



RAIL WHEEL PLANT/BELA (INDIAN RAILWAYS) GOVT. OF INDIA		OFFICE OF THE CHIEF ADMINISTRATIVE OFFICER, ADMINISTRATIVE BUILDING, VILLAGE-BELA, BLOCK- DARIAPUR, SARAN (CHHAPRA), BIHAR.
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MONTH WISE ANALYSIS OF GROUND WATER SEPTEMBER- 2017

- REF: (i)** Ministry of Environment and Forest (MoEF)/GOI environmental Clearance no. J-11011/527/2010-IA.II(I) dated 12.01.2012.
- ii) Bihar State Pollution Control Board (BSPCB) Discharge Consent Order Letter No. pt 2-116/11 t-6094, dated 03.08.2016.
- (iii) BSPCB Emission Consent Order letter No. PT(NOC)-628/09 T-6095, dated 03.08.2016.

(Sampling & Analysis done by MoEF Recognized Environmental Laboratory, EMTRC Consultants Pvt. Ltd.)

<i>Ground Water sample</i>	UNIT	Limit as per IS10500:2012		September -2017	
		Limit (Max) (mg/l) Desirable	<i>Permissible limit in the absence of alternative source</i>	<i>Borewell No. 3</i>	<i>Borewell No. 4</i>
1. pH	--	6.5 to 8.5	--	7.68	7.74
2. Colour	Hazen	5	15	Colorless	Colorless
3. Turbidity on NTU	NTU	1	5	<1	<1
4. Total Dissolved Solids (TDS)	mg/l.	500	2000	430	410
5. Total Alkalinity as CaCO ₃	mg/l.	200	600	180	170
6. Total Hardness as CaCO ₃	mg/l.	200	600	200	190
7. Calcium as Ca	mg/l.	75	200	56	52
8. Magnesium as Mg	mg/l.	30	100	14.6	14.6
9. Sulphate as SO ₄	mg/l.	200	400	18	26
10. Chloride as Cl	mg/l.	250	1000	25	22
11. Nitrate as NO ₃	mg/l.	45	---	4.8	5.2
12. Iron as Fe	mg/l.	0.3	---	0.14	0.14
13. Arsenic as As	mg/l.	0.01	0.05	<0.001	<0.001
14. Fluoride as F	mg/l.	1.0	1.5	0.74	0.72
15. Total Coliform	MPN/100 ml	0	--	8	8

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MONTH WISE ANALYSIS OF NOISE SAMPLE SEPTEMBER -2017

- (i) Ministry of Environment and Forest (MoEF)/GOI environmental Clearance no. J-11011/527/2010-IA.II(I) dated 12.01.2012.
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Monitoring Location	Limit (Max) Leq: dBA	Test result	
		Day time Leq: dBA	Night time Leq: dBA
1. Near Main Gate	Day time- 75 dBA Night time- 70 dBA	52.4	53.2
2. Near ADM Building		49.4	42.4

Monitoring Location	Limit (Max) 90 dBA (as per Bihar Factories Rule, 1950)	Daytime dB	Night time dB
3. Near Final Wheel Processing Sec.	1- 105 ¾- 107	70.8	66.4
4. Near Furnace	½- 110 ¼- 115	95.2	91.8

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MONTH WISE ANALYSIS OF STACK EMISSION MONITORING SEPTEMBER-2017

- (i) Ministry of Environment and Forest (MoEF)/GOI environmental Clearance no. J-11011/527/2010-IA.II(I) dated 12.01.2012.
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STACK EMISSION MONITORING REPORT SEPTEMBER- 2017

Stack connected to Bag House attached with Electric Arc Furnace	Prescribed Standard Limit	Test result September 2017
a. PM mg / NM ³	50	54
b. SO ₂ mg / NM ³	Not specified	< 1 (BDL)
c. NO _x mg / NM ³	Not specified	125
d. Gas Temp °C	---	52
e. Velocity m/s	----	10.8

Stack connected to Draw Furnace	Prescribed Standard Limit	Test result September 2017
f. PM mg / NM ³	50	22
g. SO ₂ mg / NM ³	Not specified	< 1 (BDL)
h. NO _x mg / NM ³	Not specified	10
i. Gas Temp °C	---	45
j. Velocity m/s	----	7.5

Stack connected to Normalizing Furnace	Prescribed Standard Limit	Test result September 2017
k. PM mg / NM ³	50	32
l. SO ₂ mg / NM ³	Not specified	< 1 (BDL)
m. NO _x mg / NM ³	Not specified	32
n. Gas Temp °C	---	365
o. Velocity m/s	----	14.2

Stack connected to DG	Prescribed Standard Limit as per EP Act 1986 GSR 280E, Dated 11-04-2008	Test result September 2017
a. PM mg / NM ³	75	82
b. SO ₂ mg / NM ³	S in fuel < 2 %	154
c. NO _{2x} mg / NM ³	710	717
d. NMHC, mg/ NM ³	100	123
e. Co, mg/ NM ³	150	620
f. Gas Temp °C	---	195
g. Velocity m/s	----	21.6

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MONTH WISE ANALYSIS OF WASTE WATER FROM CANTEEN (BEFORE TREATMENT) SEPTEMBER-2017

- REF: (i)** Ministry of Environment and Forest (MoEF)/GOI environmental Clearance no. J-11011/527/2010-IA.II(I) dated 12.01.2012.
 ii) Bihar State Pollution Control Board (BSPCB) Discharge Consent Order Letter No. pt 2-116/11 t-6094, dated 03.08.2016.
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(Sampling & Analysis done by MoEF Recognized Environmental Laboratory, EMTRC Consultants Pvt. Ltd.)

S.N	Parameters	Unit	Test Method	Result	CPCB Direction on STP dated 21-4-2015
1.	pH	-	APHA-4500	6.82	5.5 -9.0
2.	Colour	Hazen Unit	APHA-2120B	7	-
3.	Total suspended solids	Mg/l	APHA-2540D	120	20
4.	Total dissolved solids	Mg/l	APHA-2540B	820	2100
5.	BOD	Mg/l	APHA-5210B	44	10
6.	COD	Mg/l	APHA-5220D	140	50
7.	Oil and grease	Mg/l	APHA4500D	15.5	10
8.	Chloride as Cl	Mg/l	APHA-4500B	75	-
9.	Sulphate as SO ₂	Mg/l	APHA-4500E	60	-
10.	Ammonical N as N	Mg/l	APHA-5220D	20	5
11.	Total Kjeldahl Nitrogen as N	Mg/l	APHA-4500B	45	10
12.	Dissolved Phosphate	Mg/l	APHA-4500C	3.8	-

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MONTH WISE MONITORING & ANALYSIS OF AMBIENT AIR QUALITY SEPTEMBER - 2017

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(Sampling & Analysis done by MoEF Recognized Environmental Laboratory, EMTRC Consultants Pvt. Ltd.)

Month	Parameters	Limit(Max)	Near Main Gate	Near East Side Boundary Wall (Store Yard)	Near Main Store 2	Near ADM Building (TTC)	Near Main Gate	Near East Side Boundary Wall (Store Yard)	Near Main Store 2	Near ADM Building (TTC)
24 Hrs. Average Concⁿ. in µg/m³										
September-2017	01st Monitoring					02nd Monitoring				
	PM ₁₀	100 µg/m ³ (24 hours average)	50	60	60	52	65	80	105	62
	PM _{2.5}	60 µg/m ³ (24 hours average)	24	25	26	20	30	38	50	26
	SO ₂	80 µg/m ³ (24 hours average)	< 4.0	<4.0	<4.0	<4.0	< 4.0	<4.0	<4.8	<4.0
	NO ₂	80 µg/m ³ (24 hours average)	10.6	10.6	11.5	9.2	11.8	11.5	12.8	10.4