



# Mahabal Enviro Engineers Pvt. Ltd.

Plot No. 13/14, Opp. Patel Petrol Pump, Chinndwara Road, Koradi, Dist. Nagpur – 411 111

## Ambient Air Monitoring Report

<b>Report No.</b>	<b>ME/NS/000061/12.05.20/SA/Indiabulls/Nashik</b>		<b>Date:</b> 20/05/2012
<b>Name and Address of Customer</b>	<b>Indiabulls Realtech Ltd. (SEZ Co-Developer)</b> Indiabulls Industrial Infrastructure Ltd.(Multiproduct SEZ) , Village – Musalgaon & Gulvanch, Tal- Sinnar, Nashik.		<b>Order Reference</b> Your Work Order No. 3320001083 dt 18.11.2011
<b>Sample Description /Type</b>	Ambient Air	<b>Sample Collected by</b>	Laboratory
<b>Sampling Location</b>	Near weigh bridge	<b>Sample Quantity/Packing</b>	PM <sub>10</sub> , Bap, Metals: Filter Paper: 1 x 3no. PM <sub>2.5</sub> : Filter Paper: 1 x 1 no. SO <sub>2</sub> : 30 ml x 6 no. plastic bottle NO <sub>2</sub> : 30 ml x 6 no. plastic bottle NH <sub>3</sub> : 30 ml x 6 no. plastic bottle CO: Plastic bulb 1 x 3 no. Ozone: 30 ml x 6 no. plastic bottle Benzene: Charcoal tubes: 1 x 12 no. Mercury: 30 ml x 6 no. amber colour bottle
<b>Date of Sampling</b>	10/05/2012 To 11/05/2012	<b>Date of Receipt of Sample</b>	11/05/2012
<b>Sampling Procedure</b>	As per Method Reference		
<b>Date of Start of Analysis</b>	12/05/2012	<b>Date of Completion of Analysis</b>	19/05/2012

Meteorological Data				
<b>Average Wind velocity</b> 0.9 km/h		<b>Relative Humidity (Max/min) :</b> 57/15 %		<b>Temperature (Max/min) :</b> 34/18 °C
<b>Location :</b> Near weigh bridge			<b>Duration of Survey :</b> 24 hours	
<b>Parameter</b>	<b>Result</b>	<b>Unit</b>	<b># National Ambient Air Quality Standards (NAAQS)(Industrial, Residential, Rural and other Area)</b>	<b>Method Reference</b>
Sulphur Dioxide (SO <sub>2</sub> )	23.5	µg/m <sup>3</sup>	80	IS 5182 ( Part 2): 2001, Reaffirmed 2006 & CPCB Guidelines
Nitrogen Dioxide (NO <sub>2</sub> )	19.02	µg/m <sup>3</sup>	80	IS 5182 (Part 6): 2006 & CPCB Guidelines
Particulate Matter (size less than 10 µm)or PM <sub>10</sub>	46	µg/m <sup>3</sup>	100	IS 5182 ( Part 23): 2006 & CPCB Guidelines
Particulate Matter (size less than 2.5µm)or PM <sub>2.5</sub>	BDL (DL:10)	µg/m <sup>3</sup>	60	Fine Particulate air sampler
Ozone (O <sub>3</sub> )	45.5	µg/m <sup>3</sup>	100	APHA , Method No. 820, Page No. 836



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Parameter	Result	Unit	# National Ambient Air Quality Standards (NAAQS)(Industrial, Residential, Rural and other Area)	Method Reference
Lead (Pb)	BDL (DL:0.02)	µg/m <sup>3</sup>	1	US EPA Method: EPA/625/R-96/0109/ IO-3.1, 3.2
*Carbon Monoxide (CO)	BDL (DL:0.2)	mg/m <sup>3</sup>	2	APHA method no.130, Page 359
Ammonia ( NH <sub>3</sub> )	BDL (DL:4)	µg/m <sup>3</sup>	400	APHA method no. 401, Page 511
Benzene (C <sub>6</sub> H <sub>6</sub> )	2.17	µg/m <sup>3</sup>	5	IS 5182 (Part 11):2006
Benzo (a) Pyrene (BaP) – particulate phase only	BDL (DL:0.5)	ng/m <sup>3</sup>	1	IS 5182 (Part 12):2004
Arsenic (As)	0.4	ng/m <sup>3</sup>	6	US EPA Method: EPA/625/ R-96/0109/ IO-3.1, 3.2
Nickel (Ni)	BDL (DL:3)	ng/m <sup>3</sup>	20	US EPA Method: EPA/625/ R-96/0109/ IO-3.1, 3.2
Mercury	BDL (DL:0.1)	ng/m <sup>3</sup>	-	APHA Method No. 318, Page no. 492

**BDL** : Below Detection Limit.

**DL** : Detection Limit.

TWA: Time Weighted Average.

\*: Denotes Grab Sampling

#: NAAQS specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM<sub>10</sub>, PM<sub>2.5</sub>, Lead and Ammonia, 8 hours TWA in case of Carbon Monoxide, 1 hour TWA in case of Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.

-----End-----  
for **Mahabal Enviro Engineers Pvt. Ltd.**

Harish Mendhi  
**Technical Manager**  
**AUTHORISED SIGNATORY**



Note :

1. The result listed refers only to the tested sample(s) and applicable parameter(s).
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<b>Report No.</b>	<b>ME/NS/000062/12.05.20/SA/Indiabulls/Nashik</b>		<b>Date:</b> 20/05/2012
<b>Name and Address of Customer</b>	<b>Indiabulls Realtech Ltd. (SEZ Co-Developer)</b> Indiabulls Industrial Infrastructure Ltd.(Multiproduct SEZ) , Village – Musalgaon & Gulvanch, Tal- Sinnar, Nashik.		<b>Order Reference</b> Your Work Order No. 3320001083 dt 18.11.2011
<b>Sample Description /Type</b>	Ambient Air	<b>Sample Collected by</b>	Laboratory
<b>Sampling Location</b>	Near Boiler House	<b>Sample Quantity/Packing</b>	PM <sub>10</sub> , Bap, Metals: Filter Paper: 1 x 3no. PM <sub>2.5</sub> : Filter Paper: 1 x 1 no. SO <sub>2</sub> : 30 ml x 6 no. plastic bottle NO <sub>2</sub> : 30 ml x 6 no. plastic bottle NH <sub>3</sub> : 30 ml x 6 no. plastic bottle CO: Plastic bulb 1 x 3 no. Ozone: 30 ml x 6 no. plastic bottle Benzene: Charcoal tubes: 1 x 12 no. Mercury: 30 ml x 6 no. amber colour bottle
<b>Date of Sampling</b>	10/05/2012 To 11/05/2012	<b>Date of Receipt of Sample</b>	11/05/2012
<b>Sampling Procedure</b>	As per Method Reference		
<b>Date of Start of Analysis</b>	12/05/2012	<b>Date of Completion of Analysis</b>	19/05/2012

Meteorological Data				
<b>Average Wind velocity</b> 0.9 km/h		<b>Relative Humidity</b> (Max/min) : 57/15 %		<b>Temperature</b> (Max/min) : 34/18 °C
<b>Location :</b> Near Boiler House			<b>Duration of Survey :</b> 24 hours	
Parameter	Result	Unit	# National Ambient Air Quality Standards (NAAQS)(Industrial, Residential, Rural and other Area)	Method Reference
Sulphur Dioxide (SO <sub>2</sub> )	22	µg/m <sup>3</sup>	80	IS 5182 ( Part 2): 2001, Reaffirmed 2006 & CPCB Guidelines
Nitrogen Dioxide (NO <sub>2</sub> )	26	µg/m <sup>3</sup>	80	IS 5182 (Part 6): 2006 & CPCB Guidelines
Particulate Matter (size less than 10 µm) or PM <sub>10</sub>	42	µg/m <sup>3</sup>	100	IS 5182 ( Part 23): 2006 & CPCB Guidelines
Particulate Matter (size less than 2.5µm) or PM <sub>2.5</sub>	BDL (DL:10)	µg/m <sup>3</sup>	60	Fine Particulate air sampler
Ozone (O <sub>3</sub> )	36.1	µg/m <sup>3</sup>	100	APHA , Method No. 820, Page No. 836



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Parameter	Result	Unit	# National Ambient Air Quality Standards (NAAQS)(Industrial, Residential, Rural and other Area)	Method Reference
Lead (Pb)	BDL (DL:0.02)	µg/m <sup>3</sup>	1	US EPA Method: EPA/625/R-96/0109/ IO-3.1, 3.2
*Carbon Monoxide (CO)	BDL (DL:0.2)	mg/m <sup>3</sup>	2	APHA method no.130, Page 359
Ammonia (NH <sub>3</sub> )	BDL (DL:4)	µg/m <sup>3</sup>	400	APHA method no. 401, Page 511
Benzene (C <sub>6</sub> H <sub>6</sub> )	2.55	µg/m <sup>3</sup>	5	IS 5182 (Part 11):2006
Benzo (a) Pyrene (BaP) – particulate phase only	BDL (DL:0.5)	ng/m <sup>3</sup>	1	IS 5182 (Part 12):2004
Arsenic (As)	BDL (DL:0.3)	ng/m <sup>3</sup>	6	US EPA Method: EPA/625/R-96/0109/ IO-3.1, 3.2
Nickel (Ni)	BDL (DL:3)	ng/m <sup>3</sup>	20	US EPA Method: EPA/625/R-96/0109/ IO-3.1, 3.2
Mercury	BDL (DL:0.1)	ng/m <sup>3</sup>	-	APHA Method No. 318, Page no. 492

**BDL** : Below Detection Limit.

**DL** : Detection Limit.

TWA: Time Weighted Average.

\*: Denotes Grab Sampling

#: NAAQS specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM<sub>10</sub>, PM<sub>2.5</sub>, Lead and Ammonia, 8 hours TWA in case of Carbon Monoxide, 1 hour TWA in case of Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.

-----End-----

for **Mahabal Enviro Engineers Pvt. Ltd.**

Harish Mendhi  
**Technical Manager**  
**AUTHORISED SIGNATORY**



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<b>Sample Description /Type</b>	Ambient Air	<b>Sample Collected by</b>	Laboratory
<b>Sampling Location</b>	Near IRL Office	<b>Sample Quantity/Packing</b>	PM <sub>10</sub> , Bap, Metals: Filter Paper: 1 x 3no. PM <sub>2.5</sub> : Filter Paper: 1 x 1 no. SO <sub>2</sub> : 30 ml x 6 no. plastic bottle NO <sub>2</sub> : 30 ml x 6 no. plastic bottle NH <sub>3</sub> : 30 ml x 6 no. plastic bottle CO: Plastic bulb 1 x 3 no. Ozone: 30 ml x 6 no. plastic bottle Benzene: Charcoal tubes: 1 x 12 no. Mercury: 30 ml x 6 no. amber colour bottle
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<b>Sampling Procedure</b>	As per Method Reference		
<b>Date of Start of Analysis</b>	12/05/2012	<b>Date of Completion of Analysis</b>	19/05/2012

Meteorological Data				
Average Wind velocity 0.9 km/h		Relative Humidity (Max/min) : 57/15 %		Temperature (Max/min) : 34/18 °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 <sub>2</sub> )	16	µg/m <sup>3</sup>	80	IS 5182 ( Part 2): 2001, Reaffirmed 2006 & CPCB Guidelines
Nitrogen Dioxide (NO <sub>2</sub> )	20.76	µg/m <sup>3</sup>	80	IS 5182 (Part 6): 2006 & CPCB Guidelines
Particulate Matter (size less than 10 µm)or PM <sub>10</sub>	56	µg/m <sup>3</sup>	100	IS 5182 ( Part 23): 2006 & CPCB Guidelines
Particulate Matter (size less than 2.5µm)or PM <sub>2.5</sub>	BDL (DL:10)	µg/m <sup>3</sup>	60	Fine Particulate air sampler
Ozone (O <sub>3</sub> )	34.4	µg/m <sup>3</sup>	100	APHA , Method No. 820, Page No. 836



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Lead (Pb)	BDL (DL:0.02)	µg/m <sup>3</sup>	1	US EPA Method: EPA/625/R-96/0109/ IO-3.1, 3.2
*Carbon Monoxide (CO)	BDL (DL:0.2)	mg/m <sup>3</sup>	2	APHA method no.130, Page 359
Ammonia ( NH <sub>3</sub> )	BDL (DL:4)	µg/m <sup>3</sup>	400	APHA method no. 401, Page 511
Benzene (C <sub>6</sub> H <sub>6</sub> )	1.2	µg/m <sup>3</sup>	5	IS 5182 (Part 11):2006
Benzo (a) Pyrene (BaP) – particulate phase only	BDL (DL:0.5)	ng/m <sup>3</sup>	1	IS 5182 (Part 12):2004
Arsenic (As)	0.51	ng/m <sup>3</sup>	6	US EPA Method: EPA/625/ R-96/0109/ IO-3.1, 3.2
Nickel (Ni)	BDL (DL:3)	ng/m <sup>3</sup>	20	US EPA Method: EPA/625/ R-96/0109/ IO-3.1, 3.2
Mercury	BDL (DL:0.1)	ng/m <sup>3</sup>	-	APHA Method No. 318, Page no. 492

**BDL** : Below Detection Limit.

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-----End-----

for **Mahabal Enviro Engineers Pvt. Ltd.**

Harish Mendhi

**Technical Manager**

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