



Mahabal Enviro Engineers Pvt. Ltd.

Plot 13/14, Opp. Patel Petrol Pump, Chhindwara Road, Koradi, Dist. Nagpur – 441111

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Ambient Air Quality Monitoring Report

Report No.	ME-NS0427-121126-SA-INDIABUL-NASHIK		Date: 26.11.2012
Name and Address of Customer	INDIABULLS REALTECH LTD. (SEZ Co-Developer) Indiabulls Industrial Infrastructure Ltd. (Multiproduct SEZ) (Phase-II) Village – Musalgaon & Gulvanch, Tal- Sinnar, Nashik.		Order Reference
			Your Work Order No. 3520000054 dt 18.11.2011
Sample Description /Type	Ambient Air	Sample Collected by	Laboratory
Sampling Location	Near IRL Office	Sample Quantity/Packing	PM ₁₀ , Bap, Ni, As, Pb: Filter Paper: 1 X 3 No. PM _{2.5} : Filter Paper: 1 X 1 No. SO ₂ : 30 mL X 6 No. Plastic Bottle NO ₂ : 30 mL X 6 No. Plastic Bottle NH ₃ : 30 mL X 6 No. Plastic Bottle CO: Plastic bulb 1 X 3 No. O ₃ : 10 mL X 6 No. Plastic Bottle Benzene: Charcoal tubes 1 X 12 No. Mercury: 30 mL X 6 No. Amber colour bottle
Date of Sampling	20.11.2012 to 21.11.2012	Date of Receipt of Sample	21.11.2012
Sampling Procedure	CPCB Guidelines and IS 5182 (Part 23):2006; (Part 2):2001, RA 2006; (Part 6):2006; (Part 10):1999, RA 2003; (Part 11):2006; (Part 12):2004 & USEPA/625/R-96/010		
Date of Start of Analysis	22.11.2012	Date of Completion of Analysis	24.11.2012

Meteorological Data				
Average Wind velocity 1.9 km/h		Relative Humidity (Max/min) : 87/64 %		Temperature (Max/min) : 29/24 °C
Location : Near IRL Office			Duration of Survey : 24 hours	
Parameter	Result	Unit	# National Ambient Air Quality Standards (NAAQS) (Industrial, Residential, Rural and other Area)	Method Reference
Sulphur Dioxide (SO ₂)	BDL (DL: 4)	µg/m ³	80	IS 5182 (Part 2):2001, Reaffirmed 2006 & CPCB Guidelines
Nitrogen Dioxide (NO ₂)	3	µg/m ³	80	IS 5182 (Part 6):2006 & CPCB Guidelines
Particulate Matter (size less than 10 µm) or PM ₁₀	32	µg/m ³	100	IS 5182 (Part 23): 2006 & CPCB Guidelines
Particulate Matter (size less than 2.5µm) or PM _{2.5}	BDL (DL: 10)	µg/m ³	60	Instrument Manufacturer Operating Instructions.



Report No. 0427 cont...

Parameter	Result	Unit	# National Ambient Air Quality Standards (NAAQS) (Industrial, Residential, Rural and other Area)	Method Reference
Ozone (O ₃)	59	µg/m ³	100	APHA Method No. 820, Page No. 836
Lead (Pb)	0.03	µg/m ³	1	US EPA Method: EPA/625/R-96/0109/ IO-3.1, 3.2
*Carbon Monoxide (CO)	N.D.	mg/m ³	2	IS: 5182 (Part 10):1999 RA 2003
Ammonia (NH ₃)	BDL (DL: 20)	µg/m ³	400	APHA method No. 401, Page No. 511
Benzene (C ₆ H ₆)	BDL (DL: 1)	µg/m ³	05	IS 5182 (Part 11):2006
Benzo(a)Pyrene (BaP) (Particulate phase only)	BDL (DL: 0.5)	ng/m ³	01	IS 5182 (Part 12):2004
Arsenic (As)	BDL (DL: 0.3)	ng/m ³	06	US EPA Method: EPA/625/R-96/0109/ IO-3.1, 3.2
Nickel (Ni)	BDL (DL: 3)	ng/m ³	20	US EPA Method: EPA/625/R-96/0109/ IO-3.1, 3.2
Mercury	N.D.	ng/m ³	-	APHA Method No. 318, Page No. 492
Remarks: N.D. – Not Detected, BDL- Below Detection Limit, DL- Detection Limit, TWA - Time Weighted Average., *- Denotes Grab Sampling #- NAAQS specified as: 24 h. TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM ₁₀ , PM _{2.5} , Lead and Ammonia, 8 h. 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.

Harish Mendhi

TECHNICAL MANAGER



Note:

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

Report No.	ME-NS0426-121126-SA-INDIABUL-NASHIK		Date: 26.11.2012
Name and Address of Customer	INDIABULLS REALTECH LTD. (SEZ Co-Developer) Indiabulls Industrial Infrastructure Ltd. (Multiproduct SEZ) Village – Musalgaon & Gulvanch, Tal- Sinnar, Nashik.		Order Reference
			Your Work Order No. 3320001083 Date: 18.11.2011
Sample Description /Type	Ambient Air	Sample Collected by	Laboratory
Sampling Location	Near Boiler Turbine area	Sample Quantity/Packing	PM ₁₀ , Bap, Ni, As, Pb: Filter Paper: 1 X 3 No. PM _{2.5} : Filter Paper: 1 X 1 No. SO ₂ : 30 mL X 6 No. Plastic Bottle NO ₂ : 30 mL X 6 No. Plastic Bottle NH ₃ : 30 mL X 6 No. Plastic Bottle CO: Plastic bulb 1 X 3 No. O ₃ : 10 mL X 6 No. Plastic Bottle Benzene: Charcoal tubes: 1 X 12 No. Mercury: 30 mL X 6 No. Amber colour bottle
Date of Sampling	20.11.2012 to 21.11.2012	Date of Receipt of Sample	21.11.2012
Sampling Procedure	CPCB Guidelines and IS 5182 Part 2:2001, RA 2006; Part 6:2006; Part 23:2006; Part 10:1999, RA 2003; Part 11:2006; Part 12:2004 & USEPA/625/R-96/010		
Date of Start of Analysis	22.11.2012	Date of Completion of Analysis	24.11.2012

Meteorological Data				
Average Wind velocity 1.9 km/h		Relative Humidity (Max./min.) : 87/64 %		Temperature (Max./min.) : 29/24°C
Location : Near Boiler Turbine area			Duration of Survey : 24 hours	
Parameter	Result	Unit	# National Ambient Air Quality Standards (NAAQS) (Industrial, Residential, Rural and other Area)	Method Reference
Sulphur Dioxide (SO ₂)	BDL (DL: 4)	µg/m ³	80	IS 5182 (Part 2): 2001, Reaffirmed 2006 & CPCB Guidelines
Nitrogen Dioxide (NO ₂)	4	µg/m ³	80	IS 5182 (Part 6): 2006 & CPCB Guidelines
Particulate Matter (size less than 10 µm) or PM ₁₀	26	µg/m ³	100	IS 5182 (Part 23): 2006 & CPCB Guidelines
Particulate Matter (size less than 2.5µm) or PM _{2.5}	BDL (DL: 10)	µg/m ³	60	Instrument Manufacturer Operating Instructions.

Page 1 of 2



Report No. 0426 cont...

Parameter	Result	Unit	# National Ambient Air Quality Standards (NAAQS) (Industrial, Residential, Rural and other Area)	Method Reference
Ozone (O ₃)	47	µg/m ³	100	APHA Method No. 820, Page No. 836
Lead (Pb)	0.04	µg/m ³	1	US EPA Method: EPA/625/R-96/0109/ IO-3.1, 3.2
*Carbon Monoxide (CO)	N.D.	mg/m ³	2	IS: 5182 (Part 10):1999 RA 2003
Ammonia (NH ₃)	BDL (DL: 20)	µg/m ³	400	APHA Method No. 401, Page No. 511
Benzene (C ₆ H ₆)	BDL (DL: 1)	µg/m ³	05	IS 5182 (Part 11):2006
Benzo(a)Pyrene (BaP) (Particulate phase only)	0.5	ng/m ³	01	IS 5182 (Part 12):2004
Arsenic (As)	BDL (DL: 0.3)	ng/m ³	06	US EPA Method: EPA/625/R-96/0109/ IO-3.1, 3.2
Nickel (Ni)	BDL (DL: 3)	ng/m ³	20	US EPA Method: EPA/625/R-96/0109/ IO-3.1, 3.2
Mercury	N.D.	ng/m ³	-	APHA Method No. 318, Page No. 492
Remarks: N.D. – Not Detected, BDL- Below Detection Limit, DL- Detection Limit, TWA - Time Weighted Average. *- Denotes Grab Sampling #- NAAQS specified as: 24 h. TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM ₁₀ , PM _{2.5} , Lead and Ammonia, 8 h. TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.				

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Ambient Air Quality Monitoring Report

Report No.	ME-NS0425-121126-SA-INDIABUL-NASHIK		Date: 26.11.2012
Name and Address of Customer	INDIABULLS REALTECH LTD. (SEZ Co-Developer) Indiabulls Industrial Infrastructure Ltd.(Multiproduct SEZ), Village – Musalgaon & Gulvanch, Tal- Sinnar, Nashik.		Order Reference
			Your Work Order No. 3320001083 Date: 18.11.2011
Sample Description /Type	Ambient Air	Sample Collected by	Laboratory
Sampling Location	Near weigh bridge	Sample Quantity/Packing	PM ₁₀ , Bap, As, Ni, Pb Filter Paper: 1 X 3 No. PM _{2.5} : Filter Paper: 1 X 1 No. SO ₂ : 30 mL X 6 No. Plastic Bottle NO ₂ : 30 mL X 6 No. Plastic Bottle NH ₃ : 30 mL X 6 No. Plastic Bottle CO: Plastic bulb 1 X 3 No. O ₃ : 10 mL X 6 No. Plastic Bottle Benzene: Charcoal tubes: 1 X 12 No. Mercury: 30 mL X 6 No. Amber Colour Bottle
Date of Sampling	20.11.2012 to 21.11.2012	Date of Receipt of Sample	21.11.2012
Sampling Procedure	CPCB Guidelines and IS 5182 (Part 23):2006; (Part 2):2001, RA 2006; (Part 6):2006; (Part 10):1999, RA 2003; (Part 11):2006; (Part 12):2004 & USEPA/625/R-96/010		
Date of Start of Analysis	22.11.2012	Date of Completion of Analysis	24.11.2012

Meteorological Data				
Average Wind velocity 1.9 km/h		Relative Humidity (Max./min.) : 87/64 %		Temperature (Max./min.) : 29/24 °C
Location : Near weigh bridge			Duration of Survey : 24 hours	
Parameter	Result	Unit	# National Ambient Air Quality Standards (NAAQS) (Industrial, Residential, Rural and other Area)	Method Reference
Sulphur Dioxide (SO ₂)	BDL (DL: 4)	µg/m ³	80	IS 5182 (Part 2): 2001, Reaffirmed 2006 & CPCB Guidelines
Nitrogen Dioxide (NO ₂)	9	µg/m ³	80	IS 5182 (Part 6): 2006 & CPCB Guidelines
Particulate Matter (size less than 10 µm) or PM ₁₀	30	µg/m ³	100	IS 5182 (Part 23): 2006 & CPCB Guidelines
Particulate Matter (size less than 2.5µm) or PM _{2.5}	BDL (DL: 10)	µg/m ³	60	Instrument Manufacturer Operating Instructions.

Page 1 of 2



Report No. 0425 cont...

Parameter	Result	Unit	# National Ambient Air Quality Standards (NAAQS) (Industrial, Residential, Rural and other Area)	Method Reference
Ozone (O ₃)	52	µg/m ³	100	APHA Method No. 820, Page No. 836
Lead (Pb)	0.04	µg/m ³	1	US EPA Method: EPA/625/R-96/0109/ IO-3.1, 3.2
*Carbon Monoxide (CO)	N.D.	mg/m ³	2	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH ₃)	BDL (DL: 20)	µg/m ³	400	APHA method No. 401, Page No. 511
Benzene (C ₆ H ₆)	BDL (DL: 1)	µg/m ³	5	IS 5182 (Part 11):2006
Benzo (a) Pyrene (BaP) – particulate phase only	BDL (DL: 0.5)	ng/m ³	1	IS 5182 (Part 12):2004
Arsenic (As)	BDL (DL: 0.3)	ng/m ³	6	US EPA Method: EPA/625/R-96/0109/ IO-3.1, 3.2
Nickel (Ni)	BDL (DL: 3)	ng/m ³	20	US EPA Method: EPA/625/R-96/0109/ IO-3.1, 3.2
Mercury	N.D.	ng/m ³	-	APHA Method No. 318, Page No. 492
Remarks: N.D.– Not Detected, BDL- Below Detection Limit, DL- Detection Limit, TWA - Time Weighted Average, *- Denotes Grab Sampling, #- NAAQS specified as: 24 h. TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM ₁₀ , PM _{2.5} , Lead and Ammonia, 8 h. TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.				

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