



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

Stack Emission Monitoring Report

Report No.: ME-NG9074-190531-SA-RIPL-AMRAVATI			Date: 31.05.2019
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. 3382014804
Sample Description / Type	Stack Emission Monitoring	Sample Collected by	Laboratory
Sampling Location	Boiler Unit 1	Sample Quantity / Packing	Thimble: 1 X 1 No. SO ₂ : 30 mL X 1 No. PVC Bottle NO _x : 25mL X 1No. PVC Bottle
Date of Sampling	24.05.2019	Date of Receipt of Sample	25.05.2019
Sampling Procedure	As per Method Reference.		
Date of Start of Analysis	25.05.2019	Date of Completion of Analysis	31.05.2019

Discipline : Chemical Testing; Product Group: Atmospheric Pollution (Stack Emission)				
Stack Details		S-1		
Stack Identity		Boiler Unit 1		
Stack attached to		ESP of Boiler U#1		
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)		137		
Load (MW)		230		
Parameter	Unit	Result	#Limit	Method Reference
Flue gas Temperature	°C	132	-	IS 11255 (Part 3):2008
Flue gas Velocity	m/s	29.6	-	IS 11255 (Part 3):2008
Total gas quantity	Nm ³ /h	1302389	-	IS 11255 (Part 3):2008

ULR-TC748719000009074P



Report No. 9074 cont...

Parameter	Unit	Result	#Limit	Method Reference
Particulate Matter (PM)	mg/Nm ³	46	50	IS 11255 (Part 1):1985, RA 2003
Sulphur Dioxide (SO ₂)	mg/Nm ³	582	-	IS 11255 (Part 2):1985, RA 2003
Sulphur Dioxide (SO ₂)	kg/day	18192	52230	IS 11255 (Part 2):1985, RA 2003
Oxides of Nitrogen(NO _x)	mg/Nm ³	245	-	IS 11255 (Part 7):2005
*CO ₂	%	12.0	-	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:

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ULR-TC7487190000009074P



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Stack Emission Monitoring Report

Report No.: ME-NG9075-190531-SA-RIPL-AMRAVATI			Date: 31.05.2019
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. 3382014804
Sample Description / Type	Stack Emission Monitoring	Sample Collected by	Laboratory
Sampling Location	Boiler Unit 2	Sample Quantity / Packing	Thimble: 1 X 1 No. SO ₂ : 30 mL X 1 No. PVC Bottle NO _x : 25mL X 1No. PVC Bottle
Date of Sampling	24.05.2019	Date of Receipt of Sample	25.05.2019
Sampling Procedure	As per Method Reference.		
Date of Start of Analysis	25.05.2019	Date of Completion of Analysis	31.05.2019

Discipline : Chemical Testing; Product Group: Atmospheric Pollution (Stack Emission)				
Stack Details		S-2		
Stack Identity		Boiler Unit 2		
Stack attached to		ESP of Boiler U#2		
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)		138		
Load (MW)		227		
Parameter	Unit	Result	#Limit	Method Reference
Flue gas Temperature	°C	129	-	IS 11255 (Part 3):2008
Flue gas Velocity	m/s	29.4	-	IS 11255 (Part 3):2008
Total gas quantity	Nm ³ /h	1303243	-	IS 11255 (Part 3):2008

ULR-TC748719000009075P



Report No. 9075 cont...

Parameter	Unit	Result	#Limit	Method Reference
Particulate Matter (PM)	mg/Nm ³	44	50	IS 11255 (Part 1):1985, RA 2003
Sulphur Dioxide (SO ₂)	mg/Nm ³	586	-	IS 11255 (Part 2):1985, RA 2003
Sulphur Dioxide (SO ₂)	kg/day	18329	52230	IS 11255 (Part 2):1985, RA 2003
Oxides of Nitrogen(NO _x)	mg/Nm ³	259	-	IS 11255 (Part 7):2005
*CO ₂	%	12.4	-	Analyser Method
Remark: The tests marked with an * are not accredited by NABL; #: Limit as per MPCB Consent				

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Stack Emission Monitoring Report

Report No.: ME-NG9076-190531-SA-RIPL-AMRAVATI			Date: 31.05.2019
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. 3382014804
Sample Description / Type	Stack Emission Monitoring	Sample Collected by	Laboratory
Sampling Location	Boiler Unit 3	Sample Quantity / Packing	Thimble: 1 X 1 No. SO ₂ : 30 mL X 1 No. PVC Bottle NO _x : 25mL X 1No. PVC Bottle
Date of Sampling	25.05.2019	Date of Receipt of Sample	25.05.2019
Sampling Procedure	As per Method Reference.		
Date of Start of Analysis	25.05.2019	Date of Completion of Analysis	31.05.2019

Discipline : Chemical Testing; Product Group: Atmospheric Pollution (Stack Emission)				
Stack Details		S-3		
Stack Identity		Boiler Unit 3		
Stack attached to		ESP of Boiler U#3		
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)		129		
Load (MW)		191		
Parameter	Unit	Result	#Limit	Method Reference
Flue gas Temperature	°C	125	-	IS 11255 (Part 3):2008
Flue gas Velocity	m/s	29.2	-	IS 11255 (Part 3):2008
Total gas quantity	Nm ³ /h	1307386	-	IS 11255 (Part 3):2008

ULR-TC748719000009076P



Report No. 9076 cont...

Parameter	Unit	Result	#Limit	Method Reference
Particulate Matter (PM)	mg/Nm ³	40	50	IS 11255 (Part 1):1985, RA 2003
Sulphur Dioxide (SO ₂)	mg/Nm ³	574	-	IS 11255 (Part 2):1985, RA 2003
Sulphur Dioxide (SO ₂)	kg/day	18011	52230	IS 11255 (Part 2):1985, RA 2003
Oxides of Nitrogen(NO _x)	mg/Nm ³	253	-	IS 11255 (Part 7):2005
*CO ₂	%	11.9	-	Analyser Method
Remark: The tests marked with an * are not accredited by NABL; #: Limit as per MPCB Consent				

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Stack Emission Monitoring Report

Report No.: ME-NG9077-190531-SA-RIPL-AMRAVATI			Date: 31.05.2019
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. 3382014804
Sample Description / Type	Stack Emission Monitoring	Sample Collected by	Laboratory
Sampling Location	Boiler Unit 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
Date of Sampling	25.05.2019	Date of Receipt of Sample	25.05.2019
Sampling Procedure	As per Method Reference.		
Date of Start of Analysis	25.05.2019	Date of Completion of Analysis	31.05.2019

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)		122		
Load (MW)		190		
Parameter	Unit	Result	#Limit	Method Reference
Flue gas Temperature	°C	130	-	IS 11255 (Part 3):2008
Flue gas Velocity	m/s	28.1	-	IS 11255 (Part 3):2008
Total gas quantity	Nm ³ /h	1242526	-	IS 11255 (Part 3):2008

ULR-TC748719000009077P



Report No. 9077 cont...

Parameter	Unit	Result	#Limit	Method Reference
Particulate Matter (PM)	mg/Nm ³	45	50	IS 11255 (Part 1):1985, RA 2003
Sulphur Dioxide (SO ₂)	mg/Nm ³	587	-	IS 11255 (Part 2):1985, RA 2003
Sulphur Dioxide (SO ₂)	kg/day	17505	52230	IS 11255 (Part 2):1985, RA 2003
Oxides of Nitrogen(NO _x)	mg/Nm ³	227	-	IS 11255 (Part 7):2005
*CO ₂	%	12.1	-	Analyser Method
Remark: The tests marked with an * are not accredited by NABL; #: Limit as per MPCB Consent				

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Stack Emission Monitoring Report

Report No.: ME-NG9078-190531-SA-RIPL-AMRAVATI			Date: 31.05.2019
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. 3382014804
Sample Description / Type	Stack Emission Monitoring	Sample Collected by	Laboratory
Sampling Location	Boiler Unit 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
Date of Sampling	25.05.2019	Date of Receipt of Sample	25.05.2019
Sampling Procedure	As per Method Reference.		
Date of Start of Analysis	25.05.2019	Date of Completion of Analysis	31.05.2019

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)		131		
Load (MW)		194		
Parameter	Unit	Result	#Limit	Method Reference
Flue gas Temperature	°C	136	-	IS 11255 (Part 3):2008
Flue gas Velocity	m/s	29.8	-	IS 11255 (Part 3):2008
Total gas quantity	Nm ³ /h	1298366	-	IS 11255 (Part 3):2008

ULR-TC748719000009078P



Report No. 9078 cont...

Parameter	Unit	Result	#Limit	Method Reference
Particulate Matter (PM)	mg/Nm ³	43	50	IS 11255 (Part 1):1985, RA 2003
Sulphur Dioxide (SO ₂)	mg/Nm ³	570	-	IS 11255 (Part 2):1985, RA 2003
Sulphur Dioxide (SO ₂)	kg/day	17762	52230	IS 11255 (Part 2):1985, RA 2003
Oxides of Nitrogen(NO _x)	mg/Nm ³	256	-	IS 11255 (Part 7):2005
*CO ₂	%	12.3	-	Analyser Method
Remark: The tests marked with an * are not accredited by NABL; #: Limit as per MPCB Consent				

-----END-----

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Ambient Air Quality Monitoring Report

Report No.: ME-NG8067-190516-SA-RIPL-AMRAVATI		Date: 16.05.2019	
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. 3382014804
Sample Description / Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	1) Near Site Office 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 : 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	08.05.2019 to 09.05.2019	Date of Receipt of Sample	09.05.2019
Sampling Procedure	As per Method reference		
Date of Start of Analysis	09.05.2019	Date of Receipt of Sample	16.05.2019

Meteorological Data / Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
-	-	Max.	Min.	Max.	Min.
		-	-	-	-
Location	1) Near Site 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	10.1	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	17.6	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	72	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	28	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.8067 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	0.75	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)	$\mu\text{g}/\text{m}^3$	1.22	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	0.37	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 Building			Duration of Survey : 24 hours
Sulphur Dioxide (SO ₂)	$\mu\text{g}/\text{m}^3$	11.0	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Dioxide (NO ₂)	$\mu\text{g}/\text{m}^3$	13.0	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	$\mu\text{g}/\text{m}^3$	65	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	0.79	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	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	0.377	6.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55

ULR- TC748719000008067F



Report No.8067 Cont...

Parameter	Unit	Result	# NAAQM Standard	Method Reference
Nickel (as Ni)	ng/m ³	3.14	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	13.8	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	16.9	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	23	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	<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	1.05	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	0.38	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.				

ULR- TC748719000008067F

-END-

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Kishor C. Yeole

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Report No.: ME-NG9071-190531-SA-RIPL-AMRAVATI		Date: 31.05.2019	
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. 3382014804
Sample Description / Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	1) Vill Wagholi Gate 2) Vill. Dawargaon 3) Vill 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 : 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	24.05.2019 to 25.05.2019	Date of Receipt of Sample	25.05.2019
Sampling Procedure	As per Method reference		
Date of Start of Analysis	25.05.2019	Date of Receipt of Sample	31.05.2019

Meteorological Data / Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
3.1km/h	NW	Max.	Min.	Max.	Min.
		56	42	44.0	28.0
Location	1) Vill Wagholi Gate			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	10.1	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	18.3	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	24	60	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13,Page No.15-30
Ozone (O ₃)		µg/m ³	20.6	180	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13,Page No.31-34



Report No. 9071 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	0.83	4.0	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH ₃)	$\mu\text{g}/\text{m}^3$	21.7	400	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.35-39
Benzene (C ₆ H ₆)	$\mu\text{g}/\text{m}^3$	1.04	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	0.44	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. Dawargaon			Duration of Survey : 24 hours
Sulphur Dioxide (SO ₂)	$\mu\text{g}/\text{m}^3$	9.2	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Dioxide (NO ₂)	$\mu\text{g}/\text{m}^3$	16.2	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	$\mu\text{g}/\text{m}^3$	57	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	0.75	4.0	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH ₃)	$\mu\text{g}/\text{m}^3$	20.5	400	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.35-39
Benzene (C ₆ H ₆)	$\mu\text{g}/\text{m}^3$	1.09	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	0.44	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.9071 Cont...

Parameter	Unit	Result	# NAAQM Standard	Method Reference
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	3) Vill. Kapustalani			Duration of Survey : 24 hours
Sulphur Dioxide (SO ₂)	µg/m ³	11.0	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	12.6	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	57	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	23	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	0.71	4.0	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH ₃)	µg/m ³	21.5	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	1.12	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	0.43	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.				

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-END-

FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor C. Yeole

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Water Sample Analysis Report

Report No.: ME-NG8077-190516-SA-RIPL-AMRAVATI		Date: 16.05.2019	
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. 3382014804	
Sample Description / Type	Ground Water	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	08.05.2019	Date of Receipt of Sample	09.05.2019
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 23 rd Ed. 2017, 1060-B, 1-40;		
Date of Start of Analysis	09.05.2019	Date of Completion of Analysis	16.05.2019

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	0.4	1 Max.	APHA 23 rd Ed. 2017, 2130-B, 2-13
5.	pH	-	7.6	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	618	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	234	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	65.6	250 Max.	APHA 23 rd Ed. 2017, 4500-Cl-B, 4-75
12.	Sulphate (as SO ₄)	mg/L	145	200 Max	APHA 23 rd Ed. 2017, 4500-SO ₄ -E, 4-199



Report No.8077 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
13.	Nitrate (as NO ₃)	mg/L	15.2	45 Max	APHA 23 rd Ed. 2017, 4500-NO ₃ , E 4-131
14.	Calcium (as Ca)	mg/L	92.2	75 Max.	APHA 23 rd Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	42.2	30 Max.	APHA 23 rd Ed. 2017, 3500-Mg- B, 3-86
16.	Fluoride(as F)	mg/L	0.552	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	6.6	-	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.	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	0.118	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 Hexa (as Cr ⁶⁺)	mg/L	<0.02	-	APHA 23 rd Ed. 2017, 3500-Cr-B, 3-71
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	0.010	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; 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-NG8076-190516-SA-RIPL-AMRAVATI			Date: 16.05.2019
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. 3382014804
Sample Description / Type	Ground Water/Grab	Sample Collected by	Laboratory
Sampling Location	Pimpal Vihargaon 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	08.05.2019	Date of Receipt of Sample	09.05.2019
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 23 rd Ed. 2017, 1060-B, 1-40;		
Date of Start of Analysis	09.05.2019	Date of Completion of Analysis	16.05.2019

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	0.4	1 Max.	APHA 23 rd Ed. 2017, 2130-B, 2-13
5.	pH	-	8.3	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	400	500 Max.	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	242	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1
10.	Total Hardness (as CaCO ₃)	mg/L	216	200 Max.	APHA 23 rd Ed. 2017, 2340-C, 2-48
11.	Chloride(as Cl)	mg/L	12.5	250 Max.	APHA 23 rd Ed. 2017, 4500-Cl-B, 4-75
12.	Sulphate (as SO ₄)	mg/L	35.3	200 Max	APHA 23 rd Ed. 2017, 4500-SO ₄ -E, 4-199



Report No.8076 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
13.	Nitrate (as NO ₃)	mg/L	18.6	45 Max	APHA 23 rd Ed. 2017, 4500-NO ₃ , E 4-131
14.	Calcium (as Ca)	mg/L	51.3	75 Max.	APHA 23 rd Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	21.4	30 Max.	APHA 23 rd Ed. 2017, 3500-Mg- B, 3-86
16.	Fluoride(as F)	mg/L	0.853	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	6.5	-	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.	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	0.254	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 Hexa (as Cr ⁶⁺)	mg/L	<0.02	-	APHA 23 rd Ed. 2017, 3500-Cr-B, 3-71
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	0.080	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; The tests marked with an * are not accredited by NABL					

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Water Sample Analysis Report

Report No.: ME-NG8075-190516-SA-RIPL-AMRAVATI			Date: 16.05.2019
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. 3382014804
Sample Description / Type	Ground Water/Grab	Sample Collected by	Laboratory
Sampling Location	Rusalpur 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	08.05.2019	Date of Receipt of Sample	09.05.2019
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 23 rd Ed. 2017, 1060-B, 1-40;		
Date of Start of Analysis	09.05.2019	Date of Completion of Analysis	16.05.2019

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	0.4	1 Max.	APHA 23 rd Ed. 2017, 2130-B, 2-13
5.	pH	-	8.0	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	576	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	374	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1
10.	Total Hardness (as CaCO ₃)	mg/L	368	200 Max.	APHA 23 rd Ed. 2017, 2340-C, 2-48
11.	Chloride(as Cl)	mg/L	32.8	250 Max.	APHA 23 rd Ed. 2017, 4500-Cl-B, 4-75
12.	Sulphate (as SO ₄)	mg/L	35.7	200 Max	APHA 23 rd Ed. 2017, 4500-SO ₄ -E, 4-199

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Report No.8075 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
13.	Nitrate (as NO ₃)	mg/L	45.6	45 Max	APHA 23 rd Ed. 2017, 4500-NO ₃ , E 4-131
14.	Calcium (as Ca)	mg/L	82.6	75 Max.	APHA 23 rd Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	39.4	30 Max.	APHA 23 rd Ed. 2017, 3500-Mg- B, 3-86
16.	Fluoride(as F)	mg/L	0.663	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	6.6	-	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.	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	0.254	0.3 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
23.	Manganese (as Mn)	mg/L	<0.04	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 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.	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	0.040	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; The tests marked with an * are not accredited by NABL					

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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-NG8074-190516-SA-RIPL-AMRAVATI			Date: 16.05.2016
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. 3382014804
Sample Description /Type	Ground Water/Grab	Sample Collected by	Laboratory
Sampling Location	Digargaon 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	08.05.2019	Date of Receipt of Sample	09.05.2016
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 23 rd Ed. 2017, 1060-B, 1-40;		
Date of Start of Analysis	09.05.2016	Date of Completion of Analysis	16.05.2016

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	0.4	1 Max.	APHA 23 rd Ed. 2017, 2130-B, 2-13
5.	pH	-	7.3	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	508	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	228	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1
10.	Total Hardness (as CaCO ₃)	mg/L	340	200 Max.	APHA 23 rd Ed. 2017, 2340-C, 2-48
11.	Chloride(as Cl)	mg/L	90.6	250 Max.	APHA 23 rd Ed. 2017, 4500-Cl-B, 4-75
12.	Sulphate (as SO ₄)	mg/L	54.8	200 Max	APHA 23 rd Ed. 2017, 4500-SO ₄ -E, 4-199

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Plot No. F-7, Road No. 21, MIDC Wagle Estate, Thane West - 400604, Maharashtra
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Report No.8074 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
13.	Nitrate (as NO ₃)	mg/L	29.1	45 Max	APHA 23 rd Ed. 2017, 4500-NO ₃ , E 4-131
14.	Calcium (as Ca)	mg/L	66.5	75 Max.	APHA 23 rd Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	42.2	30 Max.	APHA 23 rd Ed. 2017, 3500-Mg- B, 3-86
16.	Fluoride(as F)	mg/L	0.730	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	0.365	0.3 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
23.	Manganese (as Mn)	mg/L	<0.04	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 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.	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	0.240	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; The tests marked with an * are not accredited by NABL					

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Water Sample Analysis Report

Report No.: ME-NG8073-190516-SA-RIPL-AMRAVATI			Date: 16.05.2016
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. 3382014804
Sample Description / Type	Ground Water/Grab	Sample Collected by	Laboratory
Sampling Location	Kapustalni 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	08.05.2019	Date of Receipt of Sample	09.05.2016
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 23 rd Ed. 2017, 1060-B, 1-40;		
Date of Start of Analysis	09.05.2016	Date of Completion of Analysis	16.05.2016

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	0.4	1 Max.	APHA 23 rd Ed. 2017, 2130-B, 2-13
5.	pH	-	7.8	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	335	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	202	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1
10.	Total Hardness (as CaCO ₃)	mg/L	232	200 Max.	APHA 23 rd Ed. 2017, 2340-C, 2-48
11.	Chloride(as Cl)	mg/L	37.6	250 Max.	APHA 23 rd Ed. 2017, 4500-Cl-B, 4-75
12.	Sulphate (as SO ₄)	mg/L	46.6	200 Max	APHA 23 rd Ed. 2017, 4500-SO ₄ -E, 4-199



Report No.8073 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
13.	Nitrate (as NO ₃)	mg/L	29.1	45 Max	APHA 23 rd Ed. 2017, 4500-NO ₃ , E 4-131
14.	Calcium (as Ca)	mg/L	52.1	75 Max.	APHA 23 rd Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	24.8	30 Max.	APHA 23 rd Ed. 2017, 3500-Mg- B, 3-86
16.	Fluoride(as F)	mg/L	0.552	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	6.8	-	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.	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	0.236	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 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.	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	0.020	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; The tests marked with an * are not accredited by NABL					

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

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Water Sample Analysis Report

Report No.: ME-NG8079-190516-SA-RIPL-AMRAVATI		Date: 16.05.2019	
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. 3382014804	
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	08.05.2019	Date of Receipt of Sample	09.05.2019
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 23 rd Ed. 2017, 1060-B, 1-40;		
Date of Start of Analysis	09.05.2019	Date of Completion of Analysis	16.05.2019

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	-	Agreeable	IS 3025 (Part 7 & 8):1984, Reaffirmed 2006
4.	Turbidity	NTU	0.4	APHA 23 rd Ed. 2017, 2130-B, 2-13
5.	pH	-	8.3	APHA 23 rd Ed. 2017, 4500-H ⁺ -B, 4-95
6.	Residual Free Chlorine	ppm	<0.05	APHA 23 rd Ed. 2017, 4500-Cl G, 4-72
7.	Total Dissolved Solids	mg/L	893	IS 3025 (Part 16):1984 Reaffirmed 2006, Ed.2.1(1999-12)
8.	Total Suspended Solids	mg/L	15	APHA 23 rd Ed. 2017, 2540-D, 2-69
9.	Alkalinity Total (as CaCO ₃)	mg/L	220	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1
10.	Total Hardness (as CaCO ₃)	mg/L	470	APHA 23 rd Ed. 2017, 2340-C, 2-48
11.	Chloride(as Cl)	mg/L	82.9	APHA 23 rd Ed. 2017, 4500-Cl-B, 4-75
12.	Sulphate (as SO ₄)	mg/L	173	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	115	APHA 23 rd Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	44.2	APHA 23 rd Ed. 2017, 3500-Mg- B, 3-86
16.	Fluoride(as F)	mg/L	0.663	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.8079 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
Discipline : Chemical Testing; Product Group :Residues in water (Trace metal Element)				
22.	Iron (as Fe)	mg/L	0.763	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	N.D.	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	<0.1	APHA 23 rd Ed. 2017, 3111-B, 3-20
29.	Arsenic (as As)	mg/L	0.040	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
32.				

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Water Sample Analysis Report

Report No.: ME-NG8078-190516-SA-RIPL-AMRAVATI			Date: 16.05.2019
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. 3382014804
Sample Description /Type	Ground Water/Grab	Sample Collected by	Laboratory
Sampling Location	Back Side of Ash Dyke Area Well Water of Mr. Narayan Lomte Farm	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	08.05.2019	Date of Receipt of Sample	09.05.2019
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 23 rd Ed. 2017, 1060-B, 1-40;		
Date of Start of Analysis	09.05.2019	Date of Completion of Analysis	16.05.2019
Water Level Depth	3.17 meter from ground level		

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	0.4	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	430	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	236	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1
10.	Total Hardness (as CaCO ₃)	mg/L	252	200 Max.	APHA 23 rd Ed. 2017, 2340-C, 2-48
11.	Chloride(as Cl)	mg/L	37.6	250 Max.	APHA 23 rd Ed. 2017, 4500-Cl-B, 4-75
12.	Sulphate (as SO ₄)	mg/L	44.6	200 Max	APHA 23 rd Ed. 2017, 4500-SO ₄ -E, 4-199

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Report No.8078 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
13.	Nitrate (as NO ₃)	mg/L	13.4	45 Max	APHA 23 rd Ed. 2017, 4500-NO ₃ , E 4-131
14.	Calcium (as Ca)	mg/L	56.1	75 Max.	APHA 23 rd Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	27.2	30 Max.	APHA 23 rd Ed. 2017, 3500-Mg- B, 3-86
16.	Fluoride(as F)	mg/L	0.730	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	6.5	-	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.	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	0.218	0.3 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
23.	Manganese (as Mn)	mg/L	<0.04	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 Hexa (as Cr ⁶⁺)	mg/L	<0.02	-	APHA 23 rd Ed. 2017, 3500-Cr-B, 3-71
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	0.110	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; The tests marked with an * are not accredited by NABL					

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 (600 m from Hotel Rukhmini Palace Turn Opp Toyota Show Room. 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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Opp. Patel Petrol Pump, Chhindwara Road, Koradi, Dist.Nagapur-441111

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Water Sample Analysis Report

Report No.: ME-NG9068-190531-SA-RIPL-AMRAVATI			Date: 31.05.2019
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. 3382014804
Sample Description / Type	Ground Water/Grab	Sample Collected by	Laboratory
Sampling Location	Back Side of Ash Dyke settling 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	24.05.2019	Date of Receipt of Sample	25.05.2019
Sampling Procedure	IS:3025(Part I):1987 RA 2003; APHA 23 rd Ed. 2017, 1060-B, 1-40;		
Date of Start of Analysis	25.05.2019	Date of Completion of Analysis	29.05.2019
Water Level Depth	3.17 meter from ground level		

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	0.4	1 Max.	APHA 23 rd Ed. 2017, 2130-B, 2-13
5.	pH	-	8.5	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	610	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	108	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1
10.	Total Hardness (as CaCO ₃)	mg/L	390	200 Max.	APHA 23 rd Ed. 2017, 2340-C, 2-48
11.	Chloride(as Cl)	mg/L	67.5	250 Max.	APHA 23 rd Ed. 2017, 4500-Cl-B, 4-75
12.	Sulphate (as SO ₄)	mg/L	255	200 Max	APHA 23 rd Ed. 2017, 4500-SO ₄ -E, 4-199

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Report No.9068 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
13.	Nitrate (as NO ₃)	mg/L	1.42	45 Max	APHA 23 rd Ed. 2017, 4500-NO ₃ , E 4-131
14.	Calcium (as Ca)	mg/L	107	75 Max.	APHA 23 rd Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	29.6	30 Max.	APHA 23 rd Ed. 2017, 3500-Mg- B, 3-86
16.	Fluoride(as F)	mg/L	0.963	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	6.0	-	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	0.279	0.3 Max.	APHA 23 rd Ed. 2017, 3111-B, 3-20
23.	Manganese (as Mn)	mg/L	0.10	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 Hexa (as Cr ⁶⁺)	mg/L	<0.02	-	APHA 23 rd Ed. 2017, 3500-Cr-B, 3-71
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	0.019	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; The tests marked with an * are not accredited by NABL					

END

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Noise Level Monitoring Report

Report No.: ME-NG8068-190516-SA-RIPL-AMRAVATI			Date: 16.05.2019
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. 3382014804
Sample Description / Type	Noise Level Monitoring	Sample Collected by	NA
Date of Sampling	09.05.2019		
Sampling Procedure	IS 9876:1981 & manufacturer Manual		

Location	Unit	Result		Norms as per factory Act.	
		Min.	Max.	Maximum Exposure duration per Day	Limit
Green Point gate	dB(A)	71.8	74.6	8 h	90 Max.
Wagholi gate	dB(A)	71.6	73.9		
Near T.G Building	dB(A)	69.4	73.6		
Near Compressor Building	dB(A)	67.5	69.6		
Near Bachelor Colony Building	dB(A)	65.9	67.8		
Remark: : Limit from The Factories Act, 1948, The Maharashtra Factory Rules, 1963, Schedule XXIV Page No. 283-284					

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Effluent Sample Analysis Report

Report No.: ME-NG8071-190516-SA-RIPL-AMRAVATI			Date: 16.05.2019
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. 3382014804
Sample Description / Type	Domestic Effluent	Sample Collected by	Laboratory
Sampling Location	1.STP Colony Outlet 2.STP Plant Outlet	Sample Quantity / Packing	2 L X 2 No. PVC Can 100mL X 2 No. PVC Can
Date of Sampling	09.05.2019	Date of Receipt of Sample	09.05.2019
Sampling Procedure	IS:3025(Part I): 1987 RA2003, APHA 23 rd Ed. 2017, 1060-B, 1-40		
Date of Start of Analysis	09.05.2019	Date of Completion of Analysis	13.05.2019

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	8.4	9.7	30 Max.	IS 3025 (Part 44): 1993, Reaffirmed 2009
2	Chemical Oxygen Demand	mg/L	28	32	100 Max.	APHA 23 rd Ed. 2017, 5220-B, 5-18
Remarks:						

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