

Ref: JSL/D-Mines/BHL/2016-17/53

Dated: 06.09.2016

To,

**The Member Secretary,  
Rajasthan Pollution Control Board  
4, Institutional Area, Jhalana Doongri,  
Jaipur (Rajasthan)**

**Sub:** Environmental Statement report for the Financial Year ended on 31<sup>st</sup> March' 2016 in respect of Dhedwas Iron Ore, Copper and Associated Minerals Mine & Beneficiation Plant.

**Ref:** Consent to operate letter no. F (Mines) /Bhilwara/ Bhilwara /15 (1) 2010-11/ 6050 – 6054 dated 29.10.2014.

Dear Sir,

Kindly find enclosed herewith Environmental Statement report for the period of 1<sup>st</sup> April 2015 to 31<sup>st</sup> March 2016 in respect of our Dhedwas Iron Ore, Copper and Associated Minerals Mine and Beneficiation Plant of M/s Jindal Saw Limited located near Village Dhedwas/ Pur, Tehsil & Distt. Bhilwara (Rajasthan) for your reference and records.

Thanking you,

Yours faithfully,  
For: JINDAL SAW LTD.

  
**Dinesh Patil  
Agent-Dhedwas Iron Ore Mine**

  


Encls: a/a

Copy to:

1. The Director, Regional Office, MOEF, Kendriya Bhawan, 5th Floor, Sector-H, Lucknow-Uttar Pradesh (Pin-226024)
2. The Regional Officer, Rajasthan State Pollution Control Board, 18, Azad Nagar, Pannadhai Circle, Bhilwara-Rajasthan, (Pin-311001)

**FORM – V**  
**(See rule 14)**

Environmental statement for the financial year ending the **31<sup>st</sup> March 2016**

**PART-A**

<b>(i)</b>	Name and address of the owner/ occupier of the industry operation or process.	:	<b>M/s Jindal Saw Limited</b> <b>Araji No. 9697/6711, Near Tiranga Hill,</b> <b>Village: Pur, Tehsil &amp; Distt. Bhilwara,</b> <b>Rajasthan, Pin-311008</b>  Industry: Dhedwas Iron Ore, Copper and Allied Mineral Mines & Beneficiations Plant (ML No. 631/05)									
<b>(ii)</b>	Industry Category	:	<b>Red</b>									
<b>(iii)</b>	Production Capacity	:	<p align="center"><b><u>DETAIL OF PRODUCT WITH QUANTITIES</u></b></p> <table border="1"> <thead> <tr> <th data-bbox="805 898 874 947">SN</th> <th data-bbox="880 898 1251 947">Products</th> <th data-bbox="1257 898 1520 947">Existing capacity</th> </tr> </thead> <tbody> <tr> <td data-bbox="805 956 874 994">1</td> <td data-bbox="880 956 1251 994">Iron Ore (Magnetite)</td> <td data-bbox="1257 956 1520 994">7.0 MMTPA</td> </tr> <tr> <td data-bbox="805 1003 874 1061">2</td> <td data-bbox="880 1003 1251 1061">Mineral Beneficiation Plant (Magnetite Concentrate)</td> <td data-bbox="1257 1003 1520 1061">2.5 MMTPA</td> </tr> </tbody> </table>	SN	Products	Existing capacity	1	Iron Ore (Magnetite)	7.0 MMTPA	2	Mineral Beneficiation Plant (Magnetite Concentrate)	2.5 MMTPA
SN	Products	Existing capacity										
1	Iron Ore (Magnetite)	7.0 MMTPA										
2	Mineral Beneficiation Plant (Magnetite Concentrate)	2.5 MMTPA										
<b>(iv)</b>	Year of Establishment	:	<b>21 June 2011</b>									
<b>(v)</b>	Date of Last Environment Statement Submitted	:	<b>24 Sep. 2015</b>									

**PART – B**

**Water and Raw Material Consumption**

**(1) Water consumption m<sup>3</sup>/d**

Process	-	2968 (approx)
Dust Suppression &	-	917 (approx)
Cooling		
Domestic	-	27 (approx)
Green Belt	-	153 (approx)

**(1) Name of Products**

Nature of Products	Process Water Consumption per unit of product output	
	During the previous financial year	During the current financial year
1) Iron Ore (Magnetite)	0.04	0.05
2) Mineral Beneficiation Plant (Magnetite Concentrate)	0.75	0.95

**(2) Raw material consumption**

Name of Raw material:		
Consumption of raw material per unit of product Output		
Name of product:	During the previous Financial year	During the current Financial year
<b>1. Magnetite Concentrate</b>	<b>1. Iron Ore- 3.28 Ton/ton concentrate</b>	<b>1. Iron Ore- 2.85 Ton/ton concentrate</b>

- Industry may use codes if disclosing details of raw material would violate contractual obligations; otherwise all industries have to name the raw materials used.

**PART - C**

Pollution discharged to environment/unit of output

(Parameter as specified in the consent issued)

Pollutants	Quantity of pollutants discharged (Mass/day)	Concentration of pollutants in discharges (Mass/volume)	Percentage of variation from prescribed standards with reasons
(a) Water	<b>Industrial:</b>	No wastewater was discharged from the manufacturing process. In beneficiations process only tailing and concentrate separation water was generated from pond, thickener and filter press which is being completely recycled in process. Tailing / Recycling water monitoring report is enclosed as Annexure-1	Well Within the Prescribed Limits
	<b>Domestic:</b>	Domestic waste water generated from office toilets is directly discharged into septic tank/ soak pit	
(b) Air		Concentration of the pollutants in the air are being measured by MoEF & GOI approved agency in every quarter Ambient Air Quality & Noise Monitoring reports are enclosed as Annexure-II & III	Well within the prescribed limits.

**PART - D**

**HAZARDOUS WASTES**

(As specified under Hazardous Wastes/Management and Handling Rules, 1989)

Hazardous Wastes	Total Quantity (KL)	
	During the previous financial year	During the current financial year
<p>(a) From process</p> <p>During Mining and Mineral beneficiation no hazardous waste generated from the process except used oil which was generated from machinery/equipment which is being sent to authorize recycler along with used cotton waste and barrels.</p>	<p><b>Dhedwas Mine &amp; Beneficiation Plant:</b></p> <p><b>1. Used/Spent Oil:</b></p> <ul style="list-style-type: none"> <li>• Earlier balanced: 24.44 KL</li> <li>• Generated Quantity:16.66 KL</li> <li>• Reused Quantity:7.91 KL</li> <li>• Sent to recycler: 4.2 KL</li> <li>• Balance upto Mar'15 :28.99 KL for reuse and selling to recycler</li> </ul> <p><b>2. Discarded Container/ Barrel</b></p> <ul style="list-style-type: none"> <li>• Earlier balanced: 61 Nos.</li> <li>• Generated Quantity: 51 Nos.</li> <li>• Sent to recycler: Nil</li> </ul> <p>Balance upto Mar 2015: 112 Nos. for reuse and selling to recycler</p> <p><b>3. Used Cotton Waste</b></p> <ul style="list-style-type: none"> <li>• Generated Quantity: 2.6 Ton</li> <li>• Disposed/reused : 2.6 Ton</li> </ul>	<p><b>Dhedwas Mine &amp; Beneficiation Plant:</b></p> <p><b>1. Used/Spent Oil:</b></p> <ul style="list-style-type: none"> <li>• Earlier balanced: 28.99 KL</li> <li>• Generated Quantity:21.87 KL</li> <li>• Reused Quantity: 4.53 KL</li> <li>• Sent to recycler: 33.49 KL</li> <li>• Balance upto Mar'2016:12.84 KL for reuse and selling to recycler</li> </ul> <p><b>2. Discarded Container/ Barrel</b></p> <ul style="list-style-type: none"> <li>• Earlier balanced: 112 Nos.</li> <li>• Generated Quantity: 55 Nos.</li> <li>• Sent to recycler: 135 Nos.</li> </ul> <p>Balance upto Mar 2016: 32 Nos. for reuse and selling to recycler</p> <p><b>3. Used Cotton Waste</b></p> <ul style="list-style-type: none"> <li>• Generated Quantity: 2.5 Ton</li> </ul> <p>Kept in storage shed and will be sent to authorize incinerator for final disposal.</p>
<p>(b)From pollution control facilities</p>	<p><b>NIL</b></p>	<p><b>NIL</b></p>

**PART - E**

**SOLID WASTES**

	Total Quantity	
	During the previous financial year	During the current financial year
<p>(a) From process</p>	<p><b>1. Overburden from Mine</b> : 4967447 Tonnes</p> <p><b>2.Tailing from Beneficiation Unit</b> : 1816872 Tonnes</p>	<p><b>1. Overburden from Mine</b> : 8506971 Tonnes</p> <p><b>2.Tailing from Beneficiation Unit</b> : 1904523 Tonnes</p>
<p>(b) From pollution control facilities</p>	<p><b>Nil</b></p>	<p><b>Nil</b></p>

<p>(C)(1)Quantity recycled or reutilized within the unit</p> <p>(2)Sold</p> <p>(3)Disposed</p>	<p><b>1. Overburden from Mine</b></p> <p>The OB generated from the mine is utilized for the leveling of low laying/depressed ground within the lease area as per requirement. OB generated during the current year (Apr 2014 to Mar 2015) has been stacked in external dump at earmarked place as per condition given in mining plan.</p> <p><b>2.Tailing from Beneficiation Unit</b></p> <p>Tailing cake in dry form is stacked in earmarked place and will be recycled in future to recover the minerals contained therein by future research.</p> <p>NA</p> <p>NA</p>	<p><b>1. Overburden from Mine</b></p> <p>Overburden generated during the current year (Apr 2015 to Mar 2016) has been stacked in external dump at earmarked place as per condition given in mining plan. 516525 Tonnes of OB was utilized for leveling of low laying/depressed ground outside the lease area in Bhadalilkhera site etc as per the request of DMG, Rajasthan.</p> <p><b>2.Tailing from Beneficiation Unit</b></p> <p>Tailing cake in dry form is stacked in earmarked place and will be recycled in future to recover the minerals contained therein.</p> <p>3,00,000 Ton</p> <p>NA</p>
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#### PART – F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

#### Hazardous Waste

Used oil generated from machineries/equipments is being sent to authorized recycler, very small quantity is being reused for lubrication of chains mounted machines and conveyor roller for transportation of raw materials. Empty barrel and Cotton waste are sent to authorized recycler from time to time.

#### Solid Waste:

##### **1. Overburden from Mine**

The OB generated from the mine consists of Calc Silicate, Calc schist and calc gneiss. During the year 8506971 tonnes of overburden was generated, out of which 516525 Tonnes of OB was utilized for leveling of low laying/depressed ground outside the lease area in Bhadalilkhera site. Balance Overburden quantity is stacked in earmarked place as per condition given in mining plan.

##### **2. Tailing from Beneficiation Unit**

A total of 1904523 tonnes of Tailing generated from beneficiation plant. It was recovered by the advanced filter press through thickener and tailing pond. Tailing cake in dry form is stacked in earmarked place and will be recycled in future to recover the mineral present there in. It contains quartzites, Calc Silicates and low grade magnetite, goethite and limonite.

## PART – G

### **Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production:**

1. **Water Conservation:** Jindal Saw Ltd. Bhilwara is continuously making efforts to conserve the natural resources as well as environment by adopting clean and green technology in the process. In this regard JSL has installed 10 MLD (5.5+4.5 MLD) Sewage Treatment Plant at Bhilwara city. This Sewage Treatment Plant is treating the sewage of Bhilwara city and the treated clean water is being used for Mining, Mineral Beneficiations, Dust suppression, Cooling, Horticulture / Plantation etc. in JSAW plant located near Village Pur, at Bhilwara and by this way we are meeting our water requirement for plant operation and also helping to reduce sewerage pollution of Bhilwara city.

Water contained in tailing and concentrate is being recovered with the help of tailing pond, thickener and advanced filter press technology and 100% being reused in Mineral Beneficiations process. The same system is also helping to conserve water resources.

2. **Air Pollution Control:** To mitigate fugitive dust emission water is being sprayed on ore stacks to suppress the dust before handling the same. Water is being regular sprinkling near the crusher zone, haul road loading and unloading point etc. Dry fog system and continuous water sprinkling arrangement has been installed in crusher unit to control the dust emission. Source of water is STP Plant treated water installed in Bhilwara City.

3. **Noise Pollution Control:** Appropriate mitigation measures are being adapted to control the noise level in Mine lease boundary and Beneficiation plant area. Controlled blasting is under practice as approved by DGMS and Directorate of Explosive. Noise level at plant boundary is within the standards during day and night time. Adequate PPEs provided to workmen to maintain for safe working environment.

4. **Energy Saving:** To conserve energy resources we are installing solar light in haul road site and installed solar panel in mine weigh bridges. It is helping reduce our electrical cost and environment friendly.

## PART – H

### **Additional measures/investment proposed for environmental protection including abatement of pollution, prevention of pollution.**

Green belt development and plantation is given its utmost importance. For conservation of environment, the company has carried out plantation of various species of trees within and outside the premises. Every year we carry out more and more plantation and also taking all possible care, i.e. watering, fencing and using pesticides etc.

In the year 2015-16, **36732** new saplings have been planted inside the lease area and **2431** new sapling have been planted outside the lease area (In Bhilwara City, Malikhera Village, Various Govt Offices, Schools, nearby Villages and Out Site Road,). Up to March 2016 our total green area inside the mining lease area is **55.72** hectare and outside the lease area is around **11.62** hectare.

A part from this to ensure Environmental Sustainability, Ecological balance, protection of Flora & Fauna, animal Welfare, agroforestry, conservation of natural resources & maintain quality of soil, water & air as a part of CSR company providing necessary support to Nagar Parishad Bhilwara for 167 Nos. Park Maintenance etc.

The expenditure made by us for the purpose of environmental management during the period April 2015 to March 2016 are as follows:

Greenery Development/ Maintenance	:	159.6 Lakh
Pollution Control	:	42.8 Lakh
Environment Monitoring Cost	:	4.7 Lakh
Rural Development / CSR (Community Park Maintenance, Tree Guard & Plantation, and other CSR activity i.e. Blood Donation Camp, Drinking water supply, School & Village development, Fodder Distribution, Religious Places Development, Disaster Relief, Hygiene Cleaning in MG Hospital Bhil	:	715.8 Lakh

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<b>Total Cost</b>	<b>:</b>	<b>922.9 Lakh</b>
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#### PART - I

#### **Any other particulars for improving the quality of the environment**

1. We have EHS Department with three separate cells, one for monitoring and one for maintenance of pollution control equipment and one for Green Belt development.
2. Monitoring of ambient air, Noise, and water quality is being carried out continuously.
3. Maintenance department is doing regular checking and scheduled maintenance of all the pollution control devices.
4. Civil deptt is taking care of Housekeeping and water supply.
5. Horticulture Department is taking care of plantation and green belt development. Every year we are adding new trees to protect our environment.

  
**(Dinesh Chandra Patil)**  
**Agent, Dhedwas Iron Ore Mine**

## Process Water Quality Comparative Monitoring Statement for the period of April 2015 to March 2016

## Dhedwas Iron Ore Mines &amp; Beneficiation Plant, Jindal Saw Limited, Bhilwara

Sr. No.	Parameter/ Date of Monitoring	Units	Tailing filter Recycling Water				Tailing Pond			
			29.06.2015	23.09.2015	20.12.2015	10.03.2016	29.06.2015	23.09.2015	20.12.2015	10.03.2016
1	Color		30	23	Less Than 5	15	40	50	Less Than 5	20
2	pH Value		7.69	7.8	7.66	7.88	7.89	7.85	7.7	7.56
3	Total Suspended Solid	Mg/l	12	23	17	36	10	8	14	45
4	Oil & Grees	Mg/l	4	5	2	4	3.4	4	3	6
5	Biological Oxygen Demand (3 Days at 27°C)	Mg/l	2.25	1.13	0.4	6.4	13.2	10.17	2	8.33
6	Chemical Oxygen Demand	Mg/l	14.08	31.55	28.9	28.2	17.6	33.41	13.76	44.8
7	Disolve Oxygen	Mg/l	4.6	5.1	7.2	5.2	3.9	4.6	6.05	4.6
8	Ammonium Nitrogen as NH4-N	Mg/l	2.28	4.2	3.36	5.3	1.4	2.8	2.68	3.08
9	Total Kjeldahal Nitrogen as N	Mg/l	8.84	12.8	7.9	8.96	12.6	7.8	10.5	8.76
10	Free Ammonia as NH3	Mg/l	0.32	0.14	0.55	0.61	0.14	0.56	0.28	0.54
11	Nitrate Nitrogen as NO3-N	Mg/l	6.55	5.34	5.47	5.77	7.85	6.75	5.14	8.57
12	Total Residual chlorine	Mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
13	Fluoride	Mg/l	1.92	1.66	0.66	1.22	1.88	1.54	0.84	1.72
14	Total Dissolved Solids	Mg/l	3695	3744	2976	2227	4215	4618	2676	2818
15	Total Phosphate as PO4-P	Mg/l	4.45	3.95	ND	3.27	4.87	3.11	0.06	3.41
16	Sulphate (as SO4)	Mg/l	0.88	1.52	BDL	0.38	1.12	1.64	BDL	0.87
17	Phenolic Compound	Mg/l	0.35	0.15	0.02	0.1	BDL	BDL	0.04	0.11
18	Arsenic as S	Mg/l	BDL	BDL	0.08	BDL	BDL	BDL	0.03	BDL
19	Mercury as Hg	Mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
20	Lead (as Pb)	Mg/l	0.11	0.07	0.05	0.16	0.15	0.1	0.08	0.18
21	Cadmium (as Cd)	Mg/l	BDL	BDL	0.01	BDL	BDL	BDL	0.01	BDL
22	Copper (as Cu)	Mg/l	0.06	0.04	0.01	0.16	0.11	0.08	0.01	0.12
23	Zinc (as Zn)	Mg/l	0.74	0.67	0.01	0.87	1.34	1.14	0.04	1.44
24	Selenium as Se	Mg/l	BDL	BDL	0.01	BDL	BDL	BDL	0.01	BDL
25	Nickel (as Ni)	Mg/l	0.08	0.04	0.04	0.04	0.06	0.04	0.03	0.07
26	Cyanide (as CN)	Mg/l	BDL	BDL	Less Than 0.05	BDL	BDL	BDL	Less Than 0.05	BDL
27	Manganese as Mn	Mg/l	0.04	0.04	0.09	0.08	0.12	0.14	BDL	0.12
28	Iron as Fe	Mg/l	0.29	0.35	0.01	0.17	0.71	0.89	BDL	0.21

Sr. No.	Parameter/ Date of Monitoring	Units	STP Incoming/Reservoir Pond			
			29.06.2015	23.09.2015	20.12.2015	10.03.2016
1	Color		20	30	25	25
2	pH Value		7.83	8.35	8.25	8.06
3	Total Suspended Solid	Mg/l	46	14	14	37
4	Oil & Grees	Mg/l	3	5	3	5
5	Biological Oxygen Demand (3 Days at 27°C)	Mg/l	3	11	8	10.4
6	Chemical Oxygen Demand	Mg/l	31.68	53.82	33.02	55.6
7	Disolve Oxygen	Mg/l	4.4	4.7	4.1	4.5
8	Ammonium Nitrogen as NH4-N	Mg/l	3.1	2.4	5.2	3.2
9	Total Kjeldahal Nitrogen as N	Mg/l	12.62	8.63	10.3	10.13
10	Free Ammonia as NH3	Mg/l	0.68	0.56	0.85	0.5
11	Nitrate Nitrogen as NO3-N	Mg/l	7.85	6.66	7.5	7.4
12	Total Residual chlorine	Mg/l	BDL	BDL	BDL	BDL
13	Fluoride	Mg/l	1.69	1.75	1.84	1.66
14	Total Dissolved Solids	Mg/l	3865	3755	3457	3578
15	Total Phosphate as PO4-P	Mg/l	3.52	4.12	4.36	3.71
16	Sulphate (as SO4)	Mg/l	1.14	1.47	1.52	1.28
17	Phenolic Compound	Mg/l	0.14	0.11	0.14	0.1
18	Arsenic as S	Mg/l	BDL	BDL	BDL	BDL
19	Mercury as Hg	Mg/l	BDL	BDL	BDL	BDL
20	Lead (as Pb)	Mg/l	0.32	0.27	0.32	0.23
21	Cadmium (as Cd)	Mg/l	0.01	BDL	BDL	BDL
22	Copper (as Cu)	Mg/l	0.11	0.14	0.18	0.15
23	Zinc (as Zn)	Mg/l	1.45	1.69	2.01	1.73
24	Selenium as Se	Mg/l	BDL	BDL	BDL	BDL
25	Nickel (as Ni)	Mg/l	0.15	0.08	0.1	0.05
26	Cyanide (as CN)	Mg/l	BDL	BDL	BDL	BDL
27	Manganese as Mn	Mg/l	0.14	0.17	0.15	0.15
28	Iron as Fe	Mg/l	0.31	0.38	0.45	0.29

Note: Above monitoring result is based upon Environment Monitoring carriedout by MoEF, RPCB and NABL Approved Agency.

## Ambient Air Quality Comparative Monitoring Statement for the period of April 2015 to March 2016

## Dhedwas Iron Ore Mines &amp; Beneficiations Plant, Jindal Saw Limited, Bhilwara

Location/ Month	Kanoli Village						Pur Village						Dariba Village					
	PM10	PM 2.5	SPM	Sox	Nox	CO	PM10	PM 2.5	SPM	Sox	Nox	CO	PM10	PM 2.5	SPM	Sox	Nox	CO
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Jun-15	65.45	26.26	233.35	5.16	14.32	180.00	70.19	32.87	244.58	7.43	15.00	260.00	59.96	33.09	232.46	6.99	14.13	220.00
Sep-15	55.55	25.13	238.60	5.80	12.15	210.00	61.81	21.45	219.54	6.87	12.05	220.00	62.33	21.68	251.55	7.30	15.66	260.00
Dec-15	70.70	29.55	228.08	6.62	11.28	200.00	76.25	33.83	331.45	8.48	13.48	190.00	63.41	27.38	216.38	7.62	13.69	210.00
Mar-16	59.53	31.50	208.18	6.85	12.60	220.00	82.88	31.67	305.72	8.96	18.57	290.00	61.20	24.76	246.52	6.92	13.04	340.00
Min	55.55	25.13	208.18	5.16	11.28	180.00	61.81	21.45	219.54	6.87	12.05	190.00	59.96	21.68	216.38	6.92	13.04	210.00
Max	70.70	31.50	238.60	6.85	14.32	220.00	82.88	33.83	331.45	8.96	18.57	290.00	63.41	33.09	251.55	7.62	15.66	340.00
Avg.	62.81	28.11	227.05	6.11	12.59	202.50	72.78	29.96	275.32	7.94	14.78	240.00	61.73	26.73	236.73	7.21	14.13	257.50

Location/ Month	Gandhisagar Village						Dhulkhera Pit/ Village						Tiranga Pit					
	PM10	PM 2.5	SPM	Sox	Nox	CO	PM10	PM 2.5	SPM	Sox	Nox	CO	PM10	PM 2.5	SPM	Sox	Nox	CO
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Jun-15	60.07	34.32	291.48	6.21	14.69	210.00	67.68	29.27	281.22	8.04	17.31	210.00	72.33	26.57	364.23	9.61	18.61	360.00
Sep-15	64.22	26.57	342.46	7.58	14.20	370.00	69.86	20.45	253.56	6.23	16.16	240.00	76.71	24.39	286.42	8.62	17.20	330.00
Dec-15	71.66	30.01	289.22	6.43	12.42	220.00	72.93	29.56	289.65	7.53	13.75	270.00	88.97	38.16	291.52	8.28	20.30	350.00
Mar-16	75.38	30.69	291.82	8.05	13.90	230.00	81.80	36.82	289.78	7.26	14.30	270.00	79.12	33.65	315.15	9.10	16.50	360.00
Min	60.07	26.57	289.22	6.21	12.42	210.00	67.68	20.45	253.56	6.23	13.75	210.00	72.33	24.39	286.42	8.28	16.50	330.00
Max	75.38	34.32	342.46	8.05	14.69	370.00	81.80	36.82	289.78	8.04	17.31	270.00	88.97	38.16	364.23	9.61	20.30	360.00
Avg.	67.83	30.40	303.75	7.07	13.80	257.50	73.07	29.03	278.55	7.27	15.38	247.50	79.28	30.69	314.33	8.90	18.15	350.00

Location/ Month	Suras Pit / Village						Samodi Village						Mines Workshop (Near CIL Camp)					
	PM10	PM 2.5	SPM	Sox	Nox	CO	PM10	PM 2.5	SPM	Sox	Nox	CO	PM10	PM 2.5	SPM	Sox	Nox	CO
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Jun-15	78.59	22.39	382.99	8.26	18.96	350.00	65.24	22.74	244.03	8.60	13.09	240.00	73.32	24.84	395.07	7.68	20.38	420.00
Sep-15	82.04	28.18	293.01	6.53	17.19	340.00	57.93	21.56	252.42	7.34	12.20	210.00	88.22	31.81	299.44	8.01	14.80	210.00
Dec-15	59.62	30.44	301.52	7.84	12.70	240.00	62.19	25.39	255.40	6.41	12.63	230.00	84.00	42.47	296.53	9.98	14.67	310.00
Mar-16	70.99	28.07	305.44	9.22	13.47	340.00	80.19	31.54	319.68	7.46	15.60	210.00	85.52	30.40	378.16	8.74	17.35	370.00
Min	59.62	22.39	293.01	6.53	12.70	240.00	57.93	21.56	244.03	6.41	12.20	210.00	73.32	24.84	296.53	7.68	14.67	210.00
Max	82.04	30.44	382.99	9.22	18.96	350.00	80.19	31.54	319.68	8.60	15.60	240.00	88.22	42.47	395.07	9.98	20.38	420.00
Avg.	72.81	27.27	320.74	7.96	15.58	317.50	66.39	25.31	267.88	7.45	13.38	222.50	82.77	32.38	342.30	8.60	16.80	327.50

Location/ Month	Near PMS Building					
	PM10	PM 2.5	SPM	Sox	Nox	CO
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Jun-15	82.01	22.78	-	6.59	18.16	390.00
Sep-15	86.14	25.94	256.29	7.49	12.17	240.00
Dec-15	74.60	36.77	269.39	9.07	14.91	260.00
Mar-16	83.01	26.29	330.65	8.01	13.35	310.00
Min	74.60	22.78	256.29	6.59	12.17	240.00
Max	86.14	36.77	330.65	9.07	18.16	390.00
Avg.	81.44	27.95	285.44	7.79	14.65	300.00

Note: Above monitoring result is based upon Environment Monitoring carried out by MoEF, RPCB and NABL Approved Agency.

## Ambient Noise Level Comparative Monitoring Statement for the period of April 2015 to March 2016

## Dhedwas Iron Ore Mines &amp; Beneficiations Plant, Jindal Saw Limited, Bhilwara

Sr. No.	Location of Sampling/ Month/	Date of Monitoring	Pur Village		Samodi Village		Deriba Village		Dhulkhera Village	
			Results in dB(A) (Day Time)	Results in dB(A) (Night Time)	Results in dB(A) (Day Time)	Results in dB(A) (Night Time)	Results in dB(A) (Day Time)	Results in dB(A) (Night Time)	Results in dB(A) (Day Time)	Results in dB(A) (Night Time)
01.	Jun-15	25.06.2015	54.3	53.5	52.4	41.3	52.5	42.3	52.5	41.4
02.	Sep-15	15.09.2015	53.8	42.4	51.7	40.5	51.8	40.6	53.2	42.5
03.	Dec-15	14.12.2015	53.2	42.7	50.7	39.5	49.6	41.7	52.8	43.5
04.	Mar-16	15.03.2016	52.4	41.6	50.2	41.6	52.4	40.6	52.4	41.7
AVERAGE			53.43	45.10	51.25	40.73	51.58	41.35	52.73	42.28
Sr. No.	Location of Sampling/ Month/	Date of Monitoring	Gandhi Sagar Village		Suras Village		Kanoil Village			
			Results in dB(A) (Day Time)	Results in dB(A) (Night Time)	Results in dB(A) (Day Time)	Results in dB(A) (Night Time)	Results in dB(A) (Day Time)	Results in dB(A) (Night Time)		
01.	Jun-15	25.06.2015	52.8	43.4	51.2	40.5	53.6	41.7		
02.	Sep-15	15.09.2015	52.0	41.6	52.3	41.2	50.3	39.2		
03.	Dec-15	14.12.2015	53.5	43.6	51.4	40.3	48.4	37.4		
04.	Mar-16	15.03.2016	53.2	42.5	52.9	41.3	51.2	40.6		
AVERAGE			52.88	42.78	51.95	40.83	50.88	39.73		
Sr. No.	Location of Sampling/ Month/	Date of Monitoring	Tiranga Pit		Suras Pit		Crusher working area near CCR building		Dhulkhera Pit	
			Results in dB(A) (Day Time)	Results in dB(A) (Night Time)	Results in dB(A) (Day Time)	Results in dB(A) (Night Time)	Results in dB(A) (Day Time)	Results in dB(A) (Night Time)	Results in dB(A) (Day Time)	Results in dB(A) (Night Time)
01.	Jun-15	25.06.2015	60.7	60.2	65.2	57.4	68.7	60.5	67.3	56.5
02.	Sep-15	21.09.015	70.2	58.6	66.5	58.4	67.4	58.5	65.7	55.3
03.	Dec-15	20.12.2015	71.4	62.5	68.2	61.4	65.6	59.3	70.3	62.2
04.	Mar-16	15.03.2016	64.8	52.7	70.2	61.4	73.3	62.5	67.1	55.3
AVERAGE			69.03	58.50	67.53	59.65	68.75	60.20	67.60	57.33
Sr. No.	Location of Sampling/ Month/	Date of Monitoring	BFN CCR Building		TATA Blue Scop Shed		Near Raw material storage yard mine area		Filter press building	
			Results in dB(A) (Day Time)	Results in dB(A) (Night Time)	Results in dB(A) (Day Time)	Results in dB(A) (Night Time)	Results in dB(A) (Day Time)	Results in dB(A) (Night Time)	Results in dB(A) (Day Time)	Results in dB(A) (Night Time)
01.	Jun-15	25.06.2015	66.4	55.2	65.5	54.2	63.5	54.8	60.4	52.8
02.	Sep-15	21.09.2015	67.5	57.4	66.1	58	66.7	57.2	63.4	56.2
03.	Dec-15	20.12.2015	71.4	64.2	68.4	61.2	68.2	59.8	65.4	57.2
04.	Mar-16	15.03.2016	64.8	52.7	70.5	61.4	69.1	56.4	68.6	56.7
AVERAGE			67.53	57.38	67.63	58.70	66.68	57.05	64.45	55.73

Note: Above monitoring result is based upon Environment Monitoring carriedout by MoEF, RPCB and NABL Approved Agency.