

Buttonderry Waste Management Facility – Groundwater Results

January 2018

No. samples required by EPL: 22 No. samples collected: 20		Field Parameters							Inorganics				Alkalinity				Nutrients			Metals	
		Depth to groundwater	Dissolved Oxygen (Field)	Electrical Conductivity (Field)	Oxygen Redox Potential (Field)	pH (Field)	Temp (Field)	Turbidity (Field)	pH (Lab)	Electrical Conductivity (Lab)	TOC	Nonpurgeable Organic Carbon	Alkalinity (total) as CaCO ₃	Alkalinity (Bicarbonate as CaCO ₃)	Alkalinity (Carbonate as CaCO ₃)	Alkalinity (Hydroxide) as CaCO ₃	Ammonia as N	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total Oxidised)	Iron (Filtered)
Field ID	Sampling date	mBTOC	mg/L	uS/cm	mV	pH_Units	oC	NTU	pH_Units	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
101S (22)	23/01/2018	4.15	8.59	11,050	86	6.23	20.1	1190	7.32	13500	6	----	180	180	<1	<1	0.06	0.01	<0.01	0.01	1
102 S (23)	23/01/2018	3.65	2.89	9,990	97	5.17	19.7	1544	5.47	12700	8	----	46	46	<1	<1	0.02	0.02	<0.01	0.02	0.19
103 D (24)	24/01/2018	7.06	4.47	6,980	161	5.22	20.4	65	5.2	8240	14	----	39	39	<1	<1	0.18	<0.01	<0.01	<0.01	7.94
104S (25)	23/01/2018	5.77	7.26	1,909	36	6.84	21.1	162	7.33	1810	38	----	551	551	<1	<1	1.49	0.08	<0.01	0.08	3.07
105 S (26)	23/01/2018	5.21	3.75	1,060	49	6.39	23.1	230	6.58	1140	14	----	229	229	<1	<1	0.3	0.02	<0.01	0.02	3.14
106 S (27)	23/01/2018	3.21	1.18	6,480	13	6.18	20.9	1,800	6.17	12100	7	----	202	202	<1	<1	0.53	<0.01	<0.01	<0.01	47.4
107 S (28)	23/01/2018	5.81	4.96	1,375	50	6.28	24.6	39	6.39	1710	15	----	374	374	<1	<1	0.74	<0.01	<0.01	<0.01	6.46
108 S (29)	23/01/2018	Dry																			
707 (30)	23/01/2018	8.67	0.74	12,300	123	6.39	19..0	300	6.53	14800	8	----	416	416	<1	<1	0.08	<0.01	<0.01	<0.01	0.06
110 D (31)	24/01/2018	4.755	1.85	12,450	177	6.30	19.3	298	4.29	1710	13	----	<1	<1	<1	<1	0.16	0.1	<0.01	0.1	5.93
111 S (32)	23/01/2018	3.59	1.62	1,506	221	4.03	20.8	1120	4.53	13500	10	----	<1	<1	<1	<1	0.1	<0.01	<0.01	<0.01	12.4
112 D (33)	24/01/2018	3.575	0.70	10,230	190	4.40	19.5	1112	5.93	4170	17	----	119	119	<1	<1	0.44	0.03	<0.01	0.03	2.4
113 S (34)	23/01/2018	3.56	4.00	3,790	148	5.63	25.2	647	6.84	14700	2	----	204	204	<1	<1	0.09	0.03	0.01	0.03	12.9
B (14)	23/01/2018	9.15	6.51	11,810	64	6.04	20.4	200	6.16	13100	4	----	130	130	<1	<1	0.36	<0.01	<0.01	<0.01	26.5
BT3 (11)	24/01/2018	2.98	1.90	10,340	62	5.88	19.8	305	6.25	14900	3	----	189	189	<1	<1	0.34	<0.01	<0.01	<0.01	29.4
BT4 (9)	24/01/2018	3.83	1.57	11,870	76	6.10	19.1	165	7.28	11900	<1	----	731	731	<1	<1	0.02	<0.01	<0.01	<0.01	0.15
BT16 (7)	23/01/2018	3.59	0.63	11,000	126	6.44	18.0	40	7.77	15200	2	----	598	598	<1	<1	<0.001	<0.01	<0.01	<0.01	0.12
BT17 (6)	24/01/2018	4.49	6.50	13,430	313	6.00	19.0	96	7.32	12800	<1	----	641	641	<1	<1	0.12	0.01	<0.01	0.01	0.06
BT19 (5)	23/01/2018	1.52	1.33	11,690	234	6.46	17.5	214	7.26	1770	18	----	911	911	<1	<1	4.97	0.02	<0.01	0.02	14.8
BT20 (4)	23/01/2018	Dry																			
TB1 (12)	23/01/2018	2.85	0.40	1,668	-67	6.93	22.1	222	7.32	13500	6	----	180	180	<1	<1	0.06	0.01	<0.01	0.01	1
TB2 (13)	23/01/2018	6.05	0.36	11,840	104	6.31	19.6	436	5.47	12700	8	----	46	46	<1	<1	0.02	0.02	<0.01	0.02	0.19

Buttonderry Waste Management Facility – Groundwater Results

April 2018

No. samples required by EPL: 22 No. samples collected: 21		Field Parameters							Inorganics				Alkalinity				Nutrients				Metals
		Depth to groundwater	Dissolved Oxygen (Field)	Electrical Conductivity (Field)	Oxygen Redox Potential (Field)	pH (Field)	Temp (Field)	Turbidity (Field)	pH (Lab)	Electrical Conductivity (Lab)	TOC	Nonpurgeable Organic Carbon	Alkalinity (total) as CaCO3	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Hydroxide) as CaCO3	Ammonia as N	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total Oxidised)	Iron (Filtered)
Field ID	Sampling date	mBTOC	mg/L	uS/cm	mV	pH_Units	oC	NTU	pH_Units	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
101S (22)	19/04/2018	5.89	3.30	11890	71	6.06	20.2	2532	6.58	13000	5	-	176	176	<1	<1	0.06	0.02	<0.01	0.02	0.73
102 S (23)	19/04/2018	3.11	4.49	9160	253	5.02	20.0	+8000	5.23	10100	14	-	26	26	<1	<1	0.09	0.03	<0.01	0.03	0.06
103 D (24)	18/04/2018	6.77	1.59	7490	201	4.88	20.9	750	5.09	8560	12	-	32	32	<1	<1	0.24	<0.01	<0.01	<0.01	9.99
104S (25)	19/04/2018	4.81	8.60	1787	-95	6.93	21.8	850	6.89	2030	55	-	534	534	<1	<1	0.48	0.06	0.28	0.34	9.24
105 S (26)	19/04/2018	4.55	2.69	1201	-8	6.41	22.9	644	6.24	1200	18	-	194	194	<1	<1	0.40	0.06	<0.01	0.06	0.92
106 S (27)	19/04/2018	3.24	0.53	7470	24	5.86	20.7	1265	6.08	9510	13	-	270	270	<1	<1	0.50	<0.01	<0.01	<0.01	37.2
107 S (28)	18/04/2018	5.63	1.61	815	-13	6.29	25.3	265	6.34	1180	20	-	336	336	<1	<1	0.98	<0.01	<0.01	<0.01	0.13
108 S (29)	18/04/2018	DRY																			
707 (30)	18/04/2018	8.71	2.14	11170	111	6.43	19.6	249	6.59	12800	1	-	632	632	<1	<1	0.04	<0.01	<0.01	<0.01	<0.05
110 D (31)	19/04/2018	4.38	1.89	12020	85	6.10	19.9	1055	6.43	14000	9	-	401	401	<1	<1	0.06	0.49	<0.01	0.49	0.26
111 S (32)	18/04/2018	3.66	2.10	8023	121	4.02	19.1	713	4.29	15800	26	-	<1	<1	<1	<1	0.34	0.92	<0.01	0.92	6.97
112 D (33)	19/04/2018	3.58	1.56	10360	192	4.66	21.7	1922	4.70	12800	28	-	13	13	<1	<1	0.18	<0.01	<0.01	<0.01	11.2
113 S (34)	18/04/2018	5.71	2.90	520	40	6.24	23.6	138	6.32	2170	37	-	248	248	<1	<1	0.41	0.02	<0.01	0.02	5.2
B (14)	19/04/2018	7.50	2.39	12450	28	6.11	20.0	851	6.30	13800	2	-	218	218	<1	<1	0.23	0.01	<0.01	0.01	12.7
BT3 (11)	18/04/2018	2.65	2.07	7980	35	5.84	24.6	562	5.99	12800	4	-	160	160	<1	<1	0.37	0.01	0.01	0.02	33.4
BT4 (9)	19/04/2018	4.28	1.81	11300	24	5.76	19.1	4.80	6.13	14200	3	-	196	196	<1	<1	0.35	<0.01	<0.01	<0.01	31.9
BT16 (7)	18/04/2018	3.59	0.09	7200	54	6.49	14.3	112	6.71	11600	<1	-	716	716	<1	<1	0.04	<0.01	<0.01	<0.01	0.18
BT17 (6)	18/04/2018	4.17	5.55	9100	45	6.59	17.9	200	6.66	14900	2	-	575	575	<1	<1	0.02	<0.01	<0.01	<0.01	0.98
BT19 (5)	18/04/2018	2.40	1.46	7840	84	5.81	13.9	48	6.66	12600	<1	-	620	620	<1	<1	0.12	<0.01	<0.01	<0.01	<0.05
BT20 (4)	18/04/2018	4.80	2.86	6200	25	6.26	15.2	360	6.46	9630	11	-	306	306	<1	<1	0.12	0.15	<0.01	0.15	1.97
TB1 (12)	19/04/2018	3.26	1.32	1644	-122	6.87	22.4	313	7.01	1570	20	-	857	857	<1	<1	4.79	<0.01	0.01	<0.01	17.1
TB2 (13)	19/04/2018	5.28	0.52	1141	177	6.30	19.7	101	6.50	12900	2	-	346	346	<1	<1	0.20	0.01	<0.01	0.01	<0.05

Buttonderry Waste Management Facility – Groundwater Results

July 2018

No. samples required by EPL: 22 No. samples collected: 20		Field Parameters							Inorganics				Alkalinity				Nutrients				Metals
		Depth to groundwater	Dissolved Oxygen (Field)	Electrical Conductivity (Field)	Oxygen Redox Potential (Field)	pH (Field)	Temp (Field)	Turbidity (Field)	pH (Lab)	Electrical Conductivity (Lab)	TOC	Nonpurgeable Organic Carbon	Alkalinity (total) as CaCO3	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Hydroxide) as CaCO3	Ammonia as N	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total Oxidised)	Iron (Filtered)
Field ID	Sampling date	mBTOC	mg/L	uS/cm	mV	pH_Units	oC	NTU	pH_Units	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
101S (22)	31/07/2018	5.15	8.53	14,350	96	6.43	18.4	952	6.58	13000	5	-	176	176	<1	<1	0.06	0.02	<0.01	0.02	0.73
102 S (23)	31/07/2018	4.70	4.50	8,000	207	5.20	18.1	+8000	5.23	10100	14	-	26	26	<1	<1	0.09	0.03	<0.01	0.03	0.06
103 D (24)	31/07/2018	6.45	1.93	7,778	177	5.07	20.4	470	5.09	8560	12	-	32	32	<1	<1	0.24	<0.01	<0.01	<0.01	9.99
104S (25)	31/07/2018	7.75	2.50	1,834	-26	7.00	17.1	498	6.89	2030	55	-	534	534	<1	<1	0.48	0.06	0.28	0.34	9.24
105 S (26)	31/07/2018	4.78	3.78	1,591	-16	6.46	15.7	1790	6.24	1200	18	-	194	194	<1	<1	0.4	0.06	<0.01	0.06	0.92
106 S (27)	31/07/2018	3.28	1.86	7,430	15	6.08	28.4	1444	6.08	9510	13	-	270	270	<1	<1	0.5	<0.01	<0.01	<0.01	37.2
107 S (28)	31/07/2018	5.63	0.85	2,028	-6	6.40	11.4	1299	6.34	1180	20	-	336	336	<1	<1	0.98	<0.01	<0.01	<0.01	0.13
108 S (29)	31/07/2018	DRY																			
707 (30)	01/08/2018	8.60	2.50	11,960	108	6.54	15.2	50.6	6.59	12800	1	-	632	632	<1	<1	0.04	<0.01	<0.01	<0.01	<0.05
110 D (31)	31/07/2018	6.09	0.47	7,950	119	6.24	11.6	81	6.43	14000	9	-	401	401	<1	<1	0.06	0.49	<0.01	0.49	0.26
111 S (32)	31/07/2018	4.25	3.63	15,170	123	3.75	14.3	218	4.29	15800	26	-	<1	<1	<1	<1	0.34	0.92	<0.01	0.92	6.97
112 D (33)	31/07/2018	3.30	0.35	11,100	-7	5.00	11.7	8000+	4.7	12800	28	-	13	13	<1	<1	0.18	<0.01	<0.01	<0.01	11.2
113 S (34)	31/07/2018	4.82	5.01	1229	66	6.19	12.2	947	6.32	2170	37	-	248	248	<1	<1	0.41	0.02	<0.01	0.02	5.2
B (14)	31/07/2018	6.32	2.30	13,950	5	6.31	16.5	3111	6.3	13800	2	-	218	218	<1	<1	0.23	0.01	<0.01	0.01	12.7
BT3 (11)	01/08/2018	3.40	2.98	12,400	30	6.06	15.1	8000+	5.99	12800	4	-	160	160	<1	<1	0.37	0.01	0.01	0.02	33.4
BT4 (9)	01/08/2018	2.69	1.81	1292	18	6.05	17.1	989	6.13	14200	3	-	196	196	<1	<1	0.35	<0.01	<0.01	<0.01	31.9
BT16 (7)	01/08/2018	3.31	0.73	10,790	43	6.55	14.4	108	6.71	11600	<1	-	716	716	<1	<1	0.04	<0.01	<0.01	<0.01	0.18
BT17 (6)	01/08/2018	4.50	6.38	5,040	22	6.59	10.5	184	6.66	14900	2	-	575	575	<1	<1	0.02	<0.01	<0.01	<0.01	0.98
BT19 (5)	31/07/2018	1.33	1.84	11,980	33	6.51	9.8	27	6.66	12600	<1	-	620	620	<1	<1	0.12	<0.01	<0.01	<0.01	0.05
BT20	31/07/2018	4.80	2.86	6,200	25	6.26	15.2	360	Insufficient water volume to sample												
TB1 (12)	31/07/2018	3.31	0.73	10,790	-125	7.18	14.4	108	7.01	1570	20	-	857	857	<1	<1	4.79	<0.01	0.01	<0.01	17.1
TB2 (13)	31/07/2018	4.50	6.38	5,040	93	6.59	10.5	184	6.5	12900	2	-	346	346	<1	<1	0.2	0.01	<0.01	0.01	0.05

