

Groundwater Monitoring Database
 ESB Coolnabacky
 IE2219

Parameter	SI366/2016 Groundwater Regulations	EPA IGV 2003	Units	LOD	BH1	BH1	BH1	BH1
					Ground Water	Ground Water	Ground Water	Ground Water
					14/12/2021	09/11/2022	13/02/2023	24/05/2023
Dissolved Calcium	-	200	mg/l	<0.2	191.9	112.3	111.2	137.6
Dissolved Magnesium	-	50	mg/l	<0.1	6.6	6.3	5.5	6.3
Dissolved Potassium	-	5	mg/l	<0.1	1.1	0.5	0.9	0.7
Dissolved Sodium	-	150	mg/l	<0.1	14.9	6.6	7.7	7.1
Sulphate as SO4	187.5	200	mg/l	<0.5	245	20.4	14.7	12.5
Chloride	24-187.5	30	mg/l	<0.3	6.9	11.6	8.4	8.1
Nitrate as NO3	37.5	25	mg/l	<0.2	1.1	0.4	0.4	1.9
SRP Ortho Phosphate as PO4	0.107	0.09	mg/l	<0.03	0.04	-	-	-
Ortho Phosphate as PO4	-	-	-	-	<0.03	<0.06	0.03	-
Ammoniacal Nitrogen as NH4	0.087	0.15	mg/l	<0.03	0.06	0.03	0.05	<0.03
Dissolved Alkalinity as CaCO3	-	No Abnormal Change	mg/l	<1	-	312	314	380
Total Alkalinity as CaCO3	-	No Abnormal Change	mg/l	<1	846	1936	908	2322
Electrical Conductivity @25C	800-1875	1000	uS/cm	<2	976	642	640	667
pH	≥ 6.5 and ≤ 9.5	≥ 6.5 and ≤ 9.5	pH units	<0.01	7.71	7.59	7.82	7.62
Methyl Tertiary Butyl Ether (MTBE)	10	30	ug/l	<5	-	<5	<5	<5
Benzene	0.75	1	ug/l	<5	-	<5	<5	<5
Toluene	525	10	ug/l	<5	-	<5	<5	<5
Ethylbenzene	-	300	ug/l	<5	-	<5	<5	<5
m/p-Xylene	-	-	ug/l	<5	-	<5	<5	<5
o-Xylene	-	-	ug/l	<5	-	<5	<5	<5
TPH CWG								
Aliphatics								
>C5-C6	-	-	ug/l	ug/l	-	<10	<10	<10
>C6-C8	-	-	ug/l	ug/l	-	<10	<10	<10
>C8-C10	-	-	ug/l	ug/l	-	<10	<10	<10
>C10-C12	-	-	ug/l	ug/l	-	<5	<5	<5
>C12-C16	-	-	ug/l	ug/l	-	<10	<10	<10
>C16-C21	-	-	ug/l	ug/l	-	<10	<10	<10
>C21-C35	-	-	ug/l	ug/l	-	<10	<10	-
>C21-C35	-	-	ug/l	ug/l	-	<10	<10	<10
Total aliphatics C5-35	-	-	ug/l	ug/l	-	<10	<10	<10
Aromatics								
>C5-EC7	-	-	ug/l	ug/l	-	<10	<10	<10
>EC7-EC8	-	-	ug/l	ug/l	-	<10	<10	<10
>EC8-EC10	-	-	ug/l	ug/l	-	<10	<10	<10
>EC10-EC12	-	-	ug/l	ug/l	-	<5	<5	<5
>EC12-EC16	-	-	ug/l	ug/l	-	<10	<10	<10
>EC16-EC21	-	-	ug/l	ug/l	-	<10	<10	<10
>EC21-EC35	-	-	ug/l	ug/l	-	<10	<10	<10
Total aromatics C5-35	-	-	ug/l	ug/l	-	<10	<10	<10
Total aliphatics and aromatics(C5-35)	-	-	ug/l	ug/l	-	<10	<10	<10
>EC16-EC35	-	-	ug/l	ug/l	-	<10	<10	-

Parameter	BH2	BH2	BH2	BH2
	Ground Water	Ground Water	Ground Water	Ground Water
	14/12/2021	09/11/2022	13/02/2023	24/05/2023
Dissolved Calcium	102.1	111.1	103.6	119.8
Dissolved Magnesium	2.2	2.6	2.5	2.9
Dissolved Potassium	1.2	1.1	3.1	1.5
Dissolved Sodium	4.3	5.1	4	4.4
Sulphate as SO4	4.2	5.5	1.2	2.8
Chloride	3.7	12.6	4.4	3.3
Nitrate as NO3	<0.2	<0.2	<0.2	<0.2
SRP Ortho Phosphate as PO4	<0.03	-	-	-
Ortho Phosphate as PO4	-	<0.03	<0.06	<0.03
Ammoniacal Nitrogen as NH4	0.04	<0.03	<0.03	<0.03
Dissolved Alkalinity as CaCO3	-	294	286	334
Total Alkalinity as CaCO3	3050	1692	2014	844
Electrical Conductivity @25C	516	593	508	574
pH	7.72	7.61	7.79	7.62
Methyl Tertiary Butyl Ether (MTBE)	-	<5	<5	<5
Benzene	-	<5	<5	<5
Toluene	-	<5	<5	<5
Ethylbenzene	-	<5	<5	<5
m/p-Xylene	-	<5	<5	<5
o-Xylene	-	<5	<5	<5
TPH CWG				
Aliphatics				
>C5-C6	-	<10	<10	<10
>C6-C8	-	<10	<10	<10
>C8-C10	-	<10	<10	<10
>C10-C12	-	<5	<5	<5
>C12-C16	-	<10	<10	<10
>C16-C21	-	<10	<10	<10
>C21-C35	-	<10	<10	-
>C21-C35	-	<10	<10	<10
Total aliphatics C5-35	-	<10	<10	<10
Aromatics				
>C5-EC7	-	<10	<10	<10
>EC7-EC8	-	<10	<10	<10
>EC8-EC10	-	<10	<10	<10
>EC10-EC12	-	<5	<5	<5
>EC12-EC16	-	<10	<10	<10
>EC16-EC21	-	<10	<10	<10
>EC21-EC35	-	<10	<10	<10
Total aromatics C5-35	-	<10	<10	<10
Total aliphatics and aromatics(C5-35)	-	<10	<10	<10
>EC16-EC35	-	<10	<10	-

Parameter	BH3	BH3	BH3	BH3
	Ground Water	Ground Water	Ground Water	Ground Water
	14/12/2021	09/11/2022	13/02/2023	24/05/2023
Dissolved Calcium	114.5	111.6	122.8	127.6
Dissolved Magnesium	10.8	10.5	10.2	9.8
Dissolved Potassium	1	1.1	2.2	0.9
Dissolved Sodium	6.3	19.6	4.3	4.6
Sulphate as SO4	6.7	21.9	6	5.7
Chloride	6	6.5	7.4	6.3
Nitrate as NO3	<0.2	<0.2	<0.2	0.2
SRP Ortho Phosphate as PO4	<0.03	-	-	-
Ortho Phosphate as PO4	-	<0.03	<0.06	<0.03
Ammoniacal Nitrogen as NH4	0.36	0.11	0.07	0.07
Dissolved Alkalinity as CaCO3	372	386	348	404
Total Alkalinity as CaCO3	17580	585	594	2612
Electrical Conductivity @25C	638	694	644	631
pH	8.07	7.44	7.6	7.48
Methyl Tertiary Butyl Ether (MTBE)	-	<5	<5	<5
Benzene	-	<5	<5	<5
Toluene	-	<5	<5	<5
Ethylbenzene	-	<5	<5	<5
m/p-Xylene	-	<5	<5	<5
o-Xylene	-	<5	<5	<5
TPH CWG				
Aliphatics				
>C5-C6	-	<10	<10	<10
>C6-C8	-	<10	<10	<10
>C8-C10	-	<10	<10	<10
>C10-C12	-	<5	<5	<5
>C12-C16	-	<10	<10	<10
>C16-C21	-	<10	<10	<10
>C21-C35	-	<10	<10	-
>C21-C35	-	<10	<10	<10
Total aliphatics C5-35	-	<10	<10	<10
Aromatics				
>C5-EC7	-	<10	<10	<10
>EC7-EC8	-	<10	<10	<10
>EC8-EC10	-	<10	<10	<10
>EC10-EC12	-	<5	<5	<5
>EC12-EC16	-	<10	<10	<10
>EC16-EC21	-	<10	<10	<10
>EC21-EC35	-	<10	<10	<10
Total aromatics C5-35	-	<10	<10	<10
Total aliphatics and aromatics(C5-35)	-	<10	<10	<10
>EC16-EC35	-	<10	<10	-

Parameter	BH4	BH4	BH4	BH4
	Ground Water	Ground Water	Ground Water	Ground Water
	14/12/2021	09/11/2022	13/02/2023	24/05/2023
Dissolved Calcium	111.2	107.2	112.2	114.5
Dissolved Magnesium	10	9.5	8.1	7.4
Dissolved Potassium	0.9	0.9	2.3	1.3
Dissolved Sodium	7.3	6.6	4.8	4.7
Sulphate as SO4	13.3	14.8	13.3	10.8
Chloride	9.6	8.3	8.1	8.2
Nitrate as NO3	<0.2	<0.2	18.3	<0.2
SRP Ortho Phosphate as PO4	<0.03	-	-	-
Ortho Phosphate as PO4	-	<0.03	<0.06	0.38
Ammoniacal Nitrogen as NH4	0.12	0.09	0.09	0.06
Dissolved Alkalinity as CaCO3	372	386	348	404
Total Alkalinity as CaCO3	2922	2832	860	540
Electrical Conductivity @25C	629	623	597	625
pH	7.65	7.57	7.82	7.49
Methyl Tertiary Butyl Ether (MTBE)	-	<5	<5	<5
Benzene	-	<5	<5	<5
Toluene	-	<5	<5	<5
Ethylbenzene	-	<5	<5	<5
m/p-Xylene	-	<5	<5	<5
o-Xylene	-	<5	<5	<5
TPH CWG				
Aliphatics				
>C5-C6	-	<10	<10	<10
>C6-C8	-	<10	<10	<10
>C8-C10	-	<10	<10	<10
>C10-C12	-	<5	<5	<5
>C12-C16	-	<10	<10	<10
>C16-C21	-	<10	<10	<10
>C21-C35	-	<10	<10	-
>C21-C35	-	<10	<10	<10
Total aliphatics C5-35	-	<10	<10	<10
Aromatics				
>C5-EC7	-	<10	<10	<10
>EC7-EC8	-	<10	<10	<10
>EC8-EC10	-	<10	<10	<10
>EC10-EC12	-	<5	<5	<5
>EC12-EC16	-	<10	<10	<10
>EC16-EC21	-	<10	<10	<10
>EC21-EC35	-	<10	<10	<10
Total aromatics C5-35	-	<10	<10	<10
Total aliphatics and aromatics(C5-35)	-	<10	<10	<10
>EC16-EC35	-	<10	<10	-