



Mahabal Enviro Engineers Pvt. Ltd.

Engineers, Consultants, Environmental Monitoring Laboratory & Contractors

Plot Nos. 13,14,17,18, Grampanchayat Bokhara, 8 km from Nagpur City,

Opp. Patel Petrol Pump, Chhindwara Road, Koradi, Dist.Nagapur-441111

Phone : 91-712-2612162 T/Fax: 91-712-2612212 Email: nagpur@mahabal.com

Ambient Air Quality Monitoring Report

Report No.: ME-NG1810-170925-SA-RIPL-AMRAVATI		Date: 25.09.2017	
Name and address of Customer	RATTANINDIA POWER LIMITED Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901	Order Reference:	
		SO No. 3382012035 dtd. 21.09.2015.	
Sample Description /Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	1) Near CAAQM Station No.4 2) Terrace of WTP Plant Building 3) Terrace of Bachelor Guest House	Sample Quantity /Packing	Filter Paper (PM ₁₀): 3 X 3 No. Filter Paper (PM _{2.5}): 1 X 3 No. SO ₂ : 30mL X18 No. PVC Bottle NO ₂ : 30mL X18 No. PVC Bottle NH ₃ : 30 mL X18 No. PVC Bottle O ₃ : 10 mL X 72 No. PVC Bottle 3 X 12 No. Charcoal Tubes 3 X 3 No. Rubber Bladder
Date of Sampling	11.09.2017 & 12.09.2017	Date of Receipt of Sample	12.09.2017
Sampling Procedure	As per Method reference		
Date of Start of Analysis	13.09.2017	Date of Completion of Analysis	25.09.2017

Meteorological Data/Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
3.5 km/h	SW	Max.	Min.	Max.	Min.
		78	52	36.0	25.0
Location	1) Near CAAQM Station			Duration of Survey : 24 hours	
Parameter	Unit	Result	#NAAQM Standard	Method Reference	
Sulphur Dioxide (SO ₂)	µg/m ³	9.2	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6	
Nitrogen Dioxide (NO ₂)	µg/m ³	10.4	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10	
Particulate Matter (size less than 10µm) or PM ₁₀	µg/m ³	79	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14	
Particulate Matter (size less than 2.5µm) or PM _{2.5}	µg/m ³	36	60	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13,Page No.15-30	
Ozone (O ₃)	µg/m ³	<19.6	180	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13,Page No.31-34	
Lead (as Pb)	µg/m ³	<0.02	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55	

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Parameter	Unit	Result	#NAAQM Standard	Method Reference
Carbon Monoxide(CO)	mg/m ³	0.76	4.0	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH ₃)	µg/m ³	23.8	400	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.35-39
Benzene (C ₆ H ₆)	µg/m ³	<1	5.0	IS 5182 (Part 11): 2006
Benzo (a) Pyrene (Particulate phase only)	ng/m ³	<0.5	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.40-47
Arsenic (as As)	ng/m ³	<0.3	6.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Nickel (as Ni)	ng/m ³	<3	20.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Mercury (as Hg)	µg/m ³	<0.06	-	Method of analysis of Hg & MoF Japan
Location	2) Terrace of WTP Plant			Duration of Survey : 24 hours
Sulphur Dioxide (SO ₂)	µg/m ³	8.8	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Dioxide (NO ₂)	µg/m ³	11.6	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
Particulate Matter (size less than 10µm) or PM ₁₀	µg/m ³	68	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
Particulate Matter (size less than 2.5µm) or PM _{2.5}	µg/m ³	30	60	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.15-30
Ozone (O ₃)	µg/m ³	<19.6	180	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.31-34
Lead (as Pb)	µg/m ³	<0.02	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Carbon Monoxide(CO)	mg/m ³	0.72	4.0	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH ₃)	µg/m ³	22.9	400	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.35-39
Benzene (C ₆ H ₆)	µg/m ³	<1	5.0	IS 5182 (Part 11): 2006
Benzo(a)Pyrene (Particulate phase only)	ng/m ³	<0.5	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.40-47
Arsenic (as As)	ng/m ³	<0.3	6.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Nickel (as Ni)	ng/m ³	<3	20.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55

Report No.1810 Cont...

Parameter	Unit	Result	#NAAQM Standard	Method Reference
Location	2) Terrace of WTP Plant			Duration of Survey : 24 hours
Mercury (as Hg)	$\mu\text{g}/\text{m}^3$	<0.06	-	Method of analysis of Hg & MoF Japan
Parameter	Unit	Result	#NAAQM Standard	Method Reference
Location	3) Terrace of Bachelor Guest House			Duration of Survey : 24 hours
Sulphur Dioxide (SO_2)	$\mu\text{g}/\text{m}^3$	7.8	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Dioxide (NO_2)	$\mu\text{g}/\text{m}^3$	8.4	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
Particulate Matter (size less than $10\mu\text{m}$) or PM_{10}	$\mu\text{g}/\text{m}^3$	63	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
Particulate Matter (size less than $2.5\mu\text{m}$) or $\text{PM}_{2.5}$	$\mu\text{g}/\text{m}^3$	32	60	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.15-30
Ozone (O_3)	$\mu\text{g}/\text{m}^3$	<19.6	180	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.31-34
Lead (as Pb)	$\mu\text{g}/\text{m}^3$	<0.02	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Carbon Monoxide(CO)	mg/m^3	0.76	4.0	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH_3)	$\mu\text{g}/\text{m}^3$	22.8	400	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.35-39
Benzene (C_6H_6)	$\mu\text{g}/\text{m}^3$	<1	5.0	IS 5182 (Part 11): 2006
Benzo(a)Pyrene (Particulate phase only)	ng/m^3	<0.5	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.40-47
Arsenic (as As)	ng/m^3	<0.3	6.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Nickel (as Ni)	ng/m^3	<3	20.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Mercury (as Hg)	$\mu\text{g}/\text{m}^3$	<0.06	-	Method of analysis of Hg & MoF Japan
Remarks: N.D. - Not Detected; TWA - Time Weighted Average., #- NAAQS specified as: 24h. TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM_{10} , $\text{PM}_{2.5}$, Lead and Ammonia; 1h. TWA in case of Carbon Monoxide and Ozone; Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.				

END

FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor C.Yeole

BRANCH MANAGER



Note:

- The result listed refers only to the tested sample(s) and applicable parameter(s).
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Ambient Air Quality Monitoring Report

Report No.: ME-NG2009-171003-SA-RIPL-AMRAVATI		Date: 03.10.2017	
Name and address of Customer	RATTANINDIA POWER LIMITED Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901	Order Reference:	
		SO No. 3382012035 dtd. 21.09.2015.	
Sample Description / Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	1) Mr. Manoj Pandagale, House, Village- Wagholi 2) Mr.Rahul Nakade House Village- Dawargaon 3) Ramkirshna Temple, Village- Kapustalani	Sample Quantity / Packing	Filter Paper (PM ₁₀): 3 X 3 No. Filter Paper (PM _{2.5}): 1 X 3 No. SO ₂ : 30mL X18 No. PVC Bottle NO ₂ : 30 mLX18 No. PVC Bottle NH ₃ : 10mL X18 No. PVC Bottle O ₃ : 10 mL X72 No. PVC Bottle 3 X 12 No. Charcoal Tubes 3 X 3 No. Rubber Bladder
Date of Sampling	26.09.2017 & 27.09.2017	Date of Receipt of Sample	27.09.2017
Sampling Procedure	As per Method Reference		
Date of Start of Analysis	28.09.2017	Date of Completion of Analysis	03.10.2017

Meteorological Data / Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
3.1 km/h	SW	Max.	Min.	Max.	Min.
		83	30	34.0	24.0
Location :1) Mr. Manoj Pandagale House, Village- Wagholi			Duration of Survey 24 hours		
Parameter	Unit	Result	#NAAQM Standard	Method Reference	
Sulphur Dioxide (SO ₂)	µg/m ³	8.7	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6	
Nitrogen Dioxide (NO ₂)	µg/m ³	13.6	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10	
Particulate Matter (size less than 10µm) or PM ₁₀	µg/m ³	86	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14	
Particulate Matter (size less than 2.5µm) or PM _{2.5}	µg/m ³	40	60	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13,Page No.15-30	
Ozone (O ₃)	µg/m ³	<19.6	180	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13,Page No.31-34	

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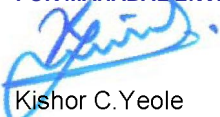
Parameter	Unit	Result	#NAAQM Standard	Method Reference
Lead (as Pb)	µg/m ³	<0.02	180	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Carbon Monoxide (CO)	mg/m ³	0.76	4.0	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH ₃)	µg/m ³	24.8	400	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.35-39
Benzene (C ₆ H ₆)	ng/m ³	1.1	5.0	IS 5182 (Part 11): 2006
Benzo(a)Pyrene (Particulate phase only)	µg/m ³	<0.5	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.40-47
Arsenic (as As)	ng/m ³	<0.3	6.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Nickel (as Ni)	ng/m ³	<3	20.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Mercury (as Hg)	µg/m ³	<0.06	-	Method of analysis of Hg & MoF Japan
Location : 2) Mr.Rahul Nakade House Village-Dawargaon				Duration of Survey 24 hours
Parameter	Unit	Result	#NAAQM Standard	Method Reference
Sulphur Dioxide (SO ₂)	µg/m ³	8.1	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Dioxide (NO ₂)	µg/m ³	10.8	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
Particulate Matter (size less than 10µm) or PM ₁₀	µg/m ³	68	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
Particulate Matter (size less than 2.5µm) or PM _{2.5}	µg/m ³	32	60	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13,Page No.15-30
Ozone (O ₃)	µg/m ³	<19.6	180	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13,Page No.31-34
Lead (as Pb)	µg/m ³	<0.02	180	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Carbon Monoxide (CO)	mg/m ³	0.74	4.0	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH ₃)	µg/m ³	22.8	400	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.35-39
Benzene (C ₆ H ₆)	ng/m ³	<1.0	5.0	IS 5182 (Part 11): 2006
Benzo(a)Pyrene (Particulate phase only)	µg/m ³	<0.5	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.40-47
Arsenic (as As)	ng/m ³	<0.3	6.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Nickel (as Ni)	ng/m ³	<3	20.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Mercury (as Hg)	µg/m ³	<0.06	-	Method of analysis of Hg & MoF Japan

Report No.2009 cont...

Parameter	Unit	Result	#NAAQM Standard	Method Reference
Location : 3) Ramkirshna Temple Vill- Kapustalani				Duration of Survey 24 hours
Sulphur Dioxide (SO ₂)	µg/m ³	8.1	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Dioxide (NO ₂)	µg/m ³	10.6	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
Particulate Matter (size less than 10µm) or PM ₁₀	µg/m ³	70.4	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
Particulate Matter (size less than 2.5µm) or PM _{2.5}	µg/m ³	32	60	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.15-30
Ozone (O ₃)	µg/m ³	<19.6	180	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.31-34
Lead (as Pb)	µg/m ³	<0.02	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Carbon Monoxide (CO)	mg/m ³	0.70	4.0	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH ₃)	µg/m ³	22.3	400	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.35-39
Benzene (C ₆ H ₆)	ng/m ³	<1.0	5.0	IS 5182 (Part 11): 2006
Benzo(a)Pyrene (Particulate phase only)	µg/m ³	<0.5	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.40-47
Arsenic (as As)	ng/m ³	<0.3	6.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Nickel (as Ni)	ng/m ³	<3	20.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Mercury (as Hg)	µg/m ³	<0.06	-	Method of analysis of Hg & MoF Japan
Remarks: N.D. - Not Detected; TWA - Time Weighted Average., #- NAAQS specified as: 24h. TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM ₁₀ , PM _{2.5} , Lead and Ammonia; 1h. TWA in case of Carbon Monoxide and Ozone; Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.				

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Opp. Patel Petrol Pump, Chhindwara Road, Koradi, Dist.Nagpur-441111

Phone :91-712-2612162T/Fax:91-712-2612212Email:nagpur@mahabal.com

Water Sample Analysis Report

Report No.: ME-NG1827-170925-SA-RIPL-AMRAVATI			Date: 25.09.2017
Name and Address of Customer	RATTANINDIA POWER LIMITED Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		Order Reference:
			Service Order No. 3382014804 dtd. 19.08.2017
Sample Description/Type	Surface Water/Grab	Sample Collected by	Laboratory
Sampling Location	Back side of Ash Dyke area well of Mr. Vasant Pachghare	Sample Quantity/Packing	3 L X 1 No. PVC Can 1 L X 1 No. Glass Bottle
Date of Sampling	12.09.2017	Date of Receipt of Sample	12.09.2017
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 22 nd Ed. 2012, 1060-B, 1-39;		
Date of Start of Analysis	13.09.2017	Date of Completion of Analysis	23.09.2017
Water Level Depth	-		

Sr. No.	Parameter	Unit	Result	Inland Surface water (EPA rule 1986)	Method Reference
1.	Colour	Hazen	<1	-	APHA 22 nd Ed. 2012, 2120-B, 2-6
2.	Odour	-	Agreeable	-	IS 3025 (Part 5):1983, RA 2006
3.	Taste	-	Disagreeable	-	IS 3025 (Part 7):1984, RA 2006
4.	Turbidity	NTU	2.1	-	APHA 22 nd Ed. 2012, 2130-B, 2-13
5.	pH	-	7.6	5.5 to 9.0	APHA 22 nd Ed. 2012, 4500-H ⁺ -B, 4-92
6.	Total Dissolved Solids	mg/L	428	-	IS 3025 (Part 16):1984, RA 2006
7.	Suspended Solids	mg/L	22	100 Max.	APHA 22 nd Ed. 2012, 2540-D, 2-66
8.	Residual Free Chlorine	ppm	N.D.	1.0 Max.	APHA 22 nd Ed. 2012, 4500-Cl G, 4-69
9.	Total Hardness (as CaCO ₃)	mg/L	212	-	APHA 22 nd Ed. 2012, 2340-C, 2-44, 45
10.	Alkalinity Total (as CaCO ₃)	mg/L	264	-	IS 3025 (Part 23):1986 Reaffirmed 2009
11.	Chloride(as Cl)	mg/L	22.4	-	APHA 22 nd Ed. 2012, 4500-Cl ⁻ B, 4-72
12.	Sulphate (as SO ₄)	mg/L	19.2	-	APHA 22 nd Ed. 2012, 4500- SO ₄ -E, 4-190



Plot No. F-7, Road No. 21, MIDC Wagle Estate, Thane West - 400604, Maharashtra

(Turn Opp Toyota Show Room 600 m from Hotel Rukhmini Palace. Next to Ashida Electrical. Near J B Sawant Bus Stop)

Phone: 2582 0658/3139/1663/3154 Fax:+91-22-25823543 thane@mahabal.com



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Report No.1827 Cont...

Sr. No.	Parameter	Unit	Result	Inland Surface water (EPA rule 1986)	Method Reference
13.	Nitrate (as NO ₃)	mg/L	23.1	-	APHA 22 nd Ed. 2012, 4500-NO ₃ -E, 4-125
15.	Calcium (as Ca)	mg/L	37.4	-	APHA 22 nd Ed. 2012, 3500-Ca-B, 3-67
14.	Magnesium (as Mg)	mg/L	28.8	-	APHA 22 nd Ed. 2012, 3500-Mg-B, 3-84
16.	Fluoride(as F)	mg/L	0.18	2.0 Max.	APHA 22 nd Ed. 2012, 4500-F ⁻ B & D, 4-84, 6-87
17.	Boron(as B)	mg/L	<0.1	-	APHA 22 nd Ed.2012, 4500-B B,4-25
18.	Dissolved Oxygen	mg/L	5.6	-	APHA 22 nd Ed. 2012, 4500-O, B & C, 4-136, 4-139
19.	Oil and Grease	mg/L	N.D.	10 Max.	IS 3025 (Part 39): 1991, RA 2003, Ed. 2.1
20.	Iron (as Fe)	mg/L	0.32	3.0 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
21.	Manganese (as Mn)	mg/L	<0.04	2.0 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
22.	Cadmium (as Cd)	mg/L	N.D.	2.0 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
23.	Copper (as Cu)	mg/L	N.D.	3.0 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
24.	Chromium Hexa (as Cr ⁶⁺)	mg/L	N.D.	0.1 Max.	APHA 22 nd Ed. 2012, 3500- Cr-B, 3-69
25.	Lead (as Pb)	mg/L	N.D.	0.1 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
26.	Zinc (as Zn)	mg/L	0.11	5.0 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
27.	Arsenic (as As)	mg/L	N.D.	0.2 Max.	APHA 22 nd Ed. 2012, 3114-C, 3-38
28.	Mercury (as Hg)	mg/L	N.D.	0.01 Max.	APHA 22 nd Ed. 2012, 3112-B, 3-23
29.	Selenium (as Se)	mg/L	N.D.	0.05 Max.	APHA 22 nd Ed. 2012, 3114-C, 3-38
30.	Aluminium (as Al)	mg/L	0.03	-	APHA 22 nd Ed. 2012, 3500-Al-B, 3-61
31.	Cyanide (as CN)	mg/L	N.D.	0.2 Max.	APHA 22 nd Ed. 2012, 4500-CN, C & E, 4-39 & 4-44
32.	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	N.D.	1.0 Max.	APHA 22 nd Ed. 2012, 5530- B & C, 5-47

Remarks: Limit is EPA Rule 1986 of Schedule VI (rule 3A) of General Standard for Discharge of Environmental Pollutants Part A Effluents Detected.

END

FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

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(Turn Opp Toyota Show Room 600 m from Hotel Rukhmini Palace. Next to Ashida Electrical. Near J B Sawant Bus Stop)
Phone: 2582 0658/3139/1663/3154 Fax: +91-22-25823543 thane@mahabal.com



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Stack Emission Monitoring Report

Report No.: ME-NG1805-170925-SA-RIPL-AMRAVATI			Date: 25.09.2017
Name and Address of Customer	RATTANINDIA POWER LIMITED Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		Order Reference:
			SO No. 3382012035 dtd. 21.09.2015.
Sample Description /Type	Stack Emission Monitoring	Sample Collected by	Laboratory
Sampling Location	Unit No.1	Sample Quantity/Packing	Thimble: 1 X 1 No. SO ₂ : 30 mL X 1No.PVC Bottle NO _x :25 mL X 1No.PVC Bottle Bladder: 1L X 1 No.
Date of Sampling	11.09.2017	Date of Receipt of Sample	12.09.2017
Sampling Procedure	As per Method Reference		
Date of Start of Analysis	13.09.2017	Date of Completion of Analysis	25.09.2017

Stack No.		Unit No.1		
Stack attached to		ESP of Boiler Unit No.1		
Material of construction		M.S.		
Stack height above ground level (Meter)		275.0		
Stack diameter (Meter)		4.6		
Stack shape at top		Round		
Type of fuel		Coal		
Fuel Consumption (t/h)		156		
ESP Fields (28 No's.)		In Service (28 No's)		
Load at the time of monitoring		270 MW		
Parameter	Unit	Result	Limit as Per Consent	Method Reference
Flue gas Temperature	⁰ C	135	-	IS 11255 (Part 3):2008
Flue gas Velocity	m/s	29.6	-	IS 11255 (Part 3):2008
Total gas quantity	Nm ³ /h	1292813	-	IS 11255 (Part 3):2008
Particulate Matter (PM)	mg/Nm ³	35	50	IS 11255 (Part 1):1985 RA 2003
Sulphur Dioxide (SO ₂)	mg/Nm ³	582	-	IS 11255 (Part 2):1985 RA 2003

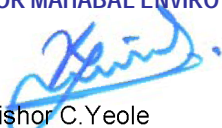


Report No.1805 cont...

Parameter	Unit	Result	Limit as Per Consent	Method Reference
Sulphur Dioxide (SO ₂)	kg/day	18058	52230	IS 11255 (Part 2):1985 RA 2003
Oxides of Nitrogen(NO _x)	mg/Nm ³	177	-	IS 11255 (Part 7):2005
Carbon Dioxide (CO ₂)	%	12.4	-	IS 13270:1992, RA 2009
Remarks :				

-----END-----

FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.


Kishor C. Yeole

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Stack Emission Monitoring Report

Report No.: ME-NG2006-171003-SA-RIPL-AMRAVATI			Date: 03.10.2017
Name and Address of Customer	RATTANINDIA POWER LIMITED Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		Order Reference:
			SO No. 3382012035 dtd. 21.09.2015.
Sample Description /Type	Stack Emission Monitoring	Sample Collected by	Laboratory
Sampling Location	Unit No.1	Sample Quantity/Packing	Thimble: 1 X 1 No. SO ₂ : 30 mL X 1No.PVC Bottle NO _x :25 mL X 1No.PVC Bottle Bladder: 1L X 1 No.
Date of Sampling	26.09.2017	Date of Receipt of Sample	27.09.2017
Sampling Procedure	As per Method Reference		
Date of Start of Analysis	27.09.2017	Date of Completion of Analysis	03.10.2017

Stack No.		Unit No.1		
Stack attached to		ESP of Boiler Unit No.1		
Material of construction		M.S.		
Stack height above ground level (Meter)		275.0		
Stack diameter (Meter)		4.6		
Stack shape at top		Round		
Type of fuel		Coal		
Fuel Consumption (t/h)		114		
ESP Fields (28 No's.)		In Service (28 No's)		
Load at the time of monitoring		195 MW		
Parameter	Unit	Result	Limit as Per Consent	Method Reference
Flue gas Temperature	⁰ C	135	-	IS 11255 (Part 3):2008
Flue gas Velocity	m/s	28.9	-	IS 11255 (Part 3):2008
Total gas quantity	Nm ³ /h	1262239	-	IS 11255 (Part 3):2008
Particulate Matter (PM)	mg/Nm ³	32	50	IS 11255 (Part 1):1985 RA 2003
Sulphur Dioxide (SO ₂)	mg/Nm ³	578	-	IS 11255 (Part 2):1985 RA 2003

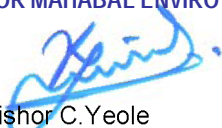


Report No.2006 cont...

Parameter	Unit	Result	Limit as Per Consent	Method Reference
Sulphur Dioxide (SO ₂)	kg/day	17510	52230	IS 11255 (Part 2):1985 RA 2003
Oxides of Nitrogen(NO _x)	mg/Nm ³	184	-	IS 11255 (Part 7):2005
Carbon Dioxide (CO ₂)	%	12.1	-	IS 13270:1992, RA 2009
Remarks :				

-----END-----

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Stack Emission Monitoring Report

Report No.: ME-NG1806-170925-SA-RIPL-AMRAVATI			Date: 25.09.2017
Name and Address of Customer	RATTANINDIA POWER LIMITED Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		Order Reference:
			SO No. 3382012035 dtd. 21.09.2015.
Sample Description /Type	Stack Emission Monitoring	Sample Collected by	Laboratory
Sampling Location	Unit No.2	Sample Quantity/Packing	Thimble: 1 X 1 No. SO ₂ : 30 mL X 1No.PVC Bottle NO _x :25 mL X 1No.PVC Bottle Bladder: 1L X 1 No.
Date of Sampling	11.09.2017	Date of Receipt of Sample	12.09.2017
Sampling Procedure	As per Method Reference		
Date of Start of Analysis	13.09.2017	Date of Completion of Analysis	25.09.2017

Stack No.		Unit No.2		
Stack attached to		ESP of Boiler Unit No.2		
Material of construction		M.S.		
Stack height above ground level (Meter)		275.0		
Stack diameter (Meter)		4.6		
Stack shape at top		Round		
Type of fuel		Coal		
Fuel Consumption (t/h)		134		
ESP Fields (28 No's.)		In Service (28 No's)		
Load at the time of monitoring		230 MW		
Parameter	Unit	Result	Limit as Per Consent	Method Reference
Flue gas Temperature	⁰ C	132	-	IS 11255 (Part 3):2008
Flue gas Velocity	m/s	29.5	-	IS 11255 (Part 3):2008
Total gas quantity	Nm ³ /h	1297989	-	IS 11255 (Part 3):2008
Particulate Matter (PM)	mg/Nm ³	36	50	IS 11255 (Part 1):1985 RA 2003
Sulphur Dioxide (SO ₂)	mg/Nm ³	578	-	IS 11255 (Part 2):1985 RA 2003

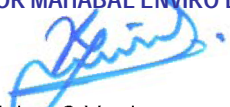


Report No.1806 cont...

Parameter	Unit	Result	Limit as Per Consent	Method Reference
Sulphur Dioxide (SO ₂)	kg/day	18006	52230	IS 11255 (Part 2):1985 RA 2003
Oxides of Nitrogen(NO _x)	mg/Nm ³	168	-	IS 11255 (Part 7):2005
Carbon Dioxide (CO ₂)	%	12.1	-	IS 13270:1992, RA 2009
Remarks :				

-----END-----

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Stack Emission Monitoring Report

Report No.: ME-NG2007-171003-SA-RIPL-AMRAVATI			Date: 03.10.2017
Name and Address of Customer	RATTANINDIA POWER LIMITED Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		Order Reference:
			SO No. 3382012035 dtd. 21.09.2015.
Sample Description /Type	Stack Emission Monitoring	Sample Collected by	Laboratory
Sampling Location	Unit No.2	Sample Quantity/Packing	Thimble: 1 X 1 No. SO ₂ : 30 mL X 1No.PVC Bottle NO _x :25 mL X 1No.PVC Bottle Bladder: 1L X 1 No.
Date of Sampling	26.09.2017	Date of Receipt of Sample	27.09.2017
Sampling Procedure	As per Method Reference		
Date of Start of Analysis	28.09.2017	Date of Completion of Analysis	03.10.2017

Stack No.		Unit No.2		
Stack attached to		ESP of Boiler Unit No.2		
Material of construction		M.S.		
Stack height above ground level (Meter)		275.0		
Stack diameter (Meter)		4.6		
Stack shape at top		Round		
Type of fuel		Coal		
Fuel Consumption (t/h)		175		
ESP Fields (28 No's.)		In Service (28 No's)		
Load at the time of monitoring		270 MW		
Parameter	Unit	Result	Limit as Per Consent	Method Reference
Flue gas Temperature	⁰ C	135	-	IS 11255 (Part 3):2008
Flue gas Velocity	m/s	28.6	-	IS 11255 (Part 3):2008
Total gas quantity	Nm ³ /h	1249137	-	IS 11255 (Part 3):2008
Particulate Matter (PM)	mg/Nm ³	28	50	IS 11255 (Part 1):1985 RA 2003
Sulphur Dioxide (SO ₂)	mg/Nm ³	568	-	IS 11255 (Part 2):1985 RA 2003

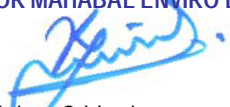


Report No.2007 cont...

Parameter	Unit	Result	Limit as Per Consent	Method Reference
Sulphur Dioxide (SO ₂)	kg/day	17028	52230	IS 11255 (Part 2):1985 RA 2003
Oxides of Nitrogen(NO _x)	mg/Nm ³	159	-	IS 11255 (Part 7):2005
Carbon Dioxide (CO ₂)	%	11.7	-	IS 13270:1992, RA 2009
Remarks :				

-----END-----

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Stack Emission Monitoring Report

Report No.: ME-NG1807-170925-SA-RIPL-AMRAVATI			Date: 25.09.2017
Name and Address of Customer	RATTANINDIA POWER LIMITED Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		Order Reference:
			SO No. 3382012035 dtd. 21.09.2015.
Sample Description /Type	Stack Emission Monitoring	Sample Collected by	Laboratory
Sampling Location	Unit No.3	Sample Quantity/Packing	Thimble: 1 X 1 No. SO ₂ : 30 mL X 1No.PVC Bottle NO _x :25 mL X 1No.PVC Bottle Bladder: 1L X 1 No.
Date of Sampling	11.09.2017	Date of Receipt of Sample	12.09.2017
Sampling Procedure	As per Method Reference		
Date of Start of Analysis	13.09.2017	Date of Completion of Analysis	25.09.2017

Stack No.		Unit No.3		
Stack attached to		ESP of Boiler Unit No.3		
Material of construction		M.S.		
Stack height above ground level (Meter)		275.0		
Stack diameter (Meter)		4.6		
Stack shape at top		Round		
Type of fuel		Coal		
Fuel Consumption (t/h)		174		
ESP Fields (28 No's.)		In Service (28 No's)		
Load at the time of monitoring		265 MW		
Parameter	Unit	Result	Limit as Per Consent	Method Reference
Flue gas Temperature	⁰ C	129	-	IS 11255 (Part 3):2008
Flue gas Velocity	m/s	29.2	-	IS 11255 (Part 3):2008
Total gas quantity	Nm ³ /h	1294377	-	IS 11255 (Part 3):2008
Particulate Matter (PM)	mg/Nm ³	34	50	IS 11255 (Part 1):1985 RA 2003
Sulphur Dioxide (SO ₂)	mg/Nm ³	569	-	IS 11255 (Part 2):1985 RA 2003

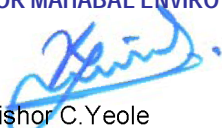


Report No.1807 cont...

Parameter	Unit	Result	Limit as Per Consent	Method Reference
Sulphur Dioxide (SO ₂)	kg/day	17676	52230	IS 11255 (Part 2):1985 RA 2003
Oxides of Nitrogen(NO _x)	mg/Nm ³	158	-	IS 11255 (Part 7):2005
Carbon Dioxide (CO ₂)	%	11.9	-	IS 13270:1992, RA 2009
Remarks :				

-----END-----

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Stack Emission Monitoring Report

Report No.: ME-NG1808-170925-SA-RIPL-AMRAVATI			Date: 25.09.2017
Name and Address of Customer	RATTANINDIA POWER LIMITED Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		Order Reference:
			SO No. 3382012035 dtd. 21.09.2015.
Sample Description /Type	Stack Emission Monitoring	Sample Collected by	Laboratory
Sampling Location	Unit No.4	Sample Quantity/Packing	Thimble: 1 X 1 No. SO ₂ : 30 mL X 1No.PVC Bottle NO _x :25 mL X 1No.PVC Bottle Bladder: 1L X 1 No.
Date of Sampling	11.09.2017	Date of Receipt of Sample	12.09.2017
Sampling Procedure	As per Method Reference		
Date of Start of Analysis	13.09.2017	Date of Completion of Analysis	25.09.2017

Stack No.		Unit No.5		
Stack attached to		ESP of Boiler Unit No.5		
Material of construction		M.S.		
Stack height above ground level (Meter)		275.0		
Stack diameter (Meter)		4.6		
Stack shape at top		Round		
Type of fuel		Coal		
Fuel Consumption (t/h)		157		
ESP Fields (28 No's.)		In Service (28 No's)		
Load at the time of monitoring		270 MW		
Parameter	Unit	Result	Limit as Per Consent	Method Reference
Flue gas Temperature	⁰ C	134	-	IS 11255 (Part 3):2008
Flue gas Velocity	m/s	29.5	-	IS 11255 (Part 3):2008
Total gas quantity	Nm ³ /h	1291611	-	IS 11255 (Part 3):2008
Particulate Matter (PM)	mg/Nm ³	35	50	IS 11255 (Part 1):1985 RA 2003
Sulphur Dioxide (SO ₂)	mg/Nm ³	587	-	IS 11255 (Part 2):1985 RA 2003

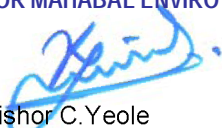


Report No.1808 cont...

Parameter	Unit	Result	Limit as Per Consent	Method Reference
Sulphur Dioxide (SO ₂)	kg/day	18196	52230	IS 11255 (Part 2):1985 RA 2003
Oxides of Nitrogen(NO _x)	mg/Nm ³	163	-	IS 11255 (Part 7):2005
Carbon Dioxide (CO ₂)	%	11.8	-	IS 13270:1992, RA 2009
Remarks :				

-----END-----

FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.


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Stack Emission Monitoring Report

Report No.: ME-NG2008-171003-SA-RIPL-AMRAVATI			Date: 03.10.2017
Name and Address of Customer	RATTANINDIA POWER LIMITED Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		Order Reference:
			SO No. 3382012035 dtd. 21.09.2015.
Sample Description /Type	Stack Emission Monitoring	Sample Collected by	Laboratory
Sampling Location	Unit No.4	Sample Quantity/Packing	Thimble: 1 X 1 No. SO ₂ : 30 mL X 1No.PVC Bottle NO _x :25 mL X 1No.PVC Bottle Bladder: 1L X 1 No.
Date of Sampling	26.09.2017	Date of Receipt of Sample	27.09.2017
Sampling Procedure	As per Method Reference		
Date of Start of Analysis	28.09.2017	Date of Completion of Analysis	03.10.2017

Stack No.		Unit No.5		
Stack attached to		ESP of Boiler Unit No.5		
Material of construction		M.S.		
Stack height above ground level (Meter)		275.0		
Stack diameter (Meter)		4.6		
Stack shape at top		Round		
Type of fuel		Coal		
Fuel Consumption (t/h)		117		
ESP Fields (28 No's.)		In Service (28 No's)		
Load at the time of monitoring		195 MW		
Parameter	Unit	Result	Limit as Per Consent	Method Reference
Flue gas Temperature	⁰ C	135	-	IS 11255 (Part 3):2008
Flue gas Velocity	m/s	28.6	-	IS 11255 (Part 3):2008
Total gas quantity	Nm ³ /h	1249137	-	IS 11255 (Part 3):2008
Particulate Matter (PM)	mg/Nm ³	28	50	IS 11255 (Part 1):1985 RA 2003
Sulphur Dioxide (SO ₂)	mg/Nm ³	568	-	IS 11255 (Part 2):1985 RA 2003

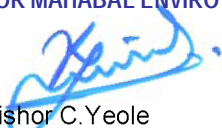


Report No.2008 cont...

Parameter	Unit	Result	Limit as Per Consent	Method Reference
Sulphur Dioxide (SO ₂)	kg/day	17028	52230	IS 11255 (Part 2):1985 RA 2003
Oxides of Nitrogen(NO _x)	mg/Nm ³	167	-	IS 11255 (Part 7):2005
Carbon Dioxide (CO ₂)	%	12.4	-	IS 13270:1992, RA 2009
Remarks :				

-----END-----

FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.


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Stack Emission Monitoring Report

Report No.: ME-NG1809-170925-SA-RIPL-AMRAVATI			Date: 25.09.2017
Name and Address of Customer	RATTANINDIA POWER LIMITED Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		Order Reference:
			SO No. 3382012035 dtd. 21.09.2015.
Sample Description /Type	Stack Emission Monitoring	Sample Collected by	Laboratory
Sampling Location	Unit No.5	Sample Quantity/Packing	Thimble: 1 X 1 No. SO ₂ : 30 mL X 1No.PVC Bottle NO _x :25 mL X 1No.PVC Bottle Bladder: 1L X 1 No.
Date of Sampling	11.09.2017	Date of Receipt of Sample	12.09.2017
Sampling Procedure	As per Method Reference		
Date of Start of Analysis	13.09.2017	Date of Completion of Analysis	25.09.2017

Stack No.		Unit No.5		
Stack attached to		ESP of Boiler Unit No.5		
Material of construction		M.S.		
Stack height above ground level (Meter)		275.0		
Stack diameter (Meter)		4.6		
Stack shape at top		Round		
Type of fuel		Coal		
Fuel Consumption (t/h)		164		
ESP Fields (28 No's.)		In Service (28 No's)		
Load at the time of monitoring		270 MW		
Parameter	Unit	Result	Limit as Per Consent	Method Reference
Flue gas Temperature	⁰ C	128	-	IS 11255 (Part 3):2008
Flue gas Velocity	m/s	29.3	-	IS 11255 (Part 3):2008
Total gas quantity	Nm ³ /h	1302049	-	IS 11255 (Part 3):2008
Particulate Matter (PM)	mg/Nm ³	37	50	IS 11255 (Part 1):1985 RA 2003
Sulphur Dioxide (SO ₂)	mg/Nm ³	582	-	IS 11255 (Part 2):1985 RA 2003

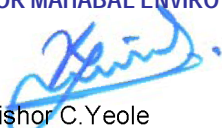


Report No.1809 cont...

Parameter	Unit	Result	Limit as Per Consent	Method Reference
Sulphur Dioxide (SO ₂)	kg/day	18187	52230	IS 11255 (Part 2):1985 RA 2003
Oxides of Nitrogen(NO _x)	mg/Nm ³	168	-	IS 11255 (Part 7):2005
Carbon Dioxide (CO ₂)	%	11.4	-	IS 13270:1992, RA 2009
Remarks :				

-----END-----

FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.


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Noise Level Monitoring Report

Report No.: ME-NG1811-170925-SA-RIPL-AMRAVATI			Date: 25.09.2017
Name and Address of Customer	RATTANINDIA POWER LIMITED Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		Order Reference:
			SO No. 3382012035 dtd. 21.09.2015.
Sample Description / Type	Noise Level Monitoring	Sample Collected by	Laboratory
Date of Sampling	11.09.2017		
Sampling Procedure	Instrument Catalogue & User manual		

Location	Unit	Result		Norms as per factory Act.	
		Min.	Max.	Maximum Exposure duration per Day	Limit
Green Point gate	dB(A)	68.4	73.9	8 h	90 Max.
Wagholi gate	dB(A)	74.8	78.6		
Near Material gate	dB(A)	73.4	76.2		
Near Labour Colony	dB(A)	66.9	68.3		
Near Bachelor Colony Building	dB(A)	63.6	72.8		
Remark: : Limit from The Factories Act, 1948, The Maharashtra Factory Rules, 1963, Schedule XXIV Page No. 283-284					

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FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor C.Yeole

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Opp. Patel Petrol Pump, Chhindwara Road, Koradi, Dist.Nagapur-441111

Phone : 91-712-2612162 T/Fax: 91-712-2612212 Email: nagpur@mahabal.com

Water Sample Analysis Report

Report No.: ME-NG1818-170925-SA-RIPL-AMRAVATI			Date: 25.09.2017
Name and Address of Customer	RATTANINDIA POWER LIMITED Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		Order Reference:
			SO No. 3382012035 dtd. 21.09.2015.
Sample Description / Type	Ground Water/Grab	Sample Collected by	Laboratory
Sampling Location	Well Water of Shri Madhukarrao Dhote field, Village-Kapustalni	Sample Quantity / Packing	3 L X 1 No. PVC Can 1 L X 1 No. Glass Bottle
Date of Sampling	12.09.2017	Date of Receipt of Sample	12.09.2017
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 22 nd Ed. 2012, 1060-B, 1-39;		
Date of Start of Analysis	13.09.2017	Date of Completion of Analysis	23.09.2017
Water Level Depth	6.14 meter from ground level		

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
1.	Colour	Hazen	<1	5 Max.	APHA 22 nd Ed. 2012, 2120-B, 2-6
2.	Odour	-	Agreeable	Agreeable	IS 3025 (Part 5):1983, RA 2006
3.	Taste	-	Agreeable	Agreeable	IS 3025 (Part 7):1984, RA 2006
4.	Turbidity	NTU	0.74	1 Max.	APHA 22 nd Ed. 2012, 2130-B, 2-13
5.	pH	-	7.5	6.5 to 8.5	APHA 22 nd Ed. 2012, 4500-H ⁺ -B, 4-92
6.	Total Dissolved Solids	mg/L	518	500 Max.	IS 3025 (Part 16):1984, RA 2006
7.	Suspended Solids	mg/L	<5	--	APHA 22 nd Ed. 2012, 2540-D, 2-66
8.	Residual Free Chlorine	ppm	<0.05	0.2 Min.	APHA 22 nd Ed. 2012, 4500-Cl G, 4-69
9.	Total Hardness (as CaCO ₃)	mg/L	334	200 Max.	APHA 22 nd Ed. 2012, 2340-C, 2-44, 45
10.	Alkalinity Total (as CaCO ₃)	mg/L	310	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009
11.	Chloride(as Cl)	mg/L	49.0	250 Max.	APHA 22 nd Ed. 2012, 4500-Cl ⁻ B, 4-72
12.	Sulphate (as SO ₄)	mg/L	36.4	200 Max	APHA 22 nd Ed. 2012, 4500- SO ₄ -E, 4-190
13.	Nitrate (as NO ₃)	mg/L	22.8	45 Max	APHA 22 nd Ed. 2012, 4500-NO ₃ -E, 4-125

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Report No.1818 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
14.	Calcium (as Ca)	mg/L	75.4	75 Max.	APHA 22 nd Ed. 2012, 3500-Ca-B, 3-67
15.	Magnesium (as Mg)	mg/L	35.5	30 Max.	APHA 22 nd Ed. 2012, 3500-Mg-B, 3-84
16.	Fluoride(as F)	mg/L	0.674	1.0 Max.	APHA 22 nd Ed. 2012, 4500-F ⁻ B & D, 4-84, 4-87
17.	Boron(as B)	mg/L	<0.1	0.5 Max.	APHA 22 nd Ed.2012, 4500-B B,4-25
18.	Dissolved Oxygen	mg/L	6.8	--	APHA 22 nd Ed. 2012, 4500-O, B & C, 4-136, 4-139
19.	Oil and Grease	mg/L	N.D.	--	IS 3025 (Part 39): 1991, RA 2003, Ed. 2.1
20.	Iron (as Fe)	mg/L	0.425	0.3 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
21.	Manganese (as Mn)	mg/L	<0.04	0.1 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
22.	Cadmium (as Cd)	mg/L	N.D.	0.003 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
23.	Copper (as Cu)	mg/L	N.D.	0.05 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
24.	Chromium Hexa (as Cr ⁶⁺)	mg/L	N.D.	--	APHA 22 nd Ed. 2012, 3500- Cr-B, 3-69
25.	Lead (as Pb)	mg/L	N.D.	0.01 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
26.	Zinc (as Zn)	mg/L	0.017	5 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
27.	Arsenic (as As)	mg/L	N.D.	0.01 Max.	APHA 22 nd Ed. 2012, 3114-C, 3-38
28.	Mercury (as Hg)	mg/L	N.D.	0.001 Max.	APHA 22 nd Ed. 2012, 3112-B, 3-23
29.	Selenium (as Se)	mg/L	N.D.	0.01 Max.	APHA 22 nd Ed. 2012, 3114-C, 3-38
30.	Aluminium (as Al)	mg/L	<0.020	0.03 Max.	APHA 22 nd Ed. 2012, 3500-Al-B, 3-61
31.	Cyanide (as CN)	mg/L	N.D.	0.05 Max.	APHA 22 nd Ed. 2012, 4500-CN, C & E, 4-39 & 4-44
32.	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	N.D.	0.001 Max.	APHA 22 nd Ed. 2012, 5530- B & C, 5-47
Remarks: N.D. – Not Detected					

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Kishor C. Yeole

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Opp. Patel Petrol Pump, Chhindwara Road, Koradi, Dist.Nagapur-441111

Phone : 91-712-2612162 T/Fax: 91-712-2612212 Email: nagpur@mahabal.com

Water Sample Analysis Report

Report No.: ME-NG1821-170925-SA-RIPL-AMRAVATI			Date: 25.09.2017
Name and Address of Customer	RATTANINDIA POWER LIMITED Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901	Order Reference:	
		SO No. 3382012035 dtd. 21.09.2015.	
Sample Description / Type	Ground Water/Grab	Sample Collected by	Laboratory
Sampling Location	Borewell- Gram Panchayat Digargoan	Sample Quantity / Packing	3 L X 1 No. PVC Can 1 L X 1 No. Glass Bottle
Date of Sampling	12.09.2017	Date of Receipt of Sample	12.09.2017
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 22 nd Ed. 2012, 1060-B, 1-39;		
Date of Start of Analysis	13.09.2017	Date of Completion of Analysis	23.09.2017

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
1.	Colour	Hazen	<1	5 Max.	APHA 22 nd Ed. 2012, 2120-B, 2-6
2.	Odour	-	Agreeable	Agreeable	IS 3025 (Part 5):1983, RA 2006
3.	Taste	-	Agreeable	Agreeable	IS 3025 (Part 7):1984, RA 2006
4.	Turbidity	NTU	0.85	1 Max.	APHA 22 nd Ed. 2012, 2130-B, 2-13
5.	pH	-	7.3	6.5 to 8.5	APHA 22 nd Ed. 2012, 4500-H ⁺ -B, 4-92
6.	Total Dissolved Solids	mg/L	940	500 Max.	IS 3025 (Part 16):1984, RA 2006
7.	Suspended Solids	mg/L	<5	--	APHA 22 nd Ed. 2012, 2540-D, 2-66
8.	Residual Free Chlorine	ppm	0.05	0.2 Min.	APHA 22 nd Ed. 2012, 4500-Cl G, 4-69
9.	Total Hardness (as CaCO ₃)	mg/L	624	200 Max.	APHA 22 nd Ed. 2012, 2340-C, 2-44, 45
10.	Alkalinity Total (as CaCO ₃)	mg/L	386	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009
11.	Chloride(as Cl)	mg/L	169	250 Max.	APHA 22 nd Ed. 2012, 4500-Cl ⁻ B, 4-72
12.	Sulphate (as SO ₄)	mg/L	62.2	200 Max	APHA 22 nd Ed. 2012, 4500- SO ₄ -E, 4-190
13.	Nitrate (as NO ₃)	mg/L	68.4	45 Max	APHA 22 nd Ed. 2012, 4500-NO ₃ -E, 4-125
14.	Calcium (as Ca)	mg/L	152	75 Max.	APHA 22 nd Ed. 2012, 3500-Ca-B, 3-67

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Report No.1821 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
15.	Magnesium (as Mg)	mg/L	59.3	30 Max.	APHA 22 nd Ed. 2012, 3500-Mg-B, 3-84
16.	Fluoride(as F)	mg/L	0.389	1.0 Max.	APHA 22 nd Ed. 2012, 4500-F ⁻ B & D, 4-84, 4-87
17.	Boron(as B)	mg/L	<0.1	0.5 Max.	APHA 22 nd Ed.2012, 4500-B B,4-25
18.	Dissolved Oxygen	mg/L	6.5	--	APHA 22 nd Ed. 2012, 4500-O, B & C, 4-136, 4-139
19.	Oil and Grease	mg/L	N.D.	--	IS 3025 (Part 39): 1991, RA 2003, Ed. 2.1
20.	Iron (as Fe)	mg/L	0.573	0.3 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
21.	Manganese (as Mn)	mg/L	<0.04	0.1 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
22.	Cadmium (as Cd)	mg/L	N.D.	0.003 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
23.	Copper (as Cu)	mg/L	N.D.	0.05 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
24.	Chromium Hexa (as Cr ⁶⁺)	mg/L	N.D.	--	APHA 22 nd Ed. 2012, 3500- Cr-B, 3-69
25.	Lead (as Pb)	mg/L	N.D.	0.01 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
26.	Zinc (as Zn)	mg/L	0.84	5 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
27.	Arsenic (as As)	mg/L	N.D.	0.01 Max.	APHA 22 nd Ed. 2012, 3114-C, 3-38
28.	Mercury (as Hg)	mg/L	N.D.	0.001 Max.	APHA 22 nd Ed. 2012, 3112-B, 3-23
29.	Selenium (as Se)	mg/L	N.D.	0.01 Max.	APHA 22 nd Ed. 2012, 3114-C, 3-38
30.	Aluminium (as Al)	mg/L	<0.005	0.03 Max.	APHA 22 nd Ed. 2012, 3500-Al-B, 3-61
31.	Cyanide (as CN)	mg/L	N.D.	0.05 Max.	APHA 22 nd Ed. 2012, 4500-CN, C & E, 4-39 & 4-44
32.	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	N.D.	0.001 Max.	APHA 22 nd Ed. 2012, 5530- B & C, 5-47
Remarks: N.D. – Not Detected					

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FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor C. Yeole

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Opp. Patel Petrol Pump, Chhindwara Road, Koradi, Dist.Nagapur-441111

Phone : 91-712-2612162 T/Fax: 91-712-2612212 Email: nagpur@mahabal.com

Water Sample Analysis Report

Report No.: ME-NG1820-170925-SA-RIPL-AMRAVATI			Date: 25.09.2017
Name and Address of Customer	RATTANINDIA POWER LIMITED Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		Order Reference:
			SO No. 3382012035 dtd. 21.09.2015.
Sample Description / Type	Ground Water/Grab	Sample Collected by	Laboratory
Sampling Location	Well Water Gram Panchayat Pimpal Vihargaon	Sample Quantity / Packing	3 L X 1 No. PVC Can 1 L X 1 No. Glass Bottle
Date of Sampling	12.09.2017	Date of Receipt of Sample	12.09.2017
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 22 nd Ed. 2012, 1060-B, 1-39;		
Date of Start of Analysis	13.09.2017	Date of Completion of Analysis	23.09.2017
Water Level Depth	3.84meter from ground level		

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
1.	Colour	Hazen	<1	5 Max.	APHA 22 nd Ed. 2012, 2120-B, 2-6
2.	Odour	-	Agreeable	Agreeable	IS 3025 (Part 5):1983, RA 2006
3.	Taste	-	Agreeable	Agreeable	IS 3025 (Part 7):1984, RA 2006
4.	Turbidity	NTU	0.5	1 Max.	APHA 22 nd Ed. 2012, 2130-B, 2-13
5.	pH	-	7.2	6.5 to 8.5	APHA 22 nd Ed. 2012, 4500-H ⁺ -B, 4-92
6.	Total Dissolved Solids	mg/L	390	500 Max.	IS 3025 (Part 16):1984, RA 2006
7.	Suspended Solids	mg/L	<5	-	APHA 22 nd Ed. 2012, 2540-D, 2-66
8.	Residual Free Chlorine	ppm	<0.05	0.2 Min.	APHA 22 nd Ed. 2012, 4500-Cl G, 4-69
9.	Total Hardness (as CaCO ₃)	mg/L	284	200 Max.	APHA 22 nd Ed. 2012, 2340-C, 2-44, 45
10.	Alkalinity Total (as CaCO ₃)	mg/L	302	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009
11.	Chloride(as Cl)	mg/L	14.6	250 Max.	APHA 22 nd Ed. 2012, 4500-Cl ⁻ B, 4-72
12.	Sulphate (as SO ₄)	mg/L	10.2	200 Max	APHA 22 nd Ed. 2012, 4500- SO ₄ -E, 4-190
13.	Nitrate (as NO ₃)	mg/L	5.78	45 Max	APHA 22 nd Ed. 2012, 4500-NO ₃ -E, 4-125



Report No.1820 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
15.	Calcium (as Ca)	mg/L	64.1	75 Max.	APHA 22 nd Ed. 2012, 3500-Ca-B, 3-67
14.	Magnesium (as Mg)	mg/L	30.1	30 Max.	APHA 22 nd Ed. 2012, 3500-Mg-B, 3-84
16.	Fluoride(as F)	mg/L	0.448	1.0 Max.	APHA 22 nd Ed. 2012, 4500-F ⁻ B & D, 4-84, 4-87
17.	Boron(as B)	mg/L	<0.1	0.5 Max.	APHA 22 nd Ed.2012, 4500-B B,4-25
18.	Dissolved Oxygen	mg/L	6.5	-	APHA 22 nd Ed. 2012, 4500-O, B & C, 4-136, 4-139
19.	Oil and Grease	mg/L	N.D.	-	IS 3025 (Part 39): 1991, RA 2003, Ed. 2.1
20.	Iron (as Fe)	mg/L	0.255	0.3 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
21.	Manganese (as Mn)	mg/L	N.D.	0.1 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
22.	Cadmium (as Cd)	mg/L	N.D.	0.003 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
23.	Copper (as Cu)	mg/L	N.D.	0.05 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
24.	Chromium Hexa (as Cr ⁶⁺)	mg/L	N.D.	-	APHA 22 nd Ed. 2012, 3500- Cr-B, 3-69
25.	Lead (as Pb)	mg/L	N.D.	0.01 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
26.	Zinc (as Zn)	mg/L	0.118	5 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
27.	Arsenic (as As)	mg/L	N.D.	0.01 Max.	APHA 22 nd Ed. 2012, 3114-C, 3-38
28.	Mercury (as Hg)	mg/L	N.D.	0.001 Max.	APHA 22 nd Ed. 2012, 3112-B, 3-23
29.	Selenium (as Se)	mg/L	N.D.	0.01 Max.	APHA 22 nd Ed. 2012, 3114-C, 3-38
30.	Aluminium (as Al)	mg/L	0.003	0.03 Max.	APHA 22 nd Ed. 2012, 3500-Al-B, 3-61
31.	Cyanide (as CN)	mg/L	N.D.	0.05 Max.	APHA 22 nd Ed. 2012, 4500-CN, C & E, 4-39 & 4-44
32.	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	N.D.	0.001 Max.	APHA 22 nd Ed. 2012, 5530- B & C, 5-47
Remarks: N.D. – Not Detected					

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FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor C.Yeole

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Opp. Patel Petrol Pump, Chhindwara Road, Koradi, Dist.Nagapur-441111

Phone : 91-712-2612162 T/Fax: 91-712-2612212 Email: nagpur@mahabal.com

Water Sample Analysis Report

Report No.: ME-NG1822-170925-SA-RIPL-AMRAVATI			Date: 25.09.2017
Name and Address of Customer	RATTANINDIA POWER LIMITED Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		Order Reference:
			SO No. 3382012035 dtd. 21.09.2015.
Sample Description / Type	Ground Water/Grab	Sample Collected by	Laboratory
Sampling Location	Well Water of Shri Arun Ghathode Vill. Rasalpur	Sample Quantity / Packing	3 L X 1 No. PVC Can 1 L X 1 No. Glass Bottle
Date of Sampling	12.09.2017	Date of Receipt of Sample	12.09.2017
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 22 nd Ed. 2012, 1060-B, 1-39;		
Date of Start of Analysis	13.09.2017	Date of Completion of Analysis	23.09.2017
Water Level Depth	13.9 meter from ground level		

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
1.	Colour	Hazen	<1.1	5 Max.	APHA 22 nd Ed. 2012, 2120-B, 2-6
2.	Odour	-	Agreeable	Agreeable	IS 3025 (Part 5):1983, RA 2006
3.	Taste	-	Agreeable	Agreeable	IS 3025 (Part 7):1984, RA 2006
4.	Turbidity	NTU	0.94	1 Max.	APHA 22 nd Ed. 2012, 2130-B, 2-13
5.	pH	-	7.7	6.5 to 8.5	APHA 22 nd Ed. 2012, 4500-H ⁺ -B, 4-92
6.	Total Dissolved Solids	mg/L	716	500 Max.	IS 3025 (Part 16):1984, RA 2006
7.	Suspended Solids	mg/L	<5	--	APHA 22 nd Ed. 2012, 2540-D, 2-66
8.	Residual Free Chlorine	ppm	<0.05	0.2 Min.	APHA 22 nd Ed. 2012, 4500-Cl G, 4-69
9.	Total Hardness (as CaCO ₃)	mg/L	318	200 Max.	APHA 22 nd Ed. 2012, 2340-C, 2-44, 45
10.	Alkalinity Total (as CaCO ₃)	mg/L	428	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009
11.	Chloride(as Cl)	mg/L	29.2	250 Max.	APHA 22 nd Ed. 2012, 4500-Cl ⁻ B, 4-72
12.	Sulphate (as SO ₄)	mg/L	90.8	200 Max	APHA 22 nd Ed. 2012, 4500- SO ₄ -E, 4-190



Report No.1822 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
13.	Nitrate (as NO ₃)	mg/L	29.6	45 Max	APHA 22 nd Ed. 2012, 4500-NO ₃ -E, 4-125
14.	Calcium (as Ca)	mg/L	67.4	75 Max.	APHA 22 nd Ed. 2012, 3500-Ca-B, 3-67
15.	Magnesium (as Mg)	mg/L	36.4	30 Max.	APHA 22 nd Ed. 2012, 3500-Mg-B, 3-84
16.	Fluoride(as F)	mg/L	0.358	1.0 Max.	APHA 22 nd Ed. 2012, 4500-F ⁻ B & D, 4-84, 4-87
17.	Boron(as B)	mg/L	<0.1	0.5 Max.	APHA 22 nd Ed.2012, 4500-B B,4-25
18.	Dissolved Oxygen	mg/L	6.5	--	APHA 22 nd Ed. 2012, 4500-O, B & C, 4-136, 4-139
19.	Oil and Grease	mg/L	N.D.	--	IS 3025 (Part 39): 1991, RA 2003, Ed. 2.1
20.	Iron (as Fe)	mg/L	0.248	0.3 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
21.	Manganese (as Mn)	mg/L	<0.04	0.1 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
22.	Cadmium (as Cd)	mg/L	N.D.	0.003 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
23.	Copper (as Cu)	mg/L	N.D.	0.05 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
24.	Chromium Hexa (as Cr ⁶⁺)	mg/L	N.D.	--	APHA 22 nd Ed. 2012, 3500- Cr-B, 3-69
25.	Lead (as Pb)	mg/L	N.D.	0.01 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
26.	Zinc (as Zn)	mg/L	0.018	5 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
27.	Arsenic (as As)	mg/L	N.D.	0.01 Max.	APHA 22 nd Ed. 2012, 3114-C, 3-38
28.	Mercury (as Hg)	mg/L	N.D.	0.001 Max.	APHA 22 nd Ed. 2012, 3112-B, 3-23
29.	Selenium (as Se)	mg/L	N.D.	0.01 Max.	APHA 22 nd Ed. 2012, 3114-C, 3-38
30.	Aluminium (as Al)	mg/L	0.018	0.03 Max.	APHA 22 nd Ed. 2012, 3500-Al-B, 3-61
31.	Cyanide (as CN)	mg/L	N.D.	0.05 Max.	APHA 22 nd Ed. 2012, 4500-CN, C & E, 4-39 & 4-44
32.	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	N.D.	0.001 Max.	APHA 22 nd Ed. 2012, 5530- B & C, 5-47
Remarks: N.D. – Not Detected					

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FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor C. Yeole

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Opp. Patel Petrol Pump, Chhindwara Road, Koradi, Dist.Nagapur-441111

Phone : 91-712-2612162 T/Fax: 91-712-2612212 Email: nagpur@mahabal.com

Water Sample Analysis Report

Report No.: ME-NG1823-170925-SA-RIPL-AMRAVATI			Date: 25.09.2017
Name and Address of Customer	RATTANINDIA POWER LIMITED Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		Order Reference:
			SO No. 3382012035 dtd. 21.09.2015.
Sample Description / Type	Ground Water/Grab	Sample Collected by	Laboratory
Sampling Location	Well Water of Shri Shyamroaji Zode House Village-Talkhanda	Sample Quantity / Packing	3 L X 1 No. PVC Can 1 L X 1 No. Glass Bottle
Date of Sampling	12.09.2017	Date of Receipt of Sample	12.09.2017
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 22 nd Ed. 2012, 1060-B, 1-39;		
Date of Start of Analysis	13.09.2017	Date of Completion of Analysis	23.09.2017
Water Level Depth	5.2 meter from ground level		

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
1.	Colour	Hazen	<1	5 Max.	APHA 22 nd Ed. 2012, 2120-B, 2-6
2.	Odour	-	Agreeable	Agreeable	IS 3025 (Part 5):1983, RA 2006
3.	Taste	-	Agreeable	Agreeable	IS 3025 (Part 7):1984, RA 2006
4.	Turbidity	NTU	0.78	1 Max.	APHA 22 nd Ed. 2012, 2130-B, 2-13
5.	pH	-	7.7	6.5 to 8.5	APHA 22 nd Ed. 2012, 4500-H ⁺ -B, 4-92
6.	Total Dissolved Solids	mg/L	375	500 Max.	IS 3025 (Part 16):1984, RA 2006
7.	Suspended Solids	mg/L	<5	--	APHA 22 nd Ed. 2012, 2540-D, 2-66
8.	Residual Free Chlorine	ppm	<0.04	0.2 Min.	APHA 22 nd Ed. 2012, 4500-Cl G, 4-69
9.	Total Hardness (as CaCO ₃)	mg/L	298	200 Max.	APHA 22 nd Ed. 2012, 2340-C, 2-44, 45
10.	Alkalinity Total (as CaCO ₃)	mg/L	274	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009
11.	Chloride(as Cl)	mg/L	22.9	250 Max.	APHA 22 nd Ed. 2012, 4500-Cl ⁻ B, 4-72
12.	Sulphate (as SO ₄)	mg/L	36.2	200 Max	APHA 22 nd Ed. 2012, 4500- SO ₄ -E, 4-190
13.	Nitrate (as NO ₃)	mg/L	10.4	45 Max	APHA 22 nd Ed. 2012, 4500-NO ₃ -E, 4-125

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Report No.1823 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
14.	Calcium (as Ca)	mg/L	64.9	75 Max.	APHA 22 nd Ed. 2012, 3500-Ca-B, 3-67
15.	Magnesium (as Mg)	mg/L	33.0	30 Max.	APHA 22 nd Ed. 2012, 3500-Mg-B, 3-84
16.	Fluoride(as F)	mg/L	0.52	1.0 Max.	APHA 22 nd Ed. 2012, 4500-F ⁻ B & D, 4-84, 4-87
17.	Boron(as B)	mg/L	<0.1	0.5 Max.	APHA 22 nd Ed.2012, 4500-B B,4-25
18.	Dissolved Oxygen	mg/L	6.8	--	APHA 22 nd Ed. 2012, 4500-O, B & C, 4-136, 4-139
19.	Oil and Grease	mg/L	N.D.	--	IS 3025 (Part 39): 1991, RA 2003, Ed. 2.1
20.	Iron (as Fe)	mg/L	0.301	0.3 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
21.	Manganese (as Mn)	mg/L	<0.04	0.1 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
22.	Cadmium (as Cd)	mg/L	N.D.	0.003 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
23.	Copper (as Cu)	mg/L	N.D.	0.05 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
24.	Chromium Hexa (as Cr ⁶⁺)	mg/L	N.D.	--	APHA 22 nd Ed. 2012, 3500- Cr-B, 3-69
25.	Lead (as Pb)	mg/L	N.D.	0.01 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
26.	Zinc (as Zn)	mg/L	0.042	5 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
27.	Arsenic (as As)	mg/L	N.D.	0.01 Max.	APHA 22 nd Ed. 2012, 3114-C, 3-38
28.	Mercury (as Hg)	mg/L	N.D.	0.001 Max.	APHA 22 nd Ed. 2012, 3112-B, 3-23
29.	Selenium (as Se)	mg/L	N.D.	0.01 Max.	APHA 22 nd Ed. 2012, 3114-C, 3-38
30.	Aluminium (as Al)	mg/L	<0.012	0.03 Max.	APHA 22 nd Ed. 2012, 3500-Al-B, 3-61
31.	Cyanide (as CN)	mg/L	N.D.	0.05 Max.	APHA 22 nd Ed. 2012, 4500-CN, C & E, 4-39 & 4-44
32.	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	N.D.	0.001 Max.	APHA 22 nd Ed. 2012, 5530- B & C, 5-47
Remarks: N.D. – Not Detected					

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FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor C.Yeole

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Note:

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Engineers, Consultants, Environmental Monitoring Laboratory & Contractors

Plot Nos. 13,14,17,18, Grampanchayat Bokhara, 8 km from Nagpur City,

Opp. Patel Petrol Pump, Chhindwara Road, Koradi, Dist.Nagapur-441111

Phone : 91-712-2612162 T/Fax: 91-712-2612212 Email: nagpur@mahabal.com

Water Sample Analysis Report

Report No.: ME-NG1819-170925-SA-RIPL-AMRAVATI			Date: 25.09.2017
Name and Address of Customer	RATTANINDIA POWER LIMITED Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901	Order Reference:	
		SO No. 3382012035 dtd. 21.09.2015.	
Sample Description / Type	Ground Water/Grab	Sample Collected by	Laboratory
Sampling Location	Dugwell of Wagholi Village	Sample Quantity/Packing	3 L X 1 No. PVC Can 1 L X 1 No. Glass Bottle
Date of Sampling	12.09.2017	Date of Receipt of Sample	12.09.2017
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 22 nd Ed. 2012, 1060-B, 1-39;		
Date of Start of Analysis	13.09.2017	Date of Completion of Analysis	23.09.2017

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
1.	Colour	Hazen	<1	5 Max.	APHA 22 nd Ed. 2012, 2120-B, 2-6
2.	Odour	-	Agreeable	Agreeable	IS 3025 (Part 5):1983, RA 2006
3.	Taste	-	Agreeable	Agreeable	IS 3025 (Part 7):1984, RA 2006
4.	Turbidity	NTU	0.7	1 Max.	APHA 22 nd Ed. 2012, 2130-B, 2-13
5.	pH	-	7.6	6.5 to 8.5	APHA 22 nd Ed. 2012, 4500-H ⁺ -B, 4-92
6.	Total Dissolved Solids	mg/L	434	500 Max.	IS 3025 (Part 16):1984, RA 2006
7.	Suspended Solids	mg/L	<5	--	APHA 22 nd Ed. 2012, 2540-D, 2-66
8.	Residual Free Chlorine	ppm	0.06	0.2 Min.	APHA 22 nd Ed. 2012, 4500-Cl G, 4-69
9.	Total Hardness (as CaCO ₃)	mg/L	306	200 Max.	APHA 22 nd Ed. 2012, 2340-C, 2-44, 45
10.	Alkalinity Total (as CaCO ₃)	mg/L	140	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009
11.	Chloride(as Cl)	mg/L	42.7	250 Max.	APHA 22 nd Ed. 2012, 4500-Cl ⁻ B, 4-72
12.	Sulphate (as SO ₄)	mg/L	132	200 Max	APHA 22 nd Ed. 2012, 4500- SO ₄ -E, 4-190
13.	Nitrate (as NO ₃)	mg/L	17.2	45 Max	APHA 22 nd Ed. 2012, 4500-NO ₃ -E, 4-125
14.	Calcium (as Ca)	mg/L	70.5	75 Max.	APHA 22 nd Ed. 2012, 3500-Ca-B, 3-67

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Report No.1819 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
15.	Magnesium (as Mg)	mg/L	31.6	30 Max.	APHA 22 nd Ed. 2012, 3500-Mg-B, 3-84
16.	Fluoride(as F)	mg/L	0.584	1.0 Max.	APHA 22 nd Ed. 2012, 4500-F ⁻ B & D, 4-84, 4-87
17.	Boron(as B)	mg/L	<0.1	0.5 Max.	APHA 22 nd Ed.2012, 4500-B B,4-25
18.	Dissolved Oxygen	mg/L	6.8	--	APHA 22 nd Ed. 2012, 4500-O, B & C, 4-136, 4-139
19.	Oil and Grease	mg/L	N.D.	--	IS 3025 (Part 39): 1991, RA 2003, Ed. 2.1
20.	Iron (as Fe)`	mg/L	0.357	0.3 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
21.	Manganese (as Mn)	mg/L	<0.04	0.1 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
22.	Cadmium (as Cd)	mg/L	N.D.	0.003 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
23.	Copper (as Cu)	mg/L	N.D.	0.05 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
24.	Chromium Hexa (as Cr ⁶⁺)	mg/L	N.D.	--	APHA 22 nd Ed. 2012, 3500- Cr-B, 3-69
25.	Lead (as Pb)	mg/L	N.D.	0.01 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
26.	Zinc (as Zn)	mg/L	0.018	5 Max.	APHA 22 nd Ed. 2012, 3111-B, 3-18
27.	Arsenic (as As)	mg/L	N.D.	0.01 Max.	APHA 22 nd Ed. 2012, 3114-C, 3-38
28.	Mercury (as Hg)	mg/L	N.D.	0.001 Max.	APHA 22 nd Ed. 2012, 3112-B, 3-23
29.	Selenium (as Se)	mg/L	N.D.	0.01 Max.	APHA 22 nd Ed. 2012, 3114-C, 3-38
30.	Aluminium (as Al)	mg/L	<0.02	0.03 Max.	APHA 22 nd Ed. 2012, 3500-Al-B, 3-61
31.	Cyanide (as CN)	mg/L	N.D.	0.05 Max.	APHA 22 nd Ed. 2012, 4500-CN, C & E, 4-39 & 4-44
32.	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	N.D.	0.001 Max.	APHA 22 nd Ed. 2012, 5530- B & C, 5-47
Remarks: N.D. – Not Detected					

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FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor C. Yeole

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Plot Nos. 13,14,17,18, Grampanchayat Bokhara, 8 km from Nagpur City,

Opp. Patel Petrol Pump, Chhindwara Road, Koradi, Dist.Nagapur-441111

Phone : 91-712-2612162 T/Fax: 91-712-2612212 Email: nagpur@mahabal.com

Water Sample Analysis Report

Report No.: ME-NG1825-170925-SA-RIPL-AMRAVATI		Date: 25.09.2017	
Name and Address of Customer	RATTANINDIA POWER LIMITED Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901	Order Reference:	
		SO No. 3382012035 dtd. 21.09.2015.	
Sample Description / Type	Surface water/Grab	Sample Collected by	Laboratory
Sampling Location	Malegaon Pond	Sample Quantity / Packing	3 L X 1 No. PVC Can 1 L X 1 No. Glass Bottle
Date of Sampling	11.09.2017	Date of Receipt of Sample	12.09.2017
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 22 nd Ed. 2012, 1060-B, 1-39		
Date of Start of Analysis	13.09.2017	Date of Completion of Analysis	25.09.2017

Sr. No.	Parameter	Unit	Result	Method Reference
1	Colour	Hazen	<1	APHA 22 nd Ed. 2012, 2120-B, 2-6
2	Odour	-	Agreeable	IS 3025 (Part 5):1983, RA 2006
3	Taste	-	NA	IS 3025 (Part 7):1984, RA 2006
4	Turbidity	NTU	38	APHA 22 nd Ed. 2012, 2130-B, 2-13
5	pH	-	7.2	APHA 22 nd Ed. 2012, 4500-H ⁺ -B, 4-92
6	Total Dissolved Solids	mg/L	189	IS 3025 (Part 16):1984 RA 2006
7	Total Suspended Solids	mg/L	79	APHA 22 nd Ed. 2012, 2540-D, 2-66
8	Free Chlorine (Residual)	mg/L	<0.05	APHA 22 nd Ed. 2012, 4500-Cl G, 4-69
9	Total Hardness (as CaCO ₃)	mg/L	138	APHA 22 nd Ed. 2012, 2340-C,2-44,45
10	Alkalinity Total (as CaCO ₃)	mg/L	114	IS 3025 (Part 23):1986 RA 2009
11	Chloride (as Cl)	mg/L	15.6	APHA 22 nd Ed. 2012, 4500-Cl-B, 4-72
12	Sulphate (as SO ₄)	mg/L	26.3	APHA 22 nd Ed. 2012, 4500- SO ₄ -E, 4-190
13	Nitrate (as NO ₃)	mg/L	0.928	APHA 22 nd Ed. 2012, 4500-NO ₃ -E, 4-125



Report No.1825 cont.

Sr. No.	Parameter	Unit	Result	Method Reference
14	Calcium(as Ca)	mg/L	31.3	APHA 22 nd Ed. 2012, 3500-Ca-B, 3-67
15	Magnesium (as Mg)	mg/L	14.6	APHA 22 nd Ed. 2012, 3500-Mg- B, 3-84
16	Fluoride(as F)	mg/L	0.384	APHA 22 nd Ed. 2012, 4500-F- B & D, 4-84, 4-87
17	Boron(as B)	mg/L	<0.1	APHA 22 nd Ed. 2012, 4500-B B, 4-25
18	Dissolved Oxygen	mg/L	6.8	APHA 22 nd Ed. 2012, 4500-O, B & C, 4-136, 4-139
19	Oil and Grease	mg/L	N.D.	IS 3025 (Part 39): 1991, Reaffirmed 2003, Ed. 2.1
20	Iron (as Fe)	mg/L	0.334	APHA 22 nd Ed. 2012, 3111-B, 3-18
21	Manganese (as Mn)	mg/L	0.132	APHA 22 nd Ed. 2012, 3111-B, 3-18
22	Cadmium (as Cd)	mg/L	0.017	APHA 22 nd Ed. 2012, 3111-B, 3-18
23	Copper (as Cu)	mg/L	0.006	APHA 22 nd Ed. 2012, 3111-B, 3-18
24	Chromium Hexa (as Cr ⁶⁺)	mg/L	0.005	APHA 22 nd Ed. 2012, 3500- Cr-B, 3-69
25	Lead (as Pb)	mg/L	N.D.	APHA 22 nd Ed. 2012, 3111-B, 3-18
26	Zinc (as Zn)	mg/L	0.024	APHA 22 nd Ed. 2012, 3111-B, 3-18
27	Arsenic (as As)	mg/L	N.D.	APHA 22 nd Ed. 2012, 3114-C, 3-38
28	Mercury (as Hg)	mg/L	N.D.	APHA 22 nd Ed. 2012, 3112-B, 3-23
29	Selenium (as Se)	mg/L	N.D.	APHA 22 nd Ed. 2012, 3114-C, 3-38
30	Aluminium (as Al)	mg/L	0.003	APHA 22 nd Ed. 2012, 3500-Al-B, 3-61
31	Cyanide (as CN)	mg/L	N.D.	APHA 22 nd Ed. 2012, 4500-CN, C & E, 4-39 & 4-44
32	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	N.D.	APHA 22 nd Ed. 2012, 5530- B & C, 5-47
Remarks: N.D. – Not Detected,				

END

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Opp. Patel Petrol Pump, Chhindwara Road, Koradi, Dist.Nagapur-441111

Phone : 91-712-2612162 T/Fax: 91-712-2612212 Email: nagpur@mahabal.com

Water Sample Analysis Report

Report No.: ME-NG1824-170925-SA-RIPL-AMRAVATI		Date: 25.09.2017	
Name and Address of Customer	RATTANINDIA POWER LIMITED Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901	Order Reference:	
		SO No. 3382012035 dtd. 21.09.2015.	
Sample Description / Type	Surface water/Grab	Sample Collected by	Laboratory
Sampling Location	Wagholi Pond	Sample Quantity / Packing	3 L X 1 No. PVC Can 1 L X 1 No. Glass Bottle
Date of Sampling	11.09.2017	Date of Receipt of Sample	12.09.2017
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 22 nd Ed. 2012, 1060-B, 1-39		
Date of Start of Analysis	13.09.2017	Date of Completion of Analysis	25.09.2017

Sr. No.	Parameter	Unit	Result	Method Reference
1	Colour	Hazen	<1	APHA 22 nd Ed. 2012, 2120-B, 2-6
2	Odour	-	Agreeable	IS 3025 (Part 5):1983, RA 2006
3	Taste	-	NA	IS 3025 (Part 7):1984, RA 2006
4	Turbidity	NTU	24	APHA 22 nd Ed. 2012, 2130-B, 2-13
5	pH	-	7.7	APHA 22 nd Ed. 2012, 4500-H ⁺ -B, 4-92
6	Total Dissolved Solids	mg/L	430	IS 3025 (Part 16):1984 RA 2006
7	Total Suspended Solids	mg/L	17	APHA 22 nd Ed. 2012, 2540-D, 2-66
8	Free Chlorine (Residual)	mg/L	<0.05	APHA 22 nd Ed. 2012, 4500-Cl G, 4-69
9	Total Hardness (as CaCO ₃)	mg/L	272	APHA 22 nd Ed. 2012, 2340-C,2-44,45
10	Alkalinity Total (as CaCO ₃)	mg/L	112	IS 3025 (Part 23):1986 RA 2009
11	Chloride (as Cl)	mg/L	52.1	APHA 22 nd Ed. 2012, 4500-Cl-B, 4-72
12	Sulphate (as SO ₄)	mg/L	151	APHA 22 nd Ed. 2012, 4500- SO ₄ -E, 4-190
13	Nitrate (as NO ₃)	mg/L	0.95	APHA 22 nd Ed. 2012, 4500-NO ₃ -E, 4-125



Report No.1824 cont.

Sr. No.	Parameter	Unit	Result	Method Reference
14	Calcium (as Ca)	mg/L	67.3	APHA 22 nd Ed. 2012, 3500-Ca-B, 3-67
15	Magnesium (as Mg)	mg/L	25.3	APHA 22 nd Ed. 2012, 3500-Mg- B, 3-84
16	Fluoride(as F)	mg/L	0.628	APHA 22 nd Ed. 2012, 4500-F- B & D, 4-84, 4-87
17	Boron(as B)	mg/L	<0.1	APHA 22 nd Ed. 2012, 4500-B B, 4-25
18	Dissolved Oxygen	mg/L	6.8	APHA 22 nd Ed. 2012, 4500-O, B & C, 4-136, 4-139
19	Oil and Grease	mg/L	N.D.	IS 3025 (Part 39): 1991, RA 2003, Ed. 2.1
20	Iron (as Fe)	mg/L	3.26	APHA 22 nd Ed. 2012, 3111-B, 3-18
21	Manganese (as Mn)	mg/L	<0.04	APHA 22 nd Ed. 2012, 3111-B, 3-18
22	Cadmium (as Cd)	mg/L	0.003	APHA 22 nd Ed. 2012, 3111-B, 3-18
23	Copper (as Cu)	mg/L	N.D.	APHA 22 nd Ed. 2012, 3111-B, 3-18
24	Chromium Hexa (as Cr ⁶⁺)	mg/L	0.005	APHA 22 nd Ed. 2012, 3500- Cr-B, 3-69
25	Lead (as Pb)	mg/L	N.D.	APHA 22 nd Ed. 2012, 3111-B, 3-18
26	Zinc (as Zn)	mg/L	0.065	APHA 22 nd Ed. 2012, 3111-B, 3-18
27	Arsenic (as As)	mg/L	N.D.	APHA 22 nd Ed. 2012, 3114-C, 3-38
28	Mercury (as Hg)	mg/L	N.D.	APHA 22 nd Ed. 2012, 3112-B, 3-23
29	Selenium (as Se)	mg/L	N.D.	APHA 22 nd Ed. 2012, 3114-C, 3-38
30	Aluminium (as Al)	mg/L	<0.004	APHA 22 nd Ed. 2012, 3500-Al-B, 3-61
31	Cyanide (as CN)	mg/L	N.D.	APHA 22 nd Ed. 2012, 4500-CN, C & E, 4-39 & 4-44
32	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	N.D.	APHA 22 nd Ed. 2012, 5530- B & C, 5-47
Remarks: N.D. – Not Detected,				

END

FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor C. Yeole

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