KOOTINGAL LANDFILL - YEARLY SUMMARY FOR 2016/17

LICENCE PERIOD: 17th Oct 2016 - 16th Oct 2017

POINT 1 - Surface Water NOTE: Monitoring Frequency - Special Frequency

Sample Date	Alkalinity	Calcium	Chloride	Chromium	Conductivity	Dissolved Oxygen	Fluoride	Iron	Magnesium	Manganese	Nitrate	Nitrite	Ammonia	OC/OP	pH	Potassium	Sodium	Sulphate	Temperature	TKN	TOC	Total Phenolics	TSS	Volumteric Flow Rate	Zinc
	mg/L	mg/L	mg/L	mg/L	mS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	pH Units	mg/L	mg/L	mg/L	oC	mg/L	mg/L	ug/L	mg/L	kL/day	mg/L
15/12/2016	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
23/03/2017	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
11/07/2017	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
27/09/2017	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY

POINT 2 - Leachate NOTE: Monitoring Frequency - Quarterly

Sample Date	Alkalinity	Calcium	Chloride	Chromium	Conductivity	Dissolved Oxygen	Fluoride	Iron	Magnesium	Manganese	Nitrate	Nitrite	Ammonia	OC/OP	pH	Potassium	Sodium	Sulphate	Temperature	TKN	TOC	Total Phenolics	TSS	Zinc
	mg/L	mg/L	mg/L	mg/L	mS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	pH Units	mg/L	mg/L	mg/L	oC	mg/L	mg/L	ug/L	mg/L	mg/L
15/12/2016	247	49	50	<0.1	0.83	0.40	<0.2	2.7	13.0	0.50	<0.1	<0.1	0.6	<PQL	7.2	64	22	<10	23.1	7.8	44	<0.05	32	0.012
23/03/2017	142	46	33	<0.01	0.48	1.0	<0.2	6.31	10	0.25	2.9	0.3	0.13	<PQL	7.2	55	13	5	22.1	6.1	47	<0.05	168	0.081
11/07/2017	165	42	32	<0.01	0.51	4.1	<0.2	0.64	9	0.12	<0.1	<0.1	2.0	<PQL	7.4	50	12	20	11.9	4.5	25	<0.05	7	<0.005
27/09/2017	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY

POINT 3 - Leachate Overflow NOTE: Monitoring Frequency - Special Frequency

Sample Date	Alkalinity	Calcium	Chloride	Chromium	Conductivity	Dissolved Oxygen	Fluoride	Iron	Magnesium	Manganese	Nitrate	Nitrite	Ammonia	OC/OP	pH	Potassium	Sodium	Sulphate	Temperature	TKN	TOC	Total Phenolics	TSS	Volumteric Flow Rate	Zinc
	mg/L	mg/L	mg/L	mg/L	mS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	pH Units	mg/L	mg/L	mg/L	oC	mg/L	mg/L	ug/L	mg/L	kL/day	mg/L
15/12/2016	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
23/03/2017	142	39	33	<0.01	0.46	3.2	<0.2	3.09	10	0.142	0.65	0.14	5.2	<PQL	7.3	56	14	11	21.5	4.4	42	<0.05	54	NIL	0.014
11/07/2017	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
27/09/2017	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY

POINT 4 - Groundwater Bore NOTE: Monitoring Frequency - Quarterly

Sample Date	Alkalinity	BOD	Calcium	Chloride	Fluoride	Iron	Magnesium	Manganese	Nitrate	Ammonia	OC/OP	pH	Potassium	Sodium	Sulphate	TDS	TOC	Total Phenolics
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	pH Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L
15/12/2016	453	<2	54	61	1.7	0.07	53	0.038	7.7	<0.1	<PQL	6.6	13	86	29	617	7	<0.05
23/03/2017	333	<2	77	86	1.6	0.05	64	0.049	46.3	0.02	NA	6.6	14	89	46	980	NA	<0.05
11/07/2017	315	<2	83	90	1.5	0.36	68	0.155	50.3	<0.1	NA	6.6	14	85	53	828	10	<0.05
27/09/2017	368	<2	78	77	1.5	0.15	66	0.096	37.7	<0.1	NA	6.6	12	86	41	752	9	<0.05

POINT 5 - Groundwater Bore NOTE: Monitoring Frequency - Quarterly

Sample Date	Alkalinity	BOD	Calcium	Chloride	Fluoride	Iron	Magnesium	Manganese	Nitrate	Ammonia	OC/OP	pH	Potassium	Sodium	Sulphate	TDS	TOC	Total Phenolics
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	pH Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L
15/12/2016	873	<2	185	288	1.2	0.12	118	4.58	2.6	<0.1	<PQL	6.7	13	252	394	1806	9	<0.05
23/03/2017	727	3	206	330	1.2	<0.05	138	5.54	2.1	0.03	NA	6.7	17	274	411	2068	NA	<0.05
11/07/2017	695	<2	228	369	1.2	0.40	147	5.51	6.0	<0.1	NA	6.7	12	254	502	2101	9	<0.05
27/09/2017	753	<2	229	349	1.2	0.20	164	7.61	6.4	<0.1	NA	6.7	12	286	434	2104	9	<0.05

POINT 6 - Groundwater Bore NOTE: Monitoring Frequency - Quarterly

Sample Date	Alkalinity	BOD	Calcium	Chloride	Fluoride	Iron	Magnesium	Manganese	Nitrate	Ammonia	OC/OP	pH	Potassium	Sodium	Sulphate	TDS	TOC	Total Phenolics
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	pH Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L
15/12/2016	766	<2	108	118	1.3	0.19	84	0.428	<0.1	<0.1	<PQL	6.7	11	132	60	985	11	<0.05
23/03/2017	662	<2	116	126	1.3	0.22	75	0.511	0.03	0.02	NA	6.6	10	132	61	1058	NA	<0.05
11/07/2017	625	<2	118	114	1.4	0.12	78	0.606	<0.1	<0.1	NA	6.8	10	136	73	951	10	<0.05
27/09/2017	675	<2	115	115	1.3	0.06	80	0.506	<0.1	<0.1	NA	6.8	9	140	<10	1002	10	<0.05

POINT 7 - Groundwater Bore NOTE: Monitoring Frequency - Quarterly

Sample Date	Alkalinity	BOD	Calcium	Chloride	Fluoride	Iron	Magnesium	Manganese	Nitrate	Ammonia	OC/OP	pH	Potassium	Sodium	Sulphate	TDS	TOC	Total Phenolics
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	pH Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L
15/12/2016	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
23/03/2017	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	NA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
11/07/2017	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	NA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
27/09/2017	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	NA	DRY	DRY	DRY	DRY	DRY	DRY	DRY