JINDAL SAW LTD.

Ref: JSL/L-Mines /BHL/2017-18/49 Dated: 22.09.2017

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 31st March' 2017 in respect of Lampiya Iron Ore, Copper and Associated Minerals Mine (ML No. 627/05).

Ref: (i) EC accorded by MoEF vide letter No.J-11015/460'2008-IA.II (M) dated 31.05.2011.

(ii) Consent to Operate Letter No. F (Mines)/Bhilwara (Banera)/44/ (1)/2016-2017/11703 -11707 dated 21/03/2017

Dear Sir,

Kindly find enclosed herewith Environmental Statement report for the period of 1st April 2016 to 31st March 2017 in respect of our Lampiya Iron Ore, Copper and Associated Minerals Mine (ML No. 627/05) of M/s Jindal Saw Limited located near located near Village: Lampiya, Tehshil: Banera, 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)

Flat No- 305-306, Shree Nath Residency, Shree Nath Enclave (Near Raghuvansh Vihar) Gandhi Nagar, Bhilwara-311001, Tel No.: 01482-246188, Fax No.: 248417
Corporate Office : Jindal Centre, 12 Bhikaji Cama Place, New Delhi – 110066. Ph. +91 11 26188360-74, Fax +91 11 26170691
Regd. Office : A-1 UPSIDE, Indl. Area, Nandgaon Road, Kosi Kalan, Dist. Mathura (UP) 281403 Website : www.jindalsaw.com

FORM – V
(See rule 14)

Environmental statement for the financial year ending the ***31st March 2017***

PART-A

(i)	Name and address of the owner/ occupier of the industry operation or process.	:	**M/s Jindal Saw Limited** **Araji No. 9697/6711, Near Tiranga Hill, Village: Pur, Tehsil & Distt. Bhilwara, Rajasthan, Pin-311008** **Mines Location:** **Lampiya Iron Ore, Copper and Associated Minerals Mine (ML No. 627/05)** **Village: Lampiya, Tehsil- Banera, District-Bhilwara (Rajasthan)**
(ii)	Industry Category	:	**Red**
(iii)	Production Capacity	:	**DETAIL OF PRODUCT WITH QUANTITIES** SN | Products | Existing capacity 1 | Iron Ore | 3.0 Million Tonnes Per Annum
(iv)	Year of Establishment	:	**08 April 2014**
(v)	Date of Last Environment Statement Submitted	:	**19 Sep 2016**

PART – B

Water and Raw Material Consumption

(1) Water consumption m^3/d

Process	-	Nil
Dust Suppression & Cooling	-	30 (approx)
Domestic	-	0.5 (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	0.63 Kl /Ton of Iron Ore	0.062 Kl /Ton of Iron Ore

(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
1. Iron Ore	**Not Applicable**	**Not Applicable**

- 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	**Industrial:**	No wastewater discharge from the mining activity.	Well Within the Prescribed Limits
	Domestic:	For the present, mining operation is on a very small scale employing only 15 persons per day. We shall construct septic tank and soak pit as per prescribed standard. Regular Ground and Surface water quality monitoring is being carried out by MoEF&GOI approved agency Summarized report of nearby mining area is enclosed as Annexure-III	
(b) Air		Concentration of the pollutants in the air was measured every quarter Ambient Air Quality & Noise level Monitoring report is enclosed in annexure-I, II & IV	

PART – D

HAZARDOUS WASTES

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

Hazardous Wastes	Total Quantity (MT)	
	During the previous financial year	**During the current financial year**
(a) From process During Mining operation no any hazardous waste generated from the activity except used oil which was generated from mining equipment	Total Quantity Used Oil Generated from (Apr 15 to Mar 16): **0.15 KL** Quantity reused for lubrication of Chain Mounted Equp.:**0.10 KL** Balance upto Mar 2016: **0.05 KL** for reuse and selling to recycler	Total Quantity Used Oil Generated from (Apr 16 to Mar 17): **0.25 KL** Last year balanced: **0.05 KL** Quantity reused for lubrication of Chain Mounted Equp.:**0.20 KL** Balance upto Mar 2017: **0.10 Nos.** for reuse and selling to recycler
(b)From pollution control facilities	**NA**	**NA**

PART – E

SOLID WASTES

	Total Quantity	
	During the previous financial year	**During the current financial year**
(a) From process	Presently mining operation is very limited area During the statement period (April 2015 to March 2016) No Overburden was generated.	Presently mining operation is very limited area During the statement period (April 2016 to March 2017) 48731 Tonnes overburden generated from the mine. Some quantity was utilized for road and depressed ground leveling. Balance OB quantity is being stored in earmarked area as per mining plan.
(b) From pollution control facilities	**Nil**	**Nil**
(C)(1)Quantity recycled or reutilized within the unit	**Nil**	**Nil**
(2)Sold	**Nil**	**Nil**
(3)Disposed	**Nil**	**Nil**

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

During Mining activity No Hazardous Waste is generated from the operation except used oil which is drained from mining machineries/ equipments. It is used for lubrication of chain mounted machines, balanced quantity will be sent to authorize recycler.

Solid Waste:

1. Overburden from Mine

The OB generated from the mine consists of Calc Silicate, Calc schist and cals gneiss. During the compliance period (April 2016 to March 2017) 48731 Tonnes overburden generated from the mine. Some quantity was utilized for road and depressed ground leveling. Balance OB quantity is being stored in earmarked area as per mining plan.

PART – G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

Jindal Saw Ltd. Bhilwara is continuously making efforts to conserve the natural resources as well environment by adopting clean and green technology for mining operation. In this regard Jindal Saw Limited initiated to carry-out low grade iron ore mining first time in Bhilwara District, Rajasthan. By this way we can promote mineral conservation policy i.e use of sub-grade material. The vehicles used in the Mine are environment friendly due to regular maintenance. These are not overloaded and tarpaulins are used for dispatch of are from the mine.

PART – H

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

Effective water sprinkling is done to suppress the dust at mine face, road and loading and unloading places. Routine environment monitoring of Ambient Air, Ambient Noise Ground and Surface water is being carried out by MoEF, NABL approved lab. Apart 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 part of CSR, company providing necessary support to Nagar Parishad Bhilwara for Park Maintenance etc.

The expenditure made by us for the purpose of environmental management and CSR during the period April 2016 to March 2017 are as follows:

Greenery Development/ Maintenance	:	7.6 Lakh
Pollution Control	:	1.1 Lakh
Environment Monitoring Cost	:	2.9 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 Bhilwara Under Swachh Bharat Abhiyan , Jal Swavlamban Abhiyan etc.	:	809.7 Lakh

PART – I

Any other particulars for improving the quality of the environment

At present mining is done on a very small scale above the general ground level. We shall implement suitable conservation measures as suggested in EIA report.

22/9

(Dinesh Chandra Patil)
Agent- Lampiya Iron Ore, Copper and Associated Minerals Mine.

Annexure-I

SUMMARIZED AMBIENT AIR QUALITY MONITORING RESULTS FOR THE PERIOD OF APR 2016 to MAR 2017

Location/ Month	Village Devpura						Village Kamalpura					
	PM10	PM 2.5	SO2	Nox	CO	SPM	PM10	PM 2.5	SO2	Nox	CO	SPM
	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-16	69.72	26.75	7.75	11.32	220.00	275.49	58.11	30.27	5.81	13.55	260.00	259.37
Sep-16	51.53	20.23	6.46	12.21	180.00	149.88	57.68	21.33	4.94	9.69	200.00	166.36
Dec-16	61.07	24.53	7.27	12.82	190.00	205.54	55.74	21.80	5.78	10.28	170.00	164.73
Mar-17	62.54	27.85	7.12	10.85	190.00	184.04	74.44	22.54	6.65	11.43	240.00	224.82
Min	51.53	20.23	6.46	10.85	180.00	149.88	55.74	21.33	4.94	9.69	170.00	164.73
Max	69.72	27.85	7.75	12.82	220.00	275.49	74.44	30.27	6.65	13.55	260.00	259.37
Avg	61.22	24.84	7.15	11.80	195.00	203.74	61.49	23.99	5.80	11.24	217.50	203.82

Location/ Month	Village Lampiya						Village Jaliya					
	PM10	PM 2.5	SO2	Nox	CO	SPM	PM10	PM 2.5	SO2	Nox	CO	SPM
	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-16	60.53	24.25	6.99	17.86	270.00	262.14	69.30	24.81	6.25	13.11	190.00	272.17
Sep-16	58.98	22.66	6.10	13.02	184.68	220.00	57.51	21.69	5.05	10.52	210.00	181.73
Dec-16	56.31	19.86	7.01	12.37	230.00	199.76	64.24	24.22	5.48	10.07	220.00	164.89
Mar-17	69.03	25.19	6.12	10.17	210.00	212.64	58.55	26.05	5.56	12.33	230.00	205.64
Min	56.31	19.86	6.10	10.17	184.68	199.76	57.51	21.69	5.05	10.07	190.00	164.89
Max	69.03	25.19	7.01	17.86	270.00	262.14	69.30	26.05	6.25	13.11	230.00	272.17
Avg	61.21	22.99	6.56	13.36	223.67	223.64	62.40	24.19	5.59	11.51	212.50	206.11

Location/ Month	Village Chimanpura						Village Baneda					
	PM10	PM 2.5	SO2	Nox	CO	SPM	PM10	PM 2.5	SO2	Nox	CO	SPM
	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-16	66.53	28.34	6.74	13.07	210.00	284.14	67.83	28.03	7.79	14.22	220.00	311.28
Sep-16	49.41	19.33	4.23	8.64	190.00	139.99	56.79	17.15	5.57	8.19	210.00	183.13
Dec-16	57.61	24.37	6.12	12.68	230.00	187.24	53.73	22.70	5.96	11.68	210.00	168.29
Mar-17	60.01	27.62	6.33	12.27	190.00	185.43	54.07	23.62	5.21	9.63	160.00	190.69
Min	49.41	19.33	4.23	8.64	190.00	139.99	53.73	17.15	5.21	8.19	160.00	168.29
Max	66.53	28.34	6.74	13.07	230.00	284.14	67.83	28.03	7.79	14.22	220.00	311.28
Avg	58.39	24.92	5.86	11.67	205.00	199.20	58.11	22.88	6.13	10.93	200.00	213.35

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

Summarized Fortnightly Ambient Air Quality Monitoring Result for the period of Apr 2016 to Mar 2017

Location/ Date of Monitoring	Lampiya Village						Location/ Date of Monitoring	Jaliya Village					
	PM10	PM 2.5	SO2	Nox	CO	SPM		PM10	PM 2.5	SO2	Nox	CO	SPM
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3		ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
14.04.2016	64.91	24.71	9.27	13.74	240	369.70	14.04.2016	80.49	37.03	9.49	15.80	220	346.05
30.04.2016	71.79	37.18	3.52	18.96	190	341.22	02.05.2016	75.94	48.42	3.71	16.40	220	339.52
15.05.2016	76.89	27.06	5.66	12.28	250	223.20	15.05.2016	78.46	27.20	7.09	12.94	290	243.59
25.05.2016	78.20	28.30	7.46	16.32	230	241.58	26.05.2016	68.95	28.12	6.15	13.56	220	247.58
07.06.2016	60.53	24.25	6.99	17.86	270	262.14	09.06.2016	69.30	24.81	6.25	13.11	190	272.17
29.06.2016	72.09	26.95	7.77	13.60	220	270.20	30.06.2016	58.54	27.15	7.15	14.14	210	262.70
09.07.2016	51.81	26.70	4.58	8.01	170	187.38	10.07.2016	53.17	21.55	4.22	10.59	210	192.75
30.07.2016	52.13	12.79	3.33	8.28	110	150.94	31.07.2016	51.44	17.63	4.68	10.81	120	106.34
08.08.2016	36.03	11.93	4.60	13.90	240	76.12	08.08.2016	32.40	14.99	4.40	17.21	350	94.10
30.08.2016	45.42	19.20	5.60	10.24	170	126.24	31.08.2016	41.27	15.70	6.59	10.04	110	148.67
16.09.2016	58.98	22.66	6.10	13.02	220	184.68	17.09.2016	57.51	21.69	5.05	10.52	210	181.73
29.09.2016	60.53	22.71	6.41	15.71	220	217.11	29.09.2016	54.86	22.60	7.63	11.22	130	175.66
07.10.2016	69.66	35.59	4.09	18.02	460	176.45	08.10.2016	81.77	26.03	6.03	18.24	390	172.65
25.10.2016	47.34	25.06	6.75	12.12	220	146.48	26.10.2016	57.64	24.59	4.24	13.15	190	191.53
11.11.2016	59.88	23.26	4.64	11.83	230	144.35	12.11.2016	55.07	21.83	5.28	11.64	120	187.60
29.11.2016	85.55	32.70	7.54	19.96	190	357.24	30.11.2016	78.19	31.78	6.85	18.13	240	192.51
06.12.2016	56.31	19.86	7.01	12.37	230	199.76	07.12.2016	64.24	24.22	5.48	10.07	220	164.89
28.12.2016	69.84	25.43	5.74	13.66	240	206.54	29.12.2016	63.73	25.20	7.93	15.20	200	258.37
03.01.2017	65.52	26.78	5.53	12.64	230	211.53	04.01.2017	66.56	24.92	6.12	14.41	190	206.98
28.01.2017	56.58	24.16	5.75	11.56	190	163.50	28.01.2017	61.53	26.05	6.18	11.99	210	181.81
03.02.2017	66.59	28.29	6.30	11.72	210	185.35	04.02.2017	64.38	25.78	6.19	12.58	230.00	169.60
24.02.2017	61.60	28.80	7.11	13.01	240	190.62	23.02.2017	68.36	27.13	4.68	11.03	190	238.43
09.03.2017	69.03	25.19	6.12	10.17	210	212.64	09.03.2017	58.56	26.05	5.56	12.33	230	205.64
29.03.2017	62.15	26.51	6.52	13.65	190	213.56	28.03.2017	58.91	24.53	5.87	12.52	190	216.35
Min	36.03	11.93	3.33	8.01	110.00	76.12	Min	32.40	14.99	3.71	10.04	110.00	94.10
Max	85.55	37.18	9.27	19.96	460.00	369.70	Max	81.77	48.42	9.49	18.24	390.00	346.05
Average	62.47	25.25	6.02	13.44	223.75	210.78	Average	62.55	25.63	5.95	13.23	211.67	208.22

Location/ Date of Monitoring	Devpura Village						Location/ Date of Monitoring	Kamalpura Village					
	PM10	PM 2.5	SO2	Nox	CO	SPM		PM10	PM 2.5	SO2	Nox	CO	SPM
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3		ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
14.04.2016	77.61	18.14	7.15	14.13	190	342.38	14.04.2016	71.19	44.47	7.14	9.14	230	302.51
02.05.2016	78.61	32.98	6.44	16.92	240	302.72	30.04.2016	81.30	36.12	6.59	18.99	210	402.20
15.05.2016	59.16	31.24	7.73	15.17	180	258.96	14.05.2016	76.17	26.89	4.47	16.31	230	346.84
25.05.2016	65.80	26.87	7.70	13.58	290	250.17	25.05.2016	71.28	25.63	6.35	11.26	180	247.52
09.06.2016	69.72	26.75	7.75	11.32	220	275.49	08.06.2016	58.11	30.27	5.81	13.55	260	259.37
30.06.2016	62.02	30.01	6.96	11.91	230	269.06	29.06.2016	64.08	21.67	8.15	12.40	180	210.30
10.07.2016	46.38	21.75	4.10	9.35	190	144.52	09.07.2016	51.55	25.50	4.75	8.24	180	163.90
31.07.2016	54.92	18.26	3.48	11.14	140	137.30	30.07.2016	36.70	23.66	5.60	10.45	120	117.97
09.08.2016	25.72	16.57	4.06	16.58	210	72.57	07.08.2016	33.88	21.62	5.36	10.47	210	57.39
31.08.2016	44.51	24.92	5.59	8.52	130	139.89	30.08.2016	42.32	17.77	6.13	8.99	150	149.82
16.09.2016	51.53	20.23	6.46	12.21	180	149.88	16.09.2016	57.68	21.33	4.94	9.69	200	166.36
29.09.2016	49.18	23.38	5.07	13.03	210	194.54	28.09.2016	52.01	25.25	6.77	12.86	190	149.32
08.10.2016	65.56	39.59	4.11	18.11	320	227.85	07.10.2016	85.68	41.03	5.38	18.41	300	339.10
26.10.2016	58.28	20.80	6.96	14.79	230	175.12	25.10.2016	48.84	24.26	5.52	12.37	140	141.08
12.11.2016	56.76	24.91	5.00	10.20	180	192.73	11.11.2016	55.72	23.47	6.30	10.12	190	177.43
30.11.2016	84.04	43.43	5.81	18.52	220	198.09	29.11.2016	76.12	35.29	5.61	17.18	230	206.38
06.11.2016	61.07	24.53	7.27	12.82	190	205.54	07.12.2016	55.74	21.80	5.78	10.28	170	164.73
29.12.2016	63.21	28.29	4.50	11.59	220	222.47	28.12.2016	71.01	29.09	6.93	13.21	210	231.38
04.01.2017	57.22	27.22	6.18	12.43	210	222.13	03.01.2017	63.40	23.96	5.06	9.26	190	212.14
28.01.2017	57.56	28.30	6.04	16.42	220	210.00	28.01.2017	52.02	23.66	5.42	12.99	180	210.92
04.02.2017	74.52	26.02	6.38	13.26	220	218.06	03.02.2017	60.94	25.94	6.92	11.99	230	202.85
23.02.2017	68.67	21.67	5.74	12.08	230	220.08	24.02.2017	63.87	22.99	6.28	10.78	210	169.08
10.03.2017	62.54	27.85	7.12	10.85	190	184.04	08.03.2017	74.44	22.54	6.65	11.43	240	224.82
28.03.2017	57.42	22.36	5.61	11.54	210	186.70	29.03.2016	60.26	23.42	6.30	10.64	160	185.74
Min	25.72	16.57	3.48	8.52	130.00	72.57	Min	33.88	17.77	4.47	8.24	120.00	57.39
Max	84.04	43.43	7.75	18.52	320.00	342.38	Max	85.68	44.47	8.15	18.99	300.00	402.20
Average	60.50	26.09	5.97	13.19	210.42	208.35	Average	61.01	26.57	6.01	12.13	199.58	209.96

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

Ground Water Quality Monitoring Results (Apr 2016 to Mar 2017)
Lamplya Iron Ore Mines, Jindal Saw Limited, Bhilwara

Sampling Location:		Jaliya Village				Kamalpura Village				Lamplya Village			
Sr. No.	Monitoring Period/ Parameters	Jun-16	Sep-16	Dec-16	Mar-17	Jun-16	Sep-16	Dec-16	Mar-17	Jun-16	Sep-16	Dec-16	Mar-17
1	Color, Hazen	Less than 5	Less than 5	Less than 5	Less than 5	Less than 5	Less than 5	Less than 5	Less than 5	Less than 5	Less than 5	Less than 5	Less than 5
2	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity, NTU	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
5	pH	7.66	7.37	7.16	7.38	8.02	7.27	7.49	7.47	7.26	7.3	7.17	6.86
6	Total Hardness, mg/l	420	204	316	288	288	380	360	392	368	272	448	440
7	Iron, mg/l	BDL	BDL	BDL	BDL	0.03	BDL	BDL	BDL	BDL	0.01	BDL	BDL
8	Chloride, mg/l	57.85	20.9	120.23	60.22	50.14	68.4	86.72	79.65	100.28	34.2	82.78	67.99
9	Total Dissolved Solids, mg/l	675	310	562	502	783	775	837	804	525	616	674	587
10	Calcium, mg/l	89.6	72	76.8	80	57.6	89.6	56	64	108.8	89.6	147.2	142.4
11	Copper	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
12	Magnesium, mg/l	47.63	5.83	30.13	21.38	34.99	37.91	53.46	56.38	23.33	11.66	19.44	20.41
13	Manganese, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
14	Sulphate, mg/l	103.02	83.42	88.75	78.33	75	120.12	32.41	127.42	61.8	140.18	71.55	87.32
15	Nitrate, mg/l	15.1	9.87	34.5	19.5	37.46	28.15	38.6	38.5	20.77	19.21	37.01	32
16	Fluoride, mg/l	0.58	0.14	0.68	0.84	1.09	0.74	1.03	1.44	0.61	0.81	0.31	0.36
17	Cadmium, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
18	Arsenic,	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
19	lead	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
20	Zinc, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.05	0.07	BDL	BDL
21	Total Alkalinity, mg/l	344	220	312	268	344	392	356	424	336	272	304	276
22	Aluminium, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
23	Boron, mg/l	0.45	0.34	0.45	0.2	0.8	0.28	0.36	0.23	0.25	0.4	0.44	0.25
24	E Coli, MPN/100 ml	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
25	Total coliform, MPN/100ml	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
26	Total Chromium, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
27	Selenium, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
28	Residual Free chlorine	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
29	Mercury, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
30	Phenolic Compound, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
31	Mineral Oil, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
32	Cyanide, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
33	Anionic surface ditergents, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
34	Polynuclear aromatic hydrocarbon, mg/	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
35	Calcium Hardness, mg/l	224	180	192	200	144	224	140	160	272	224	368	356
36	pesticides, mg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

Ground Water Quality Monitoring Results (Apr 2016 to Mar 2017)
Lamplya Iron Ore Mines, Jindal Saw Limited, Bhilwara

Sampling Location:		Devpura Village				Mahua Village				Banera Village			
Sr. No.	Monitoring Period/ Parameters	Jun-16	Sep-16	Dec-16	Mar-17	Jun-16	Sep-16	Dec-16	Mar-17	Jun-16	Sep-16	Dec-16	Mar-17
1	Color, Hazen	Less than 5	Less than 5	Less than 5	Less than 5	Less than 5	Less than 5	Less than 5	Less than 5	Less than 5	Less than 5	Less than 5	Less than 5
2	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity, NTU	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
5	pH	7.35	7.39	7.44	7.41	7.3	7.56	7.86	7.63	8.16	7.43	7.84	7.59
6	Total Hardness, mg/l	550	560	276	220	520	450	412	392	560	508	496	504
7	Iron, mg/l	BDL	0.04	BDL	BDL	0.02	0.02	BDL	BDL	0.02	BDL	BDL	BDL
8	Chloride, mg/l	255.52	169.11	31.54	25.25	131.14	165.31	100.52	91.31	250.7	38	35.48	31.08
9	Total Dissolved Solids, mg/l	1188	997	442	320	858	1189	812	792	1002	608	720	608
10	Calcium, mg/l	144	144	65.6	56	112	148	83.2	86.4	120	112	97.6	108.8
11	Copper	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
12	Magnesium, mg/l	46.17	48.6	27.22	19.44	58.32	19.44	49.57	42.77	63.8	55.4	61.24	56.38
13	Manganese, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
14	Sulphate, mg/l	195	150.42	18.97	43.9	94.01	215.63	77.58	87	72	89.04	82.76	68.12
15	Nitrate, mg/l	32.62	18.14	31.16	25.1	38.17	42.5	32.24	26.35	27.93	26.7	41.76	14.62
16	Fluoride, mg/l	0.58	0.74	0.4	0.38	0.66	0.87	1.42	1.41	0.66	0.32	0.21	0.33
17	Cadmium, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
18	Arsenic,	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
19	lead	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
20	Zinc, mg/l	0.26	0.17	BDL	BDL	BDL	0.15	BDL	BDL	0.03	0.13	BDL	BDL
21	Total Alkalinity, mg/l	364	324	268	216	272	392	458	416	360	392	444	404
22	Aluminium, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
23	Boron, mg/l	0.29	0.32	0.44	0.22	0.33	0.29	0.46	0.24	0.37	0.35	0.46	0.18
24	E Coli, MPN/100 ml	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
25	Total coliform, MPN/100ml	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
26	Total Chromium, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
27	Selenium, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
28	Residual Free chlorine	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
29	Mercury, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
30	Phenolic Compound, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
31	Mineral Oil, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
32	Cyanide, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	-	BDL	BDL	BDL	BDL
33	Anionic surface ditergents, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
34	Polynuclear aromatic hydrocarbon, mg/	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
35	Calcium Hardness, mg/l	360	360	164	140	280	370	208	216	300	280	244	272
36	pesticides, mg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

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

Surface Water Quality Monitoring Results (Apr 2016 to Mar 2017)

Lampiya Iron Ore Mines, Jindal Saw Limited, Bhilwara

Sampling Location:		Mandal Pond				Jaliya Canal			
Sr. No.	Monitoring Period/ Parameters	Jun-16	Sep-16	Dec-16	Mar-17	Jun-16	Sep-16	Dec-16	Mar-17
1	Color, Hazen	Dry	Less than 5	Less than 5	Less than 5	Dry	Less than 5	Less than 5	Less than 5
2	Odour		Agreeable	Agreeable	Agreeable		Agreeable	Agreeable	Agreeable
3	Taste		Agreeable	Agreeable	Agreeable		Agreeable	Agreeable	Agreeable
4	Turbidity, NTU		BDL	BDL	BDL		BDL	BDL	BDL
5	pH		7.76	7.36	7.96		7.24	7.88	7.76
6	Total Hardness, mg/l		76	232	132		56	92	132
7	Iron, mg/l		BDL	BDL	BDL		BDL	BDL	BDL
8	Chloride, mg/l		10.93	108.41	13.6		8.68	17.74	17.48
9	Total Dissolved Solids, mg/l		128	541	201		113	159	203
10	Calcium, mg/l		25.6	51.2	17.6		19.2	32	44.8
11	Copper		BDL	BDL	BDL		BDL	BDL	BDL
12	Magnesium, mg/l		2.92	25.27	21.38		1.21	2.92	4.86
13	Manganese, mg/l		BDL	BDL	BDL		BDL	BDL	BDL
14	Sulphate, mg/l		28.4	43.79	16.54		17.83	5.17	19.3
15	Nitrate, mg/l		4.02	31.8	18.52		8.19	BDL	10.3
16	Fluoride, mg/l		0.13	0.47	0.28		0.22	0.21	0.3
17	Cadmium, mg/l		BDL	BDL	BDL		BDL	BDL	BDL
18	Arsenic,		BDL	BDL	BDL		BDL	BDL	BDL
19	lead		BDL	BDL	BDL		BDL	BDL	BDL
20	Zinc, mg/l		0.03	BDL	BDL		0.02	BDL	BDL
21	Total Alkalinity, mg/l		64	200	108		68	102	172
22	Aluminium, mg/l		BDL	BDL	BDL		BDL	BDL	BDL
23	Boron, mg/l		0.45	0.39	0.24		0.28	0.48	0.2
24	E Coli, MPN/100 ml		Not Detected	Not Detected	Not Detected		Not Detected	Not Detected	Not Detected
25	Total coliform, MPN/100ml		Not Detected	Not Detected	Not Detected		Not Detected	Not Detected	Not Detected
26	Total Chromium, mg/l		BDL	BDL	BDL		BDL	BDL	BDL
27	Selenium, mg/l		BDL	BDL	BDL		BDL	BDL	BDL
28	Residual Free chlorine		BDL	BDL	BDL		BDL	BDL	BDL
29	Mercury, mg/l		BDL	BDL	BDL		BDL	BDL	BDL
30	Phenolic Compound, mg/l		BDL	BDL	BDL		BDL	BDL	BDL
31	Mineral Oil, mg/l		BDL	BDL	BDL		BDL	BDL	BDL
32	Cyanide, mg/l		BDL	BDL	BDL		BDL	BDL	BDL
33	Anionic surface ditergents, mg/l		BDL	BDL	BDL		BDL	BDL	BDL
34	Polynuclear aromatic hydrocarbon, mg/l		BDL	BDL	BDL		BDL	BDL	BDL
35	Calcium Hardness, mg/l		64	128	44		48	80	112
36	pesticides, mg/l		Not Detected	Not Detected	Not Detected		Not Detected	Not Detected	Not Detected

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

Annexure-IV

AMBIENT NOISE LEVEL MEASUREMENT Report (APR 2016 TO MAR 2017)
LAMPIYA IRON ORE MINES, JINDAL SAW LIMITED, BHILWARA

Sr. No.	Location of Sampling/ Month/	Lampiya		Jaliya	
		Results in dB(A) (Day Time)	Results in dB(A) (Night Time)	Results in dB(A) (Day Time)	Results in dB(A) (Night Time)
1	Jun-16	51.2	42.3	48.6	40.2
2	Sep-16	53.4	42.5	50.2	41.7
3	Dec-16	52.4	41.8	49.5	38.6
4	Mar-17	53	42.2	48.3	38.5
Min		51.2	41.8	48.3	38.5
Max		53.4	42.5	50.2	41.7
Avg.		52.50	42.20	49.15	39.75

Sr. No.	Location of Sampling/ Month/	Banera		Chimanpura	
		Results in dB(A) (Day Time)	Results in dB(A) (Night Time)	Results in dB(A) (Day Time)	Results in dB(A) (Night Time)
1	Jun-16	49	39.2	51.4	41.5
2	Sep-16	52.7	41.2	48.6	38.5
3	Dec-16	51.2	40.6	49.3	38.4
4	Mar-17	52.3	41.5	50.4	39.4
Min		49	39.2	48.6	38.4
Max		52.7	41.5	51.4	41.5
Avg.		51.30	40.63	49.93	39.45

Sr. No.	Location of Sampling/ Month/	Devpura		Kamalpura	
		Results in dB(A) (Day Time)	Results in dB(A) (Night Time)	Results in dB(A) (Day Time)	Results in dB(A) (Night Time)
1	Jun-16	50.3	39.4	48.5	40.5
2	Sep-16	52.3	40.6	51	39.4
3	Dec-16	48.3	37.5	50.7	39.4
4	Mar-17	48.5	37.9	51.4	38.6
Min		48.3	37.5	48.5	38.6
Max		52.3	40.6	51.4	40.5
Avg.		49.85	38.85	50.40	39.48

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