,500	-	-	-						15	-	-	-	-	0.4	
Units	6 to 8.5	(uS/cm)	(MG/L)	(MG/L)	(UG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	
AVG	7.7	529	3.2	20	1	88	67	159	190	11	52	3	5		104	0.02	0.50	0.10	1.63	0.27	
STD	0.4	373	1.9	15	3	134	158	55	62	1	12	0	0		205	0.03	0.64	0.20	1.20	0.29	
# of samples	35	34	32	18	31	35	18	17	13	6	6	1	1		32	31	31	31	24	31	
9/Feb/01	8.4	660	3.0			188									16	0.00	0.35	0.12	0.8	0.87	
20/Mar/01	8.0	305	4.0			11									28	0.05	0.78	0.11	3.1	0.18	
28/May/01	8.0	611	3.0	<1.00		58	27	256							24	0.04	1.60	0.02	2.2	0.08	
16/Oct/01	8.2	542	1.9	<1.00	1	44	86								22	0.00	0.31	0.06	1.8	0.11	
14/Dec/01	7.8	371	2.0	12	0	6	28	150							14	0.02	0.01	0.02		0.07	
9/Apr/02	8.0	1,524	2.2	28	0	15	713	150							90	0.00	0.68	0.12	1.6	0.37	
4/Feb/03	7.3	180	8.0	10	0	13	20	42							4	0.03	1.29	0.85		1.21	
2/Apr/03	9.0	324	2.2	11	13	16	30	146	163						6	0.00	0.20	<0.10		0.00	
6/May/03	8.2	311	2.5	13	0	4	19	136	147						10	<0.03	<0.02	<0.10		0.49	
6/Oct/03																					
26/Apr/04	8.3	290	5.0	51	<1	4	21	146							108	<0.03	<0.06	<0.10	1.6	0.17	
8/Jul/04																					
9/Nov/04																					
25/Nov/04																					
15/Dec/04	7.8	382	4.0	63	<1	11	82	158	163	11	47	3	5		326	<0.03	0.91	<0.10	3.0	0.20	
4/Jan/05	8.0	278	<2	16	3	6	46	120							16	<0.03	0.72	<0.10		0.16	
12/Apr/05																					
4/May/05	8.1	305	2.0	17	1	3	15	150							25	<0.03	0.10	<0.10	0.9	0.19	
9/Nov/05																					
26/Apr/06	8.1	327	<9	28	<1	1	9	168	146	10	42				7	<0.03	<0.06	<0.10	0.9	0.06	
1/Jun/06																					
3/Aug/06																					
9/Nov/06																					
30/Apr/07																					
19/Jul/07																					
27/Nov/07																					
4/Dec/07																					
4/Apr/08	7.9	268	3.0	30.0	<1	13	17	122	146						7	0.06	3.06	<0.10	0.9	0.20	
12/Sep/08																					
22/May/09	7.5	874	3.0	13.0	<1	89	20	310	307						18	0.08	<0.03	<0.10	0.5	0.06	
9/Jul/09																					
10/Sep/09																					
21/Oct/09																					
26/Apr/10																					
14/Jul/10																					
10/Sep/10																					
21/Oct/10																					
19/Apr/11	8.2	300	4.8	18.0	<1	4	10	146	147	10	42				8	<0.03	<0.06	<0.10	0.95	0.06	
31/Aug/11																					
20/Sep/11																					
13/Dec/11																					
10/May/12																					
1/Aug/12																					
18/Oct/12																					
21/Dec/12																					
18/Apr/13																					
24/Jul/13																					
28/Oct/13																					
5/Dec/13																					
14/Apr/14																					
9/Jul/14																					
16/Oct/14																					
2/Dec/14																					
24/Apr/15																					
12/Aug/15																					
20/Oct/15																					
2/Dec/15																					
26/Apr/16																					
17/Aug/16																					
27/Oct/16																					
5/Dec/16																					
6/Apr/17	7.8	300	3.0	22.0	<1	4	10	146	148	9	44				77	<0.03	<0.4	<0.10	1	0.1	
13/Oct/17																					
16/Nov/17	7.5	500	2.3	26.0	<1	41	28	160	199	11	62				25	<0.03	1	<0.10		0.2	
4/Dec/17	7.5	700	<2.0	10.0	<1	85	26	203	243	14	75				83	<0.03	<0.4	0.1		0.1	

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.

Table D-7
W12A Landfill Surface Water Samples
DRAINAGE DITCH #10

AVG	0.0	14	7	0.0	0.3	12	10.57	45	3	0.0	6.1	0.0	319	7.5	25	11	7.7	0.0
STD	0.0	7	7	0.2	0.6	26	16.88	28	2	0.0	9.3	0.0	165	5.8	13	6	0.7	
# of samples	9	9	8	13	14	14	10	10	2	14	13	8	12	12	3	13	13	13

Parameter Storm Sewer Bylaw PWQO Units	As (UG/L)	Ba (UG/L)	B (UG/L)	Cd 8 0.2 (UG/L)	Cr 200 100 (UG/L)	Cu 40 5 (UG/L)	Fe(tot.) - (MG/L)	Fe (filt.) 1 0.3 (UG/L)	Ni 80 25 (UG/L)	Pb 120 25 (UG/L)	Zn 50 30 (UG/L)	Hg (UG/L)	Field Cond. uS/cm	Field DO (MG/L)	Flow L/MIN	Field Temp (°C)	Field pH	un-ionized NH ₃ - (MG/L)	REMARKS	
9/Feb/01				0	1	3		115	1	0	1									
20/Mar/01				0	1	31		56	4	0	29									
28/May/01					1	3		59		0	23									
16/Oct/01				0	2	0		56		0	2									
14/Dec/01								10												
9/Apr/02				1	0	99		32		0										
4/Feb/03								36												
2/Apr/03								32					325	12.4	50	12.4	8.9	<0.0139		
6/May/03	0	9	0	0	0	2	0.09			0	7	0.0	287	8.1	25	18.1	8.0	<0.0035		
6/Oct/03																			Dry	
26/Apr/04	<2	6	<20	<0.2	<2.0	7	0.03			<2.0	8	<0.1	290	7.4		18.9	8.1	<0.0044	No visible flow	
8/Jul/04																			Dry	
9/Nov/04																			Dry	
25/Nov/04																			Dry	
15/Dec/04		18		<0.2	<0.2	2	0.06			<2.0	<4		233	13.1		2.7	7.6	<0.0004	Too shallow	
4/Jan/05							0.56						163	8.8		2.6	8.0	<0.0010	Too shallow	
12/Apr/05																			No flow	
4/May/05	<0.001	11	0	<0.2	<2.0	2		25		<2.0	5	<0.1				18.0	8.1	<0.0039	Dry	
9/Nov/05																			No flow	
26/Apr/06	<1	9	15	<0.2	<2.0	10		27		<2.0	<4	<0.1	309	4.6		17.5	7.7	<0.0017	Too shallow	
1/Jun/06																			No flow	
3/Aug/06																			No flow	
9/Nov/06																			No flow	
30/Apr/07																			No flow	
19/Jul/07																			No flow, no sample	
27/Nov/07																			No flow	
4/Dec/07																			No flow	
4/Apr/08	<1	16.85	14	<0.2	<1.0	2	35.7			<1.0	3.2	<0.1	17	16.97		6.9	8.3	<0.0026	Slow flow	
12/Sep/08																			No flow	
22/May/09	<1	30.60	18.00	<0.2	<1.0	<1.0	22			<1.0	1.2	<1	235	1.67		14	7	<0.0004	No visable flow	
9/Jul/09																			No flow, no sample	
10/Sep/09																			No flow, no sample	
21/Oct/09																			No flow, no sample	
26/Apr/10																			Too shallow, no sample	
14/Jul/10																			No flow, no sample	
10/Sep/10																			Too shallow, no sample	
21/Oct/10																			Too shallow, no sample	
19/Apr/11	<1	7.95	11	<0.2	<1.0	1.1	0.205			<1.0	1.0	<0.1	268	15.80		5.07	7.15	<0.0002	Standing water, Sample collected from outlet of pond	
31/Aug/11																			No flow, no sample	
20/Sep/11																			No flow, no sample	
13/Dec/11																			No flow, no sample	
10/May/12																			Dry, heavy vegetation	
1/Aug/12																			Dry, heavy vegetation	
18/Oct/12																			Too shallow, no sample	
21/Dec/12																			Heavy rains/melting, unable to access	
18/Apr/13																			Too shallow, no sample	
24/Jul/13																			Dry, heavy vegetation	
28/Oct/13																			Too shallow, no sample	
5/Dec/13																			Heavy melt/slippery slope, unable to access	
14/Apr/14																			Too shallow, no sample	
9/Jul/14																			Dry, heavy vegetation	
16/Oct/14																			Dry, heavy vegetation	
2/Dec/14																			Dry, heavy vegetation	
24/Apr/15																			Too shallow, no sample	
12/Aug/15																			Too shallow, no sample	
20/Oct/15																			Too shallow, heavy vegetation, no sample	
2/Dec/15																			Too shallow, no sample	
26/Apr/16																			Too shallow, no sample	
17/Aug/16																			Dry, heavy vegetation, no sample	
27/Oct/16																			Dry, heavy vegetation, no sample	
5/Dec/16																			Dry, heavy vegetation, no sample	
6/Apr/17	<1.0	14	<10	<0.2	<1.0	5	47		<2.0	<2.0	<0.010		620	0	-	7	8	0.0028		
13/Oct/17																				Dry, no water, no sample
16/Nov/17								0					484	1		8	6	0.00004	Flowing slightly ~6" deep	
4/Dec/17							0.019						594	1		6	6	0.00003	Very slow flow, 3-4" deep	

Note: DOC, Mn, K, Na and Se are no longer monitored. Historical data is available.

Table D-8
W12A Landfill Surface Water Samples
POND #E5

Parameter	pH	CONDUCTIVITY	BOD	COD	PHENOLS	Cl	SO ₄	DOC	ALKALINITY	HARDNESS	Mg	Ca	K	Na	SS	NO ₂	NO ₃	NH ₃	TKN	TP	As	Ba	B	Cd	Cr	Cu	Fe	Ni	Pb	Zn	Hg	Al	Mn	Field Temp	Field pH	un-ionized NH ₃	REMARKS				
Storm Sewer Bylaw	6 to 10.5	-	15	-	20	1,500	-	-	-	-	-	-	-	-	15	-	-	-	-	0.4	-	-	-	8	200	40	-	80	50	120	-	-	-	-	-	-	-				
PWQO	6 to 8.5	-	10	-	1	800	1000	-	-	-	-	-	-	-	-	-	-	-	-	0.03	-	-	-	0.2	100	5	-	25	30	25	-	-	-	-	-	-	-	-			
CoA Trigger Criteria	-	-	10	-	-	800	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Units	-	(uS/cm)	(MG/L)	(MG/L)	(UG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(°C)		0.3 (MG/L)	
5/Oct/98	8.3	450	9		2	61	114							28	0.03	0.38	0.10	1.44	0.26																						
6/Nov/98	7.5	537	9		2	61	135	6.9						160	0.00	3.82	0.58	2.80	0.08																17					6	
7/Oct/99	7.7	988	8		2	18	65							596	0.02	0.79	0.06	3.96	0.38															6,000						350	
23/May/00	8.6	818	4		<1	141	80							132	0.00	0.08	0.14	0.84	0.20																					0	
29/Jun/00	7.9	503	2		1	176	70							30	0.00	0.04	4.70	8.42	0.19																					0	
16/Oct/00	8.6	513	5		2	58	88							32	0.00	0.02	0.12	1.18	0.15																					27	
3/May/01	8.4	696	5		2	94	57							42	0.00	0.21	0.07	1.40	0.09																					3	
22/Jun/01	8.5	527	3		<1	100	78							48	0.00	0.02	0.14	1.15	0.13																				0		
10/Oct/01	8.7	811	7		<1	144	106							34	0.00	0.06	0.00	1.87	0.00																				35		
11/Apr/02	8.2	667	4		<1	52	116							36	0.00	0.27	0.34	2.19	0.02																				67		
20/Jun/02	8.0	619	2		0	144	89							80	0.00	0.00	0.06	1.72	0.02																				189		
21/Oct/02	8.2	725	3		2	79	76							68	0	0.63	0.55	2.96	0.12																				103		
2/Apr/03	8.1	1,434	0		6	94	102			335				120	0	0.03	0.45	1.28	0.01																				362		
12/Jun/03	8.1	622	5		<1	56	53			216				18	0	0.05	0.24	1.70	0.12																				72.8		
29/Oct/03	8.0	624	3		1	11	25							58	0	0.05	1.80	3.58	0.61																			13.8			
23/Apr/04	7.6	597	4		0	66	47							66	0	0.25	0.00	1.80	0.08																			30.5			
24/Jun/04	8.3	559	23		0	54	35		120					112	0	0.08	2.70	3.95	0.49																			21.4			
9/Jul/04	7.7	697	25		6									8																									8.3		
28/Jul/04		6				64	193																																		
25/Nov/04	8.1	510	4		2	65	62			144	184	14.1	50	212	<0.03	0.34	0.13	2.63	0.20																				7.3		
1/Dec/04	8.0	744	8		<1	90	134			188	232	18.7	62	237	<0.03	1.11	1.03	3.45	0.31																				8.0		
15/Dec/04	8.2	633	5		2	48	166			198	231	17.6	64	36	<0.03	1.81	3.04	5.00	0.18																				8.6		
4/Jan/05	8.0	485	3		<1	34	47			192	198	14.1	56	38	<0.03	0.51	0.12	0.36	0.08																				8.0		
17/Feb/05	7.9	456	3		1	21	24			144	167	11	49	50	<0.03	0.56	0.19	1.13	0.15																				7.0		
25/Apr/05			3			83	44.9																																	6.7	
26/Apr/05	8.3	635	3		<1	77	99			184	228	17.2	63	70	<0.03	0.46	0.1	0.83	0.15																				8.3		
1/Jun/05	8.3	627	3		<1	84	56.2			156	184	17.5	45	11	<0.03	0.12	0.13	1.18	0.09																				8.3		
20/Sep/05	9.3	691	3		25	138	34.8			82	121	15.4	23	28	<0.03	<0.06	0.1	0.12	0.12																				8.3		
4/Oct/05		694	4		1	135	35.8			80	122	15.1	24	4.2	71.7	8	<0.03	<0.06	<0.10	1.21	0.29																	14.9			
9/Nov/05	8.2	710	4		24	<1	145	37.3		164	131	14.9	28	4.3	81.5	35	<0.03	<0.06	<0.10	1.19	0.31																	6.4			
16/Nov/05	8.0	571	3		<1	113	35.2			116	162	13.3	43	4.7	59.4	150	<0.03	0.21	<0.10	1.43	0.25																	4.3			
14/Dec/05	8.1	583	3		31	<1	76	37.7		150	178	13.5	49	37	<0.03	0.32	<0.10	0.14																					8.1		
19/Jan/06	8.0	584	4		28	<1	78	43.4		200	224	15.4	64	40	<0.03	0.33	<0.10	0.14																					8.4		
10/Mar/06			5			34	13.5			0							0.37																						8.2		
18/Apr/06	8.6	688	8		<1	94	24.9			195	182	15.1	48	3.9	46.3	37	<0.03	<0.06	2.11	3.97	0.06																		8.6		
8/Jun/06	8.7	661	3		<1	111	31.9			114	141	16.4	30	2.8	59.5	18	<0.03	<0.06	0.34	1.57	0.11																		8.7		
3/Aug/06	8.0	549	5		<1	87	22.9			132	145	12.3	38	107	<0.03	<0.06	<0.10	0.93	0.30																				8.7		
26/Oct/06	8.1	559	8		38	<1	30	24.3		234	227	16.3	64	5.0	17.7	16	<0.03	0.21	<0.40	0.99	0.15																		8.1		
5/Apr/07	8.3	689	8		15	<1	57	23.3		250	0			64	0.04	0.45	0.32	0.21																						8.4	
18/Jun/07	7.9	511	8		26	<1	72	23.6		120	0			14	0.09	0.27	0.44	0.26																						7.9	
19/Jul/07	9.4	454	3		38	4	69	23.4		92	0			227	0.06	0.17	<0.10	0.32																					9.4		
27/Nov/07	7.9	667	14		26	<1	86	34.2		128	0			21	<0.03	1.36	<0.10	0.47																						9.7	
4/Dec/07	7.9	645	5		26	<1	75	35.9		162	0			123	0.09	1.05	0.18	1.25	0.14																				7.7		
14/Dec/07	7.8	642	5		34	<1	68	71.1		152	0			478	0.16	0.97	0.22	0.33																					7.8		
3/Apr/08	8.0	459	4		18	2	58	27.5		200	223	15.0	65	69	0.03	0.31	0.28	1.22	0.15																				8.0		
4/Apr/08	8.0	468	3		20	<1	58	27.5		212	0			41	<0.03	0.31	0.19	1.44	0.13																				8.3		
12/Jun/08	9.3	602	3		21	7	121	37.0		88	0			3	0.05	<0.06																									

Table D-9
W12A Landfill Surface Water Samples
POND #W4

Parameter	pH	CONDUCTIVITY	BOD	COD	PHENOLS	Cl	SO ₄	DOC	ALKALINITY	HARDNESS	Mg	Ca	K	Na	SS	NO ₂	NO ₃	NH ₃	TKN	TP	As	Ba	B	Cd	Cr	Cu	Fe	Ni	Pb	Zn	Hg	Al	Mn	Field Temp	Field pH	un-ionized NH3	REMARKS	
Storm Sewer Bylaw PWQO	6 to 10.5	-	15	-	20	1,500	-	-	-	-	-	-	-	-	15	-	-	-	-	0.4	-	-	-	8	200	40	-	80	50	120	-	-	-	°C		0.3		
CoA Trigger Criteria	6 to 8.5	-	10	-	1	800	1000	-	-	-	-	-	-	-	-	-	-	-	-	0.03	-	-	-	0.2	100	5	-	25	30	25	-	-	-					
Units	-	(uS/cm)	(MG/L)	(MG/L)	(UG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(°C)		(MG/L)		
7/Mar/08	7.9	361	8	10	5	65	23		108	0					22	0.11	0.7	4.36	15.2	0.09				<0.2	2.7	3.1	1,520		<1.0	341			5.0	7.87	0.039			
19/Mar/08	7.8	339	14	<10	6	74	33		162	0					153	0.09	0.41	1.07	1.4	0.23				1.2	9.9	22.2	6,410		5.4	52.2	<0.1		5.0	7.78	0.008			
20/Mar/08	7.6	286	3	13	2	67	24		98	0					2	0.15	0.75	0.67	2.1	0.10	<1	23	25	<0.2	2.6	9.9	529		<1.0	1650	<0.1		5.0	7.60	0.003			
21/Mar/08	7.5	296	6	15	3	61	20		118	0					40	0.11	0.22	0.64	2.7	0.24	<1	15.8	30	<0.2	2.2	4.4	173		<1.0	15.1	<0.1		5.0	7.52	0.003			
22/Mar/08	7.5	333	9	16	2	66	24		158	0					141	0.12	0.21	1.11		0.27							1,040						5.0	7.45	0.004			
23/Mar/08	7.6	277	6	19	2	53	20		120	0					49	0.08	0.23	0.86		0.16							1,010						5.0	7.56	0.004			
24/Mar/08	7.6	241	5	13	1	42	16		114	0					87	0.04	0.85	0.65	2.1	0.18	<1	33.2	24	0.4	4.9	7.7	2,360		2.5	27			5.0	7.64	0.003			
31/Mar/08	7.6	590	20	23	4	161	41		192	212	13.3	63.1			15	0.1	0.29	2.32		0.14						767						4.6	6.77	0.002				
3/Apr/08	7.4	372	4	17	1	66	25		110	124	6.5	38.8			4	0.18	0.55	1.24	2.0	0.21	<1		35	<0.2	1.5	7.6	269		<1.0	3,200	<0.1		9.0	7.37	0.005			
7/Apr/08	8.0	1,210	42	45	7	286	69		298	0					88	<0.03	0.29	10.4	9.7	0.11	2	74.9	150	<0.2	3.3	8.6	798		<1.0	16.3	<0.1		14.1	7.48	0.079			
14/Apr/08	8.1	939	19	40	2	286	70		284	0					42	<0.03	0.26	5.9		0.12						2,380						10.9	8.38	0.266				
23/Apr/08	8.0	950	13	49	<1	334	68		264	0					110	<0.03	0.41	6.78		0.20						190						22.5	8.14	0.415				
30/Apr/08	7.9	914	10	39	1	406	74		218	0					70	<0.03	0.31	5.97		0.13						1,090						13.2	7.68	0.067				
12/May/08	7.5	1,240	8	36	<1	406	89		250	0					112	<0.03	0.33	2.79		0.20						3,890						12.7	7.16	0.009				
11/Jun/08	8.0	1,420	3	40	2	293	95		142	0					83	0.15	0.45	1.02	3.62	0.14	5		120	0.7	8.4	5.9	3,640		<1.0	22	<0.1		28.5	7.70	0.036			
12/Jun/08	7.8	1,410	6	40	5	293	95		154	0					98	0.19	0.35	2.01		0.23						3,690						28.5	7.84	0.096				
2/Apr/09	7.7	2,380	>39	907	59	359	122		562	626	43.4	179			156	0.12	<0.06	39.2	66.6	0.41	5		420	0.4	6	11.2	3,080		39.2	2.7	56.9	<0.1	2080	589	9.2	7.47	0.199	
9/Apr/09		74							0								10.3																6.23	8.02	0.144			
23/Apr/09	8.0	1,270	18	112	2	112	85		305	320	30.2	78.2			58	0.06	0.26	13.7	18.5	0.12	3		190	<0.2	1.8	5.8	618		12	1.4	10.3	<0.1	396	114	6.23	8.02	0.000	
29/Apr/09	8.0		8			131	65		0								4.96																12.3	7.8	0.063			
1/May/09			<5			78	50		0								3.22																16.3	7.4	0.021			
11/May/09			7			104	52		0								3.52																15.1	8.3	0.167			
14/May/09			13			75	43		0								3.59																17.8	7.5	0.035			
1/Jun/09	7.6					72	49		0								2.77																15.6					
8/Jun/09	7.9	545	6	30	5	76	47		147	0					11	0.06	0.28	2.87		0.09							837						22.8	7.3	0.000			
16/Jun/09			3						0																													
16/Oct/09	7.9	760	6	32	<1	83	81		157	212	17.9	55.2			9	0.05	0.56	2.52	4.54	<0.1	2		110	<0.2	<1.0	2.7	247		9.2	<1.0	44.6	<0.1	276	15.8	8.8	7.07	0.005	
1/Apr/10	8.0	806	39	32	<1	82	67		232	249	22.0	63.5			34	0.09	0.52	5.38	7.6	0.17	1		67	<0.2	2.1	23.9	1,050		6.5	<1.0	118	<0.1	1370	63.1	11.2	7.54	0.037	
12/May/10			4			58	91		0								1.10																		8.82	7.65	0.008	
30/Jun/10	8.6	481	8	25	<1	42	95		80	0					13	0.05	<0.06	0.11		0.09							1,010						19.0	8.42	0.010			
28/Apr/11	8.3	540	3	27	<1	35	52		158	201	15.5	55.0			9	<0.03	0.43	1.02	2.06	0.11	<1		72	<0.2	1.4	6.8	977		9.9	1.5	61.7	<1	939	25.7	13.8	7.77	0.015	
1/Jun/11	7.9	370	3	17	<1	19	36		126	150	10.3	42.9			<2	0.03	0.6	0.62		0.04							677											
13/Oct/11	8.1	580	<2.2	29	<1	60	89		110	221	18.0	59.0				0.40	1.4	0.49	1.86	0.12	1		230	<0.2	1.2	3.7	141		5	<1.0	255*	<1	111	12.8	16.6	7.95	0.013	
29/Nov/11	8.0	540	4	25	<1	30	76		186	255	15.5	76.4			161	0.07	0.32	2.42		0.34							6,860						6.1	7.85	0.023			
29/Nov/11	8.2	510	3	17	<1	25	74		180	258	15.0	78.7			178	0.00	0.3	2.12		0.24							7,270						6.31	7.98	0.027			
24/Apr/12	7.9	660	5	29	<1	73	75		156	222	23.1	51.0			13	0.13	0.92	0.78		0.10							716								7.92	0.005		
7/Jun/12	9.2	560	3	24	<1	73	84		76	145	19.5	26.1			11	0.04	0.49	<0.10		0.05							390									<0.000		
11/Jun/12	9.6	550	4	25	<1	77	84		66	154	20.4	28.0			45	0.08	0.34	<0.10		0.12							1,610						25.48	9.43	<0.061			
30/Oct/12	8.1	700	4	20	<1	51	125		153	269	19.5	75.5			96	0.09	0.99	0.54	1.62	0.3	1.2		150	0.4	3.9	7.1	2,850		6.2	<2.0	30.4	<0.0001	2750	61.8	14.26	7.98	0.041	
30/Apr/13	8.3	590	3	18	<1	39	54		183	223	18.7	58.4			19	0.05	0.47	1.73	2.55	0.04	<1.0		70	<0.2	1.5	4.7	664		3.5	<2.0	6.4	<0.02	493	21.4	29.24	7.73	0.011	
15/Jul/13	8.6	440	4	23	<1	29	65		108	145	12.6	37.1			6	0.14	0.35	0.29		0.05							485											
28/Oct/13	8.4	450	3	18	<1	25	75		121	182	14.4	49.2			10	0.05	0.07	<0.10	1.45	0.06	1.5		106	<0.2	2.1	4.6	1,430		11.5	<2.0	9.0	<0.02	1150	25.2	5.98	9.15	<0.016	
14/Apr/14	8.1	620	3	26	<1	54	47		194	239	16.1	69.1			20	<0.03	0.15	0.32	1.03	0.05	1.0		42	<0.2	2.4	3.5	886		6.9	<2.0	13.3	<0.1	761	38.4	12.27	7.55	0.002	
25/Jun/14	9.4	380	2	20	<1	39	67		60	119	15.3	22.6			14	<0.03	<0.06	<0.10		0.05							735						24.69	8.45	<0.014			
17/Oct/14	8.0	590	3	1																																		

Table D-10
W12A Landfill Surface Water Samples
POND #2/3

Parameter	PH	CONDUCTIVITY	BOD	COD	PHENOLS	Cl	SO ₄	DOC	ALKALINITY	HARDNESS	Mg	Ca	K	Na	SS	NO ₂	NO ₃	NH ₃	TKN	TP	As	Ba	B	Cd	Cr	Cu	Fe	Ni	Pb	Zn	Hg	Al	Mn	Field Temp	Field pH	un-ionized NH3	REMARKS	
Units		(uS/cm)	(MG/L)	(MG/L)	(UG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(°C)		(MG/L)		
AVG	8.3	568	4	18	<1	65	59		125	208	15.0	57	3	12	105	0.03	0.9	0.1	1.2	0.1	1.7		48.6	0.3	9.3	15.8	3529	14	8	52	<0.1	6343	158	10.0	8.2	0.0		
STD	0.3	156	1	5	0	40	28		50	58	2.5	24	1	6	216	0.0	1.3	0.0	0.3	0.1	0.0		11.5	0.0	13.7	8.4	5588	13	12	22	0	10546	135	6.9	0.5	0.0		
# of Samples	9	9	9	9	9	9	9	0	9	9	9	9	2	2	9	9	9	9	5	9	5	0	5	5	5	5	9	5	5	5	5	5	5	9	9	9		
Storm Sewer Bylaw	6 to 10.5	-	15	-	20	1,500	-	-	-	-	-	-	-	15	-	-	-	-	-	0.4	-	-	-	8	200	40	-	80	50	120	-	-	-					
PWQO	6 to 8.5	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	-	-	-	0.2	100	5	-	25	30	25	-	-	-					
CoA Trigger Criteria	-	-	10	-	-	800	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
1/Jul/07	8.5	349	3	14	<1	14	33		128	177	14.2	34.5			44	0.05	0.18	<0.10		0.15						8.2							22.0	8.5	<0.012			
4/Dec/07	7.7	649	3	15	<1	17	29		164	187	11.9	55.3	2.47	6.98	21	0.06	3.32	<0.10	0.8	0.17	<1		12	<0.2	1	16.6	597	2.9	<1.0	23.1	<0.10	708	44	2.6	7.3	<0.000		
14/Dec/07	7.9	326	3	11	<1	16	31		94	130	10.7	34.5			15	0.04	1.68	<0.10		0.06						809						3.8	8.0	<0.001				
4/Apr/08	8.0	375	4	17	<1	51	30		242	295	15.5	92.5	3.82	18	712	0.05	2.63	0.11	1.32	0.45	5		35	0.7	28.4	33.4	17,100	19	7.8	66.2	<0.10	21,800	315	7.3	7.8	0.001		
26/Apr/16	8.6	700	7	25	1	108	70		114	192	16.7	49.4			4	<0.03	0.13	<0.10	0.96	0.08	0.67		38	<0.2	1.3	2.9	482	7.3	<2.0	3.1	<0.01	625	16.8	10.7	9.1	<0.001		
24/Jun/16	8.3	720	4	24	<1	117	67		101	170	18.5	37.7			26	<0.03	0.19	0.15		0.07						1,210						22.6	8.3	0.012				
27/Oct/16	8.9	630	3	15	<1	100	75		63	309	13.3	102.0			81	<0.03	<0.06	<0.10	1.16	0.08	1.74		65	0.9	12.8	22.5	9,800	36.9	29.5	133	<0.01	7,420	372	7.0	8.0	<0.001		
5/Dec/16	8.4	680	<2	14	<1	100	82		85	164	17.7	36.6			4	<0.03	<0.06	<0.10		0.02						396						6.2	8.7	<0.007				
6/Apr/17	8.0	680	5	25	<1	60	114		139	245	16.7	70.4			42	0.06	<0.40	0.34	1.51	0.06	1.2		93	<0.2	2.8	3.4	1,360	5.7	2.1	34.2	<0.01	1,160	41	7.8	8.4	0.012		
13/Oct/17																																						

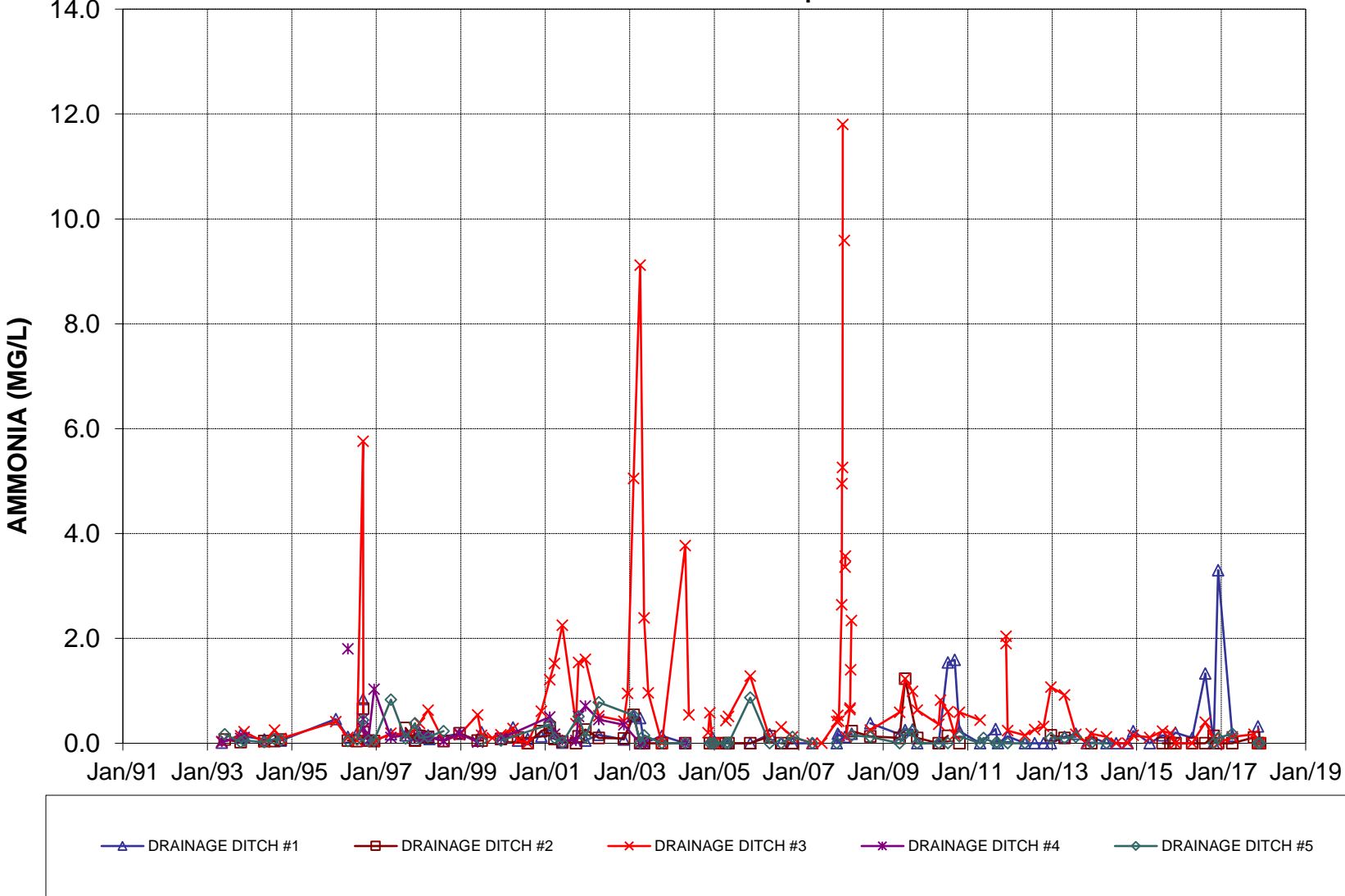
Note: DOC, Al, Mn and Ni are no longer monitored. Historical data is available.

Dry

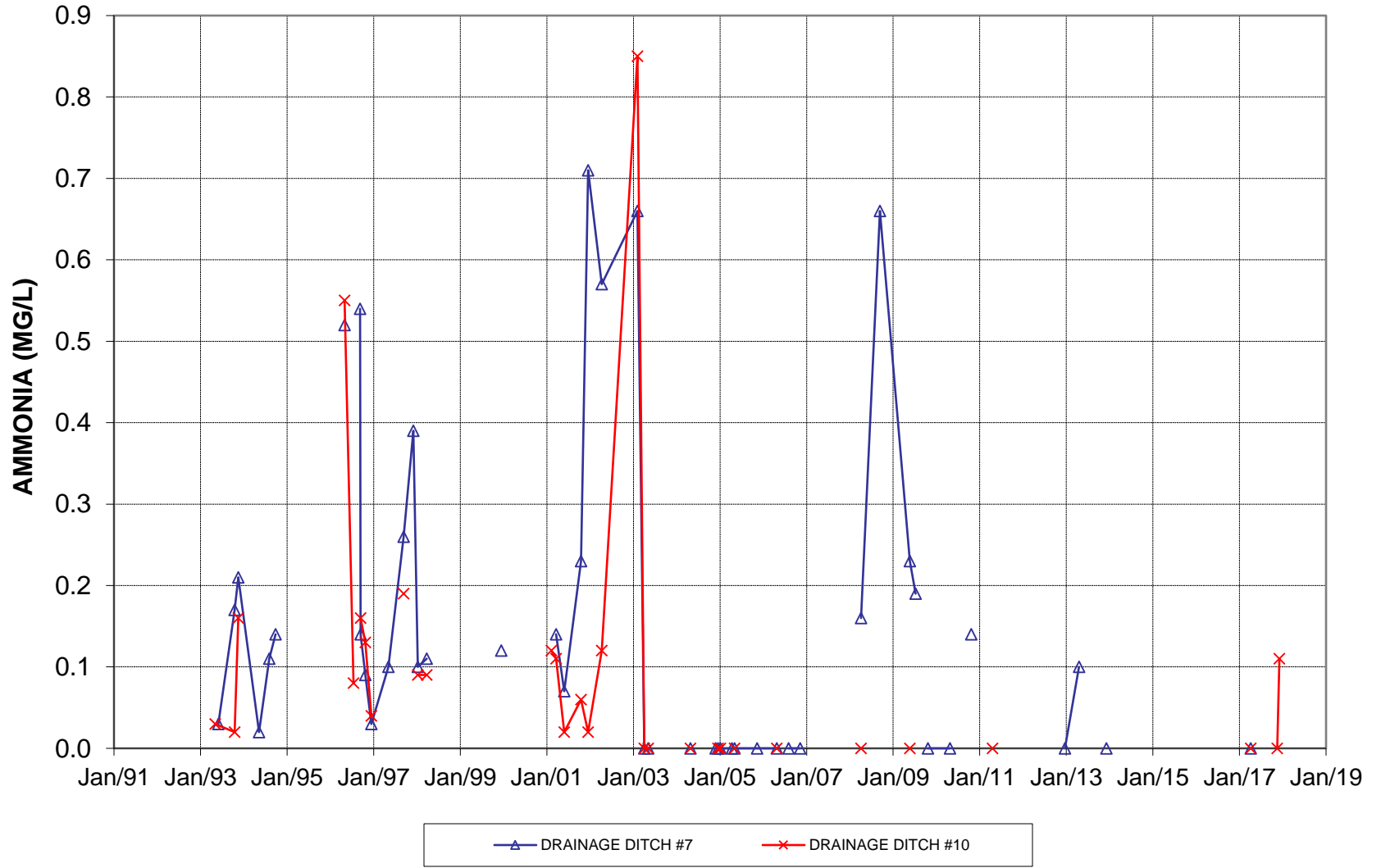
Table D-12
W12A Landfill
General Chemistry Results for Surface Water Samples

Parameter	PH	CONDUCTIVITY	BOD	COD	PHENOLS	Cl	SO ₄	ALKALINITY	Mg	Ca	K	Na	SS	NO ₂	NO ₃	NH ₃	TKN	TP	As	Ba	B	Cd	Cr	Cu	Fe	Pb	Zn	Hg	Field Temp	Field pH	un-ionized NH ₃						
Storm Sewer Bylaw PWQO	6 to 10.5	-	15		20	1500	-	-					15	-	-	-	-	0.4	200	100		8	200	40	-	120	50	1									
Trigger Mechanism	6 to 8.5	-	-		1	-	-	-					-	-	-	-	-	0.03	100			0.2	100	5	-	25	30	0									
Units		(uS/cm)	(MG/L)	(MG/L)	(UG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(°C)		(MG/L)						
Leachate Tank Overflow (Leachate)																																					
9-Jan-08	7.00	3,240	105	<150	32	339	113	1,070	47	167	82	202	518	<0.03	0.11	119	142.0	0.88														3	7.0	0.124			
Water Course at 4059 Glanworth Dr																																					
9-Jan-08	7.88		10	24	<1	26	15	122					496	0.09	1.43	1.15	2.4	0.53																3	7.9	0.009	
Water Course at Harry White																																					
9-Jan-08	7.86	351	10	10	<1	23	19	118	7	46	5	11.3	652	0.21	2.3	1.07	2.6	0.66																3.0	7.9	0.008	
11-Jan-08	7.74	632	3	6	<1	51	43	152	12	62	5	23.6	92	0.06	4.41	0.34	1.3	0.20	<1	26	18	<0.2	<1.0	3	77	<1.0	7	<0.1					6.6	7.6	0.002		
18-Jan-08	7.64	539	4	7	<1	55	38	406	10	55	4	22.6	81	0.07	4.55	<0.40	0.6	0.20	1		23			17	<1.0			<0.1					2.1	7.6	<0.002		
25-Jan-08	7.70	843	3	5	3	59	73	254	20	113	2	27	14	0.06	4.26	0.19	0.6	0.03	<1		27			23	2.3			<0.1					0.3	7.7	0.001		
1-Feb-08	7.33	850	13	10	2	88	83	140	14	66	8	55.7	15	0.27	0.15	5.38	8.6	0.11	<1		22			3.1	3.1			<0.1					3.4	7.3	0.012		
8-Feb-08	7.69	821	2	5	3	190	35	154	10	61	104	29.4	33	0.04	2.63	0.19	0.57	0.13	<1		10			1.8				<0.1					4.1	7.7	0.001		
15-Feb-08																																			5.6	7.7	0.000
20-Mar-08	7.75	214	4	13	1	46	12.9	86	5	34			45	0.08	0.78	<0.40	1.2	0.11	<1	14.2	14	<0.2	<1.0	3.1	10.5	<1.0	5.8	<0.1					5.0	7.8	<0.003		
24-Mar-08	7.74	277	2	7	<1	50	21.8	122	8	50			33	0.06	2.00	<0.40	1.0	0.1	<1	19.45	15	<0.2	<1.0	<1.0	11.4	<1.0	3.7	<0.1					5.0	7.7	<0.003		
8-Apr-08	8.16	524	1	9	<1	64	41.7	204	15	79			56	0.06	3.37	0.15		0.06						5.1										12.2	8.4	0.008	
14-Apr-08	8.19	404	2	11	<1	73	40.1	196	14	75			6	0.07	4.20	<0.10		0.04						20.6										9.8	7.9	<0.002	
23-Apr-08	8.08	401	2	7	<1	65	52	228	18	74			6	0.11	1.82	<0.10		0.04						21.5										20.2	8.2	<0.006	

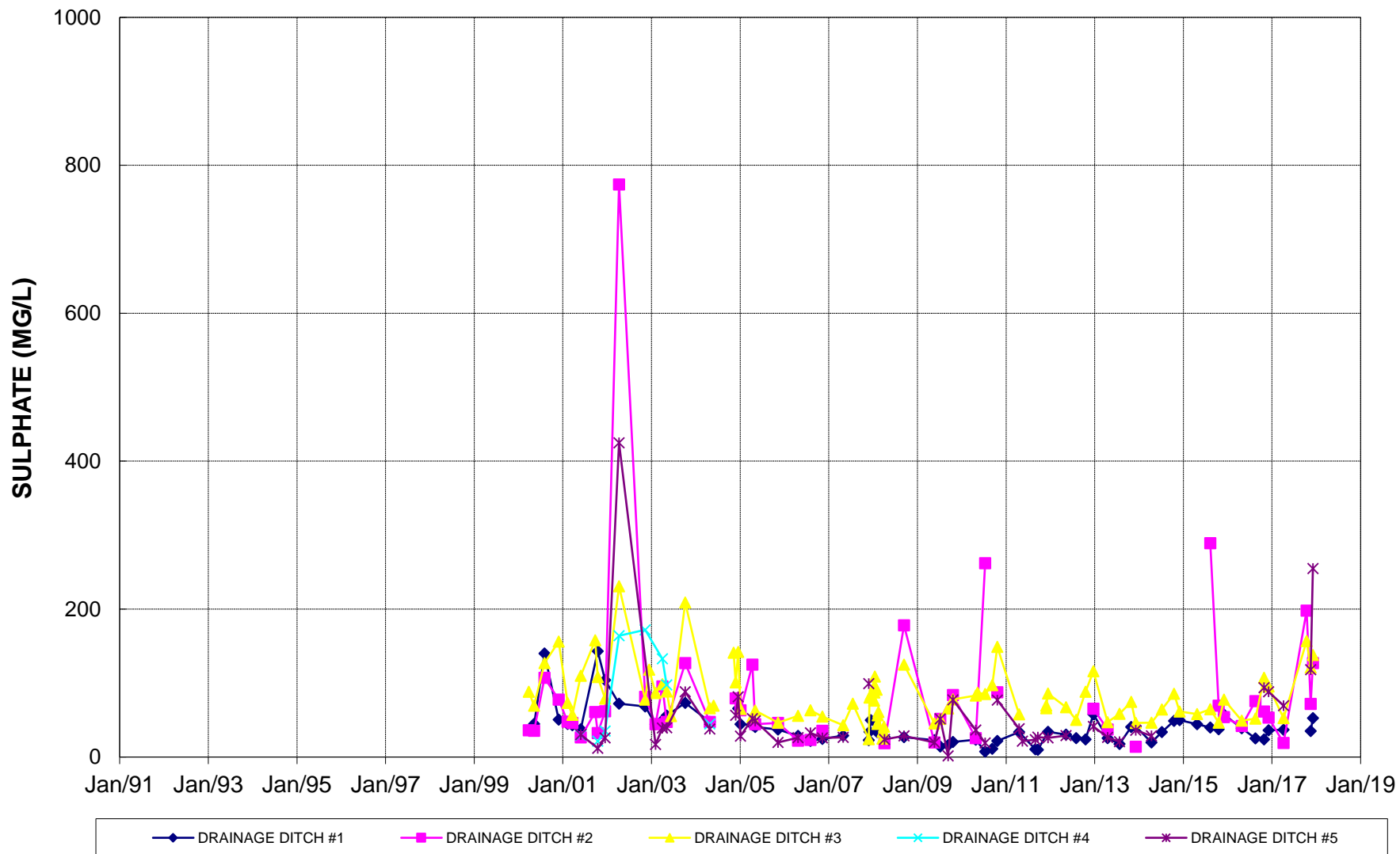
W12A Surface Water Samples



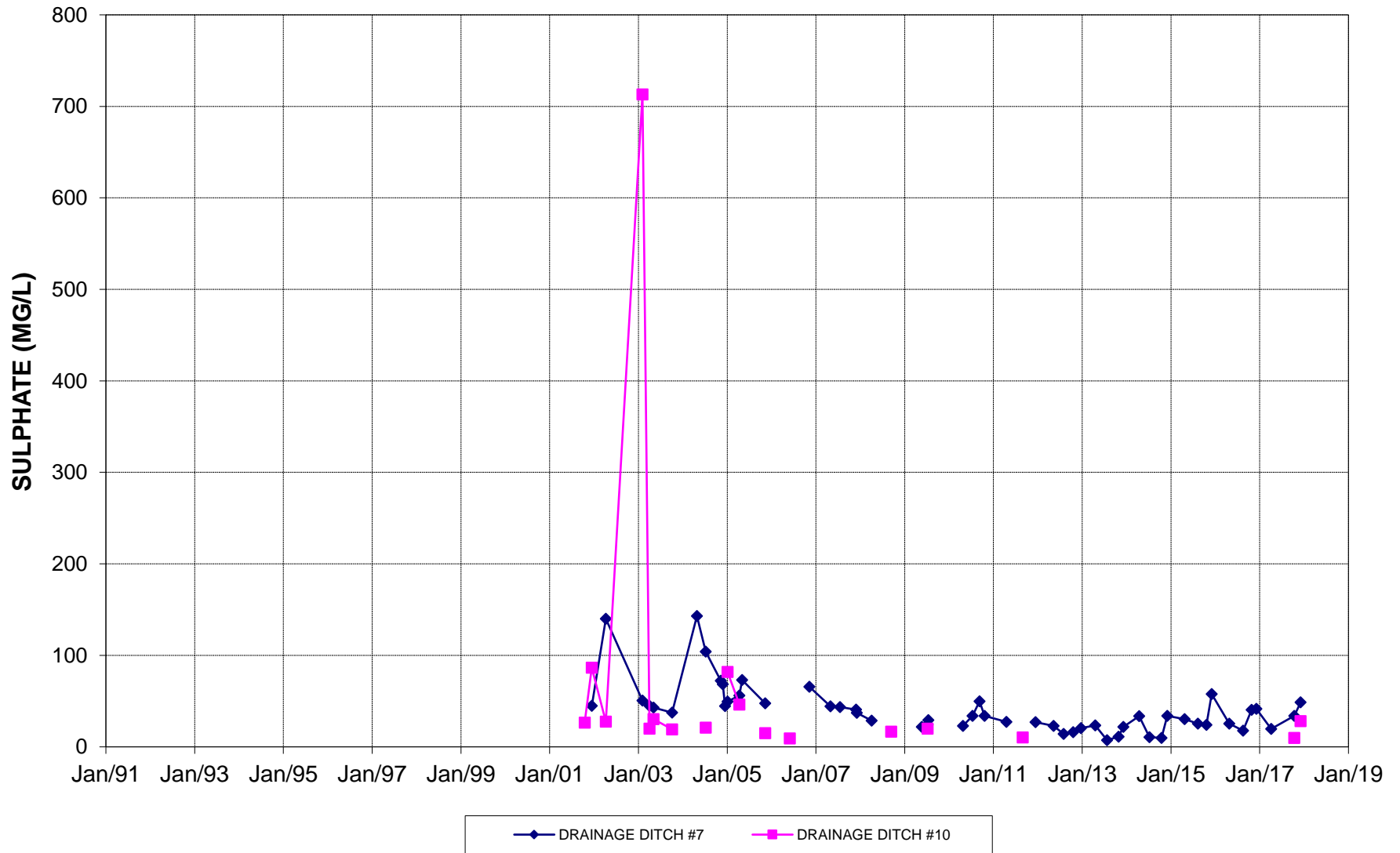
W12A Surface Water Samples



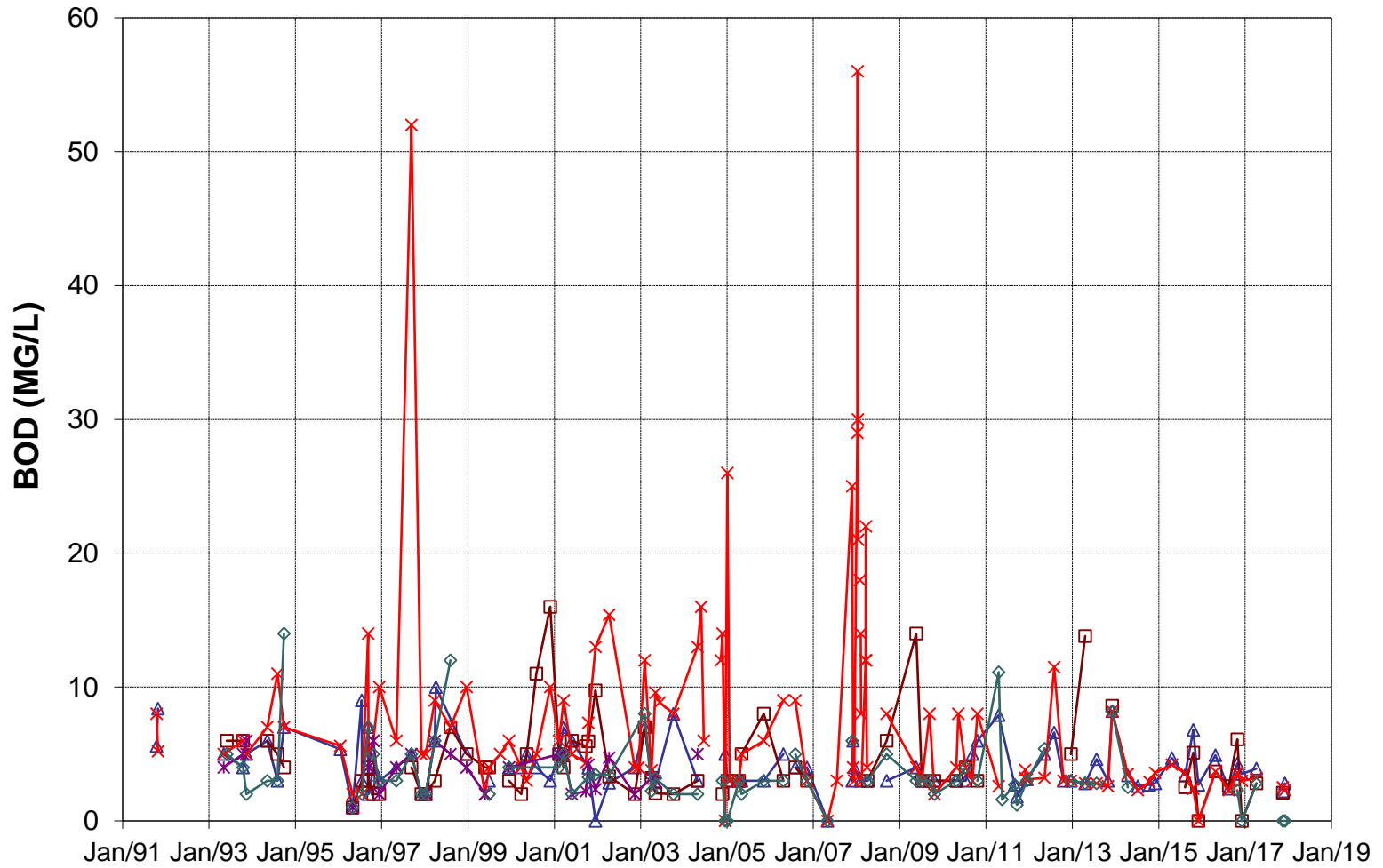
W12A Surface Water Samples



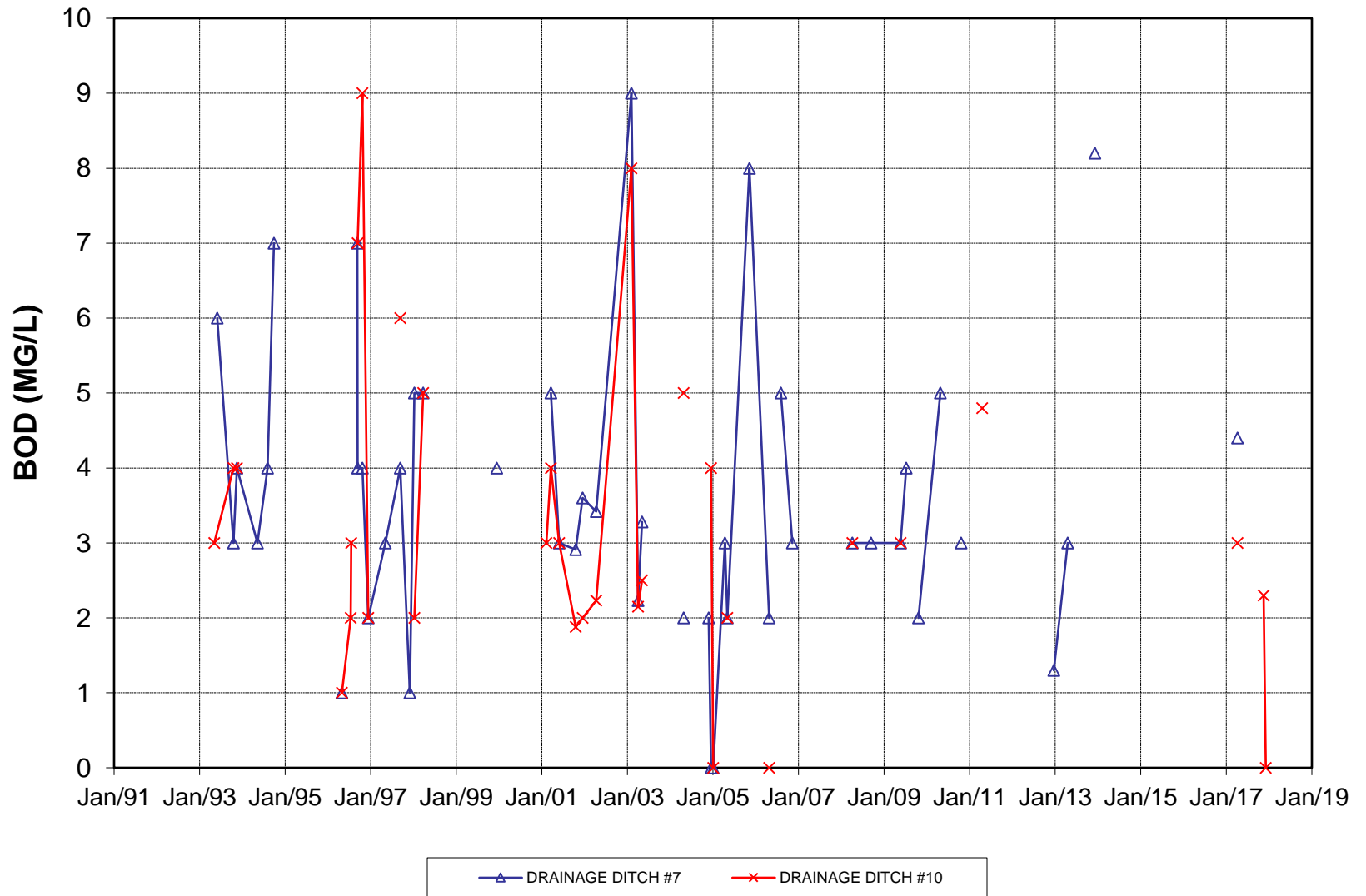
W12A Surface Water Samples



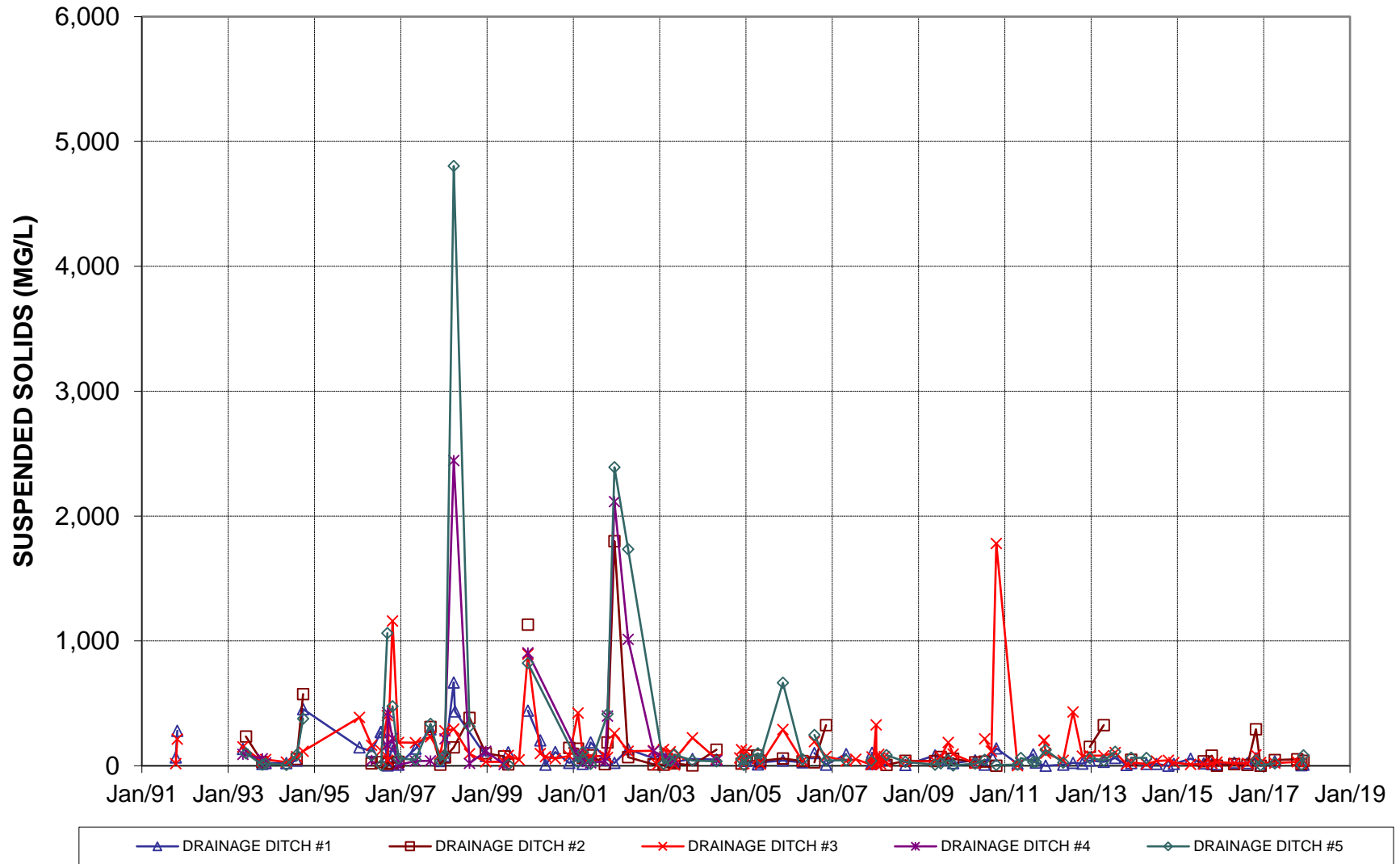
W12A Surface Water Samples



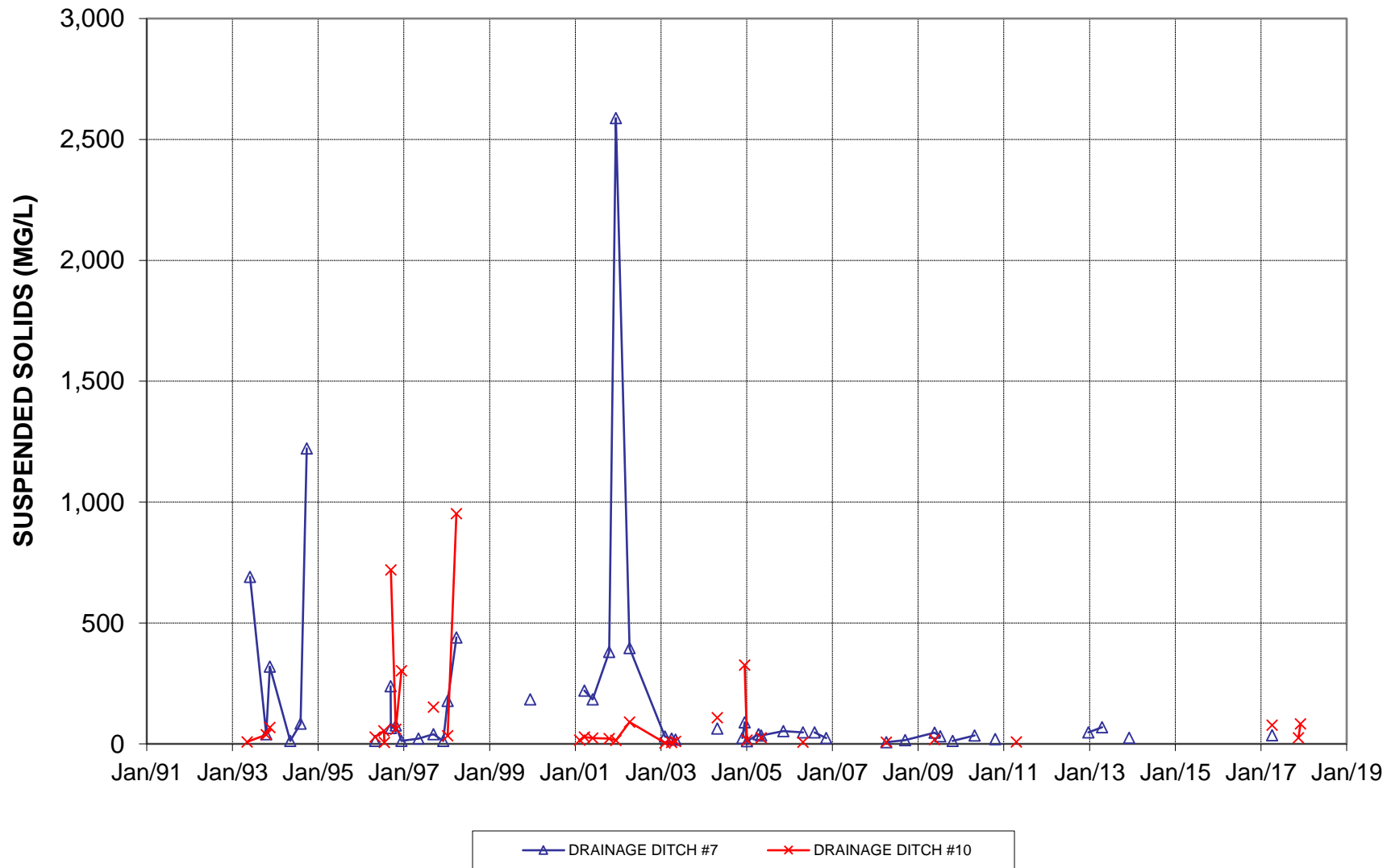
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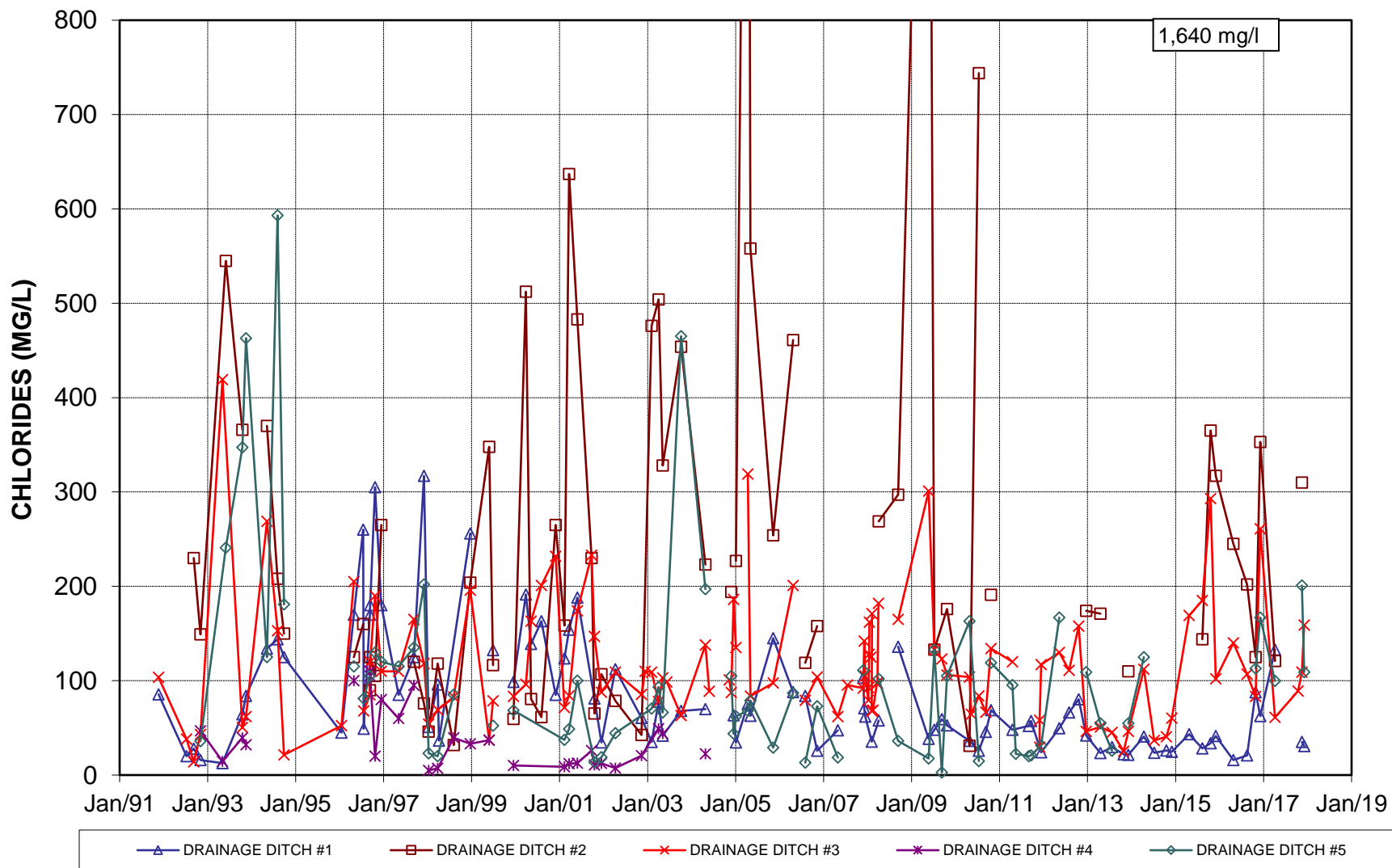
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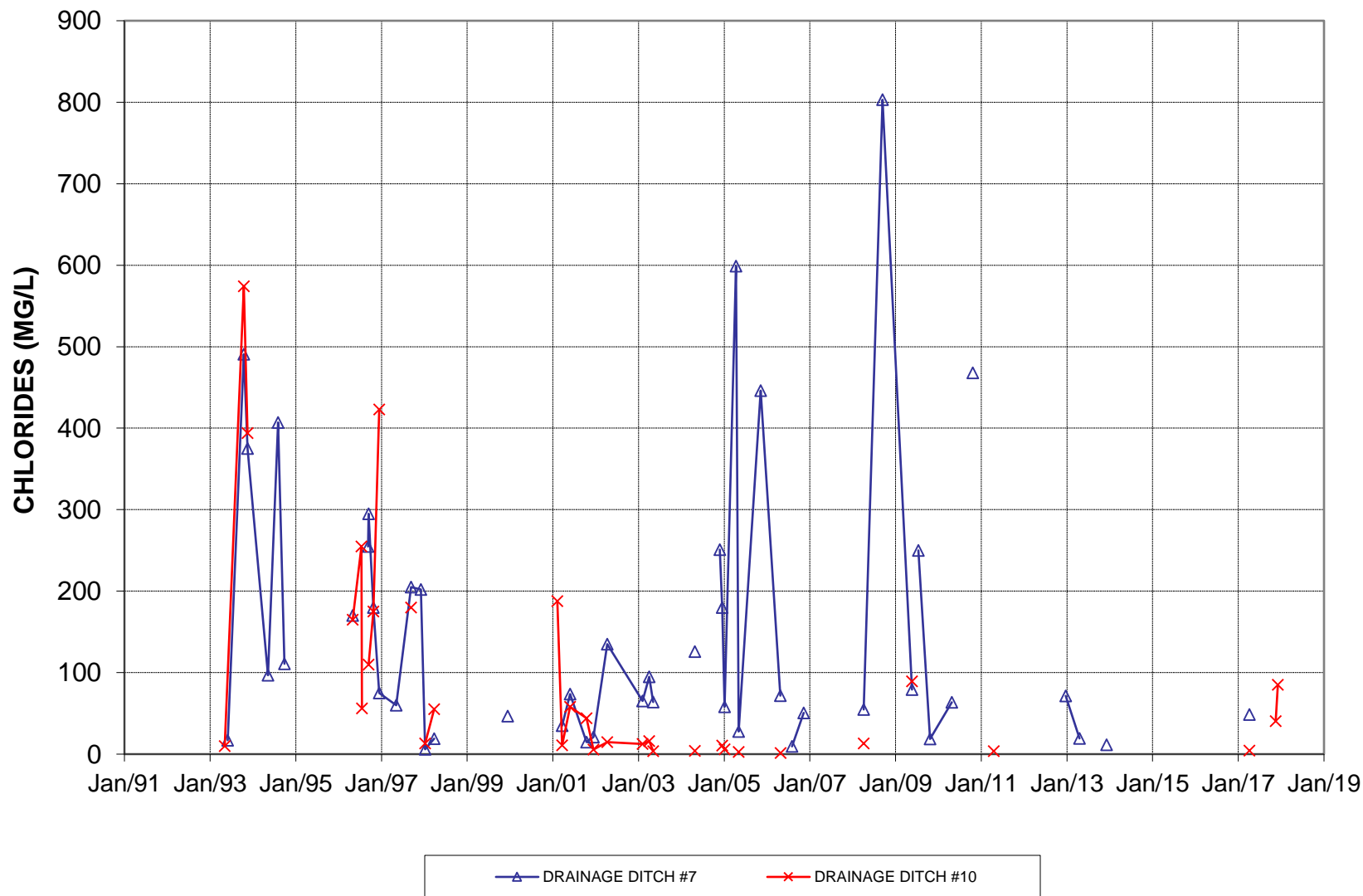
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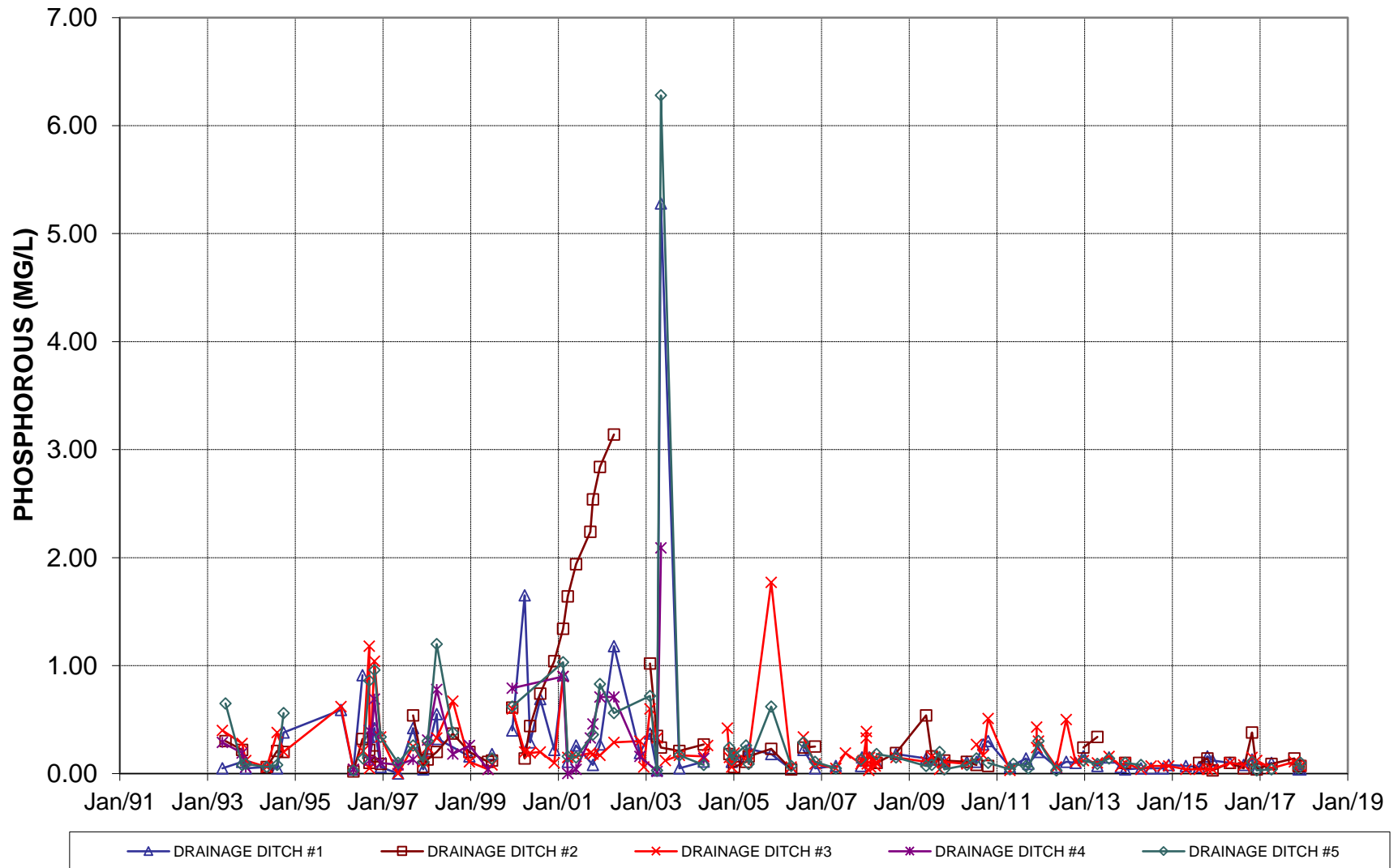
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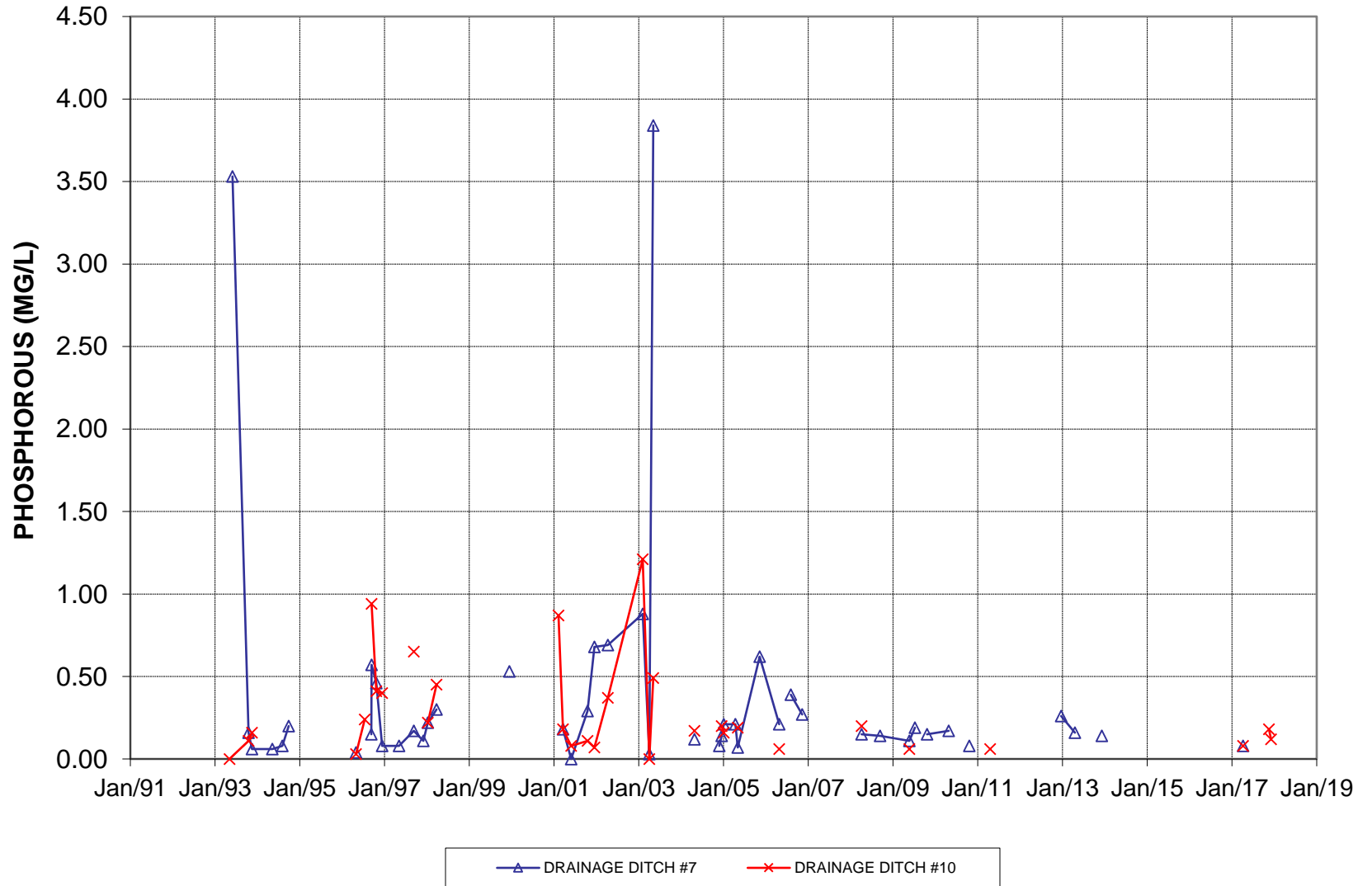
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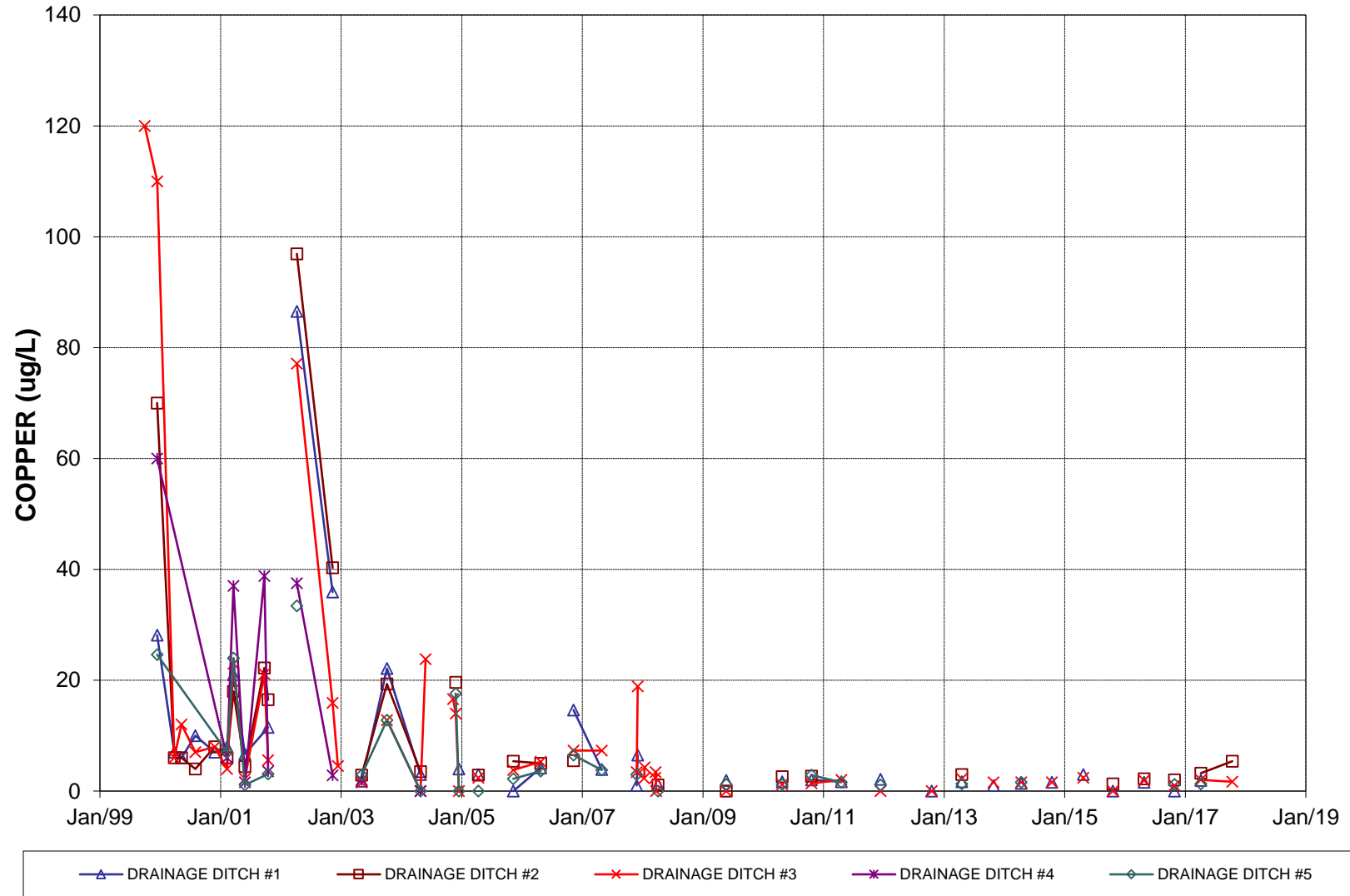
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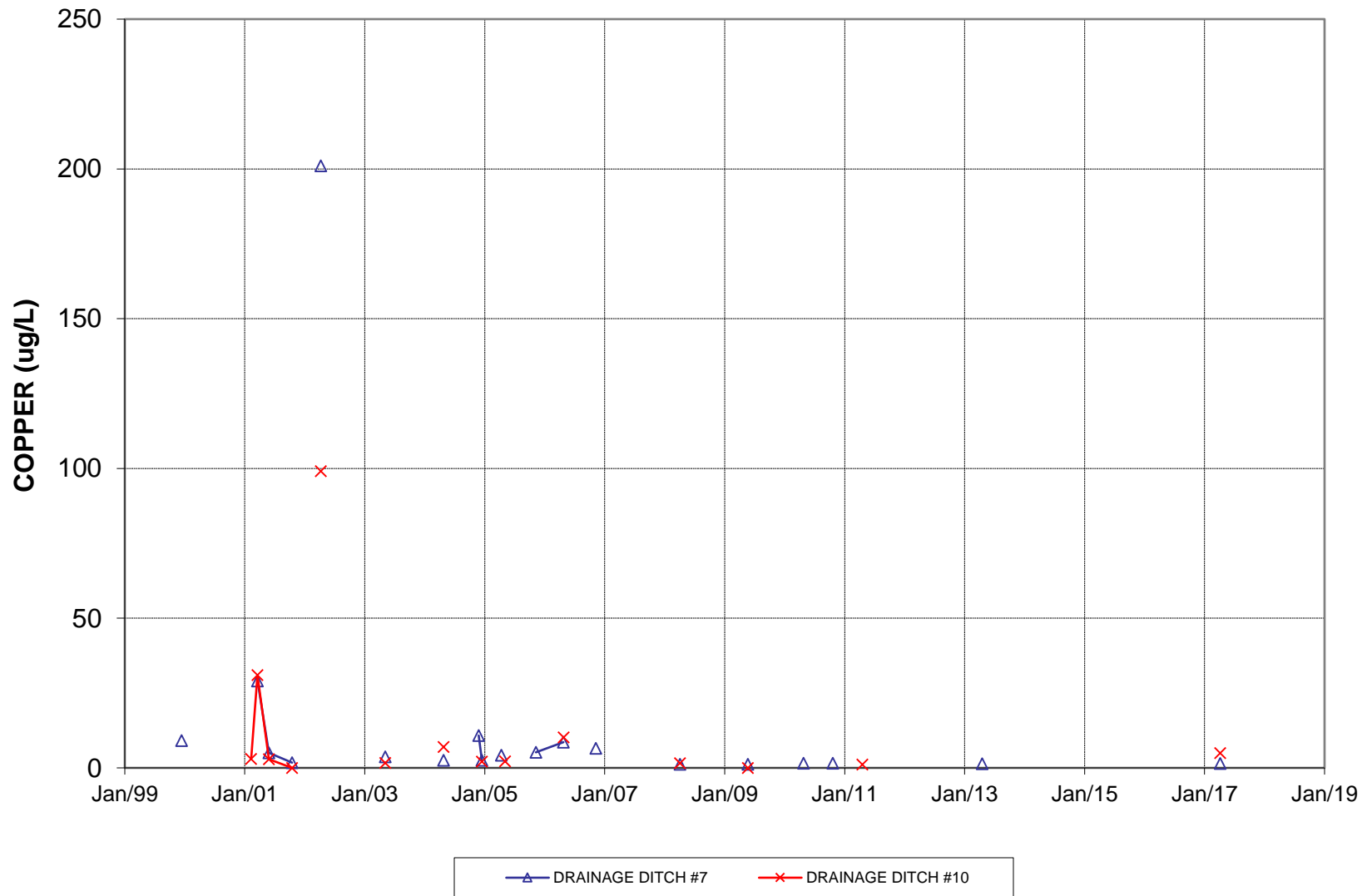
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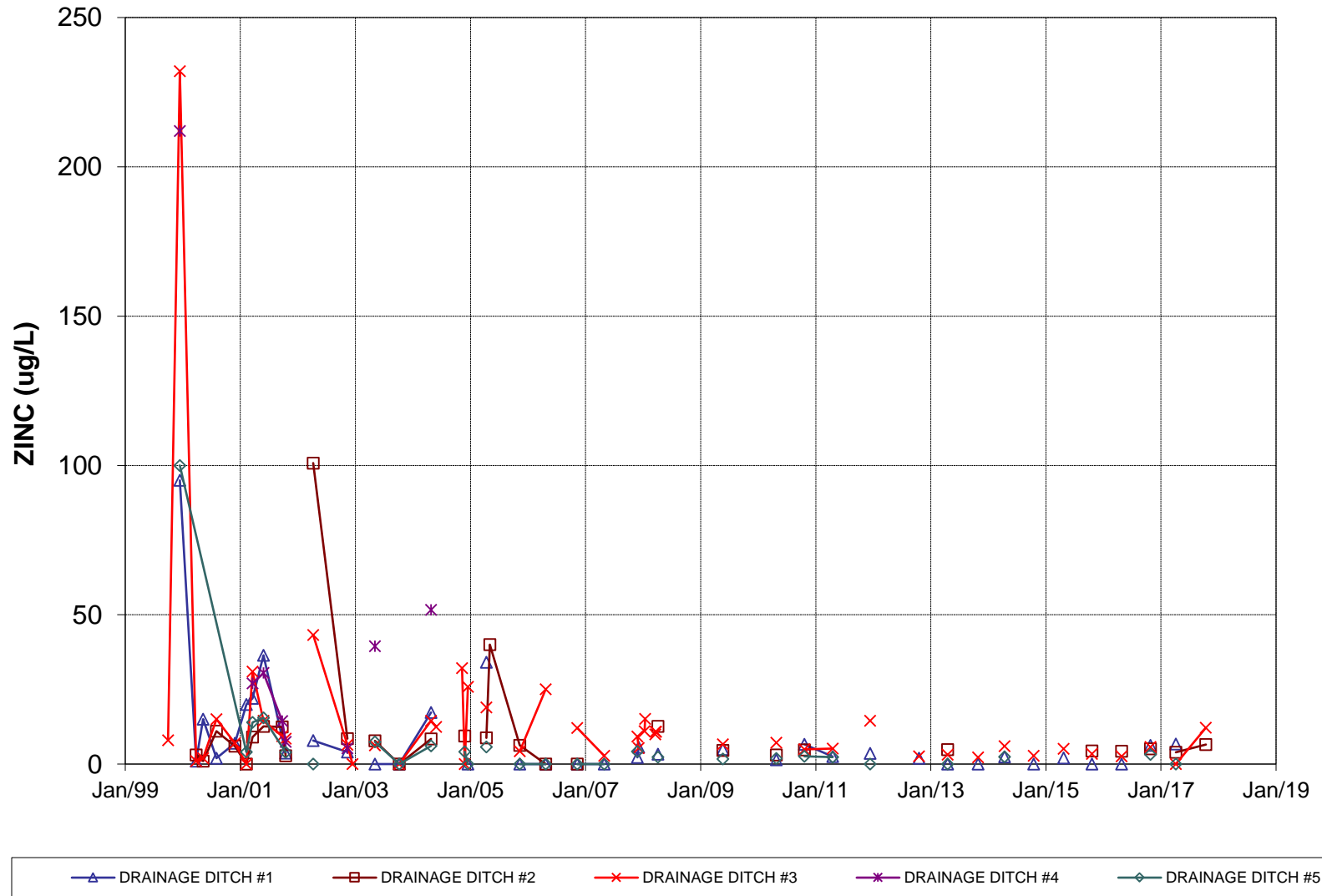
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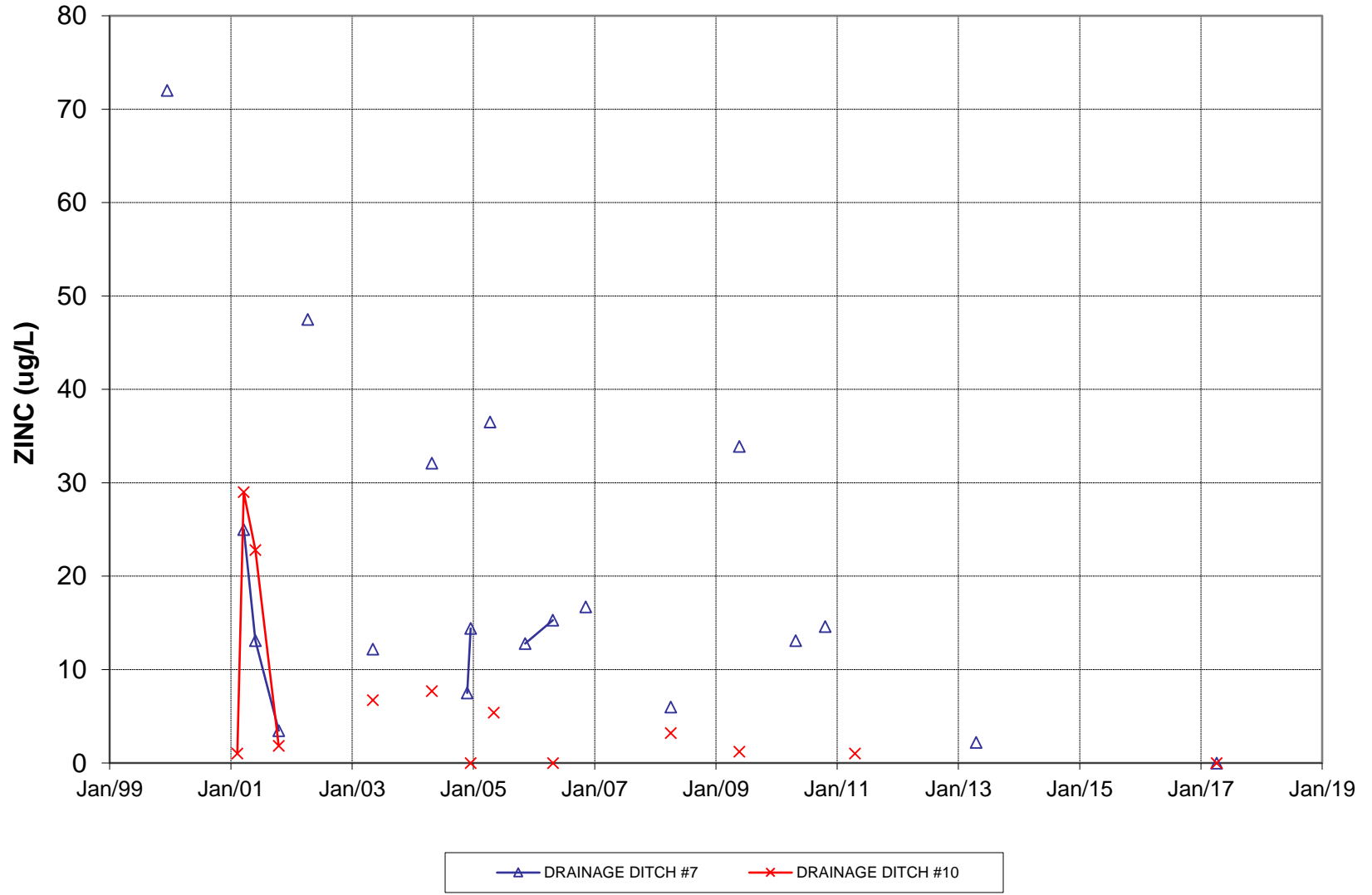
W12A Surface Water Samples



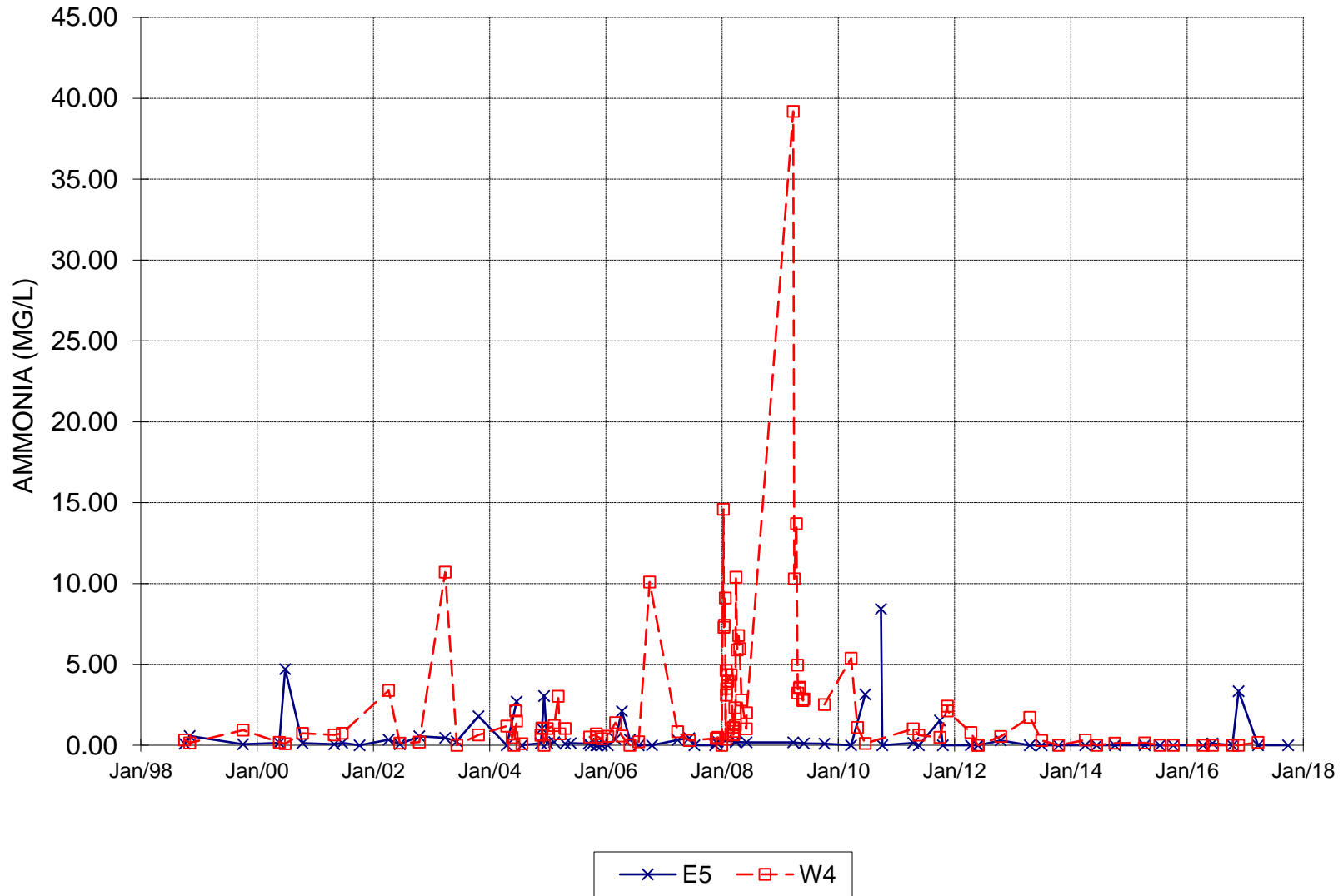
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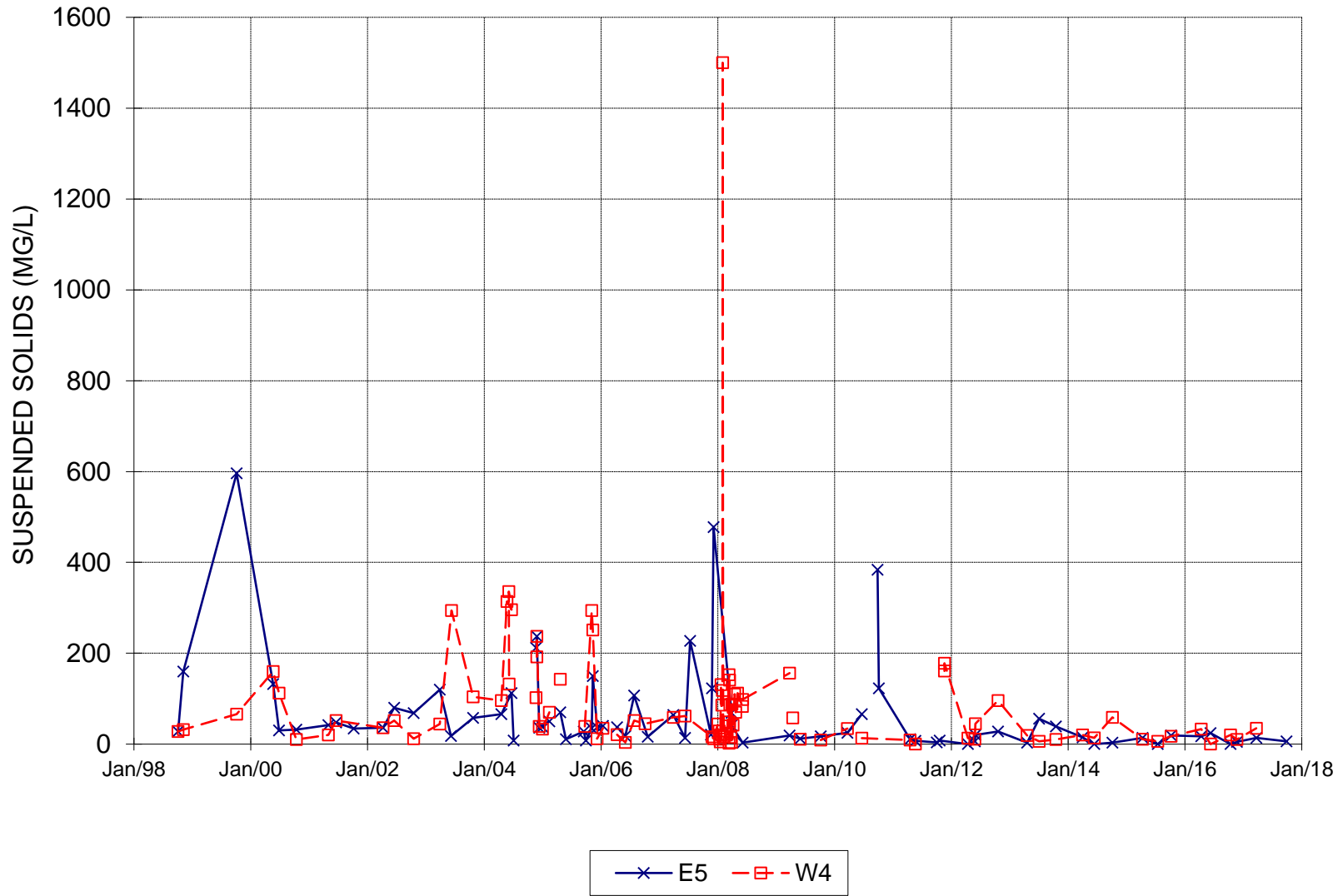
W12A Surface Water Samples



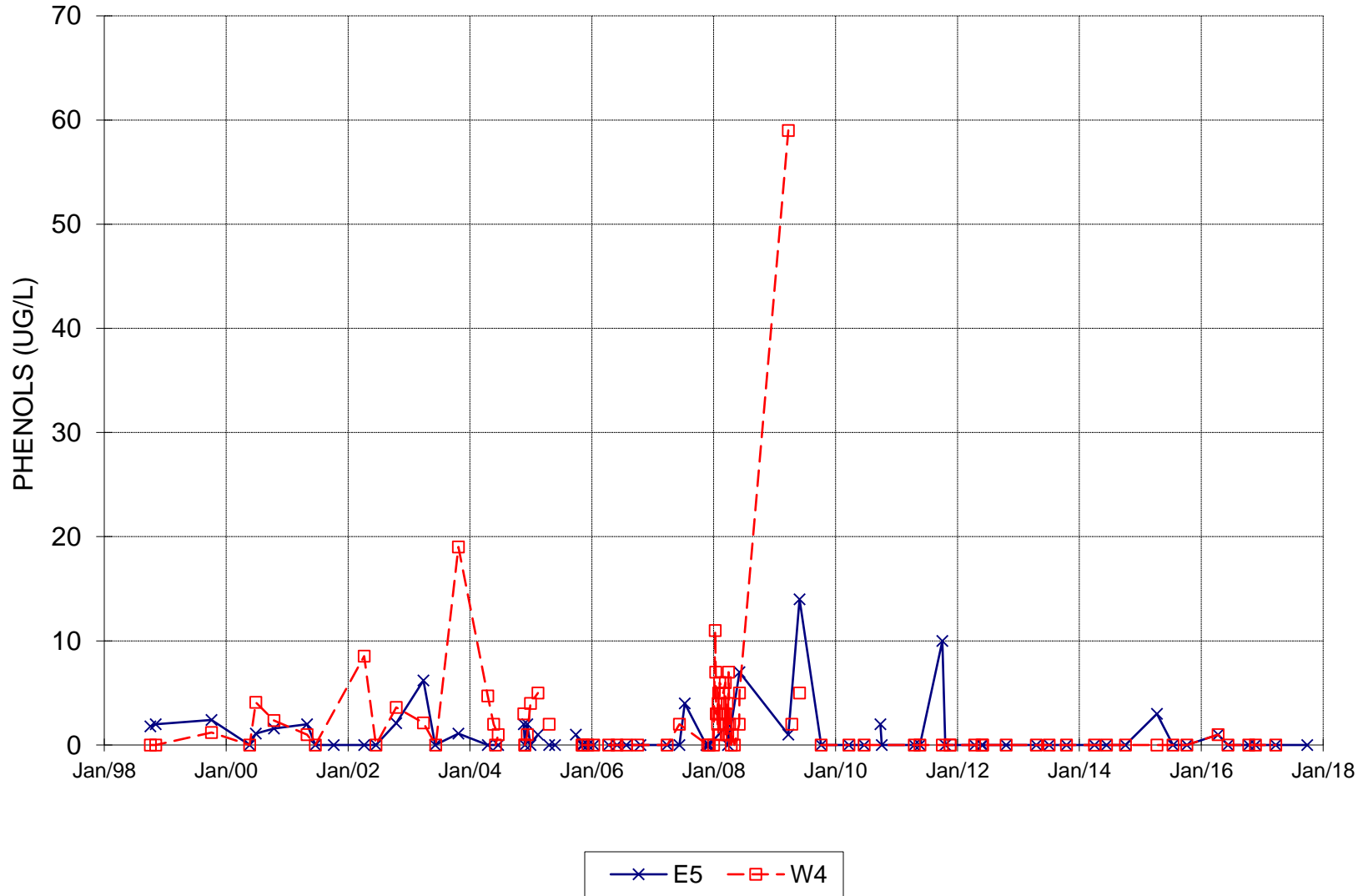
W12A Ponds



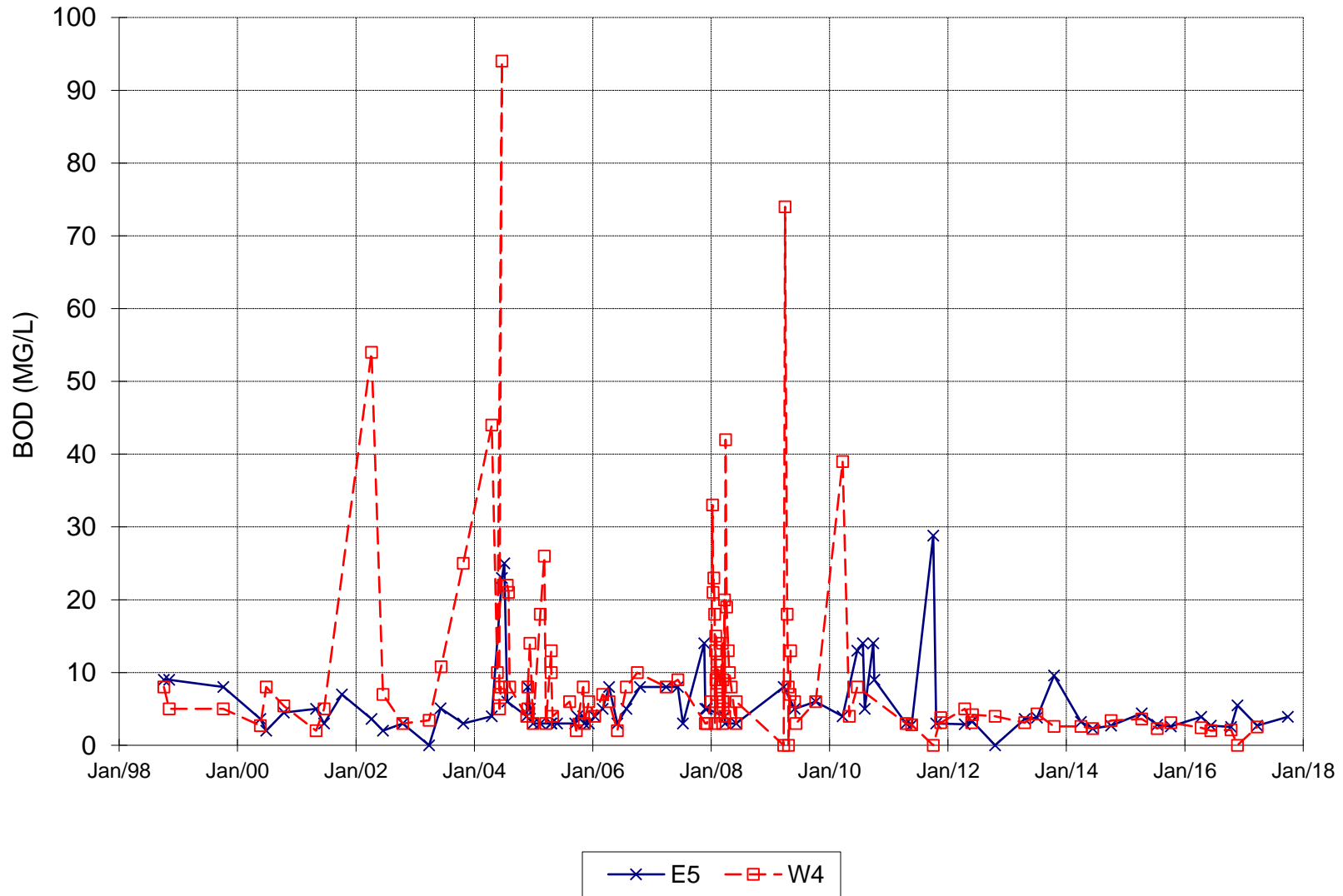
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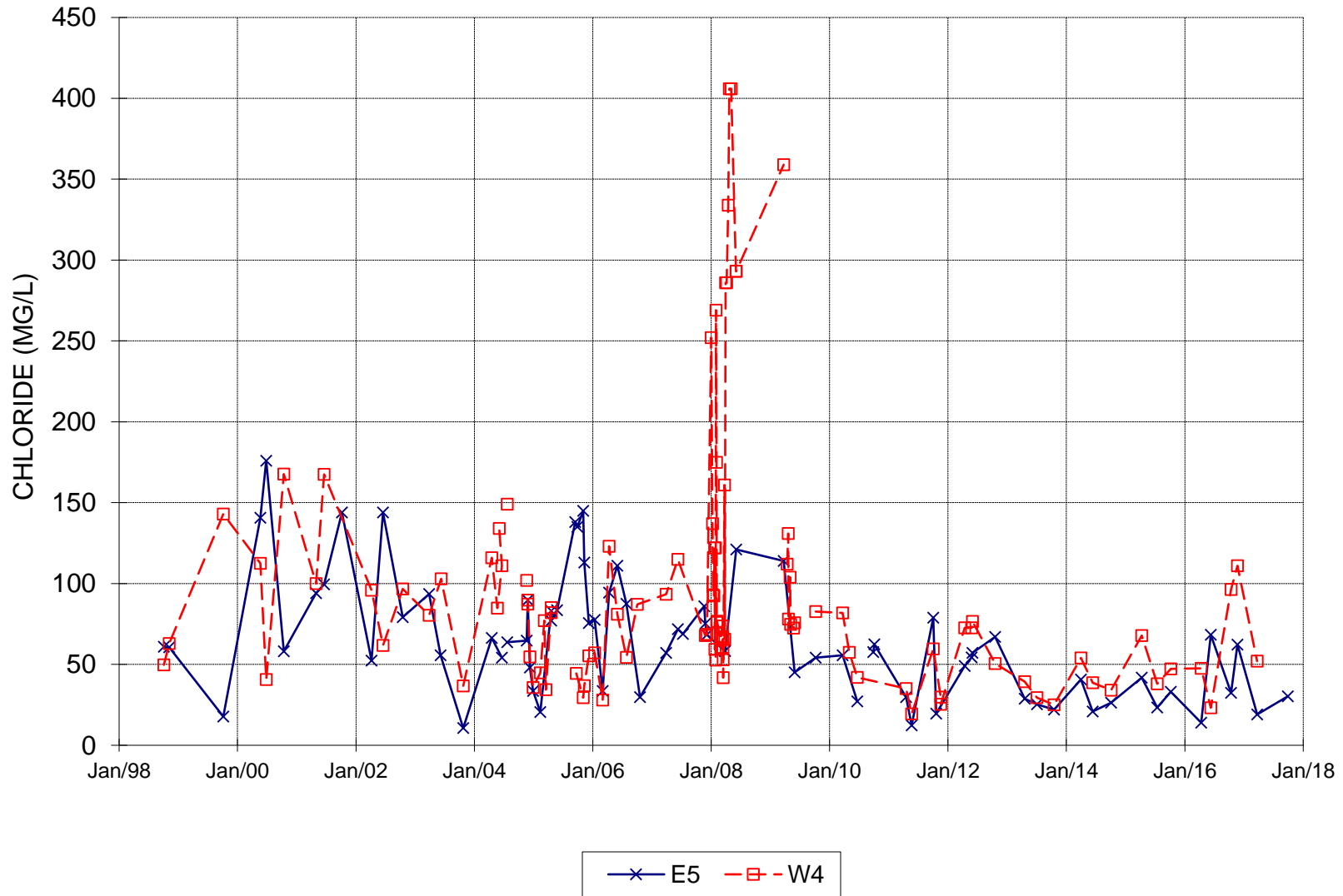
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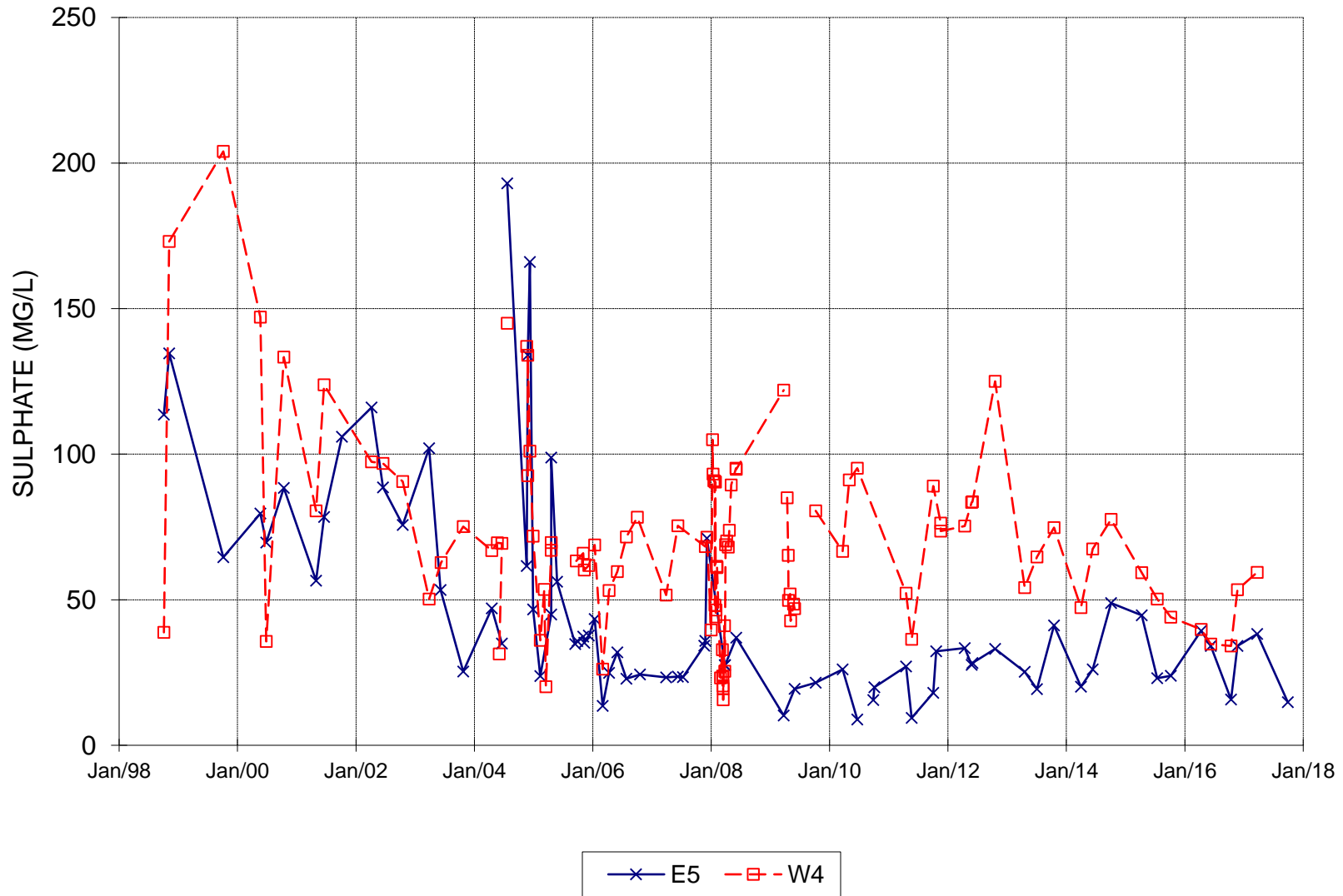
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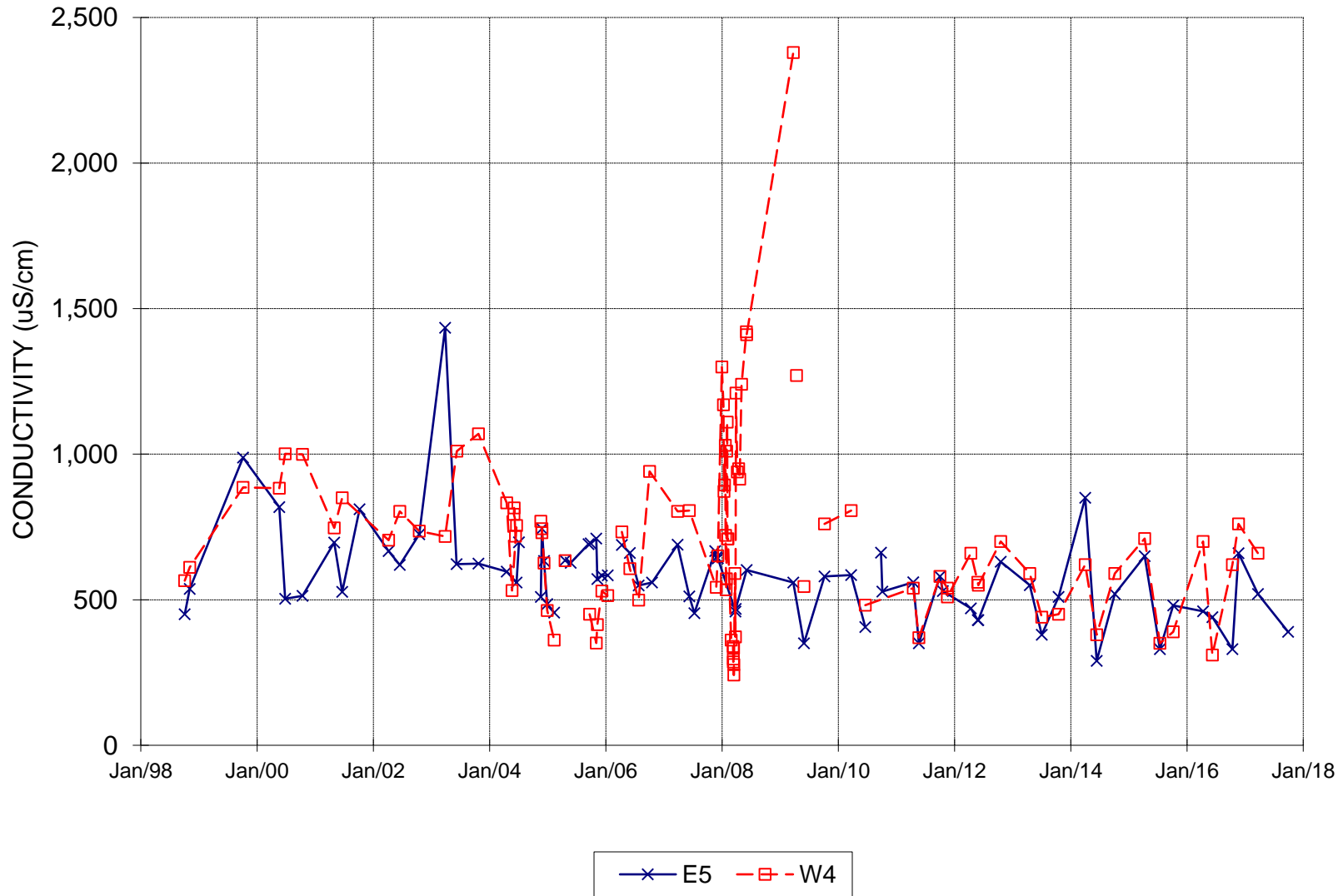
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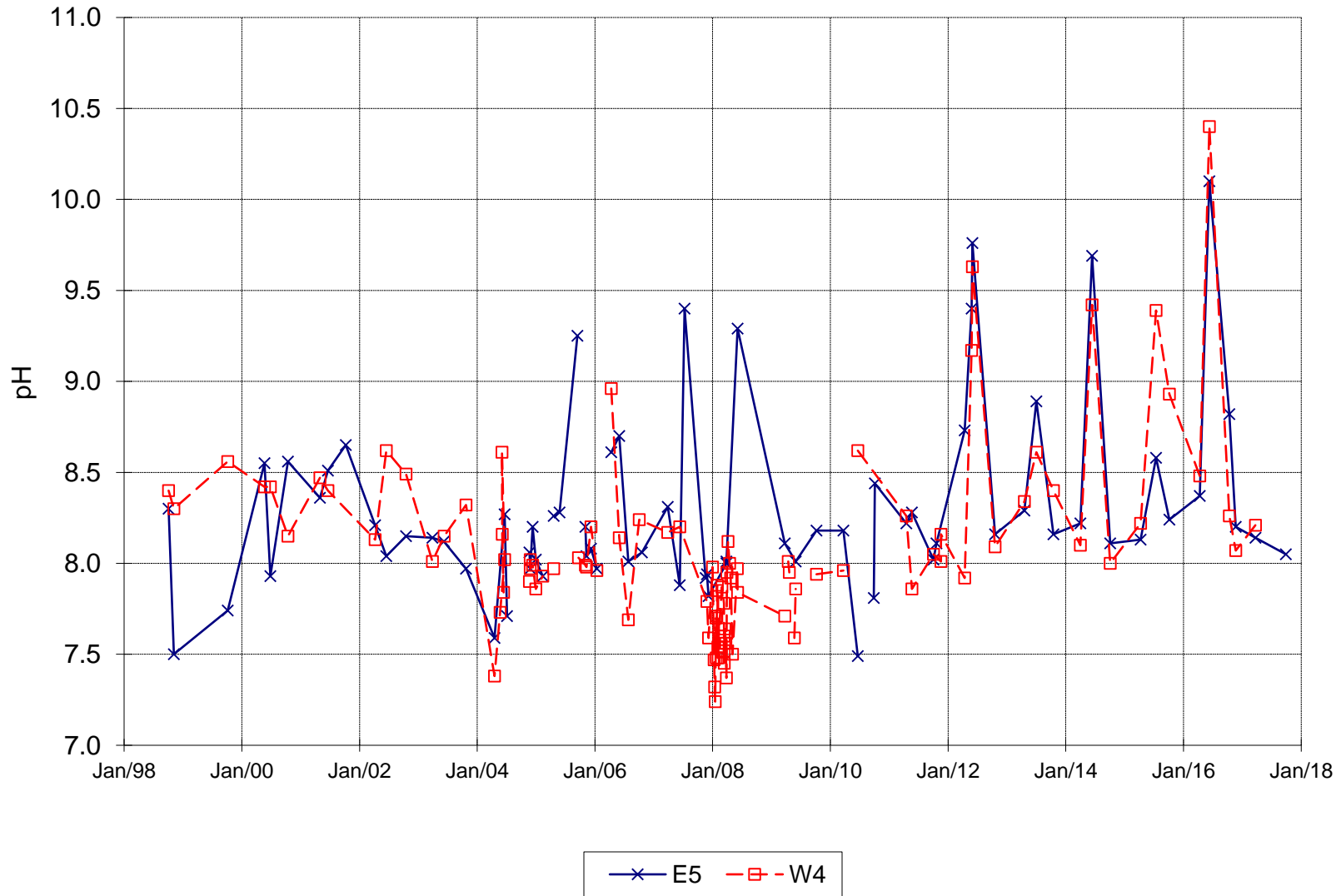
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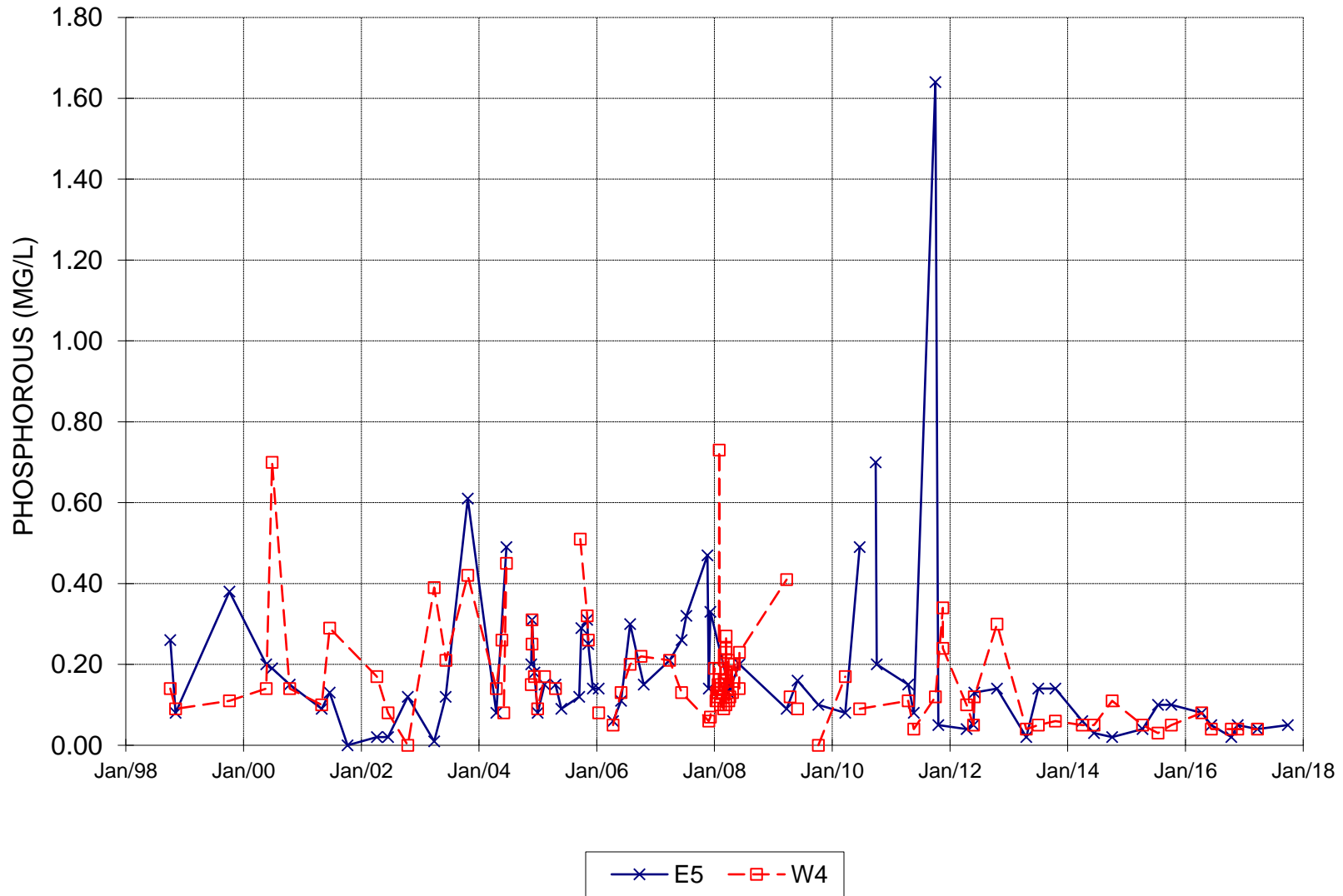
W12A Ponds



W12A Ponds



W12A Ponds



W12A Ponds

