

Environmental Protection Licence - Environmental Monitoring

EPA License # 5916

Reporting Year: 2018-2019

VICTORIA ST WASTE MANAGEMENT FACILITY, Victoria St, Young NSW YOUNG NSW 2594

Hilltops Council

Locked Bag 5



Sampling and Reporting is required quarterly - samples are taken in September, December, March, and June

Sample Date	2/03/2016	8/06/2016	5/09/2016	13/12/2016	22/03/2017	8/06/2017	6/09/2017	7/12/2017	6/03/2018	8/06/2018	6/09/2018	21/12/2018	21/03/2019	6/06/2019	6/09/2019		
Data Received	23/03/2016	23/06/2016			24/04/2017	19/06/2017	25/09/2017	15/12/2017	20/03/2018	20/06/2018	14/09/2018	15/01/2019	12/04/2019	24/06/2019	25/09/2019		
Publish Date	7/04/2016	29/06/2016			26/04/2017	23/06/2017	28/09/2017	21/12/2017	23/03/2018	21/06/2018	21/09/2018	16/01/2019	17/04/2019	26/06/2019			
EPA License Point # B1																	
Analysis Ground Water																	
pH	Analyte	units															
	pH	pH units	6.91	6.7	6.98	6.93	6.94	7.16	7.16	6.96	6.8	7.02	7.08	7.35	6.92	6.44	6.96
Conductivity	SpC	uS/cm	3260	3020	3190	2440	2150	2080	2340	2380	2190	2330	2490	2180	3100	3130	3030
Suspended Solids	Sus_solids	mg/L	<2	3	6	2	3	3	2	3	4	6	4	23	4	4	6
Hydroxide Alkalinity as CaCO3	Hydrox	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbonate Alkalinity as CaCO3	Carb	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bicarbonate Alkalinity as CaCO3	Bicard	mg/L	597	599	652	514	582	619	678	596	614	661	699	322	720	652	656
Total Alkalinity as CaCO3	Total	mg/L	597	599	652	514	582	619	678	596	614	661	699	322	720	652	656
Ammonia (as N)	Ammonia	mg/L N	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	<0.1
Nitrite (as N)	Nitrite	mg/L N	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nitrate (as N)	Nitrate	mg/L N	0.58	<0.05	0.45	0.35	0.23	0.19	0.16	0.09	0.25	0.12	0.07	0.08	0.1	<0.05	<0.05
Nitrate + Nitrate as N (Nox)	Oxidsed_N	mg/L N	0.58	<0.05	0.45	0.35	0.23	0.19	0.16	0.09	0.25	0.12	0.07	0.08	0.1	<0.05	<0.05
Depth to water	Depth_to_water	m	12.3	12.2	11.3	10.8	11.3	6.68	11.5	11.6	11.8	11.9	11.9	12.1	12.3	12.2	12.2
Depth to sample	Sample Depth	m Bio	12.8	12.6	12.1	11.1	11.6	7.05	11.7	11.7	11.9	12.1	12.1	12.1	12.7	12.4	12.2
chemical oxygen demand	BOD	mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
EPA License Point # B2																	
Analysis Ground Water																	
pH	Analyte	units															
	pH	pH units	7.27	7.07	7.18	7.4	7.2	7.1	7.33	7.31	7.24	7.43	7.45	7.63	7.53	6.83	6.96
Conductivity	SpC	uS/cm	2140	2240	2400	2520	2390	2290	1890	1650	1600	1870	1800	1770	1860	1800	1860
Suspended Solids	Sus_solids	mg/L	10	6	32	5	4	5	4	5	11	10	14	18	8	9	30
Hydroxide Alkalinity as CaCO3	Hydrox	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbonate Alkalinity as CaCO3	Carb	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bicarbonate Alkalinity as CaCO3	Bicard	mg/L	297	298	278	283	325	350	330	288	315	379	345	322	358	315	287
Total Alkalinity as CaCO3	Total	mg/L	297	298	278	283	325	350	330	288	315	379	345	322	358	315	287
Ammonia (asN)	Ammonia	mg/L N	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.1	<0.1	<0.1	<0.1
Nitrite (as N)	Nitrite	mg/L N	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nitrate (as N)	Nitrate	mg/L N	0.2	0.16	0.11	0.09	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	0.65	0.65	0.33	<0.05	<0.05
Nitrate + Nitrate as N (Nox)	Oxidsed_N	mg/L N	0.2	0.16	0.11	0.09	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	0.65	0.65	0.33	<0.05	<0.05
Depth to water	Depth_to_water	m	8.18	8.07	7.5	6.95	5.73	11.5	6.71	6.52	7.23	7.82	7.86	7.98	8.16	8.12	7.96
Depth to sample	Sample Depth	m Bio	8.92	5.59	8.1	7.31	7.14	11.8	7.15	7.02	7.66	8.03	8.01	8.45	8.63	8.51	8.22
chemical oxygen demand	BOD	mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
EPA License Point # B3																	
Analysis Ground Water																	
pH	Analyte	units															
	pH	pH units	6.85	6.77	6.97	7.08	7.04	7.18	7.48	7.25	7.07	7.36	6.99	7.41	7.23	6.74	6.99
Conductivity	SpC	uS/cm	2050	1860	1950	1970	1980	1800	1800	1700	1780	1810	1860	1810	1850	1890	1880
Suspended Solids	Sus_solids	mg/L	98	112	143	24	52	27	49	64	7	8	17	10	26	27	17
Hydroxide Alkalinity as CaCO3	Hydrox	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbonate Alkalinity as CaCO3	Carb	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bicarbonate Alkalinity as CaCO3	Bicard	mg/L	634	502	606	650	638	667	610	472	423	470	440	494	523	473	483
Total Alkalinity as CaCO3	Total	mg/L	634	502	606	650	638	667	610	472	423	470	440	494	523	473	483
Ammonia (asN)	Ammonia	mg/L N	3.9	3.1	2.6	2.9	2.6	3.1	2.8	1.8	<0.1	<0.1	0.2	0.4	0.4	0.3	0.5
Nitrite (as N)	Nitrite	mg/L N	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	0.02	0.21	<0.01	<0.1	<0.01	0.01	<0.01
Nitrate (as N)	Nitrate	mg/L N	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	2.3	10.6	2.85	<0.05	0.1	0.36	<0.05	<0.05
Nitrate + Nitrate as N (Nox)	Oxidsed_N	mg/L N	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	2.34	10.6	3.06	<0.05	0.1	0.36	<0.05	<0.05
Depth to water	Depth_to_water	m	10.1	9.63	8.35	7.33	7.5	7.43	7.37	7.39	7.77	7.75	6.97	8.12	8.58	8.1	9.04
Depth to sample	Sample Depth	m Bio	12.1	11	11.4	7.65	7.54	8	8.21	8.15	8.33	8.12	7.86	8.83	9.85	8.74	9.76
chemical oxygen demand	BOD	mg/L	4	4	6	2	<2	<2	<2	<2	<2	<2	3	<2	<2	<2	2
EPA License Point # LP001																	
Analysis Leachate Pond Liquid																	
pH	Analyte	units															
	pH	pH units	7.99	7.41	7.72	**	8.21	7.8	7.95	8.08	8.29	7.85	7.96	7.9	8.05	7.47	8.51
Conductivity	SpC	uS/cm	2030	1120	994		1280	1240	1410	1310	2100	2730	2150	1990	1660	1790	1860
Suspended Solids	Sus_solids	mg/L	16	44	53		90	22	3	25	20	4	7	16	13	<2	18
Hydroxide Alkalinity as CaCO3	Hydrox	mg/L	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbonate Alkalinity as CaCO3	Carb	mg/L	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	21.4
Bicarbonate Alkalinity as CaCO3	Bicard	mg/L	238	161	202		167	183	234	192	255	307	210	283	206	225	218
Total Alkalinity as CaCO3	Total	mg/L	238	161	202		167	183	234	192	255	307	210	283	206	225	239
Ammonia (asN)	Ammonia	mg/L N	<0.1	0.3	0.5		<0.1	1.7	0.3	<0.1	0.2	4.2	1.1	0.2	0.2	2.7	2.6
Nitrite (as N)	Nitrite	mg/L N	<0.01	0.02	0.15		0.15	0.01	0.02	0.15	<0.1	0.01	0.08	<0.01	<0.01	0.01	0.16
Nitrate (as N)	Nitrate	mg/L N	<0.05	<0.05	0.87		<0.05	<0.05	0.07	0.32	<0.05	<0.05	0.44	<0.05	<0.05	<0.05	0.37
Nitrate + Nitrate as N (Nox)	Oxidsed_N	mg/L N	<0.05	<0.05	1.02		0.16	<0.05	0.09	0.47	<0.05	<0.05	0.52	<0.05	<0.05	<0.05	0.53
Depth to water	Depth_to_water	m															
Depth to sample	Sample Depth	m Bio															
chemical oxygen demand	BOD	mg/L	6	5	6		24	5	<2	18	7	<2	2	3	4	4	8

Environmental Protection Licence - Environmental Monitoring

EPA License # 5915

Reporting Year: 2018-2019

REDHILL ROAD WASTE MANAGEMENT FACILITY, Redhill Road, YOUNG NSW 2594

Hilltops Council

Locked Bag 5



Sampling and Reporting is required **quarterly** - samples are taken in September, December, March, and June

Sample Date	2/03/2016	8/06/2016	5/09/2016	13/12/2016	22/03/2017	8/06/2017	6/09/2017	7/12/2017	6/03/2018	8/06/2018	6/09/2018	21/12/2018	21/03/2019	6/06/2019	6/9/2019
Data Received	23/03/2016	23/06/2016			24/04/2017	19/06/2017	25/09/2017	15/12/2017	20/03/2018	20/06/2018	14/09/2018	15/01/2019	12/04/2019	24/06/2019	25/9/2019
Publish Date	7/04/2016	29/06/2016			26/04/2017	23/06/2017	28/09/2017	21/12/2017	23/03/2018	21/06/2018	21/09/2018	16/01/2019	17/07/2019	26/06/2019	

EPA License Point # ADP001 - DAM

			Mar-16	Jun-16	Sep-16	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19
Analysis Ground Water	Analyte	units	8.66	8.22	7.68	**	8.44	8.28	8.12	8.19	8.47	8.3	8.33	9.08	8.61	8.46	9.00	
pH	pH	pH units	2880	2010	1520		2840	2800	2760	2270	2480	2850	2640	3030	2120	1610	1540	
Conductivity	SpC	uS/cm	24	8	77		67	47	20	6	31	11	13	20	10	3	7	
Suspended Solids	Sus_solids	mg/L	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Hydroxide Alkalinity as CaCO3	Hydrox	mg/L	68.6	13.6	<0.1		29	<0.1	<0.1	<0.1	42.8	5.5	18.3	284	56.9	28.4	68.2	
Carbonate Alkalinity as CaCO3	Carb	mg/L	588	404	447		579	698	768	565	672	807	722	490	395	290	220	
Bicarbonate Alkalinity as CaCO3	Bicard	mg/L	656	418	447		608	698	768	565	715	812	740	774	452	318	288	
Total Alkalinity as CaCO3	Total	mg/L	<0.1	0.4	4.4		<0.1	<0.1	0.9	0.6	<0.1	1.2	0.5	<0.1	<0.1	<0.1	<0.1	
Ammonia (as N)	Ammonia	mg/L N	<0.01	0.04	0.47		0.01	<0.01	0.03	0.04	<0.1	<0.01	0.05	<0.01	<0.01	<0.01	<0.01	
Nitrite (as N)	Nitrite	mg/L N	<0.05	0.14	0.64		<0.05	<0.05	0.05	<0.05	<0.05	<0.05	0.19	0.12	0.2	<0.05	<0.05	
Nitrate (as N)	Nitrate	mg/L N	<0.05	0.19	1.11		0.06	<0.05	0.08	0.06	<0.05	<0.05	0.24	0.12	0.2	<0.05	<0.05	
Nitrate + Nitrate as N (Nox)	Oxidsed_N	mg/L N																
Depth to water	Depth_to_water	m																
Depth to sample	Sample Depth	m	7	8	14		27	8	4	2	6	<2	2	5	<2	<2	4	
Bio chemical oxygen demand	BOD	mg/L																

** Not sampled. Access issues

EPA License Point # ADP002

			Mar-16	Jun-16	Sep-16	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19
Analysis Ground Water	Analyte	units	DRY	DRY	7.08	6.54	6.59	6.48			DRY	DRY	DRY	DRY	DRY	DRY	DRY	
pH	pH	pH units	DRY	DRY	359	549	867	871			DRY	DRY	DRY	DRY	DRY	DRY	DRY	
Conductivity	SpC	uS/cm	DRY	DRY	159	4390	180	2550			DRY	DRY	DRY	DRY	DRY	DRY	DRY	
Suspended Solids	Sus_solids	mg/L	DRY	DRY	<0.1	<0.1	<0.1	<0.1			DRY	DRY	DRY	DRY	DRY	DRY	DRY	
Hydroxide Alkalinity as CaCO3	Hydrox	mg/L	DRY	DRY	<0.1	<0.1	<0.1	<0.1			DRY	DRY	DRY	DRY	DRY	DRY	DRY	
Carbonate Alkalinity as CaCO3	Carb	mg/L	DRY	DRY	85.4	103	132	136			DRY	DRY	DRY	DRY	DRY	DRY	DRY	
Bicarbonate Alkalinity as CaCO3	Bicard	mg/L	DRY	DRY	85	103	132	136			DRY	DRY	DRY	DRY	DRY	DRY	DRY	
Total Alkalinity as CaCO3	Total	mg/L	DRY	DRY	<0.1	<0.1	<0.1	0.1			DRY	DRY	DRY	DRY	DRY	DRY	DRY	
Ammonia (as N)	Ammonia	mg/L N	DRY	DRY	0.12	0.03	<0.01	<0.01			DRY	DRY	DRY	DRY	DRY	DRY	DRY	
Nitrite (as N)	Nitrite	mg/L N	DRY	DRY	19.5	2.41	0.07	0.99			DRY	DRY	DRY	DRY	DRY	DRY	DRY	
Nitrate (as N)	Nitrate	mg/L N	DRY	DRY	19.6	2.43	0.07	0.99			DRY	DRY	DRY	DRY	DRY	DRY	DRY	
Nitrate + Nitrate as N (Nox)	Oxidsed_N	mg/L N	DRY	DRY	0.87	1.66		1.96			DRY	DRY	DRY	DRY	DRY	DRY	DRY	
Depth to water	Depth_to_water	m	DRY	DRY	1.18	1.68		1.96			DRY	DRY	DRY	DRY	DRY	DRY	DRY	
Depth to sample	Sample Depth	m	DRY	DRY	<2	<2	<2	<2			DRY	DRY	DRY	DRY	DRY	DRY	DRY	
Bio chemical oxygen demand	BOD	mg/L																

EPA License Point # GWM001

			Mar-16	Jun-16	Sep-16	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19
Analysis Ground Water	Analyte	units	DRY	DRY	7.08	6.54	6.59	6.48	6.97	6.94	6.75	**	DRY	DRY	DRY	DRY	DRY	
pH	pH	pH units	DRY	DRY	359	549	867	871	1820	2010	1760		DRY	DRY	DRY	DRY	DRY	
Conductivity	SpC	uS/cm	DRY	DRY	159	4390	180	2550	450	243	282		DRY	DRY	DRY	DRY	DRY	
Suspended Solids	Sus_solids	mg/L	DRY	DRY	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		DRY	DRY	DRY	DRY	DRY	
Hydroxide Alkalinity as CaCO3	Hydrox	mg/L	DRY	DRY	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		DRY	DRY	DRY	DRY	DRY	
Carbonate Alkalinity as CaCO3	Carb	mg/L	DRY	DRY	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		DRY	DRY	DRY	DRY	DRY	
Bicarbonate Alkalinity as CaCO3	Bicard	mg/L	DRY	DRY	85.4	103	132	136	86.9	100	131		DRY	DRY	DRY	DRY	DRY	
Total Alkalinity as CaCO3	Total	mg/L	DRY	DRY	85	103	132	136	87	100	131		DRY	DRY	DRY	DRY	DRY	
Ammonia (as N)	Ammonia	mg/L N	DRY	DRY	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1		DRY	DRY	DRY	DRY	DRY	
Nitrite (as N)	Nitrite	mg/L N	DRY	DRY	0.12	0.03	<0.01	<0.01	<0.1	<0.01	<0.1		DRY	DRY	DRY	DRY	DRY	
Nitrate (as N)	Nitrate	mg/L N	DRY	DRY	19.5	2.41	0.07	0.99	0.09	0.14	0.39		DRY	DRY	DRY	DRY	DRY	
Nitrate + Nitrate as N (Nox)	Oxidsed_N	mg/L N	DRY	DRY	19.6	2.43	0.07	0.99	0.09	0.14	0.39		DRY	DRY	DRY	DRY	DRY	
Depth to water	Depth_to_water	m	DRY	DRY	0.87	1.66		1.96	1.75	1.66	3		DRY	DRY	DRY	DRY	DRY	
Depth to sample	Sample Depth	m	DRY	DRY	1.18	1.68		1.96	1.86	1.7	3.16		DRY	DRY	DRY	DRY	DRY	
Bio chemical oxygen demand	BOD	mg/L	DRY	DRY	<2	<2	<2	<2	<2	<2	<2		DRY	DRY	DRY	DRY	DRY	

** not enough water to sample