



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.Nagpur-441111

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

Stack Emission Monitoring Report

Report No.: ME-NG18339-191114-SA-RIPL-AMRAVATI			Date: 14.11.2019
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. 3382017462 Dt.16.08.2019
Sample Description / Type	Stack Emission Monitoring	Sample Collected by	Laboratory
Sampling Location	Boiler Unit No. 4	Sample Quantity / Packing	Thimble:1 X 1 No. SO ₂ :30 mL X 1 No. PVC Bottle NO _x : 25mL X 1No. PVC Bottle CO: Bladder: 1 X 1 No.
Date of Sampling	08.11.2019	Date of Receipt of Sample	09.11.2019
Sampling Procedure	As per Method Reference.		
Date of Start of Analysis	09.11.2019	Date of Completion of Analysis	11.11.2019

ULR-TC748719000018339P

Discipline : Chemical Testing; Product Group: Atmospheric Pollution (Stack Emission)				
Stack Details		S-4		
Stack Identity		Boiler Unit 4		
Stack attached to		ESP of Boiler U#4		
Material of construction		M.S.		
Stack height above ground level (Meter)		275		
Stack diameter at sampling point (Meter)		4.6		
Stack shape at top		Round		
Type of fuel		Coal		
Fuel Consumption (t/h)		115		
Load (MW)		190		
Parameter	Unit	Result	#Limit	Method Reference
Flue gas Temperature	°C	119	-	IS 11255 (Part 3):2008
Flue gas Velocity	m/s	28.5	-	IS 11255 (Part 3):2008
Total gas quantity	Nm ³ /h	1295576	-	IS 11255 (Part 3):2008
Particulate Matter (PM)	mg/Nm ³	42	50	IS 11255 (Part 1):1985, RA 2003



Report No.18339 cont...

Parameter	Unit	Result	#Limit	Method Reference
Sulphur Dioxide (SO ₂)	mg/Nm ³	579	-	IS 11255 (Part 2):1985, RA 2003
Sulphur Dioxide (SO ₂)	t/day	18.0	52.32	IS 11255 (Part 2):1985, RA 2003
Oxides of Nitrogen(NO _x)	mg/Nm ³	250	-	IS 11255 (Part 7):2005
*CO ₂	%	12.8	-	Analyser Method
Remark: The tests marked with an * are not accredited by NABL; #: Limit as per MPCB Consent				

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FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor Yeole

BRANCH MANAGER



Note:

1. The result listed refers only to the tested sample(s) and applicable parameter(s).
2. This report is not to be reproduced except in full, without written approval of the laboratory.

ULR- TC7487190000018339P



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Stack Emission Monitoring Report

Report No.: ME-NG18340-191114-SA-RIPL-AMRAVATI			Date: 14.11.2019
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. 3382017462 Dt.16.08.2019
Sample Description / Type	Stack Emission Monitoring	Sample Collected by	Laboratory
Sampling Location	Boiler Unit No. 5	Sample Quantity / Packing	Thimble:1 X 1 No. SO ₂ :30 mL X 1 No. PVC Bottle NO _x : 25mL X 1No. PVC Bottle CO: Bladder: 1 X 1 No.
Date of Sampling	08.11.2019	Date of Receipt of Sample	09.11.2019
Sampling Procedure	As per Method Reference.		
Date of Start of Analysis	09.11.2019	Date of Completion of Analysis	11.11.2019

Discipline : Chemical Testing; Product Group: Atmospheric Pollution (Stack Emission)				
Stack Details		S-5		
Stack Identity		Boiler Unit 5		
Stack attached to		ESP of Boiler U#5		
Material of construction		M.S.		
Stack height above ground level (Meter)		275		
Stack diameter at sampling point (Meter)		4.6		
Stack shape at top		Round		
Type of fuel		Coal		
Fuel Consumption (t/h)		117		
Load (MW)		190		
Parameter	Unit	Result	#Limit	Method Reference
Flue gas Temperature	°C	117	-	IS 11255 (Part 3):2008
Flue gas Velocity	m/s	28.7	-	IS 11255 (Part 3):2008
Total gas quantity	Nm ³ /h	1311358	-	IS 11255 (Part 3):2008
Particulate Matter (PM)	mg/Nm ³	40	50	IS 11255 (Part 1):1985, RA 2003

ULR-TC748719000018340P



Report No.18340 cont...

Parameter	Unit	Result	#Limit	Method Reference
Sulphur Dioxide (SO ₂)	mg/Nm ³	584	-	IS 11255 (Part 2):1985, RA 2003
Sulphur Dioxide (SO ₂)	t/day	18.4	52.32	IS 11255 (Part 2):1985, RA 2003
Oxides of Nitrogen(NO _x)	mg/Nm ³	248	-	IS 11255 (Part 7):2005
*CO ₂	%	12.8	-	Analyser Method
Remark: The tests marked with an * are not accredited by NABL; #: Limit as per MPCB Consent				

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FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor Yeole

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ULR- TC7487190000018340P



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Ambient Air Quality Monitoring Report

Report No.: ME-NG18336-191116-SA-RIPL-AMRAVATI		Date: 16.11.2019	
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. 3382017462 Dt.16.08.2019	
Sample Description / Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	1) Near Admin Office 2) Terrace of WTP Area 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 : 10 mL X72 No. PVC Bottle O ₃ : 10 mL X 72 No. PVC Bottle 3 X 6 No. Charcoal Tubes 3 X 3 No. Gas Bladder
Date of Sampling	08.11.2019 to 09.11.2019	Date of Receipt of Sample	09.11.2019
Sampling Procedure	As per Method reference		
Date of Start of Analysis	09.11.2019	Date of Receipt of Sample	16.11.2019

Meteorological Data/Environmental Conditions

Meteorological Data/Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
2.8km/h	SE	Max.	Min.	Max.	Min.
		88	64	30.0	18.0
Location	1) Near Admin Office			Duration of Survey : 24 hours	
Parameter		Unit	Result	#NAAQM Standard	Method Reference
Discipline : Chemical Testing; Product Group: Atmospheric Pollution (Ambient Air)					
Sulphur Dioxide (SO ₂)		µg/m ³	14.6	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	17.9	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	27	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

Report No.18336 Cont...

Parameter	Unit	Result	#NAAQM Standard	Method Reference
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	1.05	4.0	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH ₃)	$\mu\text{g}/\text{m}^3$	<20	400	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.35-39
Benzene (C ₆ H ₆)	$\mu\text{g}/\text{m}^3$	1.20	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
Location	2) Terrace of WTP Plant			Duration of Survey : 24 hours
Sulphur Dioxide (SO ₂)	$\mu\text{g}/\text{m}^3$	9.1	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Dioxide (NO ₂)	$\mu\text{g}/\text{m}^3$	11.7	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
Particulate Matter (size less than 10 μm) or PM ₁₀	$\mu\text{g}/\text{m}^3$	60	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 μm) or PM _{2.5}	$\mu\text{g}/\text{m}^3$	23	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	1.15	4.0	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH ₃)	$\mu\text{g}/\text{m}^3$	<20	400	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.35-39
Benzene (C ₆ H ₆)	$\mu\text{g}/\text{m}^3$	1.11	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

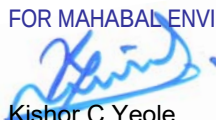
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Report No.18336 Cont...

Parameter	Unit	Result	#NAAQM Standard	Method Reference
Nickel (as Ni)	ng/m ³	3.18	20.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Location	3) Terrace of Bachelor Guest House			Duration of Survey : 24 hours
Sulphur Dioxide (SO ₂)	µg/m ³	13.7	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	15.9	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	56	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	22	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	1.10	4.0	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH ₃)	µg/m ³	<20	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	1.22	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	3.80	20.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Remarks: 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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FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.


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Ambient Air Quality Monitoring Report

Report No.: ME-NG19195-191203-SA-RIPL-AMRAVATI		Date: 03.12.2019	
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. 3382017462 Dt.16.08.2019	
Sample Description / Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	1) Vill.Kapustalani 2) Vill.Wagholi 3) Vill.Dawargaon	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 : 10 mL X72 No. PVC Bottle O ₃ : 10 mL X 72 No. PVC Bottle 3 X 6 No. Charcoal Tubes 3 X 3 No. Gas Bladder
Date of Sampling	25.11.2019 to 26.11.2019	Date of Receipt of Sample	27.11.2019
Sampling Procedure	As per Method reference		
Date of Start of Analysis	27.11.2019	Date of Receipt of Sample	03.12.2019

Meteorological Data/Environmental Conditions

Meteorological Data/Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
3.8 km/h	NE	Max.	Min.	Max.	Min.
		84	64	28.0	14.0
Location	1) Vill Kapustalani			Duration of Survey : 24 hours	
Parameter		Unit	Result	#NAAQM Standard	Method Reference
Discipline : Chemical Testing; Product Group: Atmospheric Pollution (Ambient Air)					
Sulphur Dioxide (SO ₂)		µg/m ³	9.1	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	13.7	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	56	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	21	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

Report No. 19195 Cont...

Parameter	Unit	Result	#NAAQM Standard	Method Reference
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	0.89	4.0	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH ₃)	$\mu\text{g}/\text{m}^3$	<20	400	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.35-39
Benzene (C ₆ H ₆)	$\mu\text{g}/\text{m}^3$	1.17	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
Location	2) Vill. Wagholi			Duration of Survey : 24 hours
Sulphur Dioxide (SO ₂)	$\mu\text{g}/\text{m}^3$	13.7	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Dioxide (NO ₂)	$\mu\text{g}/\text{m}^3$	18.2	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
Particulate Matter (size less than 10 μm) or PM ₁₀	$\mu\text{g}/\text{m}^3$	60	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 μm) or PM _{2.5}	$\mu\text{g}/\text{m}^3$	25	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	1.12	4.0	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH ₃)	$\mu\text{g}/\text{m}^3$	<20	400	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.35-39
Benzene (C ₆ H ₆)	$\mu\text{g}/\text{m}^3$	1.14	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

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Report No.19195 Cont...

Parameter	Unit	Result	#NAAQM Standard	Method Reference
Nickel (as Ni)	ng/m ³	3.35	20.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Location	3) Vill. Dawargaon			Duration of Survey : 24 hours
Sulphur Dioxide (SO ₂)	µg/m ³	17.3	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	21.2	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	66	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	27	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	1.09	4.0	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH ₃)	µg/m ³	<20	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	1.09	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
Remarks: 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.				

-END-

FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor C.Yeole

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Noise Level Monitoring Report

Report No.: ME-NG18358-191116-SA-RIPL-AMRAVATI		Date: 16.11.2019
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. 3382017462 Dt.16.08.2019
Sample Description / Type	Noise Level Monitoring	Sample Collected by
		NA
Date of Sampling	09.11.2019	
Sampling Procedure	IS 9876:1981 & manufacturer Manual	

Discipline : Chemical Testing; Product Group: Atmospheric Pollution			
Location	Unit	Result	
		Max.	Min.
Near Main Gate	dB(A)	67.2	61.2
Near Compressor Room	dB(A)	66.9	65.1
Near CHP Crusher House	dB(A)	67.8	63.4
Near Colony	dB(A)	62.3	60.9
3 & 4 Turbine Area	dB(A)	71.2	68.4
Limit as per The Factories Act, 1948, The Maharashtra Factory Rules, 1963, Schedule XXIV			
Total time of exposure per day, in hours.		Max. Sound pressure level in dB (A)	
8		90	
6		92	
4		95	
3		97	
2		100	
1 ½		102	
1		105	
3/4		107	
1/2		110	
1/4		115	
Remark :			

-----END-----

FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor 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-NG18347-191118-SA-RIPL-AMRAVATI			Date: 18.11.2019
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. 3382017462 Dt.16.08.2019
Sample Description / Type	Ground Water/Grab	Sample Collected by	Laboratory
Sampling Location	Well Water Of Mr. Narayan Lomte Farm back side of Ash Dyke Area	Sample Quantity / Packing	2 L X 1 No. PVC Can 500mL X 1 No. PVC Can 500mL X 1 No. Glass Bottle
Date of Sampling	09.11.2019	Date of Receipt of Sample	09.11.2019
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 23 rd Ed. 2017, 1060-B, 1-40;		
Date of Start of Analysis	09.11.2019	Date of Completion of Analysis	18.11.2019

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
Discipline : Chemical Testing; Product Group: Water(Ground Water)					
1.	Colour	Hazen	<1	5 Max.	APHA 23 rd Ed. 2017, 2120-B, 2-6
2.	Odour	-	Agreeable	Agreeable	IS 3025 (Part 05):1984, Reaffirmed 2006
3.	Taste	-	Agreeable	Agreeable	IS 3025 (Part 7 & 8):1984, Reaffirmed 2006
4.	Turbidity	NTU	0.2	1 Max.	APHA 23 rd Ed. 2017, 2130-B, 2-13
5.	pH	-	7.7	6.5 to 8.5	APHA 23 rd Ed. 2017, 4500-H ⁺ -B, 4-95
6.	Residual Free Chlorine	ppm	<0.05	0.2 Min.	APHA 23 rd Ed. 2017, 4500-Cl G, 4-72
7.	Total Dissolved Solids	mg/L	548	500 Max.	IS 3025 (Part 16):1984 Reaffirmed 2006, Ed.2.1(1999-12)
8.	Total Suspended Solids	mg/L	<5	-	APHA 23 rd Ed. 2017, 2540-D, 2-69
9.	Alkalinity Total (as CaCO ₃)	mg/L	296	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1
10.	Total Hardness (as CaCO ₃)	mg/L	404	200 Max.	APHA 23 rd Ed. 2017, 2340-C, 2-48
11.	Chloride(as Cl)	mg/L	74.4	250 Max.	APHA 23 rd Ed. 2017, 4500-Cl-B, 4-75
12.	Sulphate (as SO ₄)	mg/L	29.3	200 Max	APHA 23 rd Ed. 2017, 4500-SO ₄ -E, 4-199

ULR-TC748719000018347P



Report No.18347 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
13.	Nitrate (as NO ₃)	mg/L	43.4	45 Max	APHA 23 rd Ed. 2017, 4500-NO ₃ , E 4-131
14.	Calcium (as Ca)	mg/L	124	75 Max.	APHA 23 rd Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	22.8	30 Max.	APHA 23 rd Ed. 2017, 3500-Mg- B, 3-86
16.	Fluoride(as F)	mg/L	0.549	1.0 Max.	APHA 23 rd Ed. 2017, 4500-F, D, 4-90
17.	Boron(as B)	mg/L	<0.1	0.5 Max.	APHA 23 rd Ed. 2017, 4500-B B, 4-27
18.	Dissolved Oxygen	mg/L	6.7	-	APHA 23 rd Ed. 2017, 4500-O, B & C, 4-144, 4-146
19.	*Oil and Grease	mg/L	N.D.	-	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
20.	*Cyanide (as CN)	mg/L	N.D.	0.05 Max.	APHA 23 rd Ed. 2017, 4500-CN, C & E, 4-44 & 4-46
21.	*Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	N.D.	0.001 Max.	APHA 23 rd Ed. 2017, 5530-B & C, 5-49, 5-50
Discipline : Chemical Testing; Product Group :Residues in water (Trace metal Element)					
22.	Iron (as Fe)	mg/L	0.198	0.3 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
23.	Manganese (as Mn)	mg/L	N.D.	0.1 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20 AAS Method
24.	Aluminium (as Al)	mg/L	<0.025	0.03 Max.	APHA 23 rd Ed. 2017, 3500-Al-B, 3-63
25.	Cadmium (as Cd)	mg/L	N.D.	0.003 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
26.	Chromium Total (as Cr)	mg/L	N.D.	0.05 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
27.	Copper (as Cu)	mg/L	N.D.	0.05 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
28.	Lead (as Pb)	mg/L	N.D.	0.01 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
29.	Zinc (as Zn)	mg/L	0.028	5 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
30.	Arsenic (as As)	mg/L	N.D.	0.01 Max.	APHA 23 rd Ed. 2017, 3114-C, 3-40
31.	Mercury (as Hg)	mg/L	N.D.	0.001 Max.	APHA 23 rd Ed. 2017, 3112-B, 3-25
32.	Selenium (as Se)	mg/L	N.D.	0.01 Max.	APHA 23 rd Ed. 2017, 3114-C, 3-40
Remarks: N.D. – Not Detected; NA: Not Applicable; The tests marked with an * are not accredited by NABL					

-----END-----

FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor C.Yeole

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Water Sample Analysis Report

Report No.: ME-NG18349-191118-SA-RIPL-AMRAVATI			Date: 18.11.2019
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. 3382017462 Dt.16.08.2019
Sample Description / Type	Ground Water/Grab	Sample Collected by	Laboratory
Sampling Location	Digargaon village Borewell water	Sample Quantity / Packing	2 L X 1 No. PVC Can 500mL X 1 No. PVC Can 500mL X 1 No. Glass Bottle
Date of Sampling	09.11.2019	Date of Receipt of Sample	09.11.2019
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 23 rd Ed. 2017, 1060-B, 1-40;		
Date of Start of Analysis	09.11.2019	Date of Completion of Analysis	18.11.2019

Sr. No.	Parameter	Unit	Result	Limit for Drinking water as per IS 10500:2012		Method Reference
				Acceptable Limit	Permissible Limit in the Absence of Alternate Source	
Discipline : Chemical Testing; Product Group: Water(Ground Water)						
1	Colour	Hazen	<1	5 Max.	15 Max.	APHA 23 rd Ed. 2017, 2120-B, 2-6
2	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 5):1984, Reaffirmed 2006
3	Taste	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 7 & 8):1984, Reaffirmed 2006
4	Turbidity	NTU	0.3	1 Max.	5 Max.	APHA 23 rd Ed. 2017, 2130-B, 2-13
5	pH	-	7.7	6.5 to 8.5	No relaxation	APHA 23 rd Ed. 2017, 4500-H ⁺ -B, 4-95
6	Residual Free Chlorine	ppm	<0.05	0.2 Min.	1.0 Max.	APHA 23 rd Ed. 2017, 4500-Cl G, 4-72
7	Total Dissolved Solids	mg/L	823	500 Max.	2000 Max.	IS 3025 (Part 16):1984 RA 2006, Ed.2.1(1999-12)
8	Total Suspended Solids	mg/L	<5	-	-	APHA 23 rd Ed. 2017, 2540-D, 2-69
9	Alkalinity Total (as CaCO ₃)	mg/L	346	200 Max.	600 Max.	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1

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Report No.18349 cont...

Sr. No.	Parameter	Unit	Result	Limit for Drinking water as per IS 10500:2012		Method Reference
				Acceptable Limit	Permissible Limit in the Absence of Alternate Source	
10	Total Hardness (as CaCO ₃)	mg/L	468	200 Max.	600 Max.	APHA 23 rd Ed. 2017, 2340-C, 2-48
11	Chloride (as Cl)	mg/L	128	250 Max.	1000 Max.	APHA 23 rd Ed. 2017, 4500-Cl-B, 4-75
12	Sulphate (as SO ₄)	mg/L	88.5	200 Max.	400 Max.	APHA 23 rd Ed. 2017, 4500-SO ₄ -E, 4-199
13	Nitrate (as NO ₃)	mg/L	54.5	45 Max.	No relaxation	APHA 23 rd Ed. 2017, 4500-NO ₃ , E 4-131
14	Calcium(as Ca)	mg/L	131	75 Max.	200 Max.	APHA 23 rd Ed. 2017, 3500-Ca-B, 3-69
15	Magnesium (as Mg)	mg/L	34.0	30 Max.	100 Max.	APHA 23 rd Ed. 2017, 3500-Mg- B, 3-86
16	Fluoride (as F)	mg/L	0.414	1 Max.	1.5 Max.	APHA 23 rd Ed. 2017, 4500-F, D, 4-90
17	Boron(as B)	mg/L	<0.1	0.5 Max.	1.0 Max.	APHA 23 rd Ed. 2017, 4500-B B, 4-27
18	Dissolved Oxygen	mg/L	6.7	-	-	APHA 23 rd Ed. 2017, 4500-O, B & C, 4-144, 4-146
19	*Oil and Grease	mg/L	N.D.	-	-	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
20	*Cyanide (as CN)	mg/L	N.D.	0.05 Max.	No relaxation	APHA 23 rd Ed. 2017, 4500-CN, C & E, 4-44 & 4-46
21	*Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	N.D.	0.001 Max.	0.002 Max.	APHA 23 rd Ed. 2017, 5530- B & C, 5-49, 5-50
Discipline : Chemical Testing; Product Group :Residues in water (Trace metal Element)						
22	Iron (as Fe)	mg/L	0.288	0.3 Max.	No relaxation.	APHA 23 rd Ed. 2017, 3111-B, 3-20
23	Manganese (as Mn)	mg/L	<0.04	0.1 Max.	0.3 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20 AAS Method
24	Aluminium (as Al)	mg/L	<0.025	0.03 Max.	0.2 Max.	APHA 23 rd Ed. 2017, 3500-Al-B, 3-63
25	Cadmium (as Cd)	mg/L	N.D.	0.003Max.	No relaxation	APHA 23 rd Ed. 2017, 3111-B, 3-20
26	Chromium Total (as Cr)	mg/L	N.D.	0.05 Max.	No relaxation	APHA 23 rd Ed. 2017, 3111-B, 3-20
27	Copper (as Cu)	mg/L	N.D.	0.05 Max.	1.5 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20

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*Report No.18349 cont...*

28	Lead (as Pb)	mg/L	N.D.	0.01 Max.	No relaxation	APHA 23 rd Ed. 2017, 3111-B, 3-20
29	Zinc (as Zn)	mg/L	0.022	5 Max.	15 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
30	Arsenic (as As)	mg/L	N.D.	0.01 Max.	0.05 Max.	APHA 23 rd Ed. 2017, 3114-C, 3-40
31	Mercury (as Hg)	mg/L	N.D.	0.001Max.	No relaxation	APHA 23 rd Ed. 2017, 3112-B, 3-25
32	Selenium (as Se)	mg/L	N.D.	0.01 Max.	No relaxation	APHA 23 rd Ed. 2017, 3114-C, 3-40
Remarks: N.D.: Not Detected						

END

FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

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Water Sample Analysis Report

Report No.: ME-NG18348-191118-SA-RIPL-AMRAVATI			Date: 18.11.2019
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. 3382017462 Dt.16.08.2019
Sample Description / Type	Ground Water/Grab	Sample Collected by	Laboratory
Sampling Location	Well water of Rasalpur Village	Sample Quantity / Packing	2 L X 1 No. PVC Can 500mL X 1 No. PVC Can 500mL X 1 No. Glass Bottle
Date of Sampling	09.11.2019	Date of Receipt of Sample	09.11.2019
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 23 rd Ed. 2017, 1060-B, 1-40;		
Date of Start of Analysis	09.11.2019	Date of Completion of Analysis	18.11.2019

Sr. No.	Parameter	Unit	Result	Limit for Drinking water as per IS 10500:2012		Method Reference
				Acceptable Limit	Permissible Limit in the Absence of Alternate Source	
Discipline : Chemical Testing; Product Group: Water(Ground Water)						
1	Colour	Hazen	<1	5 Max.	15 Max.	APHA 23 rd Ed. 2017, 2120-B, 2-6
2	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 5):1984, Reaffirmed 2006
3	Taste	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 7 & 8):1984, Reaffirmed 2006
4	Turbidity	NTU	0.3	1 Max.	5 Max.	APHA 23 rd Ed. 2017, 2130-B, 2-13
5	pH	-	7.9	6.5 to 8.5	No relaxation	APHA 23 rd Ed. 2017, 4500-H ⁺ -B, 4-95
6	Residual Free Chlorine	ppm	<0.05	0.2 Min.	1.0 Max.	APHA 23 rd Ed. 2017, 4500-Cl G, 4-72
7	Total Dissolved Solids	mg/L	510	500 Max.	2000 Max.	IS 3025 (Part 16):1984 RA 2006, Ed.2.1(1999-12)
8	Total Suspended Solids	mg/L	<5	-	-	APHA 23 rd Ed. 2017, 2540-D, 2-69
9	Alkalinity Total (as CaCO ₃)	mg/L	334	200 Max.	600 Max.	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1

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Report No.18348 cont...

Sr. No.	Parameter	Unit	Result	Limit for Drinking water as per IS 10500:2012		Method Reference
				Acceptable Limit	Permissible Limit in the Absence of Alternate Source	
10	Total Hardness (as CaCO ₃)	mg/L	364	200 Max.	600 Max.	APHA 23 rd Ed. 2017, 2340-C, 2-48
11	Chloride (as Cl)	mg/L	33.2	250 Max.	1000 Max.	APHA 23 rd Ed. 2017, 4500-Cl-B, 4-75
12	Sulphate (as SO ₄)	mg/L	18.9	200 Max.	400 Max.	APHA 23 rd Ed. 2017, 4500-SO ₄ -E, 4-199
13	Nitrate (as NO ₃)	mg/L	42.5	45 Max.	No relaxation	APHA 23 rd Ed. 2017, 4500-NO ₃ , E 4-131
14	Calcium(as Ca)	mg/L	76.2	75 Max.	200 Max.	APHA 23 rd Ed. 2017, 3500-Ca-B, 3-69
15	Magnesium (as Mg)	mg/L	42.3	30 Max.	100 Max.	APHA 23 rd Ed. 2017, 3500-Mg- B, 3-86
16	Fluoride (as F)	mg/L	0.624	1 Max.	1.5 Max.	APHA 23 rd Ed. 2017, 4500-F, D, 4-90
17	Boron(as B)	mg/L	<0.1	0.5 Max.	1.0 Max.	APHA 23 rd Ed. 2017, 4500-B B, 4-27
18	Dissolved Oxygen	mg/L	6.9	-	-	APHA 23 rd Ed. 2017, 4500-O, B & C, 4-144, 4-146
19	*Oil and Grease	mg/L	N.D.	-	-	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
20	*Cyanide (as CN)	mg/L	N.D.	0.05 Max.	No relaxation	APHA 23 rd Ed. 2017, 4500-CN, C & E, 4-44 & 4-46
21	*Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	N.D.	0.001 Max.	0.002 Max.	APHA 23 rd Ed. 2017, 5530- B & C, 5-49, 5-50
Discipline : Chemical Testing; Product Group :Residues in water (Trace metal Element)						
22	Iron (as Fe)	mg/L	0.250	0.3 Max.	No relaxation.	APHA 23 rd Ed. 2017, 3111-B, 3-20
23	Manganese (as Mn)	mg/L	<0.04	0.1 Max.	0.3 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20 AAS Method
24	Aluminium (as Al)	mg/L	<0.025	0.03 Max.	0.2 Max.	APHA 23 rd Ed. 2017, 3500-Al-B, 3-63
25	Cadmium (as Cd)	mg/L	N.D.	0.003Max	No relaxation	APHA 23 rd Ed. 2017, 3111-B, 3-20
26	Chromium Total (as Cr)	mg/L	N.D.	0.05 Max.	No relaxation	APHA 23 rd Ed. 2017, 3111-B, 3-20
27	Copper (as Cu)	mg/L	N.D.	0.05 Max.	1.5 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20

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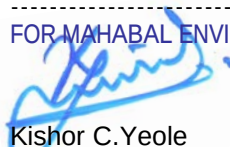


Report No.18348 cont...

28	Lead (as Pb)	mg/L	N.D.	0.01 Max.	No relaxation	APHA 23 rd Ed. 2017, 3111-B, 3-20
29	Zinc (as Zn)	mg/L	0.016	5 Max.	15 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
30	Arsenic (as As)	mg/L	N.D.	0.01 Max.	0.05 Max.	APHA 23 rd Ed. 2017, 3114-C, 3-40
31	Mercury (as Hg)	mg/L	N.D.	0.001Max.	No relaxation	APHA 23 rd Ed. 2017, 3112-B, 3-25
32	Selenium (as Se)	mg/L	N.D.	0.01 Max.	No relaxation	APHA 23 rd Ed. 2017, 3114-C, 3-40
Remarks: N.D.: Not Detected						

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FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.


Kishor C. Yeole

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Water Sample Analysis Report

Report No.: ME-NG18353-191118-SA-RIPL-AMRAVATI			Date: 18.11.2019
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. 3382017462 Dt.16.08.2019
Sample Description / Type	Ground Water/Grab	Sample Collected by	Laboratory
Sampling Location	Talkhanda Village	Sample Quantity / Packing	2 L X 1 No. PVC Can 500mL X 1 No. PVC Can 500mL X 1 No. Glass Bottle
Date of Sampling	09.11.2019	Date of Receipt of Sample	09.11.2019
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 23 rd Ed. 2017, 1060-B, 1-40;		
Date of Start of Analysis	09.11.2019	Date of Completion of Analysis	18.11.2019

Sr. No.	Parameter	Unit	Result	Limit for Drinking water as per IS 10500:2012		Method Reference
				Acceptable Limit	Permissible Limit in the Absence of Alternate Source	
Discipline : Chemical Testing; Product Group: Water(Ground Water)						
1	Colour	Hazen	<1	5 Max.	15 Max.	APHA 23 rd Ed. 2017, 2120-B, 2-6
2	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 5):1984, Reaffirmed 2006
3	Taste	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 7 & 8):1984, Reaffirmed 2006
4	Turbidity	NTU	0.2	1 Max.	5 Max.	APHA 23 rd Ed. 2017, 2130-B, 2-13
5	pH	-	7.3	6.5 to 8.5	No relaxation	APHA 23 rd Ed. 2017, 4500-H ⁺ -B, 4-95
6	Residual Free Chlorine	ppm	<0.05	0.2 Min.	1.0 Max.	APHA 23 rd Ed. 2017, 4500-Cl G, 4-72
7	Total Dissolved Solids	mg/L	429	500 Max.	2000 Max.	IS 3025 (Part 16):1984 RA 2006, Ed.2.1(1999-12)
8	Total Suspended Solids	mg/L	<5	-	-	APHA 23 rd Ed. 2017, 2540-D, 2-69
9	Alkalinity Total (as CaCO ₃)	mg/L	262	200 Max.	600 Max.	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1

ULR-TC748719000018353P



Report No.18353 cont...

Sr. No.	Parameter	Unit	Result	Limit for Drinking water as per IS 10500:2012		Method Reference
				Acceptable Limit	Permissible Limit in the Absence of Alternate Source	
10	Total Hardness (as CaCO ₃)	mg/L	308	200 Max.	600 Max.	APHA 23 rd Ed. 2017, 2340-C, 2-48
11	Chloride (as Cl)	mg/L	43.1	250 Max.	1000 Max.	APHA 23 rd Ed. 2017, 4500-Cl-B, 4-75
12	Sulphate (as SO ₄)	mg/L	25.9	200 Max.	400 Max.	APHA 23 rd Ed. 2017, 4500-SO ₄ -E, 4-199
13	Nitrate (as NO ₃)	mg/L	26.6	45 Max.	No relaxation	APHA 23 rd Ed. 2017, 4500-NO ₃ , E 4-131
14	Calcium(as Ca)	mg/L	72.1	75 Max.	200 Max.	APHA 23 rd Ed. 2017, 3500-Ca-B, 3-69
15	Magnesium (as Mg)	mg/L	31.1	30 Max.	100 Max.	APHA 23 rd Ed. 2017, 3500-Mg- B, 3-86
16	Fluoride (as F)	mg/L	0.654	1 Max.	1.5 Max.	APHA 23 rd Ed. 2017, 4500-F, D, 4-90
17	Boron(as B)	mg/L	<0.1	0.5 Max.	1.0 Max.	APHA 23 rd Ed. 2017, 4500-B B, 4-27
18	Dissolved Oxygen	mg/L	6.8	-	-	APHA 23 rd Ed. 2017, 4500-O, B & C, 4-144, 4-146
19	*Oil and Grease	mg/L	N.D.	-	-	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
20	*Cyanide (as CN)	mg/L	N.D.	0.05 Max.	No relaxation	APHA 23 rd Ed. 2017, 4500-CN, C & E, 4-44 & 4-46
21	*Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	N.D.	0.001 Max.	0.002 Max.	APHA 23 rd Ed. 2017, 5530- B & C, 5-49, 5-50
Discipline : Chemical Testing; Product Group :Residues in water (Trace metal Element)						
22	Iron (as Fe)	mg/L	0.177	0.3 Max.	No relaxation.	APHA 23 rd Ed. 2017, 3111-B, 3-20
23	Manganese (as Mn)	mg/L	<0.04	0.1 Max.	0.3 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20 AAS Method
24	Aluminium (as Al)	mg/L	<0.025	0.03 Max.	0.2 Max.	APHA 23 rd Ed. 2017, 3500-Al-B, 3-63
25	Cadmium (as Cd)	mg/L	N.D.	0.003Max	No relaxation	APHA 23 rd Ed. 2017, 3111-B, 3-20
26	Chromium Total (as Cr)	mg/L	N.D.	0.05 Max.	No relaxation	APHA 23 rd Ed. 2017, 3111-B, 3-20
27	Copper (as Cu)	mg/L	N.D.	0.05 Max.	1.5 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20

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**Report No.18353 cont...**

28	Lead (as Pb)	mg/L	N.D.	0.01 Max.	No relaxation	APHA 23 rd Ed. 2017, 3111-B, 3-20
29	Zinc (as Zn)	mg/L	0.046	5 Max.	15 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
30	Arsenic (as As)	mg/L	N.D.	0.01 Max.	0.05 Max.	APHA 23 rd Ed. 2017, 3114-C, 3-40
31	Mercury (as Hg)	mg/L	N.D.	0.001Max.	No relaxation	APHA 23 rd Ed. 2017, 3112-B, 3-25
32	Selenium (as Se)	mg/L	N.D.	0.01 Max.	No relaxation	APHA 23 rd Ed. 2017, 3114-C, 3-40
Remarks: N.D.: Not Detected						

END

FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor C. Yeole

BRANCH MANAGER

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-NG18350-191118-SA-RIPL-AMRAVATI			Date: 18.11.2019
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. 3382017462 Dt.16.08.2019
Sample Description / Type	Ground Water/Grab	Sample Collected by	Laboratory
Sampling Location	Pimpalvihirgaon Village	Sample Quantity / Packing	2 L X 1 No. PVC Can 500mL X 1 No. PVC Can 500mL X 1 No. Glass Bottle
Date of Sampling	15.10.2019	Date of Receipt of Sample	15.10.2019
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 23 rd Ed. 2017, 1060-B, 1-40;		
Date of Start of Analysis	15.10.2019	Date of Completion of Analysis	23.10.2019

Sr. No.	Parameter	Unit	Result	Limit for Drinking water as per IS 10500:2012		Method Reference
				Acceptable Limit	Permissible Limit in the Absence of Alternate Source	
Discipline : Chemical Testing; Product Group: Water(Ground Water)						
1	Colour	Hazen	<1	5 Max.	15 Max.	APHA 23 rd Ed. 2017, 2120-B, 2-6
2	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 5):1984, Reaffirmed 2006
3	Taste	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 7 & 8):1984, Reaffirmed 2006
4	Turbidity	NTU	0.4	1 Max.	5 Max.	APHA 23 rd Ed. 2017, 2130-B, 2-13
5	pH	-	7.8	6.5 to 8.5	No relaxation	APHA 23 rd Ed. 2017, 4500-H ⁺ -B, 4-95
6	Residual Free Chlorine	ppm	<0.05	0.2 Min.	1.0 Max.	APHA 23 rd Ed. 2017, 4500-Cl G, 4-72
7	Total Dissolved Solids	mg/L	431	500 Max.	2000 Max.	IS 3025 (Part 16):1984 RA 2006, Ed.2.1(1999-12)
8	Total Suspended Solids	mg/L	<5	-	-	APHA 23 rd Ed. 2017, 2540-D, 2-69
9	Alkalinity Total (as CaCO ₃)	mg/L	304	200 Max.	600 Max.	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1

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Report No.18350 cont...

Sr. No.	Parameter	Unit	Result	Limit for Drinking water as per IS 10500:2012		Method Reference
				Acceptable Limit	Permissible Limit in the Absence of Alternate Source	
10	Total Hardness (as CaCO ₃)	mg/L	268	200 Max.	600 Max.	APHA 23 rd Ed. 2017, 2340-C, 2-48
11	Chloride (as Cl)	mg/L	19.9	250 Max.	1000 Max.	APHA 23 rd Ed. 2017, 4500-Cl-B, 4-75
12	Sulphate (as SO ₄)	mg/L	26.7	200 Max.	400 Max.	APHA 23 rd Ed. 2017, 4500-SO ₄ -E, 4-199
13	Nitrate (as NO ₃)	mg/L	17.0	45 Max.	No relaxation	APHA 23 rd Ed. 2017, 4500-NO ₃ , E 4-131
14	Calcium(as Ca)	mg/L	55.3	75 Max.	200 Max.	APHA 23 rd Ed. 2017, 3500-Ca-B, 3-69
15	Magnesium (as Mg)	mg/L	31.7	30 Max.	100 Max.	APHA 23 rd Ed. 2017, 3500-Mg- B, 3-86
16	Fluoride (as F)	mg/L	0.414	1 Max.	1.5 Max.	APHA 23 rd Ed. 2017, 4500-F, D, 4-90
17	Boron(as B)	mg/L	<0.1	0.5 Max.	1.0 Max.	APHA 23 rd Ed. 2017, 4500-B B, 4-27
18	Dissolved Oxygen	mg/L	6.6	-	-	APHA 23 rd Ed. 2017, 4500-O, B & C, 4-144, 4-146
19	*Oil and Grease	mg/L	N.D.	-	-	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
20	*Cyanide (as CN)	mg/L	N.D.	0.05 Max.	No relaxation	APHA 23 rd Ed. 2017, 4500-CN, C & E, 4-44 & 4-46
21	*Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	N.D.	0.001 Max.	0.002 Max.	APHA 23 rd Ed. 2017, 5530- B & C, 5-49, 5-50
Discipline : Chemical Testing; Product Group :Residues in water (Trace metal Element)						
22	Iron (as Fe)	mg/L	0.187	0.3 Max.	No relaxation.	APHA 23 rd Ed. 2017, 3111-B, 3-20
23	Manganese (as Mn)	mg/L	<0.04	0.1 Max.	0.3 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20 AAS Method
24	Aluminium (as Al)	mg/L	<0.025	0.03 Max.	0.2 Max.	APHA 23 rd Ed. 2017, 3500-Al-B, 3-63
25	Cadmium (as Cd)	mg/L	N.D.	0.003Max.	No relaxation	APHA 23 rd Ed. 2017, 3111-B, 3-20
26	Chromium Total (as Cr)	mg/L	N.D.	0.05 Max.	No relaxation	APHA 23 rd Ed. 2017, 3111-B, 3-20
27	Copper (as Cu)	mg/L	N.D.	0.05 Max.	1.5 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20

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Report No.18350 cont...

28	Lead (as Pb)	mg/L	N.D.	0.01 Max.	No relaxation	APHA 23 rd Ed. 2017, 3111-B, 3-20
29	Zinc (as Zn)	mg/L	0.024	5 Max.	15 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
30	Arsenic (as As)	mg/L	N.D.	0.01 Max.	0.05 Max.	APHA 23 rd Ed. 2017, 3114-C, 3-40
31	Mercury (as Hg)	mg/L	N.D.	0.001Max.	No relaxation	APHA 23 rd Ed. 2017, 3112-B, 3-25
32	Selenium (as Se)	mg/L	N.D.	0.01 Max.	No relaxation	APHA 23 rd Ed. 2017, 3114-C, 3-40
Remarks: N.D.: Not Detected						

-----END-----

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Kishor C. Yeole

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Water Sample Analysis Report

Report No.: ME-NG18347-191118-SA-RIPL-AMRAVATI			Date: 18.11.2019
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. 3382017462 Dt.16.08.2019
Sample Description / Type	Ground Water/Grab	Sample Collected by	Laboratory
Sampling Location	Well Water Of Mr. Narayan Lomte Farm back side of Ash Dyke Area	Sample Quantity / Packing	2 L X 1 No. PVC Can 500mL X 1 No. PVC Can 500mL X 1 No. Glass Bottle
Date of Sampling	09.11.2019	Date of Receipt of Sample	09.11.2019
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 23 rd Ed. 2017, 1060-B, 1-40;		
Date of Start of Analysis	09.11.2019	Date of Completion of Analysis	18.11.2019

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
Discipline : Chemical Testing; Product Group: Water(Ground Water)					
1.	Colour	Hazen	<1	5 Max.	APHA 23 rd Ed. 2017, 2120-B, 2-6
2.	Odour	-	Agreeable	Agreeable	IS 3025 (Part 05):1984, Reaffirmed 2006
3.	Taste	-	Agreeable	Agreeable	IS 3025 (Part 7 & 8):1984, Reaffirmed 2006
4.	Turbidity	NTU	0.2	1 Max.	APHA 23 rd Ed. 2017, 2130-B, 2-13
5.	pH	-	7.7	6.5 to 8.5	APHA 23 rd Ed. 2017, 4500-H ⁺ -B, 4-95
6.	Residual Free Chlorine	ppm	<0.05	0.2 Min.	APHA 23 rd Ed. 2017, 4500-Cl G, 4-72
7.	Total Dissolved Solids	mg/L	548	500 Max.	IS 3025 (Part 16):1984 Reaffirmed 2006, Ed.2.1(1999-12)
8.	Total Suspended Solids	mg/L	<5	-	APHA 23 rd Ed. 2017, 2540-D, 2-69
9.	Alkalinity Total (as CaCO ₃)	mg/L	296	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1
10.	Total Hardness (as CaCO ₃)	mg/L	404	200 Max.	APHA 23 rd Ed. 2017, 2340-C, 2-48
11.	Chloride(as Cl)	mg/L	74.4	250 Max.	APHA 23 rd Ed. 2017, 4500-Cl-B, 4-75
12.	Sulphate (as SO ₄)	mg/L	29.3	200 Max	APHA 23 rd Ed. 2017, 4500-SO ₄ -E, 4-199

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Report No.18347 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
13.	Nitrate (as NO ₃)	mg/L	43.4	45 Max	APHA 23 rd Ed. 2017, 4500-NO ₃ , E 4-131
14.	Calcium (as Ca)	mg/L	124	75 Max.	APHA 23 rd Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	22.8	30 Max.	APHA 23 rd Ed. 2017, 3500-Mg- B, 3-86
16.	Fluoride(as F)	mg/L	0.549	1.0 Max.	APHA 23 rd Ed. 2017, 4500-F, D, 4-90
17.	Boron(as B)	mg/L	<0.1	0.5 Max.	APHA 23 rd Ed. 2017, 4500-B B, 4-27
18.	Dissolved Oxygen	mg/L	6.7	-	APHA 23 rd Ed. 2017, 4500-O, B & C, 4-144, 4-146
19.	*Oil and Grease	mg/L	N.D.	-	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
20.	*Cyanide (as CN)	mg/L	N.D.	0.05 Max.	APHA 23 rd Ed. 2017, 4500-CN, C & E, 4-44 & 4-46
21.	*Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	N.D.	0.001 Max.	APHA 23 rd Ed. 2017, 5530-B & C, 5-49, 5-50
Discipline : Chemical Testing; Product Group :Residues in water (Trace metal Element)					
22.	Iron (as Fe)	mg/L	0.198	0.3 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
23.	Manganese (as Mn)	mg/L	N.D.	0.1 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20 AAS Method
24.	Aluminium (as Al)	mg/L	<0.025	0.03 Max.	APHA 23 rd Ed. 2017, 3500-Al-B, 3-63
25.	Cadmium (as Cd)	mg/L	N.D.	0.003 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
26.	Chromium Total (as Cr)	mg/L	N.D.	0.05 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
27.	Copper (as Cu)	mg/L	N.D.	0.05 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
28.	Lead (as Pb)	mg/L	N.D.	0.01 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
29.	Zinc (as Zn)	mg/L	0.028	5 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
30.	Arsenic (as As)	mg/L	N.D.	0.01 Max.	APHA 23 rd Ed. 2017, 3114-C, 3-40
31.	Mercury (as Hg)	mg/L	N.D.	0.001 Max.	APHA 23 rd Ed. 2017, 3112-B, 3-25
32.	Selenium (as Se)	mg/L	N.D.	0.01 Max.	APHA 23 rd Ed. 2017, 3114-C, 3-40
Remarks: N.D. – Not Detected; NA: Not Applicable; The tests marked with an * are not accredited by NABL					

-----END-----

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Kishor C.Yeole

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Water Sample Analysis Report

Report No.: ME-NG18351-191118-SA-RIPL-AMRAVATI			Date: 18.11.2019
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. 3382017462 Dt.16.08.2019
Sample Description / Type	Ground Water/Grab	Sample Collected by	Laboratory
Sampling Location	Wagholi Village	Sample Quantity / Packing	2 L X 1 No. PVC Can 500mL X 1 No. PVC Can 500mL X 1 No. Glass Bottle
Date of Sampling	09.11.2019	Date of Receipt of Sample	09.11.2019
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 23 rd Ed. 2017, 1060-B, 1-40;		
Date of Start of Analysis	09.11.2019	Date of Completion of Analysis	18.11.2019

Sr. No.	Parameter	Unit	Result	Limit for Drinking water as per IS 10500:2012		Method Reference
				Acceptable Limit	Permissible Limit in the Absence of Alternate Source	
Discipline : Chemical Testing; Product Group: Water(Ground Water)						
1	Colour	Hazen	<1	5 Max.	15 Max.	APHA 23 rd Ed. 2017, 2120-B, 2-6
2	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 5):1984, Reaffirmed 2006
3	Taste	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 7 & 8):1984, Reaffirmed 2006
4	Turbidity	NTU	0.3	1 Max.	5 Max.	APHA 23 rd Ed. 2017, 2130-B, 2-13
5	pH	-	7.9	6.5 to 8.5	No relaxation	APHA 23 rd Ed. 2017, 4500-H ⁺ -B, 4-95
6	Residual Free Chlorine	ppm	<0.05	0.2 Min.	1.0 Max.	APHA 23 rd Ed. 2017, 4500-Cl G, 4-72
7	Total Dissolved Solids	mg/L	451	500 Max.	2000 Max.	IS 3025 (Part 16):1984 RA 2006, Ed.2.1(1999-12)
8	Total Suspended Solids	mg/L	<5	-	-	APHA 23 rd Ed. 2017, 2540-D, 2-69
9	Alkalinity Total (as CaCO ₃)	mg/L	262	200 Max.	600 Max.	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1

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Report No.18351 cont...

Sr. No.	Parameter	Unit	Result	Limit for Drinking water as per IS 10500:2012		Method Reference
				Acceptable Limit	Permissible Limit in the Absence of Alternate Source	
10	Total Hardness (as CaCO ₃)	mg/L	310	200 Max.	600 Max.	APHA 23 rd Ed. 2017, 2340-C, 2-48
11	Chloride (as Cl)	mg/L	52.8	250 Max.	1000 Max.	APHA 23 rd Ed. 2017, 4500-Cl-B, 4-75
12	Sulphate (as SO ₄)	mg/L	34.6	200 Max.	400 Max.	APHA 23 rd Ed. 2017, 4500-SO ₄ -E, 4-199
13	Nitrate (as NO ₃)	mg/L	16.8	45 Max.	No relaxation	APHA 23 rd Ed. 2017, 4500-NO ₃ , E 4-131
14	Calcium(as Ca)	mg/L	60.9	75 Max.	200 Max.	APHA 23 rd Ed. 2017, 3500-Ca-B, 3-69
15	Magnesium (as Mg)	mg/L	38.4	30 Max.	100 Max.	APHA 23 rd Ed. 2017, 3500-Mg- B, 3-86
16	Fluoride (as F)	mg/L	0.549	1 Max.	1.5 Max.	APHA 23 rd Ed. 2017, 4500-F, D, 4-90
17	Boron(as B)	mg/L	<0.1	0.5 Max.	1.0 Max.	APHA 23 rd Ed. 2017, 4500-B B, 4-27
18	Dissolved Oxygen	mg/L	6.4	-	-	APHA 23 rd Ed. 2017, 4500-O, B & C, 4-144, 4-146
19	*Oil and Grease	mg/L	N.D.	-	-	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
20	*Cyanide (as CN)	mg/L	N.D.	0.05 Max.	No relaxation	APHA 23 rd Ed. 2017, 4500-CN, C & E, 4-44 & 4-46
21	*Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	N.D.	0.001 Max.	0.002 Max.	APHA 23 rd Ed. 2017, 5530- B & C, 5-49, 5-50
Discipline : Chemical Testing; Product Group :Residues in water (Trace metal Element)						
22	Iron (as Fe)	mg/L	0.220	0.3 Max.	No relaxation.	APHA 23 rd Ed. 2017, 3111-B, 3-20
23	Manganese (as Mn)	mg/L	<0.04	0.1 Max.	0.3 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20 AAS Method
24	Aluminium (as Al)	mg/L	<0.025	0.03 Max.	0.2 Max.	APHA 23 rd Ed. 2017, 3500-Al-B, 3-63
25	Cadmium (as Cd)	mg/L	N.D.	0.003Max	No relaxation	APHA 23 rd Ed. 2017, 3111-B, 3-20
26	Chromium Total (as Cr)	mg/L	N.D.	0.05 Max.	No relaxation	APHA 23 rd Ed. 2017, 3111-B, 3-20
27	Copper (as Cu)	mg/L	N.D.	0.05 Max.	1.5 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20

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Report No.18351 cont...

28	Lead (as Pb)	mg/L	N.D.	0.01 Max.	No relaxation	APHA 23 rd Ed. 2017, 3111-B, 3-20
29	Zinc (as Zn)	mg/L	0.022	5 Max.	15 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
30	Arsenic (as As)	mg/L	N.D.	0.01 Max.	0.05 Max.	APHA 23 rd Ed. 2017, 3114-C, 3-40
31	Mercury (as Hg)	mg/L	N.D.	0.001Max.	No relaxation	APHA 23 rd Ed. 2017, 3112-B, 3-25
32	Selenium (as Se)	mg/L	N.D.	0.01 Max.	No relaxation	APHA 23 rd Ed. 2017, 3114-C, 3-40
Remarks: N.D.: Not Detected						

END

FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor C. Yeole

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Water Sample Analysis Report

Report No.: ME-NG18355-191118-SA-RIPL-AMRAVATI			Date: 18.11.2019
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. 3382017462 Dt.16.08.2019
Sample Description / Type	Surface Water	Sample Collected by	Laboratory
Sampling Location	Wagholi Pond	Sample Quantity / Packing	2 L X 1 No. PVC Can 500mL X 1 No. PVC Can 500mL X 1 No. Glass Bottle
Date of Sampling	09.11.2019	Date of Receipt of Sample	09.11.2019
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 23 rd Ed. 2017, 1060-B, 1-40;		
Date of Start of Analysis	09.11.2019	Date of Completion of Analysis	18.11.2019

Sr. No.	Parameter	Unit	Result	Method Reference
Discipline : Chemical Testing; Product Group: Water(Surface Water)				
1.	Colour	Hazen	<1	APHA 23 rd Ed. 2017, 2120-B, 2-6
2.	Odour	-	Agreeable	IS 3025 (Part 05):1984, Reaffirmed 2006
3.	Taste	-	NA	IS 3025 (Part 7 & 8):1984, Reaffirmed 2006
4.	Turbidity	NTU	0.4	APHA 23 rd Ed. 2017, 2130-B, 2-13
5.	pH	-	8.1	APHA 23 rd Ed. 2017, 4500-H ⁺ -B, 4-95
6.	Residual Free Chlorine	mg/L	<0.05	APHA 23 rd Ed. 2017, 4500-Cl G, 4-72
7.	Total Dissolved Solids	mg/L	460	IS 3025 (Part 16):1984 Reaffirmed 2006, Ed.2.1(1999-12)
8.	Total Suspended Solids	mg/L	6	APHA 23 rd Ed. 2017, 2540-D, 2-69
9.	Alkalinity Total (as CaCO ₃)	mg/L	168	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1
10.	Total Hardness (as CaCO ₃)	mg/L	328	APHA 23 rd Ed. 2017, 2340-C, 2-48
11.	Chloride(as Cl)	mg/L	58.9	APHA 23 rd Ed. 2017, 4500-Cl-B, 4-75
12.	Sulphate (as SO ₄)	mg/L	121	APHA 23 rd Ed. 2017, 4500- SO ₄ -E, 4-199
13.	Nitrate (as NO ₃)	mg/L	0.890	APHA 23 rd Ed. 2017, 4500-NO ₃ , E 4-131
14.	Calcium (as Ca)	mg/L	81.8	APHA 23 rd Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	30.1	APHA 23 rd Ed. 2017, 3500-Mg- B, 3-86
16.	Fluoride(as F)	mg/L	0.549	APHA 23 rd Ed. 2017, 4500-F, D, 4-90
17.	Boron(as B)	mg/L	<0.1	APHA 23 rd Ed. 2017, 4500-B B, 4-27



Report No.18355 Cont...

Sr. No.	Parameter	Unit	Result	Method Reference
18.	Dissolved Oxygen	mg/L	6.4	APHA 23 rd Ed. 2017, 4500-O, B & C, 4-144, 4-146
19.	*Oil and Grease	mg/L	N.D.	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
20.	*Cyanide (as CN)	mg/L	N.D.	APHA 23 rd Ed. 2017, 4500-CN, C & E, 4-44 & 4-46
21.	*Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	N.D.	APHA 23 rd Ed. 2017, 5530- B & C, 5-49, 5-50
Residues in water (Trace metal Element)				
22.	Iron (as Fe)	mg/L	0.208	APHA 23 rd Ed. 2017, 3111-B, 3-20
23.	Manganese (as Mn)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3111-B, 3-20 AAS Method
24.	Aluminium (as Al)	mg/L	<0.025	APHA 23 rd Ed. 2017, 3500-Al-B, 3-63
25.	Cadmium (as Cd)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3111-B, 3-20
26.	Chromium Total (as Cr)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3111-B, 3-20
27.	Copper (as Cu)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3111-B, 3-20
28.	Lead (as Pb)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3111-B, 3-20
29.	Zinc (as Zn)	mg/L	0.022	APHA 23 rd Ed. 2017, 3111-B, 3-20
29.	Arsenic (as As)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3114-C, 3-40
30.	Mercury (as Hg)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3112-B, 3-25
31.	Selenium (as Se)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3114-C, 3-40
Remarks: N.D. – Not Detected; NA: Not Applicable The tests marked with an * are not accredited by NABL				

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Water Sample Analysis Report

Report No.: ME-NG18354-191118-SA-RIPL-AMRAVATI			Date: 18.11.2019
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. 3382017462 Dt.16.08.2019
Sample Description / Type	Surface Water	Sample Collected by	Laboratory
Sampling Location	Malegaon Pond	Sample Quantity / Packing	2 L X 1 No. PVC Can 500mL X 1 No. PVC Can 500mL X 1 No. Glass Bottle
Date of Sampling	09.11.2019	Date of Receipt of Sample	09.11.2019
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 23 rd Ed. 2017, 1060-B, 1-40;		
Date of Start of Analysis	09.11.2019	Date of Completion of Analysis	18.11.2019

Sr. No.	Parameter	Unit	Result	Method Reference
Discipline : Chemical Testing; Product Group: Water(Surface Water)				
1.	Colour	Hazen	<1	APHA 23 rd Ed. 2017, 2120-B, 2-6
2.	Odour	-	Agreeable	IS 3025 (Part 05):1984, Reaffirmed 2006
3.	Taste	-	NA	IS 3025 (Part 7 & 8):1984, Reaffirmed 2006
4.	Turbidity	NTU	0.3	APHA 23 rd Ed. 2017, 2130-B, 2-13
5.	pH	-	7.9	APHA 23 rd Ed. 2017, 4500-H ⁺ -B, 4-95
6.	Residual Free Chlorine	mg/L	<0.05	APHA 23 rd Ed. 2017, 4500-Cl G, 4-72
7.	Total Dissolved Solids	mg/L	451	IS 3025 (Part 16):1984 Reaffirmed 2006, Ed.2.1(1999-12)
8.	Total Suspended Solids	mg/L	18	APHA 23 rd Ed. 2017, 2540-D, 2-69
9.	Alkalinity Total (as CaCO ₃)	mg/L	174	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1
10.	Total Hardness (as CaCO ₃)	mg/L	320	APHA 23 rd Ed. 2017, 2340-C, 2-48
11.	Chloride(as Cl)	mg/L	44.4	APHA 23 rd Ed. 2017, 4500-Cl-B, 4-75
12.	Sulphate (as SO ₄)	mg/L	128	APHA 23 rd Ed. 2017, 4500- SO ₄ -E, 4-199
13.	Nitrate (as NO ₃)	mg/L	<0.5	APHA 23 rd Ed. 2017, 4500-NO ₃ , E 4-131
14.	Calcium (as Ca)	mg/L	81.8	APHA 23 rd Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	28.2	APHA 23 rd Ed. 2017, 3500-Mg- B, 3-86
16.	Fluoride(as F)	mg/L	0.549	APHA 23 rd Ed. 2017, 4500-F, D, 4-90
17.	Boron(as B)	mg/L	<0.1	APHA 23 rd Ed. 2017, 4500-B B, 4-27



Report No.18354 Cont...

Sr. No.	Parameter	Unit	Result	Method Reference
18.	Dissolved Oxygen	mg/L	6.5	APHA 23 rd Ed. 2017, 4500-O, B & C, 4-144, 4-146
19.	*Oil and Grease	mg/L	N.D.	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
20.	*Cyanide (as CN)	mg/L	N.D.	APHA 23 rd Ed. 2017, 4500-CN, C & E, 4-44 & 4-46
21.	*Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	N.D.	APHA 23 rd Ed. 2017, 5530- B & C, 5-49, 5-50
Residues in water (Trace metal Element)				
22.	Iron (as Fe)	mg/L	0.209	APHA 23 rd Ed. 2017, 3111-B, 3-20
23.	Manganese (as Mn)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3111-B, 3-20 AAS Method
24.	Aluminium (as Al)	mg/L	<0.025	APHA 23 rd Ed. 2017, 3500-Al-B, 3-63
25.	Cadmium (as Cd)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3111-B, 3-20
26.	Chromium Total (as Cr)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3111-B, 3-20
27.	Copper (as Cu)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3111-B, 3-20
28.	Lead (as Pb)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3111-B, 3-20
29.	Zinc (as Zn)	mg/L	0.052	APHA 23 rd Ed. 2017, 3111-B, 3-20
30.	Arsenic (as As)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3114-C, 3-40
31.	Mercury (as Hg)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3112-B, 3-25
32.	Selenium (as Se)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3114-C, 3-40
Remarks: N.D. – Not Detected; NA: Not Applicable The tests marked with an * are not accredited by NABL				

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Effluent Sample Analysis Report

Report No.: ME-NG18356-191116-SA-RIPL-AMRAVATI		Date: 16.11.2019	
Name and Address of Customer	RATTANINDIA POWER LIMITED		Order Reference:
	Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		SO No. 3382017462 Dt.16.08.2019
Sample Description / Type	Domestic Effluent	Sample Collected by	Laboratory
Sampling Location	1.STP Plant Outlet 2.STP Colony Outlet	Sample Quantity / Packing	2 L X 2 No. PVC Can 100mL X 2 No. PVC Can
Date of Sampling	08.11.2019	Date of Receipt of Sample	09.11.2019
Sampling Procedure	IS:3025(Part I): 1987 RA2003, APHA 23 rd Ed. 2017, 1060-B, 1-40		
Date of Start of Analysis	09.11.2019	Date of Completion of Analysis	12.11.2019

Sr. No.	Parameter	Unit	Result		Limit as per MPCB Consent	Method Reference
			1	2		
Discipline : Chemical Testing; Product Group: Pollution & Environment(Waste Water)						
1	Biochemical Oxygen Demand (3 days 27°C)	mg/L	14	15	30 Max.	IS 3025 (Part 44): 1993, Reaffirmed 2009
2	Chemical Oxygen Demand	mg/L	48	52	100 Max.	APHA 23 rd Ed. 2017, 5220-B, 5-18
Remarks:						

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Effluent Sample Analysis Report

Report No.: ME-NG18346-191116-SA-RIPL-AMRAVATI			Date: 16.11.2019
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. 3382017462 Dt.16.08.2019	
Sample Description / Type	Industrial Effluent	Sample Collected by	Laboratory
Sampling Location	Ash Dyke Leachates	Sample Quantity / Packing	2 L X 1 No. PVC Can 500mL X 1 No. PVC Can 500mL X 1 No. Glass Bottle
Date of Sampling	08.11.2019	Date of Receipt of Sample	09.11.2019
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 23 rd Ed. 2017, 1060-B, 1-40;		
Date of Start of Analysis	09.11.2019	Date of Completion of Analysis	16.11.2019

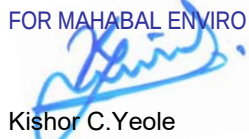
Sr. No.	Parameter	Unit	Result	Method Reference
Discipline : Chemical Testing; Product Group: Pollution & Environment(Waste Water)				
1.	Colour	Hazen	<1	APHA 23 rd Ed. 2017, 2120-B, 2-6
2.	Odour	-	Agreeable	IS 3025 (Part 05):1984, Reaffirmed 2006
3.	Taste	-	NA	IS 3025 (Part 7 & 8):1984, Reaffirmed 2006
4.	Turbidity	NTU	0.2	APHA 23 rd Ed. 2017, 2130-B, 2-13
5.	pH	-	7.9	APHA 23 rd Ed. 2017, 4500-H ⁺ -B, 4-95
6.	Residual Free Chlorine	mg/L	<0.05	APHA 23 rd Ed. 2017, 4500-Cl G, 4-72
7.	Total Dissolved Solids	mg/L	1164	IS 3025 (Part 16):1984 Reaffirmed 2006, Ed.2.1(1999-12)
8.	Total Suspended Solids	mg/L	18	APHA 23 rd Ed. 2017, 2540-D, 2-69
9.	Alkalinity Total (as CaCO ₃)	mg/L	152	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1
10.	Total Hardness (as CaCO ₃)	mg/L	848	APHA 23 rd Ed. 2017, 2340-C, 2-48
11.	Chloride(as Cl)	mg/L	72.6	APHA 23 rd Ed. 2017, 4500-Cl-B, 4-75
12.	Sulphate (as SO ₄)	mg/L	606	APHA 23 rd Ed. 2017, 4500- SO ₄ -E, 4-199

Report No.18346 Cont...

Sr. No.	Parameter	Unit	Result	Method Reference
13.	Nitrate (as NO ₃)	mg/L	1.33	APHA 23 rd Ed. 2017, 4500-NO ₃ , E 4-131
14.	Calcium (as Ca)	mg/L	221	APHA 23 rd Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	71.9	APHA 23 rd Ed. 2017, 3500-Mg- B, 3-86
16.	Fluoride(as F)	mg/L	0.782	APHA 23 rd Ed. 2017, 4500-F, D, 4-90
17.	Boron(as B)	mg/L	<0.1	APHA 23 rd Ed. 2017, 4500-B B, 4-27
18.	Dissolved Oxygen	mg/L	6.8	APHA 23 rd Ed. 2017, 4500-O, B & C, 4-144, 4-146
19.	*Oil and Grease	mg/L	N.D.	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
20.	*Cyanide (as CN)	mg/L	N.D.	APHA 23 rd Ed. 2017, 4500-CN, C & E, 4-44 & 4-46
21.	*Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	N.D.	APHA 23 rd Ed. 2017, 5530- B & C, 5-49, 5-50
Residues in water (Trace metal Element)				
22.	Iron (as Fe)	mg/L	0.398	APHA 23 rd Ed. 2017, 3111-B, 3-20
23.	Manganese (as Mn)	mg/L	<0.04	APHA 23 rd Ed. 2017, 3111-B, 3-20 AAS Method
24.	Aluminium (as Al)	mg/L	<0.025	APHA 23 rd Ed. 2017, 3500-Al-B, 3-63
25.	Cadmium (as Cd)	mg/L	<0.05	APHA 23 rd Ed. 2017, 3111-B, 3-20
26.	Chromium Hexa (as Cr ⁶⁺)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3500- Cr-B, 3-71
27.	Copper (as Cu)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3111-B, 3-20
28.	Lead (as Pb)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3111-B, 3-20
29.	Zinc (as Zn)	mg/L	0.145	APHA 23 rd Ed. 2017, 3111-B, 3-20
30.	Arsenic (as As)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3114-C, 3-40
31.	Mercury (as Hg)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3112-B, 3-25
32.	Selenium (as Se)	mg/L	N.D.	APHA 23 rd Ed. 2017, 3114-C, 3-40
Remarks: N.D. – Not Detected; The tests marked with an * are not accredited by NABL				

-----END-----

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Effluent Sample Analysis Report

Report No.: ME-NG18345-191116-SA-RIPL-AMRAVATI			Date: 16.11.2019
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. 3382017462 Dt.16.08.2019
Sample Description / Type	Industrial Effluent	Sample Collected by	Laboratory
Sampling Location	DM Plant Effluent	Sample Quantity / Packing	2 L X 1 No. PVC Can 100mL X 1 No. PVC Can 1 L X 1 No. Glass Bottle
Date of Sampling	09.11.2019	Date of Receipt of Sample	09.11.2019
Sampling Procedure	IS:3025(Part I): 1987 RA2003, APHA 23 rd Ed. 2017, 1060-B, 1-40		
Date of Start of Analysis	09.11.2019	Date of Completion of Analysis	12.11.2019

Sr. No.	Parameter	Unit	Result	Limit as per Consent	Method Reference
Discipline : Chemical Testing; Product Group: Pollution & Environment(Waste Water)					
1	pH	-	8.0	5.5 to 9.0	APHA 23 rd Ed. 2017, 4500-H ⁺ -B, 4-95
2	Total Dissolved Solids (TDS)	mg/L	532	2100 Max.	IS 3025 (Part 16):1984 Reaffirmed 2006, Ed.2.1(1999-12)
3	Suspended Solids	mg/L	<5	100 Max.	APHA 23 rd Ed. 2017, 2540-D, 2-69
4	Biochemical Oxygen Demand (BOD at 3 days at 27°C)	mg/L	7.5	30 Max.	IS 3025 (Part 44): 1993, Reaffirmed 2009
5	Chemical Oxygen Demand (COD)	mg/L	24	250 Max.	APHA 23 rd Ed. 2017, 5220-B, 5-18
6	Oil & Grease	mg/L	N.D.	10 Max.	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
Remarks: N. D. - Not Detected					

-----END-----

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Effluent Sample Analysis Report

Report No.: ME-NG18342-191116-SA-RIPL-AMRAVATI			Date: 16.11.2019
Name and Address of Customer	RATTANINDIA POWER LIMITED		Order Reference:
	Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901.		SO No. 3382017462 Dt.16.08.2019
Sample Description / Type	Industrial Effluent	Sample Collected by	Laboratory
Sampling Location	Condensers Cooling Water Discharge	Sample Quantity / Packing	2 L X 1 No. PVC Can
Date of Sampling	09.11.2019	Date of Receipt of Sample	09.11.2019
Sampling Procedure	IS:3025(Part I): 1987 RA2003, APHA 23 rd Ed. 2017, 1060-B, 1-40		
Date of Start of Analysis	09.11.2019	Date of Completion of Analysis	09.11.2019

Sr. No.	Parameter	Unit	Result	Limit as per Consent	Method Reference
1	pH	-	7.9	6.5 to 8.5	APHA 23 rd Ed. 2017, 4500-H ⁺ -B, 4-95
2	Temperature	°C	34	Not to exceed 5°C higher than the intake water temp.	APHA 23 rd Ed. 2017, 2550-B, 2-74
3	Free Available Chlorine	mg/L	<0.05	0.5 Max.	APHA 23 rd Ed. 2017, 4500-Cl G, 4-72

Remarks: Temp. & Free Available Chlorine recorded at the time of sampling.

-----END-----

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Effluent Sample Analysis Report

Report No.: ME-NG18344-191116-SA-RIPL-AMRAVATI		Date: 16.11.2019	
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. 3382017462 Dt.16.08.2019
Sample Description / Type	Industrial Effluent	Sample Collected by	Laboratory
Sampling Location	Cooling Tower - Blow Down	Sample Quantity / Packing	2 L X 1 No. PVC Can 500mL X 1 No. PVC Can
Date of Sampling	09.11.2019	Date of Receipt of Sample	09.11.2019
Sampling Procedure	IS:3025(Part I): 1987 RA2003, APHA 23 rd Ed. 2017, 1060-B, 1-40		
Date of Start of Analysis	09.11.2019	Date of Completion of Analysis	16.11.2019

Sr. No.	Parameter	Unit	Result	Limit as per Consent	Method Reference
Discipline : Chemical Testing; Product Group: Pollution & Environment(Waste Water)					
1	Total Free Chlorine (Residual)	mg/L	<0.05	0.5 Max.	APHA 23 rd Ed. 2017, 4500-Cl G, 4-72
2	Phosphate Total (as PO ₄)	mg/L	2.42	5.0 Max.	APHA 23 rd Ed. 2017, 4500-P B, 4-160, E, 4-164
Residues in water (Trace metal Element)					
3	Chromium Total (as Cr)	mg/L	<0.1	0.2 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
4	Zinc (as Zn)	mg/L	0.026	1.0 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
Remarks: Free Available Chlorine tested on field.; N.D. Not Detected					

-----END-----

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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

Effluent Sample Analysis Report

Report No.: ME-NG18343-191116-SA-RIPL-AMRAVATI		Date: 16.11.2019	
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. 3382017462 Dt.16.08.2019	
Sample Description / Type	Industrial Effluent	Sample Collected by	Laboratory
Sampling Location	Boiler Blow down	Sample Quantity / Packing	2L X 1 No. PVC Can 500mL X 1 No. PVC Can 1L X 1 No. Glass Bottle
Date of Sampling	09.11.2019	Date of Receipt of Sample	09.11.2019
Sampling Procedure	IS:3025(Part I): 1987 RA2003, APHA 23 rd Ed. 2017, 1060-B, 1-40		
Date of Start of Analysis	09.11.2019	Date of Completion of Analysis	16.11.2019

Sr. No.	Parameter	Unit	Result	Limit as per Consent	Method Reference
Discipline : Chemical Testing; Product Group: Pollution & Environment(Waste Water)					
1	Suspended Solids	mg/L	<5	100 Max.	APHA 23 rd Ed. 2017, 2540-D, 2-69
2	Oil & Grease	mg/L	N.D.	10 Max.	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
Discipline : Chemical Testing; Product Group :Residues in water (Trace metal Element)					
3	Copper total (as Cu)	mg/L	N.D.	1.0 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
4	Iron total (as Fe)	mg/L	0.635	1.0 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
Remarks: N.D. – Not Detected					

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Kishor C.Yeole

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Note:

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Plot No. F-7, Road No. 21, MIDC Wagle Estate, Thane West - 400604, Maharashtra
(600 m from Hotel Rukhmini Palace Turn Opp Toyota Show Room. Next to Ashida Electrical - near J B Sawant Bus Stop)
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Ash Sample Analysis Report

Report No.: ME-NG18335-191121-SA-RIPL-AMRAVATI		Date: 21.11.2019	
Name and Address of Customer	RATTANINDIA POWER LIMITED		Order Reference:
	Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		SO No. 3382017462 Dt.16.08.2019
Sample Description / Type	Ash	Sample Collected by	Laboratory
Sampling Location	Bottom Ash	Sample Quantity / Packing	500gms. X 1 No Polythene Bag
Date of Sampling	09.11.2019	Date of Receipt of Sample	09.11.2019
Sampling Procedure	CPCB (HW) Manual, Sec. 2.3, Page No. 6		
Date of Start of Analysis	11.11.2019	Date of Completion of Analysis	21.11.2019

Sr. No.	Parameter	Unit	Result	#Limit	Method Reference
CLASS A					
	Preparation of Leachate (TCLP extraction Preparation)	-		-	CPCB Manual LATS/16/2003-2004, Ch. 7, 7.5, Page No. 170.
A1	Arsenic (as As)	mg/L	<0.05	5.0	US EPA/SW 846 Method 7062, Rev 0, Sept.1994
A3	Cadmium	mg/L	<0.1	1.0	US EPA/SW 846 Method 7000B, rev. 02: Feb 2007.
A4	Total Chromium	mg/L	0.118	5.0	US EPA/SW 846 Method 7000B, rev. 02: Feb 2007.
A5	Lead	mg/L	<0.1	5.0	US EPA/SW 846 Method 7000B, rev. 02: Feb 2007.
A7	Mercury	mg/L	<0.005	0.2	USEPA SW/846 Method 7471B, rev. 02: Feb 2007.
	Preparation of Leachate (STLC Extraction Preparation)	-	-	-	Appendix II of section 66261 of Title 22 of California Code regulation (CCR) 02.
A68	Nickel	mg/L	0.123	20.0	US EPA/SW 846 Method 7000B, rev. 02: Feb 2007.

Remarks: 1) #Limit as per Hazardous Wastes (Management, Handling and Transboundary Movement) Rules 2016, Schedule II (See Rule 3(1) (17) (ii))

2) The testing method for constituents A1 to A7 in Class-A, based on Toxicity Characteristic Leaching Procedure (TCLP) and A68 in Class- A, based on Soluble Threshold Limit Concentration (STLC).

All results expressed on as Received Basis.

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Soil Sample Analysis Report

Report No.: ME-NG18334-191121-SA-RIPL-AMRAVATI		Date: 21.11.2019	
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. 3382017462 Dt.16.08.2019	
Sample Description / Type	Soil	Sample Collected by	Laboratory
Sampling Location	Behind Ash Dyke Pump House	Sample Quantity / Packing	1 kg X 1No. Polyethene bag
Date of Sampling	09.11.2019	Date of Receipt of Sample	09.11.2019
Sampling Procedure	Manual on Soil, Plant & Water Analysis		
Date of Start of Analysis	11.11.2019	Date of Completion of Analysis	21.11.2019

Sr. No.	Parameter	Unit	Result	Method Reference
Discipline : Chemical Testing; Product Group: Pollution & Environment(Soil)				
1	pH (1:5 Suspension)	-	8.5	IS 2720 (Part 26) :1987, RA 2002
2	*Texture	-	Sandy Clay Loam	WL II Sec. B3, Page No. 7
3	Moisture	%	13.26	IS 2720 (Part II): 1973, RA 2002, Ed. 3.1
4	Electrical Conductivity	μS/cm	178	FAO 1976, Sec III,5, Page No 85
5	Available Nitrogen	mg/kg	71.4	WL II, Sec B8b, Page No. 13
6	Available Phosphorous	mg/kg	3.36	FAO 1976, Sec.III, 12-1, Page No. 157
7	Available Potassium	meq/100gm	0.245	FAO Sec. III .8-1, Page No. 115
8	Available Magnesium	meq/100gm	7.19	FAO Sec. III .8-1, Page No. 115
9	Available Calcium	meq/100gm	69.53	FAO Sec. III .8-1, Page No. 115
10	Cation Exchange Capacity	meq/100gm	79.20	FAO Sec. III .7-2, Page No. 104
11	Organic Carbon	%	0.336	WLII Sec. B7, Page No. 10
Remarks: The tests marked with an * are not accredited by NABL				

-----END-----

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