

FOREST ROAD LANDFILL - YEARLY SUMMARY FOR 2019/20

Licence Number - 5921

Forest Road Landfill - Forest Road, Tamworth NSW 2340

Licencee - Tamworth Regional Council

Public Register

<https://www.epa.nsw.gov.au/licensing-and-regulation/public-registers>

LICENCE PERIOD: 25th Sept 2019 - 24th Sept 2020

PQL = Practical Quantitation Limit

LOR = Limit of Reporting

DISCHARGE AND MONITORING POINT 1 - Surface Water Dam Overflow adjacent to Forest Road and Landfill access road intersection

Concentration Limits: Point 1: TSS (Total Suspended Solids) - 50mg/L, 100 percentile concentration limit

Pollutant	Unit of measure	Monitoring Frequency	Date Sampled
			12/02/2020
			Date Data Obtained
			27/03/2020
			Value
Alkalinity	mg/L	Special Frequency 1	109
Biological Oxygen Demand	mg/L	Special Frequency 1	12
Calcium	mg/L	Special Frequency 1	53
Chloride	mg/L	Special Frequency 1	56
Fluoride	mg/L	Special Frequency 1	0.40
Iron	mg/L	Special Frequency 1	14.2
Magnesium	mg/L	Special Frequency 1	12
Manganese	mg/L	Special Frequency 1	0.428
Nitrate	mg/L	Special Frequency 1	9.9
Nitrogen (Ammonia)	mg/L	Special Frequency 1	0.6
Oil and Grease	mg/L	Special Frequency 1	<5
pH	pH Units	Special Frequency 1	7.9
Potassium	mg/L	Special Frequency 1	14
Sodium	mg/L	Special Frequency 1	42
Sulfate	mg/L	Special Frequency 1	36
Total Organic Carbon	mg/L	Special Frequency 1	20
Total Phenolics	µg/L	Special Frequency 1	<50
Total Suspended Solids	mg/L	Special Frequency 1	324
Volumetric Flow Rate (estimate)	KL/Day	Special Frequency 1	5000

NOTE: Special Frequency 1 - collection of samples once in each 3-monthly period at a time of stormwater discharge from Point 1 and on each occasion that discharge from Point 1 incorporates leachate overflow from Point 17

MONITORING POINT 2 - Surface Water Dam

Pollutant	Unit of measure	Monitoring Frequency	Date Sampled	Date Sampled	Date Sampled	Date Sampled
			19/12/2019	3/03/2020	2/06/2020	2/09/2020
			Date Data Obtained	Date Data Obtained	Date Data Obtained	Date Data Obtained
			19/12/2019	16/03/2020	17/06/2020	15/09/2020
			Value	Value	Value	Value
Alkalinity	mg/L	Quarterly	DRY	148	145	152
Biological Oxygen Demand	mg/L	Quarterly	DRY	15	3	9
Calcium	mg/L	Quarterly	DRY	51	42	48
Chloride	mg/L	Quarterly	DRY	56	34	23
Fluoride	mg/L	Quarterly	DRY	0.60	0.39	0.30
Iron	mg/L	Quarterly	DRY	4.94	3.64	4.72
Magnesium	mg/L	Quarterly	DRY	13	10	9
Manganese	mg/L	Quarterly	DRY	0.923	0.397	0.137
Nitrate	mg/L	Quarterly	DRY	0.1	<0.1	0.5
Nitrite	mg/L	Quarterly	DRY	<0.1	<0.10	<0.1
Nitrogen (Ammonia)	mg/L	Quarterly	DRY	<0.1	0.02	<0.1
Oil and Grease	mg/L	Quarterly	DRY	<5	<5	5
pH	pH Units	Quarterly	DRY	8.1	7.9	8.8
Potassium	mg/L	Quarterly	DRY	10	10	11
Sodium	mg/L	Quarterly	DRY	38	29	20
Sulfate	mg/L	Quarterly	DRY	21	16	21
Total Organic Carbon	mg/L	Quarterly	DRY	10	10	13
Total Phenolics	µg/L	Quarterly	DRY	<50	<50	<50
Total Suspended Solids	mg/L	Quarterly	DRY	143	62	109

MONITORING POINT 3 -Instream water - Spring Creek above overflow from surface water dam

Pollutant	Unit of measure	Monitoring Frequency	Date Sampled
			12/02/2020
			Date Data Obtained
			27/03/2020
			Value
Alkalinity (as Calcium Carbonate)	mg/L	Special Frequency 1	206
Biological Oxygen Demand	mg/L	Special Frequency 1	<2
Calcium	mg/L	Special Frequency 1	68
Chloride	mg/L	Special Frequency 1	52
Fluoride	mg/L	Special Frequency 1	0.43
Iron	mg/L	Special Frequency 1	0.22
Magnesium	mg/L	Special Frequency 1	27
Manganese	mg/L	Special Frequency 1	0.004
Nitrate	mg/L	Special Frequency 1	6.0
Nitrogen (Ammonia)	mg/L	Special Frequency 1	<0.1
pH	pH Units	Special Frequency 1	8.1
Potassium	mg/L	Special Frequency 1	3
Sodium	mg/L	Special Frequency 1	68
Sulfate	mg/L	Special Frequency 1	124
Total Organic Carbon	mg/L	Special Frequency 1	10
Total Phenolics	µg/L	Special Frequency 1	<50
Total Suspended Solids	mg/L	Special Frequency 1	<2
Volumetric Flow Rate	KL/Day	Special Frequency 1	2000

NOTE: Special Frequency 1 - collection of samples once in each 3-monthly period at a time of stormwater discharge from Point 1 and on each occasion that discharge from Point 1 incorporates leachate overflow from Point 17

MONITORING POINT 4 -Instream water - Spring Creek below overflow from surface water dam

Pollutant	Unit of measure	Monitoring Frequency	Date Sampled
			12/02/2020
			Date Data Obtained
			27/03/2020
			Value
Alkalinity (as Calcium Carbonate)	mg/L	Special Frequency 1	197
Biological Oxygen Demand	mg/L	Special Frequency 1	<2
Calcium	mg/L	Special Frequency 1	66
Chloride	mg/L	Special Frequency 1	50
Fluoride	mg/L	Special Frequency 1	0.44
Iron	mg/L	Special Frequency 1	2.52
Magnesium	mg/L	Special Frequency 1	23
Manganese	mg/L	Special Frequency 1	0.054
Nitrate	mg/L	Special Frequency 1	6.9
Nitrogen (Ammonia)	mg/L	Special Frequency 1	<0.1
pH	pH Units	Special Frequency 1	8.1
Potassium	mg/L	Special Frequency 1	5
Sodium	mg/L	Special Frequency 1	62
Sulphate	mg/L	Special Frequency 1	88
Total Organic Carbon	mg/L	Special Frequency 1	10
Total Phenolics	µg/L	Special Frequency 1	<50
Total Suspended Solids	mg/L	Special Frequency 1	33
Volumetric Flow Rate	KL/Day	Special Frequency 1	10000

NOTE: Special Frequency 1 - collection of samples once in each 3-monthly period at a time of stormwater discharge from Point 1 and on each occasion that discharge from Point 1 incorporates leachate overflow from Point 17

MONITORING POINT 5 - Northern Leachate Pond

Pollutant	Unit of measure	Monitoring Frequency	Date Sampled	Date Sampled	Date Sampled	Date Sampled
			6/12/2019	3/03/2020	2/06/2020	2/09/2020
			Date Data Obtained	Date Data Obtained	Date Data Obtained	Date Data Obtained
			17/09/2020	16/03/2020	8/07/2020	14/09/2020
			Value	Value	Value	Value
Alkalinity (as Calcium Carbonate)	mg/L	Quarterly	DRY	674	592	471
Biological Oxygen Demand	mg/L	Quarterly	DRY	2	<2	9
Calcium	mg/L	Quarterly	DRY	255	197	166
Chloride	mg/L	Quarterly	DRY	674	752	77
Fluoride	mg/L	Quarterly	DRY	0.58	0.48	0.43
Iron	mg/L	Quarterly	DRY	0.31	0.14	1.67
Magnesium	mg/L	Quarterly	DRY	115	108	99
Manganese	mg/L	Quarterly	DRY	0.118	0.019	0.071
Nitrate	mg/L	Quarterly	DRY	44	23.3	58.0
Nitrogen (Ammonia)	mg/L	Quarterly	DRY	0.2	0.19	1.1
Oil and Grease	mg/L	Quarterly	DRY	<5	<5	<5
pH	pH Units	Quarterly	DRY	7.2	7.9	8.0
Potassium	mg/L	Quarterly	DRY	96	75	67
Sodium	mg/L	Quarterly	DRY	487	501	464
Sulphate	mg/L	Quarterly	DRY	562	294	209
Total Organic Carbon	mg/L	Quarterly	DRY	70	55	51
Total Phenolics	µg/L	Quarterly	DRY	<50	<50	<50
Total Suspended Solids	mg/L	Quarterly	DRY	4	4	62
Volatile Organic Compounds	mg/L	Quarterly	DRY	<PQL	<PQL	<PQL
Organochlorine Pesticides	µg/L	Quarterly	DRY	<LOR	<LOR	<LOR
Organophosphate Pesticides	µg/L	Quarterly	DRY	<LOR	<LOR	<LOR

MONITORING POINT 6 - Southern Leachate Pond

Pollutant	Unit of measure	Monitoring Frequency	Date Sampled	Date Sampled	Date Sampled	Date Sampled
			6/12/2019	3/03/2020	2/06/2020	2/09/2020
			Date Data Obtained	Date Data Obtained	Date Data Obtained	Date Data Obtained
			6/12/2019	16/03/2020	8/07/2020	14/09/2020
			Value	Value	Value	Value
Alkalinity (as Calcium Carbonate)	mg/L	Quarterly	DRY	407	DRY	DRY
Biological Oxygen Demand	mg/L	Quarterly	DRY	29	DRY	DRY
Calcium	mg/L	Quarterly	DRY	105	DRY	DRY
Chloride	mg/L	Quarterly	DRY	465	DRY	DRY
Fluoride	mg/L	Quarterly	DRY	0.51	DRY	DRY
Iron	mg/L	Quarterly	DRY	7.28	DRY	DRY
Magnesium	mg/L	Quarterly	DRY	56	DRY	DRY
Manganese	mg/L	Quarterly	DRY	2.5	DRY	DRY
Nitrate	mg/L	Quarterly	DRY	<0.1	DRY	DRY
Nitrogen (Ammonia)	mg/L	Quarterly	DRY	0.2	DRY	DRY
Oil and Grease	mg/L	Quarterly	DRY	<5	DRY	DRY
pH	pH Units	Quarterly	DRY	7.7	DRY	DRY
Potassium	mg/L	Quarterly	DRY	59	DRY	DRY
Sodium	mg/L	Quarterly	DRY	289	DRY	DRY
Sulphate	mg/L	Quarterly	DRY	85	DRY	DRY
Total Organic Carbon	mg/L	Quarterly	DRY	72	DRY	DRY
Total Phenolics	µg/L	Quarterly	DRY	<50	DRY	DRY
Total Suspended Solids	mg/L	Quarterly	DRY	215	DRY	DRY
Volatile Organic Compounds	mg/L	Quarterly	DRY	<PQL	DRY	DRY
Organochlorine Pesticides	µg/L	Quarterly	DRY	<LOR	DRY	DRY
Organophosphate Pesticides	µg/L	Quarterly	DRY	<LOR	DRY	DRY

DISCHARGE AND MONITORING POINT 7 -Leachate overflow from southern leachate retention pond

Pollutant	Unit of measure	Monitoring Frequency	Date Sampled
			N/A - No overflow
			Date Data Obtained
			N/A - No overflow
			Value
Alkalinity (as calcium carbonate)	mg/L	Special Frequency 2	N/A
Biological Oxygen Demand	mg/L	Special Frequency 2	N/A
Calcium	mg/L	Special Frequency 2	N/A
Chloride	mg/L	Special Frequency 2	N/A
Fluoride	mg/L	Special Frequency 2	N/A
Iron	mg/L	Special Frequency 2	N/A
Magnesium	mg/L	Special Frequency 2	N/A
Manganese	mg/L	Special Frequency 2	N/A
Nitrate	mg/L	Special Frequency 2	N/A
Nitrogen (ammonia)	mg/L	Special Frequency 2	N/A
pH	pH Units	Special Frequency 2	N/A
Potassium	mg/L	Special Frequency 2	N/A
Sodium	mg/L	Special Frequency 2	N/A
Sulfate	mg/L	Special Frequency 2	N/A
Total Organic Carbon	mg/L	Special Frequency 2	N/A
Total Phenolics	µg/L	Special Frequency 2	N/A
Total Suspended Solids	mg/L	Special Frequency 2	N/A
Volatile Organic Compounds	mg/L	Special Frequency 2	N/A
Volumetric Flow Rate	KL/Day	Special Frequency 2	N/A
Organochlorine Pesticides	µg/L	Special Frequency 2	N/A
Organophosphate Pesticides	µg/L	Special Frequency 2	N/A

NOTE: Special Frequency 2 - collection of samples once in the first 24 hours after detection of discharge and then weekly whilst the discharge continues

MONITORING POINT 8 - Groundwater Bore

Pollutant	Unit of measure	Monitoring Frequency	Date Sampled	Date Sampled	Date Sampled	Date Sampled
			19/12/2019	26/03/2020	5/06/2020	9/09/2020
			Date Data Obtained	Date Data Obtained	Date Data Obtained	Date Data Obtained
			19/12/2019	1/04/2020	9/06/2020	10/09/2020
			Value	Value	Value	Value
pH	pH Value	Quarterly	DRY	DRY	DRY	DRY
Electrical Conductivity	µS/cm	Quarterly	DRY	DRY	DRY	DRY
Calcium	mg/L	Quarterly	DRY	DRY	DRY	DRY
Magnesium	mg/L	Quarterly	DRY	DRY	DRY	DRY
Sodium	mg/L	Quarterly	DRY	DRY	DRY	DRY
Potassium	mg/L	Quarterly	DRY	DRY	DRY	DRY
Sulfate	mg/L	Quarterly	DRY	DRY	DRY	DRY
Chloride	mg/L	Quarterly	DRY	DRY	DRY	DRY
Fluoride	mg/L	Quarterly	DRY	DRY	DRY	DRY
Ammonia	mg/L	Quarterly	DRY	DRY	DRY	DRY
Nitrate+nitrite (oxidised nitrogen)	mg/L	Quarterly	DRY	DRY	DRY	DRY
Total Phosphorus	mg/L	Quarterly	DRY	DRY	DRY	DRY
Soluble Phosphorus	mg/L	Quarterly	DRY	DRY	DRY	DRY
Biological Oxygen Demand	mg/L	Quarterly	DRY	DRY	DRY	DRY
Total Organic Carbon	mg/L	Quarterly	DRY	DRY	DRY	DRY
Dissolved Organic Carbon	mg/L	Yearly	DRY	N/A	N/A	N/A
Iron (Dissolved)	mg/L	Quarterly	DRY	DRY	DRY	DRY
Aluminium	mg/L	Yearly	DRY	N/A	N/A	N/A
Arsenic	mg/L	Yearly	DRY	N/A	N/A	N/A
Copper	mg/L	Yearly	DRY	N/A	N/A	N/A
Cadmium	mg/L	Yearly	DRY	N/A	N/A	N/A
Iron (Total)	mg/L	Yearly	DRY	N/A	N/A	N/A
Manganese	mg/L	Yearly	DRY	N/A	N/A	N/A
Mercury	mg/L	Yearly	DRY	N/A	N/A	N/A
Lead	mg/L	Yearly	DRY	N/A	N/A	N/A
Nickel	mg/L	Yearly	DRY	N/A	N/A	N/A
Zinc	mg/L	Yearly	DRY	N/A	N/A	N/A
Oil and Grease	mg/L	Quarterly	DRY	DRY	DRY	DRY
Total Phenols	µg/L	Yearly	DRY	N/A	N/A	N/A
Organochlorine Pesticides	µg/L	Yearly	DRY	N/A	N/A	N/A
Organophosphate Pesticides	µg/L	Yearly	DRY	N/A	N/A	N/A

MONITORING POINT 9 - Groundwater Bore

Pollutant	Unit of measure	Monitoring Frequency	Date Sampled	Date Sampled	Date Sampled	Date Sampled
			19/12/2019	26/03/2020	5/06/2020	9/09/2020
			Date Data Obtained	Date Data Obtained	Date Data Obtained	Date Data Obtained
			19/12/2019	1/04/2020	9/06/2020	10/09/2020
			Value	Value	Value	Value
pH	pH Value	Quarterly	DRY	DRY	DRY	DRY
Electrical Conductivity	µS/cm	Quarterly	DRY	DRY	DRY	DRY
Calcium	mg/L	Quarterly	DRY	DRY	DRY	DRY
Magnesium	mg/L	Quarterly	DRY	DRY	DRY	DRY
Sodium	mg/L	Quarterly	DRY	DRY	DRY	DRY
Potassium	mg/L	Quarterly	DRY	DRY	DRY	DRY
Sulfate	mg/L	Quarterly	DRY	DRY	DRY	DRY
Chloride	mg/L	Quarterly	DRY	DRY	DRY	DRY
Fluoride	mg/L	Quarterly	DRY	DRY	DRY	DRY
Ammonia	mg/L	Quarterly	DRY	DRY	DRY	DRY
Nitrate+nitrite (oxidised nitrogen)	mg/L	Quarterly	DRY	DRY	DRY	DRY
Total Phosphorus	mg/L	Quarterly	DRY	DRY	DRY	DRY
Soluble Phosphorus	mg/L	Quarterly	DRY	DRY	DRY	DRY
Biological Oxygen Demand	mg/L	Quarterly	DRY	DRY	DRY	DRY
Total Organic Carbon	mg/L	Quarterly	DRY	DRY	DRY	DRY
Dissolved Organic Carbon	mg/L	Yearly	DRY	N/A	N/A	N/A
Iron (Dissolved)	mg/L	Quarterly	DRY	DRY	DRY	DRY
Aluminium	mg/L	Yearly	DRY	N/A	N/A	N/A
Arsenic	mg/L	Yearly	DRY	N/A	N/A	N/A
Copper	mg/L	Yearly	DRY	N/A	N/A	N/A
Cadmium	mg/L	Yearly	DRY	N/A	N/A	N/A
Iron (Total)	mg/L	Yearly	DRY	N/A	N/A	N/A
Manganese	mg/L	Yearly	DRY	N/A	N/A	N/A
Mercury	mg/L	Yearly	DRY	N/A	N/A	N/A
Lead	mg/L	Yearly	DRY	N/A	N/A	N/A
Nickel	mg/L	Yearly	DRY	N/A	N/A	N/A
Zinc	mg/L	Yearly	DRY	N/A	N/A	N/A
Oil and Grease	mg/L	Quarterly	DRY	DRY	DRY	DRY
Total Phenols	µg/L	Yearly	DRY	N/A	N/A	N/A
Organochlorine Pesticides	µg/L	Yearly	DRY	N/A	N/A	N/A
Organophosphate Pesticides	µg/L	Yearly	DRY	N/A	N/A	N/A

MONITORING POINT 18 - Groundwater Bore

Pollutant	Unit of measure	Monitoring Frequency	Date Sampled	Date Sampled	Date Sampled	Date Sampled
			5/12/2019	4/03/2020	3/06/2020	2/09/2020
			Date Data Obtained	Date Data Obtained	Date Data Obtained	Date Data Obtained
			18/12/2019	16/03/2020	16/06/2020	11/09/2020
			Value	Value	Value	Value
pH	pH Value	Quarterly	6.7	6.7	6.7	6.7
Electrical Conductivity	µS/cm	Quarterly	1300	1300	1300	1300
Calcium	mg/L	Quarterly	135	122	123	122
Magnesium	mg/L	Quarterly	9	10	11	11
Sodium	mg/L	Quarterly	143	123	131	126
Potassium	mg/L	Quarterly	4	3	3	4
Sulfate	mg/L	Quarterly	25	24	25	24
Chloride	mg/L	Quarterly	154	154	152	165
Fluoride	mg/L	Quarterly	0.14	0.14	0.12	0.13
Ammonia	mg/L	Quarterly	<0.1	<0.1	<0.01	<0.1
Nitrate+nitrite (oxidised nitrogen)	mg/L	Quarterly	3.2	3.1	3.1	3.1
Total Phosphorus	mg/L	Quarterly	<0.02	0.04	0.02	0.04
Soluble Phosphorus	mg/L	Quarterly	0.03	0.04	<0.02	<0.02
Biological Oxygen Demand	mg/L	Quarterly	<2	<2	4	<2
Total Organic Carbon	mg/L	Quarterly	2	<1	<1	<1
Dissolved Organic Carbon	mg/L	Yearly	2	N/A	N/A	N/A
Iron (Dissolved)	mg/L	Quarterly	<0.1	<0.05	<0.05	<0.05
Aluminium	mg/L	Yearly	0.02	N/A	N/A	N/A
Arsenic	mg/L	Yearly	<0.001	N/A	N/A	N/A
Copper	mg/L	Yearly	<0.1	N/A	N/A	N/A
Cadmium	mg/L	Yearly	<0.0001	N/A	N/A	N/A
Iron (Total)	mg/L	Yearly	<0.1	N/A	N/A	N/A
Manganese	mg/L	Yearly	<0.1	N/A	N/A	N/A
Mercury	mg/L	Yearly	<0.0001	N/A	N/A	N/A
Lead	mg/L	Yearly	<0.001	N/A	N/A	N/A
Nickel	mg/L	Yearly	<0.001	N/A	N/A	N/A
Zinc	mg/L	Yearly	<0.1	N/A	N/A	N/A
Oil and Grease	mg/L	Quarterly	<0.5	<5	<5	<5
Total Phenols	µg/L	Yearly	<50	N/A	N/A	N/A
Organochlorine Pesticides	µg/L	Yearly	<LOR	N/A	N/A	N/A
Organophosphate Pesticides	µg/L	Yearly	<LOR	N/A	N/A	N/A

MONITORING POINT 19 - Groundwater Bore

Pollutant	Unit of measure	Monitoring Frequency	Date Sampled	Date Sampled	Date Sampled	Date Sampled
			5/12/2019	4/03/2020	3/06/2020	2/09/2020
			Date Data Obtained	Date Data Obtained	Date Data Obtained	Date Data Obtained
			18/12/2019	27/04/2020	16/06/2020	11/09/2020
			Value	Value	Value	Value
pH	pH Value	Quarterly	6.7	6.6	6.6	6.8
Electrical Conductivity	µS/cm	Quarterly	2300	2300	2500	2400
Calcium	mg/L	Quarterly	228	220	232	228
Magnesium	mg/L	Quarterly	71	85	89	86
Sodium	mg/L	Quarterly	128	125	132	127
Potassium	mg/L	Quarterly	2	2	2	2
Sulfate	mg/L	Quarterly	102	116	128	122
Chloride	mg/L	Quarterly	364	419	408	450
Fluoride	mg/L	Quarterly	0.37	0.36	0.36	0.42
Ammonia	mg/L	Quarterly	<0.1	<0.1	<0.1	<0.1
Nitrate+nitrite (oxidised nitrogen)	mg/L	Quarterly	4.3	3.3	7.27	5.3
Total Phosphorus	mg/L	Quarterly	0.02	0.06	0.02	0.05
Soluble Phosphorus	mg/L	Quarterly	0.04	0.04	0.03	0.03
Biological Oxygen Demand	mg/L	Quarterly	<2	<2	6	<2
Total Organic Carbon	mg/L	Quarterly	4	<1	<1	5
Dissolved Organic Carbon	mg/L	Yearly	3	N/A	N/A	N/A
Iron (Dissolved)	mg/L	Quarterly	<0.1	<0.05	<0.05	<0.05
Aluminium	mg/L	Yearly	<0.01	N/A	N/A	N/A
Arsenic	mg/L	Yearly	<0.001	N/A	N/A	N/A
Copper	mg/L	Yearly	<0.1	N/A	N/A	N/A
Cadmium	mg/L	Yearly	<0.0001	N/A	N/A	N/A
Iron (Total)	mg/L	Yearly	<0.1	N/A	N/A	N/A
Manganese	mg/L	Yearly	<0.1	N/A	N/A	N/A
Mercury	mg/L	Yearly	<0.001	N/A	N/A	N/A
Lead	mg/L	Yearly	<0.001	N/A	N/A	N/A
Nickel	mg/L	Yearly	0.001	N/A	N/A	N/A
Zinc	mg/L	Yearly	<0.1	N/A	N/A	N/A
Oil and Grease	mg/L	Quarterly	<5	<5	<5	<5
Total Phenols	µg/L	Yearly	<50	N/A	N/A	N/A
Organochlorine Pesticides	µg/L	Yearly	<LOR	N/A	N/A	N/A
Organophosphate Pesticides	µg/L	Yearly	<LOR	N/A	N/A	N/A

MONITORING POINT 20 - Groundwater Bore

Pollutant	Unit of measure	Monitoring Frequency	Date Sampled	Date Sampled	Date Sampled	Date Sampled
			19/12/2019	26/03/2020	5/06/2020	9/09/2020
			Date Data Obtained	Date Data Obtained	Date Data Obtained	Date Data Obtained
			19/12/2019	1/04/2020	9/06/2020	10/09/2020
			Value	Value	Value	Value
pH	pH Value	Quarterly	DRY	DRY	DRY	DRY
Electrical Conductivity	µS/cm	Quarterly	DRY	DRY	DRY	DRY
Calcium	mg/L	Quarterly	DRY	DRY	DRY	DRY
Magnesium	mg/L	Quarterly	DRY	DRY	DRY	DRY
Sodium	mg/L	Quarterly	DRY	DRY	DRY	DRY
Potassium	mg/L	Quarterly	DRY	DRY	DRY	DRY
Sulfate	mg/L	Quarterly	DRY	DRY	DRY	DRY
Chloride	mg/L	Quarterly	DRY	DRY	DRY	DRY
Fluoride	mg/L	Quarterly	DRY	DRY	DRY	DRY
Ammonia	mg/L	Quarterly	DRY	DRY	DRY	DRY
Total Nitrogen	mg/L	Quarterly	DRY	DRY	DRY	DRY
Total Phosphorus	mg/L	Quarterly	DRY	DRY	DRY	DRY
Soluble Phosphorus	mg/L	Quarterly	DRY	DRY	DRY	DRY
Biological Oxygen Demand	mg/L	Quarterly	DRY	DRY	DRY	DRY
Total Organic Carbon	mg/L	Quarterly	DRY	DRY	DRY	DRY
Dissolved Organic Carbon	mg/L	Yearly	DRY	N/A	N/A	N/A
Iron (Dissolved)	mg/L	Quarterly	DRY	DRY	DRY	DRY
Aluminium	mg/L	Yearly	DRY	N/A	N/A	N/A
Arsenic	mg/L	Yearly	DRY	N/A	N/A	N/A
Copper	mg/L	Yearly	DRY	N/A	N/A	N/A
Cadmium	mg/L	Yearly	DRY	N/A	N/A	N/A
Iron (Total)	mg/L	Yearly	DRY	N/A	N/A	N/A
Manganese	mg/L	Yearly	DRY	N/A	N/A	N/A
Mercury	mg/L	Yearly	DRY	N/A	N/A	N/A
Lead	mg/L	Yearly	DRY	N/A	N/A	N/A
Nickel	mg/L	Yearly	DRY	N/A	N/A	N/A
Zinc	mg/L	Yearly	DRY	N/A	N/A	N/A
Oil and Grease	mg/L	Quarterly	DRY	DRY	DRY	DRY
Total Phenols	µg/L	Yearly	DRY	N/A	N/A	N/A
Organochlorine Pesticides	µg/L	Yearly	DRY	N/A	N/A	N/A
Organophosphate Pesticides	µg/L	Yearly	DRY	N/A	N/A	N/A

MONITORING POINT 13 - Methane

Pollutant	Unit of Measure	Monitoring Frequency	Date Sampled	Date Sampled	Date Sampled	Date Sampled
			19/12/2019	9/04/2020	4/06/2020	15/09/2020
			Date Data Obtained	Date Data Obtained	Date Data Obtained	Date Data Obtained
			19/12/2019	17/04/2020	9/06/2020	18/09/2020
			Value	Value	Value	Value
Methane	%/volume	Quarterly	<0.05	<0.05	<0.05	<0.05

MONITORING POINT 15 - Methane

Pollutant	Unit of Measure	Monitoring Frequency	Date Sampled	Date Sampled	Date Sampled	Date Sampled
			19/12/2019	9/04/2020	4/06/2020	15/09/2020
			Date Data Obtained	Date Data Obtained	Date Data Obtained	Date Data Obtained
			19/12/2019	17/04/2020	9/06/2020	18/09/2020
			Value	Value	Value	Value
Methane	%/volume	Quarterly	<0.05	<0.05	<0.05	<0.05

MONITORING POINT 16 - Methane

Pollutant	Unit of Measure	Monitoring Frequency	Date Sampled	Date Sampled	Date Sampled	Date Sampled
			19/12/2019	9/04/2020	4/06/2020	15/09/2020
			Date Data Obtained	Date Data Obtained	Date Data Obtained	Date Data Obtained
			19/12/2020	17/04/2020	9/06/2020	18/09/2020
			Value	Value	Value	Value
Methane	%/volume	Quarterly	<0.05	<0.05	<0.05	<0.05