



BIHAR STATE POLLUTION CONTROL BOARD

**Parivesh Bhawan, N.S.B.-2, Patliputra Industrial Area,
Patliputra, Patna – 800010**

Ref. No. 322

Patna, dated: 15/02/22

From,

S. Chandrasekar, IFS,
Member Secretary.

To,

The Member Secretary,
Central Pollution Control Board,
Parivesh Bhawan, East Arjun Nagar,
Delhi-110032.

**Sub: Submission of analysis report on Physico-Chemical examination of Water
Samples of Pre and Post-Idol Immersion for the years of 2019 and 2021-regarding.**

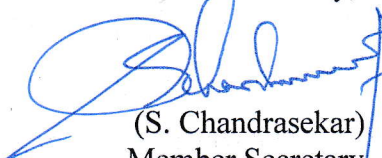
Sir,

Please find enclosed herewith the analysis reports of Water Samples of Pre & Post-Idol Immersion for the years of 2019 and 2021 for your perusal and necessary action.

It is also to bring to your notice that before immersion, ponds were cleaned by the local authorities to allow immersion of idols resulting in improvement of water quality over the pre-immersion period. It may also be noted that due to Covid-19 pandemic durga puja at public places were not allowed during 2020, as such monitoring report is not available for the period.

Encl: As Above.

Yours faithfully,


(S. Chandrasekar)
Member Secretary.



BIHAR STATE POLLUTION CONTROL BOARD
Parivesh Bhawan, N.S.B.-2, Patliputra Industrial Area,
Patliputra, Patna – 800010

Analysis Report on Physico – Chemical examination of Water Sample of Pre and Post- Idol Immersion for the year 2019-2020

Location		Burhi Gandak U/S Muzaffarpur NH Road Bridge Near Zero mile		
Lab.Ref.No.		668	729	730
		Pre-idol immersion	Post- idol immersion	Post- idol immersion
Date of Collection		23.09.2019	08.10.2019	09.10.2019
Parameter	Standards	Analysis Result		
Temperature (A/W) (°C)	--	35/32	27/31	31/31
pH	--	7.70	7.77	7.83
Turbidity	--	255	56	21.5
Electrical Conductivity	--	203	308	310
Dissolved Oxygen	> 4.0 mg/L	7.2	7	6.8
Total Hardness as CaCO ₃ (mg/L)	--	116	150	148
Calcium Hardness as Ca (mg/L)	--	33.6	43.2	43.2
Magnesium Hardness as Mg (mg/L)	--	7.8	10.2	9.7
Chloride (mg/L)	--	10	19	17
Alkalinity as CaCO ₃ (mg/L)	--	90	130	130
Phosphate (mg/L)	--	0.16	0.04	0.05
Nitrate as N (mg/L)	--	0.12	0.19	0.18
Ammonical Nitrogen as N (mg/L)	--	N.D	0.35	0.37
Fluoride (mg/L)	--	N.D	0.33	0.30
Sulphate (mg/L)	--	9.40	21.48	18.01
Sodium (mg/L)	--	6.8	18.6	19
Potassium (mg/L)	--	3.9	5	4.7
COD (mg/L)	--	16	24	20
BOD (mg/L)	< 3.0 mg/L	1.7	2.8	2.2
TS (mg/L)	--	384	250	224
TSS (mg/L)	--	116	50	20
TDS (mg/L)	--	268	200	204
TFS (mg/L)	--	286	176	162
TC (MPN/ 100ml)	--	160000	160000	28000
FC (MPN/ 100ml)	--	4100	28000	11000

Location		Burhi Gandak at Samastipur Road Bridge	
Lab.Ref.No.		705	732
		Pre-idol immersion	Post- idol immersion
Date of Collection		27.09.2019	09.10.2019
Parameter	Standards	Analysis Result	
Temperature (A/W) (°C)	--	27/25	30/29
pH	--	7.82	7.86
Turbidity	--	125	48.8
Electrical Conductivity	--	234	226
Dissolved Oxygen	> 4.0 mg/L	7.2	6.5
Total Hardness as CaCO ₃ (mg/L)	--	116	146
Calcium Hardness as Ca (mg/L)	--	32.8	42.4
Magnesium Hardness as Mg (mg/L)	--	8.3	9.7
Chloride (mg/L)	--	11	18
Alkalinity as CaCO ₃ (mg/L)	--	90	126
Phosphate (mg/L)	--	0.15	0.03
Nitrate as N (mg/L)	--	0.04	0.13
Ammonical Nitrogen as N (mg/L)	--	N.D	0.69
Fluoride (mg/L)	--	0.31	0.18
Sulphate (mg/L)	--	24.72	21.81
Sodium (mg/L)	--	17.6	17.6
Potassium (mg/L)	--	6.7	4.6
COD (mg/L)	--	32	32
BOD (mg/L)	< 3.0 mg/L	2.9	2.7
TS (mg/L)	--	292	184
TSS (mg/L)	--	72	16
TDS (mg/L)	--	220	168
TFS (mg/L)	--	248	228
TC (MPN/ 100ml)	--	4900	14000
FC (MPN/ 100ml)	--	3300	3300

Location		Gandak River U/S Road Bridge at Hajipur		
Lab.Ref.No.		706	727	734
		Pre-idol immersion	Post- idol immersion	Post- idol immersion
Date of Collection		27.09.2019	08.10.2019	09.10.2019
Parameter	Standards	Analysis Result		
Temperature (A/W) ($^{\circ}\text{C}$)	--	25/24	30/28	29/28
pH	--	8.03	7.59	7.72
Turbidity	--	152	218	170
Electrical Conductivity	--	187	230	220
Dissolved Oxygen	> 4.0 mg/L	7.2	6.9	6.7
Total Hardness as CaCO_3 (mg/L)	--	114	110	140
Calcium Hardness as Ca (mg/L)	--	28.8	32.0	30.4
Magnesium Hardness as Mg (mg/L)	--	10.2	7.3	15.5
Chloride (mg/L)	--	11	16	26
Alkalinity as CaCO_3 (mg/L)	--	74	88	90
Phosphate (mg/L)	--	0.14	0.05	0.04
Nitrate as N (mg/L)	--	0.05	0.17	0.13
Ammonical Nitrogen as N (mg/L)	--	N.D	0.04	0.28
Fluoride (mg/L)	--	0.29	0.11	0.21
Sulphate (mg/L)	--	19.57	22.93	23.71
Sodium (mg/L)	--	18.2	9.2	7.7
Potassium (mg/L)	--	7.1	4.7	4.1
COD (mg/L)	--	28	16	28
BOD (mg/L)	< 3.0 mg/L	2.5	1.9	2.5
TS (mg/L)	--	368	304	312
TSS (mg/L)	--	124	156	166
TDS (mg/L)	--	244	148	146
TFS (mg/L)	--	312	210	216
TC (MPN/ 100ml)	--	3300	9400	35000
FC (MPN/ 100ml)	--	1700	2200	17000

Location		Ganga at Trivenighat Fatuha, Patna	
Lab.Ref.No.		708	771
		Pre-idol immersion	Post- idol immersion
Date of Collection		06.10.2019	17.10.2019
Parameter	Standards	Analysis Result	
Temperature (A/W) (°C)	--	30/29	31/30
pH	--	8.23	7.95
Turbidity	--	188	82
Electrical Conductivity	--	264	280
Dissolved Oxygen	> 4.0 mg/L	7.5	6.1
Total Hardness as CaCO ₃ (mg/L)	--	112	126
Calcium Hardness as Ca (mg/L)	--	30.4	35.2
Magnesium Hardness as Mg (mg/L)	--	8.7	9.2
Chloride (mg/L)	--	22	22
Alkalinity as CaCO ₃ (mg/L)	--	86	98
Phosphate (mg/L)	--	0.11	0.14
Nitrate as N (mg/L)	--	0.19	0.45
Ammonical Nitrogen as N (mg/L)	--	0.93	N.D
Fluoride (mg/L)	--	N.D	0.03
Sulphate (mg/L)	--	20.02	21.36
Sodium (mg/L)	--	14.8	13.6
Potassium (mg/L)	--	3.8	3.4
COD (mg/L)	--	28	24
BOD (mg/L)	< 3.0 mg/L	2.1	2.1
TS (mg/L)	--	270	396
TSS (mg/L)	--	98	160
TDS (mg/L)	--	172	236
TFS (mg/L)	--	146	362
TC (MPN/ 100ml)	--	28000	3300
FC (MPN/ 100ml)	--	11000	2200

Location		Ganga at Fatuha Kewala Ghat, Patna		
Lab.Ref.No.		709	725	769
		Pre-idol immersion	Post- idol immersion	Post- idol immersion
Date of Collection		06.10.2019	09.10.2019	17.10.2019
Parameter	Standards	Analysis Result		
Temperature (A/W) (°C)	--	30/28	30/28	32/30
pH	--	7.84	8.15	7.79
Turbidity	--	102	153	38
Electrical Conductivity	--	237	254	300
Dissolved Oxygen	> 4.0 mg/L	6.8	5.6	6.7
Total Hardness as CaCO ₃ (mg/L)	--	88	100	134
Calcium Hardness as Ca (mg/L)	--	24.8	26.4	37.6
Magnesium Hardness as Mg (mg/L)	--	6.3	8.3	9.7
Chloride (mg/L)	--	22	21	25
Alkalinity as CaCO ₃ (mg/L)	--	80	82	112
Phosphate (mg/L)	--	0.09	0.09	0.13
Nitrate as N (mg/L)	--	0.27	0.55	0.27
Ammonical Nitrogen as N (mg/L)	--	0.85	0.50	1.55
Fluoride (mg/L)	--	0.24	0.10	0.40
Sulphate (mg/L)	--	13.20	9.95	16.22
Sodium (mg/L)	--	14.6	14.6	16.0
Potassium (mg/L)	--	4	3.8	4.6
COD (mg/L)	--	20	20	16
BOD (mg/L)	< 3.0 mg/L	2.3	1.8	1.9
TS (mg/L)	--	176	244	298
TSS (mg/L)	--	20	76	84
TDS (mg/L)	--	156	168	214
TFS (mg/L)	--	140	176	252
TC (MPN/ 100ml)	--	3900	54000	7000
FC (MPN/ 100ml)	--	2200	13000	3300

Location		Ganga at Kachidargha Road Bridge, Bidupur, Patna	
Lab.Ref.No.		710	772
		Pre-idol immersion	Post- idol immersion
Date of Collection		06.10.2019	17.10.2019
Parameter	Standards	Analysis Result	
Temperature (A/W) (°C)	--	32/29	31/30
pH	--	8.15	7.86
Turbidity	--	105	91
Electrical Conductivity	--	268	295
Dissolved Oxygen	> 4.0 mg/L	7.4	7
Total Hardness as CaCO ₃ (mg/L)	--	110	140
Calcium Hardness as Ca (mg/L)	--	28.8	36.8
Magnesium Hardness as Mg (mg/L)	--	9.2	11.7
Chloride (mg/L)	--	19	24
Alkalinity as CaCO ₃ (mg/L)	--	80	96
Phosphate (mg/L)	--	0.12	0.13
Nitrate as N (mg/L)	--	0.10	0.48
Ammonical Nitrogen as N (mg/L)	--	1.74	ND
Fluoride (mg/L)	--	ND	ND
Sulphate (mg/L)	--	19.35	39.15
Sodium (mg/L)	--	14	14.4
Potassium (mg/L)	--	3.9	3.6
COD (mg/L)	--	24	20
BOD (mg/L)	< 3.0 mg/L	2.4	2.1
TS (mg/L)	--	322	764
TSS (mg/L)	--	46	218
TDS (mg/L)	--	176	546
TFS (mg/L)	--	182	566
TC (MPN/ 100ml)	--	92000	28000
FC (MPN/ 100ml)	--	14000	11000

Location		Ganga at Malsalami, Patna City		
Lab.Ref.No.		711	724	773
		Pre-idol immersion	Post- idol immersion	Post- idol immersion
Date of Collection		06.10.2019	08.10.2019	17.10.2019
Parameter	Standards	Analysis Report		
Temperature (A/W) (°C)	--	32/29	29/26	31/30
pH	--	8.0	8.24	7.96
Turbidity	--	120	255	56
Electrical Conductivity	--	273	293	286
Dissolved Oxygen	> 4.0 mg/L	6.9	6.3	7.2
Total Hardness as CaCO ₃ (mg/L)	--	100	120	130
Calcium Hardness as Ca (mg/L)	--	30.4	32.0	32.8
Magnesium Hardness as Mg (mg/L)	--	5.8	9.7	11.7
Chloride (mg/L)	--	22	21	21
Alkalinity as CaCO ₃ (mg/L)	--	80	80	104
Phosphate (mg/L)	--	0.13	0.12	0.27
Nitrate as N (mg/L)	--	0.50	0.39	0.50
Ammonical Nitrogen as N (mg/L)	--	1.28	1.40	N.D
Fluoride (mg/L)	--	0.08	N.D	0.24
Sulphate (mg/L)	--	20.24	21.70	25.28
Sodium (mg/L)	--	14.4	19.0	14
Potassium (mg/L)	--	4.3	4.1	3.6
COD (mg/L)	--	20	24	20
BOD (mg/L)	< 3.0 mg/L	2.3	2.1	2
TS (mg/L)	--	228	246	784
TSS (mg/L)	--	50	158	260
TDS (mg/L)	--	178	188	524
TFS (mg/L)	--	180	234	574
TC (MPN/ 100ml)	--	160000	160000	22000
FC (MPN/ 100ml)	--	14000	92000	11000

Location		Ganga U/S at Kurji, Patna		
Lab.Ref.No.		714	721	763
		Pre-idol , immersion	Post- idol immersion	Post- idol immersion
Date of Collection		07.10.2019	08.10.2019	17.10.2019
Parameter	Standards	Analysis Report		
Temperature (A/W) (°C)	--	29/27	30/27	29/25
pH	--	8.11	8.24	8
Turbidity	--	240	220	55
Electrical Conductivity	--	291	284	270
Dissolved Oxygen	> 4.0 mg/L	7.3	6.6	6.3
Total Hardness as CaCO ₃ (mg/L)	--	106	110	130
Calcium Hardness as Ca (mg/L)	--	32	29.6	37.6
Magnesium Hardness as Mg (mg/L)	--	6.3	8.7	8.7
Chloride (mg/L)	--	25	21	20
Alkalinity as CaCO ₃ (mg/L)	--	88	80	112
Phosphate (mg/L)	--	0.28	0.15	0.20
Nitrate as N (mg/L)	--	0.48	0.48	0.39
Ammonical Nitrogen as N (mg/L)	--	1.28	0.39	N.D
Fluoride (mg/L)	--	N.D	0.06	0.15
Sulphate (mg/L)	--	26.62	20.92	19.91
Sodium (mg/L)	--	18.2	17.8	13.6
Potassium (mg/L)	--	4.2	3.9	3.8
COD (mg/L)	--	32	20	24
BOD (mg/L)	< 3.0 mg/L	2.9	2.0	2
TS (mg/L)	--	488	278	328
TSS (mg/L)	--	298	92	34
TDS (mg/L)	--	190	186	294
TFS (mg/L)	--	332	190	276
TC (MPN/ 100ml)	--	28000	35000	2600
FC (MPN/ 100ml)	--	11000	13000	2200

Location		Ganga at Danapur Pipapul, Patna	
Lab.Ref.No.		715	764
		Pre-idol immersion	Post- idol immersion
Date of Collection		07.10.2019	17.10.2019
Parameter	Standards	Analysis Result	
Temperature (A/W) (°C)	--	30/28	30/26
pH	--	8.07	7.92
Turbidity	--	245	42
Electrical Conductivity	--	285	284
Dissolved Oxygen	> 4.0 mg/L	7.4	6.7
Total Hardness as CaCO ₃ (mg/L)	--	104	136
Calcium Hardness as Ca (mg/L)	--	33.6	36.0
Magnesium Hardness as Mg (mg/L)	--	4.9	11.2
Chloride (mg/L)	--	21	24
Alkalinity as CaCO ₃ (mg/L)	--	86	104
Phosphate (mg/L)	--	0.20	0.13
Nitrate as N (mg/L)	--	0.59	0.45
Ammonical Nitrogen as N (mg/L)	--	3.01	N.D
Fluoride (mg/L)	--	N.D	0.07
Sulphate (mg/L)	--	24.50	28.26
Sodium (mg/L)	--	15.0	14.0
Potassium (mg/L)	--	4.1	3.5
COD (mg/L)	--	28	24
BOD (mg/L)	< 3.0 mg/L	2.2	2.1
TS (mg/L)	--	522	398
TSS (mg/L)	--	312	78
TDS (mg/L)	--	210	320
TFS (mg/L)	--	356	322
TC (MPN/ 100ml)	--	160000	28000
FC (MPN/ 100ml)	--	22000	14000

Location		Ganga at NIT/ Gandhi Ghat, Patna	
Lab.Ref.No.		718	767
		Pre-idol immersion	Post- idol immersion
Date of Collection		07.10.2019	17.10.2019
Parameter	Standards	Analysis Result	
Temperature (A/W) (°C)	--	31/29	31/28
pH	--	8	7.73
Turbidity	--	125	57
Electrical Conductivity	--	290	312
Dissolved Oxygen	> 4.0 mg/L	7.4	7
Total Hardness as CaCO ₃ (mg/L)	--	110	140
Calcium Hardness as Ca (mg/L)	--	33.6	26.4
Magnesium Hardness as Mg (mg/L)	--	6.3	18
Chloride (mg/L)	--	20	24
Alkalinity as CaCO ₃ (mg/L)	--	84	112
Phosphate (mg/L)	--	0.15	0.11
Nitrate as N (mg/L)	--	0.20	0.39
Ammonical Nitrogen as N (mg/L)	--	1.43	2.19
Fluoride (mg/L)	--	0.07	0.21
Sulphate (mg/L)	--	19.46	18.34
Sodium (mg/L)	--	19	14.6
Potassium (mg/L)	--	4.5	3.9
COD (mg/L)	--	20	20
BOD (mg/L)	< 3.0 mg/L	2.3	2
TS (mg/L)	--	300	412
TSS (mg/L)	--	146	84
TDS (mg/L)	--	154	228
TFS (mg/L)	--	206	278
TC (MPN/ 100ml)	--	160000	35000
FC (MPN/ 100ml)	--	92000	17000

Location		Ganga at Gulbighat, Patna	
Lab.Ref.No.		719	766
Date of Collection		Pre-idol immersion	Post- idol immersion
		07.10.2019	17.10.2019
Parameter	Standards	Analysis Result	
Temperature (A/W) (°C)	--	31/29	31/25
pH	--	7.9	7.82
Turbidity	--	220	62
Electrical Conductivity	--	273	295
Dissolved Oxygen	> 4.0 mg/L	7.2	5.6
Total Hardness as CaCO ₃ (mg/L)	--	110	144
Calcium Hardness as Ca (mg/L)	--	32	51.3
Magnesium Hardness as Mg (mg/L)	--	7.3	3.9
Chloride (mg/L)	--	23	22
Alkalinity as CaCO ₃ (mg/L)	--	86	102
Phosphate (mg/L)	--	0.20	0.11
Nitrate as N (mg/L)	--	0.36	0.45
Ammonical Nitrogen as N (mg/L)	--	0.98	1.77
Fluoride (mg/L)	--	0.07	0.23
Sulphate (mg/L)	--	17.78	19.01
Sodium (mg/L)	--	18.2	14.2
Potassium (mg/L)	--	3.7	3.7
COD (mg/L)	--	24	24
BOD (mg/L)	< 3.0 mg/L	2.4	2.1
TS (mg/L)	--	388	330
TSS (mg/L)	--	206	54
TDS (mg/L)	--	182	276
TFS (mg/L)	--	264	290
TC (MPN/ 100ml)	--	160000	92000
FC (MPN/ 100ml)	--	28000	22000

Location		Ganga D/S at Gayghat, Patna		
Lab.Ref.No.		720	722	768
		Pre-idol immersion	Post- idol immersion	Post- idol immersion
Date of Collection		07.10.2019	08.10.2019	17.10.2019
Parameter	Standards	Analysis Result		
Temperature (A/W) ($^{\circ}\text{C}$)	--	32/30	30/28	31/28
pH	--	8.05	8.11	7.81
Turbidity	--	270	415	34
Electrical Conductivity	--	276	253	285
Dissolved Oxygen	> 4.0 mg/L	7.1	5.5	6.4
Total Hardness as CaCO_3 (mg/L)	--	110	124	136
Calcium Hardness as Ca (mg/L)	--	30.4	28.0	35.2
Magnesium Hardness as Mg (mg/L)	--	8.3	13.1	11.7
Chloride (mg/L)	--	20	22	21
Alkalinity as CaCO_3 (mg/L)	--	80	80	102
Phosphate (mg/L)	--	0.26	0.12	0.13
Nitrate as N (mg/L)	--	0.59	0.69	0.29
Ammonical Nitrogen as N (mg/L)	--	0.25	2.76	0.63
Fluoride (mg/L)	--	0.02	N.D	0.14
Sulphate (mg/L)	--	18.23	19.57	20.24
Sodium (mg/L)	--	19.2	15.2	14.1
Potassium (mg/L)	--	4	4	3.6
COD (mg/L)	--	20	24	20
BOD (mg/L)	< 3.0 mg/L	2	2.5	2
TS (mg/L)	--	358	486	278
TSS (mg/L)	--	174	312	116
TDS (mg/L)	--	184	174	162
TFS (mg/L)	--	246	336	264
TC (MPN/ 100ml)	--	92000	160000	11000
FC (MPN/ 100ml)	--	17000	28000	4900

Location		Burhi Gandak at Akharaghat Road Bridge Muzaffarpur		
Lab.Ref.No.		667	728	731
		Pre-idol immersion	Post- idol immersion	Post- idol immersion
Date of Collection		23.09.2019	08.10.2019	09.10.2019
Parameter	Standards	Analysis Report		
Temperature (A/W) (°C)	--	35/32	27/31	31/31
pH	--	7.69	7.77	7.73
Turbidity	--	312.5	35.9	42
Electrical Conductivity	--	231	311	311
Dissolved Oxygen	> 4.0 mg/L	6.9	6.7	6.5
Total Hardness as CaCO ₃ (mg/L)	--	110	150	142
Calcium Hardness as Ca (mg/L)	--	36	45.6	44
Magnesium Hardness as Mg (mg/L)	--	4.9	8.7	7.8
Chloride (mg/L)	--	11	19	18
Alkalinity as CaCO ₃ (mg/L)	--	90	118	124
Phosphate (mg/L)	--	0.22	0.04	0.04
Nitrate as N (mg/L)	--	0.17	0.20	0.15
Ammonical Nitrogen as N (mg/L)	--	0.01	3.94	N.D
Fluoride (mg/L)	--	N.D	0.19	0.05
Sulphate (mg/L)	--	5.15	22.15	19.13
Sodium (mg/L)	--	7.9	18.2	18.4
Potassium (mg/L)	--	3.8	4.9	4.4
COD (mg/L)	--	16	28	36
BOD (mg/L)	< 3.0 mg/L	2.1	2.6	2.9
TS (mg/L)	--	536	244	236
TSS (mg/L)	--	256	38	28
TDS (mg/L)	--	280	206	208
TFS (mg/L)	--	172	164	396
TC (MPN/ 100ml)	--	160000	92000	14000
FC (MPN/ 100ml)	--	4700	28000	4900


(Naveen Kumar)

Board Analyst





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BIHAR STATE POLLUTION CONTROL BOARD
Parivesh Bhawan, N.S.B.-2, Patliputra Industrial Area,
Patliputra, Patna – 800010

Analysis Report on Physico – Chemical examination of Water Sample of Pre and Post- Idol Immersion for the year 2021-22.

Location		Burhi Gandak River U/s Road bridge Muzaffarpur, NH Near Zero Mile (Lat- 26.149141, Long- 85.353134)	
Lab.Ref.No.		1100	1319
Date of Collection		Pre-idol immersion 07/10/2021	Post- idol immersion 23/10/2021
Parameter	Standards	Analysis result	
Temperature (A/W) °C	--	33/29	27/25
pH	--	7.81	7.74
Turbidity	--	64.2	74.2
Electrical Conductivity	--	290	314
Dissolved Oxygen	> 4.0 mg/L	7.2	7.2
Total Hardness as CaCO ₃ (mg/L)	--	134	140
Calcium Hardness as Ca (mg/L)	--	33.64	36.84
Magnesium Hardness as Mg (mg/L)	--	12.14	11.66
Chloride (mg/L)	--	13	17.0
Alkalinity as CaCO ₃ (mg/L)	--	164	156
Phosphate (mg/L)	--	0.36	0.10
Nitrate as N (mg/L)	--	0.12	0.31
Ammonical Nitrogen as N (mg/L)	--	0.20	ND
Fluoride (mg/L)	--	0.06	0.07
Sulphate (mg/L)	--	41.16	14.43
COD (mg/L)	--	16	16
BOD (mg/L)	< 3.0 mg/L	1.8	2
TS (mg/L)	--	326	298
TSS (mg/L)	--	158	134
TDS (mg/L)	--	168	164
TFS (mg/L)	--	234	216
TC (MPN/ 100ml)	--	160000	35000
FC (MPN/ 100ml)	--	92000	24000

Location		Burhi Gandak River at Akharaghat Road Bridge, downs town (Lat- 26.1367, Long- 85.401788)	
Lab.Ref.No.		1101	1320
		Pre-idol immersion	Post- idol immersion
Date of Collection		07/10/2021	23/10/2021
Parameter	Standards	Analysis result	
Temperature (A/W) °C	--	31/29	27/25
pH	--	7.90	7.68
Turbidity	--	102.1	105.2
Electrical Conductivity	--	310	320
Dissolved Oxygen	> 4.0 mg/L	7.0	7.0
Total Hardness as CaCO ₃ (mg/L)	--	158	156
Calcium Hardness as Ca (mg/L)	--	39.24	51.26
Magnesium Hardness as Mg (mg/L)	--	14.57	6.80
Chloride (mg/L)	--	26	13.0
Alkalinity as CaCO ₃ (mg/L)	--	168	160
Phosphate (mg/L)	--	0.31	0.06
Nitrate as N (mg/L)	--	0.15	0.19
Ammonical Nitrogen as N (mg/L)	--	0.19	ND
Fluoride (mg/L)	--	0.07	0.05
Sulphate (mg/L)	--	21.59	9.17
COD (mg/L)	--	20	8
BOD (mg/L)	< 3.0 mg/L	2	1.5
TS (mg/L)	--	372	286
TSS (mg/L)	--	224	104
TDS (mg/L)	--	148	182
TFS (mg/L)	--	264	208
TC (MPN/ 100ml)	--	920000	160000
FC (MPN/ 100ml)	--	540000	160000

Location		Harari Pokhar, Darbhanga	
Lab.Ref.No.		1102	1322
		Pre-idol immersion	Post- idol immersion
Date of Collection		07/10/2021	23/10/21
Parameter	Standards	Analysis result	
Temperature (A/W) °C	--	36/34	33/30
pH	--	8.54	8.05
Turbidity	--	16	11.1
Electrical Conductivity	--	422	420
Dissolved Oxygen	> 4.0 mg/L	11.5	12.5
Total Hardness as CaCO ₃ (mg/L)	--	106	104
Calcium Hardness as Ca (mg/L)	--	28.83	35.24
Magnesium Hardness as Mg (mg/L)	--	8.26	3.89
Chloride (mg/L)	--	15	45.0
Alkalinity as CaCO ₃ (mg/L)	--	98	126
Phosphate (mg/L)	--	0.67	0.82
Nitrate as N (mg/L)	--	0.06	0.18
Ammonical Nitrogen as N (mg/L)	--	1.17	ND
Fluoride (mg/L)	--	0.15	0.16
Sulphate (mg/L)	--	22.71	24.38
COD (mg/L)	--	40	32
BOD (mg/L)	< 3.0 mg/L	5.0	6
TS (mg/L)	--	298	292
TSS (mg/L)	--	12	20
TDS (mg/L)	--	286	272
TFS (mg/L)	--	216	214
TC (MPN/ 100ml)	--	110000	160000
FC (MPN/ 100ml)	--	26000	160000

Location		Zila School Pond, Darbhanga	
Lab.Ref.No.		1103	1324
		Pre-idol immersion	Post- idol immersion
Date of Collection		07/10/2021	23/10/21
Parameter	Standards	Analysis result	
Temperature (A/W) °C	--	35/30	34/31
pH	--	7.03	7.61
Turbidity	--	11	8.8
Electrical Conductivity	--	320	332
Dissolved Oxygen	> 4.0 mg/L	2.5	13.1
Total Hardness as CaCO ₃ (mg/L)	--	110	92
Calcium Hardness as Ca (mg/L)	--	24.83	29.63
Magnesium Hardness as Mg (mg/L)	--	11.66	4.37
Chloride (mg/L)	--	13	33.0
Alkalinity as CaCO ₃ (mg/L)	--	102	140
Phosphate (mg/L)	--	0.17	0.13
Nitrate as N (mg/L)	--	0.06	0.01
Ammonical Nitrogen as N (mg/L)	--	0.08	0.11
Fluoride (mg/L)	--	0.14	0.21
Sulphate (mg/L)	--	1.57	3.36
COD (mg/L)	--	40	32
BOD (mg/L)	< 3.0 mg/L	6.0	5
TS (mg/L)	--	224	238
TSS (mg/L)	--	10	16
TDS (mg/L)	--	214	222
TFS (mg/L)	--	160	172
TC (MPN/ 100ml)*	--	1600000	2200
FC (MPN/ 100ml)	--	920000	1400

Location		K.M. Tank Darbhanga	
Lab.Ref.No.		1104	1325
		Pre-idol immersion	Post- idol immersion
Date of Collection		07/10/2021	23/10/2021
Parameter	Standards	Analysis result	
Temperature (A/W) °C	--	35/32	34/32
pH	--	8.94	8.7
Turbidity	--	31.2	28.4
Electrical Conductivity	--	415	417
Dissolved Oxygen	> 4.0 mg/L	12	15.8
Total Hardness as CaCO ₃ (mg/L)	--	60	70
Calcium Hardness as Ca (mg/L)	--	16.82	20.82
Magnesium Hardness as Mg (mg/L)	--	4.37	4.37
Chloride (mg/L)	--	10	52.0
Alkalinity as CaCO ₃ (mg/L)	--	52	116
Phosphate (mg/L)	--	0.03	0.07
Nitrate as N (mg/L)	--	0.11	ND
Ammonical Nitrogen as N (mg/L)	--	0.86	0.39
Fluoride (mg/L)	--	0.16	0.20
Sulphate (mg/L)	--	10.51	7.27
COD (mg/L)	--	80	68
BOD (mg/L)	< 3.0 mg/L	8.0	8
TS (mg/L)	--	320	306
TSS (mg/L)	--	44	34
TDS (mg/L)	--	276	272
TFS (mg/L)	--	232	218
TC (MPN/ 100ml)	--	920000	92000
FC (MPN/ 100ml)	--	350000	54000

Location		Ganga Sagar Pokhar Darbhanga	
Lab.Ref.No.		1105	1323
		Pre-idol immersion	Post- idol immersion
Date of Collection		07/10/2021	23/10/2021
Parameter	Standards	Analysis result	
Temperature (A/W) °C	--	34/32	34/31
pH	--	8.52	8.67
Turbidity	--	35.1	18.7
Electrical Conductivity	--	555	564
Dissolved Oxygen	> 4.0 mg/L	11.5	14.3
Total Hardness as CaCO ₃ (mg/L)	--	152	154
Calcium Hardness as Ca (mg/L)	--	36.84	59.26
Magnesium Hardness as Mg (mg/L)	--	14.57	1.46
Chloride (mg/L)	--	13	79.0
Alkalinity as CaCO ₃ (mg/L)	--	110	180
Phosphate (mg/L)	--	0.81	0.91
Nitrate as N (mg/L)	--	0.31	0.05
Ammonical Nitrogen as N (mg/L)	--	0.85	1.40
Fluoride (mg/L)	--	0.13	0.19
Sulphate (mg/L)	--	35.34	31.99
COD (mg/L)	--	120	40
BOD (mg/L)	< 3.0 mg/L	16	6
TS (mg/L)	--	424	388
TSS (mg/L)	--	48	26
TDS (mg/L)	--	376	362
TFS (mg/L)	--	310	276
TC (MPN/ 100ml)	--	4000	160000
FC (MPN/ 100ml)	--	1700	28000

Location		Laxmi Sagar Pokhar, Darbhanga	
Lab.Ref.No.		1106	1321
		Pre-idol immersion	Post- idol immersion
Date of Collection		07/10/2021	23/10/2021
Parameter	Standards	Analysis result	
Temperature (A/W) °C	--	34/32	33/31
pH	--	9.16	7.88
Turbidity	--	16.5	15.6
Electrical Conductivity	--	640	623
Dissolved Oxygen	> 4.0 mg/L	12.2	13.4
Total Hardness as CaCO ₃ (mg/L)	--	106	94
Calcium Hardness as Ca (mg/L)	--	26.43	29.63
Magnesium Hardness as Mg (mg/L)	--	9.71	4.86
Chloride (mg/L)	--	12	113.0
Alkalinity as CaCO ₃ (mg/L)	--	100	88
Phosphate (mg/L)	--	0.10	0.11
Nitrate as N (mg/L)	--	0.10	0.06
Ammonical Nitrogen as N (mg/L)	--	0.66	1.19
Fluoride (mg/L)	--	0.15	0.19
Sulphate (mg/L)	--	1.68	4.25
COD (mg/L)	--	140	56
BOD (mg/L)	< 3.0 mg/L	20	7
TS (mg/L)	--	466	424
TSS (mg/L)	--	32	32
TDS (mg/L)	--	434	392
TFS (mg/L)	--	342	310
TC (MPN/ 100ml)	--	35000	160000
FC (MPN/ 100ml)	--	24000	160000

Location		Ganga River at Bhadra Ghat, Patna, 25.611664, 85.201750	
Lab.Ref.No.		1112	1315
		Pre-idol immersion	Post- idol immersion
Date of Collection		07/10/2021	23/10/2021
Parameter	Standards	Analysis result	
Temperature (A/W) °C	--	30/29	27/24
pH	--	7.75	7.61
Turbidity	--	430.5	388.5
Electrical Conductivity	--	283	258
Dissolved Oxygen	> 4.0 mg/L	5.2	6
Total Hardness as CaCO ₃ (mg/L)	--	114	130
Calcium Hardness as Ca (mg/L)	--	24.83	23.23
Magnesium Hardness as Mg (mg/L)	--	12.63	17.48
Chloride (mg/L)	--	18	18
Alkalinity as CaCO ₃ (mg/L)	--	100	136
Phosphate (mg/L)	--	0.25	0.05
Nitrate as N (mg/L)	--	0.33	0.12
Ammonical Nitrogen as N (mg/L)	--	ND	ND
Fluoride (mg/L)	--	0.07	0.04
Sulphate (mg/L)	--	35.90	23.94
COD (mg/L)	--	28	28
BOD (mg/L)	< 3.0 mg/L	2.9	3
TS (mg/L)	--	722	598
TSS (mg/L)	--	538	436
TDS (mg/L)	--	184	162
TFS (mg/L)	--	534	420
TC (MPN/ 100ml)	--	540000	54000
FC (MPN/ 100ml)	--	350000	35000

Location		Rukmini pond ward No. 44, Akshayvat Gaya	
Lab.Ref.No.		1117	1318
		Pre-idol immersion	Post- idol immersion
Date of Collection		07/10/2021	23/10/2021
Parameter	Standards	Analysis result	
Temperature (A/W) °C	--	33/30	30/27
pH	--	8.05	7.42
Turbidity	--	37.1	19
Electrical Conductivity	--	292	329
Dissolved Oxygen	> 4.0 mg/L	12.2	10.4
Total Hardness as CaCO ₃ (mg/L)	--	120	122
Calcium Hardness as Ca (mg/L)	--	29.63	40.04
Magnesium Hardness as Mg (mg/L)	--	11.17	5.34
Chloride (mg/L)	--	20	30.0
Alkalinity as CaCO ₃ (mg/L)	--	104	152
Phosphate (mg/L)	--	0.11	0.07
Nitrate as N (mg/L)	--	0.04	0.04
Ammonical Nitrogen as N (mg/L)	--	0.08	0.20
Fluoride (mg/L)	--	0.14	0.20
Sulphate (mg/L)	--	17.78	14.99
COD (mg/L)	--	28	16
BOD (mg/L)	< 3.0 mg/L	3.0	4
TS (mg/L)	--	218	238
TSS (mg/L)	--	24	24
TDS (mg/L)	--	194	214
TFS (mg/L)	--	154	172
TC (MPN/ 100ml)	--	540000	92000
FC (MPN/ 100ml)	--	220000	35000

Location		Suraj Pokhar ward no 47,48 Manpur Gaya, 25.815459, 85.033296	
Lab.Ref.No.		1119	1317
		Pre-idol immersion	Post- idol immersion
Date of Collection		07/10/2021	23/10/2021
Parameter	Standards	Analysis result	
Temperature (A/W) °C	--	32/27	29/27
pH	--	8.97	7.51
Turbidity	--	50.2	71.1
Electrical Conductivity	--	437	494
Dissolved Oxygen	> 4.0 mg/L	10.2	8.2
Total Hardness as CaCO ₃ (mg/L)	--	116	124
Calcium Hardness as Ca (mg/L)	--	23.23	40.04
Magnesium Hardness as Mg (mg/L)	--	14.08	5.83
Chloride (mg/L)	--	12	90.0
Alkalinity as CaCO ₃ (mg/L)	--	102	170
Phosphate (mg/L)	--	0.15	0.07
Nitrate as N (mg/L)	--	0.09	0.10
Ammonical Nitrogen as N (mg/L)	--	0.34	0.02
Fluoride (mg/L)	--	0.16	0.21
Sulphate (mg/L)	--	7.05	15.44
COD (mg/L)	--	72	60
BOD (mg/L)	< 3.0 mg/L	8.0	7
TS (mg/L)	--	358	410
TSS (mg/L)	--	60	82
TDS (mg/L)	--	298	328
TFS (mg/L)	--	258	292
TC (MPN/ 100ml)	--	92000	160000
FC (MPN/ 100ml)	--	35000	92000

Location		U/S Ganga River at Kuppa Ghat at Bhagalpur	
Lab.Ref.No.		1128	1283
		Pre-idol immersion	Post- idol immersion
Date of Collection		07/10/2021	21/10/2021
Parameter	Standards	Analysis result	
Temperature (A/W) °C	--	26/24	28/26
pH	--	7.58	7.61
Turbidity	--	276	184.4
Electrical Conductivity	--	244	264
Dissolved Oxygen	> 4.0 mg/L	6.7	6.1
Total Hardness as CaCO ₃ (mg/L)	--	106	122
Calcium Hardness as Ca (mg/L)	--	25.63	23.23
Magnesium Hardness as Mg (mg/L)	--	10.20	15.54
Chloride (mg/L)	--	20	17.0
Alkalinity as CaCO ₃ (mg/L)	--	116	142
Phosphate (mg/L)	--	0.42	0.47
Nitrate as N (mg/L)	--	0.43	0.16
Ammonical Nitrogen as N (mg/L)	--	0.05	0.03
Fluoride (mg/L)	--	0.05	ND
Sulphate (mg/L)	--	45.97	44.85
COD (mg/L)	--	12	24
BOD (mg/L)	< 3.0 mg/L	1.5	2.5
TS (mg/L)	--	648	394
TSS (mg/L)	--	492	218
TDS (mg/L)	--	156	176
TFS (mg/L)	--	488	280
TC (MPN/ 100ml)	--	54000	160000
FC (MPN/ 100ml)	--	35000	160000
FSc (MPN/ 100ml)	--	68	330
E. coli (MPN/ 100ml)	--	7900	35000

Location		Kalwaliya ghat ganga near tetri durga mandri 25.363418, 87.069138	
Lab.Ref.No.		1129	1285
Date of Collection		Pre-idol immersion 07/10/2021	Post- idol immersion 22/10/2021
Parameter	Standards	Analysis result	
Temperature (A/W) °C	--	27/25	27/25
pH	--	7.4	7.76
Turbidity	--	29.7	9.7
Electrical Conductivity	--	258	240
Dissolved Oxygen	> 4.0 mg/L	7	2.6
Total Hardness as CaCO ₃ (mg/L)	--	118	126
Calcium Hardness as Ca (mg/L)	--	26.43	35.24
Magnesium Hardness as Mg (mg/L)	--	12.63	9.23
Chloride (mg/L)	--	22	20.0
Alkalinity as CaCO ₃ (mg/L)	--	120	126
Phosphate (mg/L)	--	0.05	ND
Nitrate as N (mg/L)	--	0.01	ND
Ammonical Nitrogen as N (mg/L)	--	0.30	ND
Fluoride (mg/L)	--	0.05	0.07
Sulphate (mg/L)	--	14.76	6.82
COD (mg/L)	--	52	40
BOD (mg/L)	< 3.0 mg/L	3.5	5
TS (mg/L)	--	216	168
TSS (mg/L)	--	54	16
TDS (mg/L)	--	162	152
TFS (mg/L)	--	154	124
TC (MPN/ 100ml)	--	16000000	920000
FC (MPN/ 100ml)	--	9200000	350000

Location		D/S Ganga river at Barari Ghat, Patna	
Lab.Ref.No.		1130	1282
		Pre-idol immersion	Post- idol immersion
Date of Collection		07/10/2021	21/10/2021
Parameter	Standards	Analysis result	
Temperature (A/W) °C	--	27/25	28/25
pH	--	7.15	7.48
Turbidity	--	77.8	93.6
Electrical Conductivity	--	268	280
Dissolved Oxygen	> 4.0 mg/L	6.1	5.3
Total Hardness as CaCO ₃ (mg/L)	--	128	126
Calcium Hardness as Ca (mg/L)	--	24.83	35.24
Magnesium Hardness as Mg (mg/L)	--	16.03	9.23
Chloride (mg/L)	--	21	17.0
Alkalinity as CaCO ₃ (mg/L)	--	122	132
Phosphate (mg/L)	--	0.17	0.05
Nitrate as N (mg/L)	--	0.22	0.36
Ammonical Nitrogen as N (mg/L)	--	0.50	0.32
Fluoride (mg/L)	--	0.10	0.10
Sulphate (mg/L)	--	29.64	17.56
COD (mg/L)	--	28	32
BOD (mg/L)	< 3.0 mg/L	2.5	3
TS (mg/L)	--	308	304
TSS (mg/L)	--	134	116
TDS (mg/L)	--	174	188
TFS (mg/L)	--	228	210
TC (MPN/ 100ml)	--	140000	160000
FC (MPN/ 100ml)	--	110000	160000
FSc (MPN/ 100ml)	--	330	140
E. coli (MPN/ 100ml)	--	27000	54000

Location		Ganga River at Mushari Ghat / Kali Ghat	
Lab.Ref.No.		1132	1284
		Pre-idol immersion	Post- idol immersion
Date of Collection		07/10/2021	22/10/2021
Parameter	Standards	Analysis result	
Temperature (A/W) °C	--	27/24	27/25
pH	--	7.3	7.64
Turbidity	--	120.6	85.3
Electrical Conductivity	--	250	260
Dissolved Oxygen	> 4.0 mg/L	6.6	5.8
Total Hardness as CaCO ₃ (mg/L)	--	114	120
Calcium Hardness as Ca (mg/L)	--	24.83	35.24
Magnesium Hardness as Mg (mg/L)	--	12.63	7.77
Chloride (mg/L)	--	13.0	13.0
Alkalinity as CaCO ₃ (mg/L)	--	108	122
Phosphate (mg/L)	--	0.27	0.06
Nitrate as N (mg/L)	--	0.23	0.32
Ammonical Nitrogen as N (mg/L)	--	0.17	0.08
Fluoride (mg/L)	--	0.09	0.08
Sulphate (mg/L)	--	33.22	19.46
COD (mg/L)	--	48	32
BOD (mg/L)	< 3.0 mg/L	4.0	3
TS (mg/L)	--	344	262
TSS (mg/L)	--	192	96
TDS (mg/L)	--	152	166
TFS (mg/L)	--	254	190
TC (MPN/ 100ml)	--	5400000	2200000
FC (MPN/ 100ml)	--	2400000	1100000


(Naveen Kumar)

Board Analyst

