



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royalservice@live.com ■ admin@royalconsultancy.com

Ref. No. : 102/05/2017-18

Date : 03/06/2017

### NATIONAL AMBIENT AIR QUALITY MONITORING REPORT FOR THE MONTH - MAY : 2017

Name of company : JINDAL SAW LIMITED

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_2/6/10/23

Sr. No.	Particulars	Unit	Location No.1 : Weigh Bridge (Nr.Gate No-2) (E)								
			01		02		03		04		05
01.	No. of Week	----	01		02		03		04		05
02.	Date & Time Starting of Monitoring	----	01/05/17 09.00	04/05/17 09.15	09/05/17 09.00	11/05/17 08.40	15/05/17 09.05	18/05/17 08.55	22/05/17 09.00	25/05/17 08.30	29/05/2017; 08.45
03	Date & Time Ending of Monitoring	----	02/05/17 09.00	05/05/17 09.15	09/05/17 09.00	12/05/17 08.40	16/05/17 09.05	19/05/17 08.55	23/05/17 09.00	26/05/17 08.30	30/05/2017; 08.45
04	Duration of Sampling	Min.	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	NW	W	W	NW	NW	WSW	NW	W	W
06.	Average Wind Speed	Km/Hr.	2.8	3.5	4.2	5.8	4.3	6.8	5.4	9.3	6.7
07.	Average flow rate for Dust Monitoring PM <sub>10</sub>	m <sup>3</sup> /min.	1.08	1.14	1.16	1.16	1.12	1.00	1.08	1.06	1.10
08.	Average flow rate for Dust Monitoring PM <sub>2.5</sub>	m <sup>3</sup> /hr.	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
09	Average flow rate for Gas Monitoring	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible limits for PM <sub>10</sub> *	µg/m <sup>3</sup>	100	100	100	100	100	100	100	100	100
11.	Measured Concentration of PM <sub>10</sub>	µg/m <sup>3</sup>	55	52	48	50	49	54	60	58	53
12.	Permissible limits for PM <sub>2.5</sub> *	µg/m <sup>3</sup>	60	60	60	60	60	60	60	60	60
13.	Measured Concentration of PM <sub>2.5</sub>	µg/m <sup>3</sup>	28	30	24	27	26	35	40	37	34
14.	Permissible limits for SO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80	80
15.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	8.5	7.3	8.5	7.5	9.2	9.0	8.8	9.7	10.5
16.	Permissible limits for NO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80	80
17.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	15.5	16.7	16.9	19.4	15.5	16.7	15.4	17.2	18.3
18.	Permissible limit for CO **	µg/m <sup>3</sup>	2000	2000	2000	2000	2000	2000	2000	2000	2000
19.	Measured Concentration of CO	µg/m <sup>3</sup>	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.

Instrument used : (1) 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. of Gaseous Sampler (AAS 109) (3) 3 Nos. PM 2.5 Sampler (AAS 127)

All Calibration due on : 05/05/2018

\*Permissible Limits are as per NAAQ Standard 16th November 2009.

Royal Environment Auditing & Consultancy Service



*Mited*  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royalservice@live.com ■ admin@royalconsultancy.com

Ref. No. : 103/05/2017-18

Date 03/06/2017

### NATIONAL AMBIENT AIR QUALITY MONITORING REPORT FOR THE MONTH - MAY : 2017

Name of company : JINDAL SAW LIMITED

Village: Samaghogha,

Tal : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_2/6/10/23

Sr. No.	Particulars	Unit	Location No.2 : Sinter plant - 1 (NNW)								
			01		02		03		04		05
01.	No. of Week	----									
02.	Date & Time Starting of Monitoring	----	01/05/17 09.10	04/05/17 09.20	08/05/17 09.10	11/05/17 08.45	15/05/17 09.15	18/05/17 09.00	22/05/17 09.10	25/05/17 08.40	29/05/2017; 08.55
03.	Date & Time Ending of Monitoring	----	02/05/17 09.10	05/05/17 09.20	09/05/17 09.10	12/05/17 08.45	16/05/17 09.15	19/05/17 09.00	23/05/17 09.10	26/05/17 08.40	30/05/2017; 08.55
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	NW	W	W	NW	NW	WSW	NW	W	W
06.	Average Wind Speed	Km/Hr.	2.8	3.5	4.2	5.8	4.3	6.6	5.4	9.3	6.7
07.	Average flow rate for Dust Monitoring PM <sub>10</sub>	m <sup>3</sup> /min.	1.16	1.12	1.14	1.09	1.11	1.13	1.15	1.16	1.16
08.	Average flow rate for Dust Monitoring PM <sub>2.5</sub>	m <sup>3</sup> /hr.	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
09.	Average flow rate for Gas Monitoring	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible limits for PM <sub>10</sub> *	µg/m <sup>3</sup>	100	100	100	100	100	100	100	100	100
11.	Measured Concentration of PM <sub>10</sub>	µg/m <sup>3</sup>	55	45	52	48	53	51	55	48	38
12.	Permissible limits for PM <sub>2.5</sub> *	µg/m <sup>3</sup>	60	60	60	60	60	60	60	60	60
13.	Measured Concentration of PM <sub>2.5</sub>	µg/m <sup>3</sup>	37	22	20	25	28	26	30	26	21
14.	Permissible limits for SO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80	80
15.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	8.1	7.5	7.3	6.4	7.5	8.4	6.8	7.5	6.6
16.	Permissible limits for NO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80	80
17.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	17.2	18.2	18.3	17.4	18.5	17.5	18.2	17.4	16.4
18.	Permissible limit for CO **	µg/m <sup>3</sup>	2000	2000	2000	2000	2000	2000	2000	2000	2000
19.	Measured Concentration of CO	µg/m <sup>3</sup>	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.

Instrument used : (1) 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. of Gaseous Sampler (AAS 109) (3) 3 Nos. PM 2.5 Sampler (AAS 127)

All Calibration due on : 05/05/2018

\*Permissible Limits are as per NAAQ Standard 16th November 2009.

Royal Environment Auditing & Consultancy Service



*Hitesh*  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royalservice@live.com ■ admin@royalconsultancy.com

Ref. No. : 104/05/2017-18

Date : 03/06/2017

### NATIONAL AMBIENT AIR QUALITY MONITORING REPORT FOR THE MONTH - MAY : 2017

Name of company : JINDAL SAW LIMITED  
 Village: Samaghogha,  
 Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_2/6/10/23

Sr. No.	Particulars	Unit	Location No.3 : Nr. Work Shop Spiral-II (W)											
			01	02	03	04	05	06	07	08	09			
01.	No. of Week	---												
02.	Date & Time Starting of Monitoring	---	01/05/17 09.20	04/05/17 09.30	08/05/17 09.20	11/05/17 08.55	15/05/17 09.25	18/05/17 09.10	22/05/17 09.20	25/05/17 08.50	29/05/2017 09.00			
03.	Date & Time Ending of Monitoring	---	02/05/17 09.20	05/05/17 09.30	09/05/17 09.20	12/05/17 08.55	16/05/17 09.25	19/05/17 09.10	23/05/17 09.20	26/05/17 08.50	30/05/2017 09.00			
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00			
05.	Dominant Wind Direction (From)	---	NW	W	W	NW	NW	WSW	NW	W	W			
06.	Average Wind Speed	Km/Hr.	2.8	3.5	4.2	5.8	4.3	6.8	5.4	9.3	6.7			
07.	Average flow rate for Dust Monitoring PM <sub>10</sub>	m <sup>3</sup> /min.	1.13	1.15	1.16	1.13	1.08	1.14	1.19	1.05	1.18			
08.	Average flow rate for Dust Monitoring PM <sub>2.5</sub>	m <sup>3</sup> /hr.	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0			
09.	Average flow rate for Gas Monitoring	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2			
10.	Permissible limits for PM <sub>10</sub> *	µg/m <sup>3</sup>	100	100	100	100	100	100	100	100	100			
11.	Measured Concentration of PM <sub>10</sub>	µg/m <sup>3</sup>	52	50	55	44	42	51	48	60	48			
12.	Permissible limits for PM <sub>2.5</sub> *	µg/m <sup>3</sup>	60	60	60	60	60	60	60	60	60			
13.	Measured Concentration of PM <sub>2.5</sub>	µg/m <sup>3</sup>	32	35	30	27	34	36	28	22	26			
14.	Permissible limits for SO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80	80			
15.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	6.2	5.4	5.8	6.2	7.5	6.8	5.5	7.7	6.4			
16.	Permissible limits for NO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80	80			
17.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	17.4	16.5	18.3	17.2	18.4	16.7	18.8	17.3	17.5			
18.	Permissible limit for CO **	µg/m <sup>3</sup>	2000	2000	2000	2000	2000	2000	2000	2000	2000			
19.	Measured Concentration of CO	µg/m <sup>3</sup>	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.			

Instrument used : (1) 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. of Gaseous Sampler (AAS 109) (3) 3 Nos. PM 2.5 Sampler (AAS 127)

All Calibration due on : 05/05/2018

\*Permissible Limits are as per NAAQ Standard 16th November 2009.

Royal Environment Auditing & Consultancy Service



Mitesh  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 105/05/2017-18

Date : 03/06/2017

### NATIONAL AMBIENT AIR QUALITY MONITORING REPORT FOR THE MONTH - MAY : 2017

Name of company : JINDAL SAW LIMITED  
 Village: Samaghogha,  
 Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5102\_2/6/10/23

Sr. No.	Particulars	Unit	Location No.4 : MAIN GATE (E)								
			01		02		03		04		05
01.	No. of Week	---									
02.	Date & Time Starting of Monitoring	---	01/05/17 09.30	04/05/17 09.40	08/05/17 09.30	11/05/17 09.10	15/05/17 09.40	18/05/17 09.20	22/05/17 09.30	25/05/17 09.00	29/05/2017; 09.15
03.	Date & Time Ending of Monitoring	---	02/05/17 09.30	05/05/17 09.40	09/05/17 09.30	12/05/17 09.10	16/05/17 09.40	19/05/17 09.20	23/05/17 09.30	26/05/17 09.00	30/05/2017; 09.15
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	---	NW	W	W	NW	NW	WSW	NW	W	W
06.	Average Wind Speed	Km/Hr.	2.6	3.5	4.2	5.8	4.3	6.8	5.4	9.3	6.7
07.	Average flow rate for Dust Monitoring PM <sub>10</sub>	m <sup>3</sup> /min.	1.14	1.12	1.05	1.16	1.18	1.15	1.11	1.08	1.16
08.	Average flow rate for Dust Monitoring PM <sub>2.5</sub>	m <sup>3</sup> /hr.	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
09.	Average flow rate for Gas Monitoring	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible limits for PM <sub>10</sub> *	µg/m <sup>3</sup>	100	100	100	100	100	100	100	100	100
11.	Measured Concentration of PM <sub>10</sub>	µg/m <sup>3</sup>	54	50	52	51	48	58	55	51	44
12.	Permissible limits for PM <sub>2.5</sub> *	µg/m <sup>3</sup>	60	60	60	60	60	60	60	60	60
13.	Measured Concentration of PM <sub>2.5</sub>	µg/m <sup>3</sup>	25	26	30	22	25	38	35	32	27
14.	Permissible limits for SO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80	80
15.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	8.2	7.7	7.8	8.4	7.3	6.4	7.7	8.4	6.2
16.	Permissible limits for NO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80	80
17.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	15.4	14.3	15.5	13.7	12.5	13.7	14.3	15.5	17.3
18.	Permissible limit for CO **	µg/m <sup>3</sup>	2000	2000	2000	2000	2000	2000	2000	2000	2000
19.	Measured Concentration of CO	µg/m <sup>3</sup>	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.

Instrument used : (1) 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. of Gaseous Sampler (AAS 109) (3) 3 Nos. PM 2.5 Sampler (AAS 127)

All Calibration due on : 05/05/2018

\*Permissible Limits are as per NAAQ Standard 16th November 2009.

Royal Environment Auditing & Consultancy Service



Ritesh  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. :106/05/2017-18

Date : 03/06/2017

### FUGITIVE EMISSION MONITORING REPORT

Name of company : JINDAL SAW LIMITED  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_Part - 2/6/10/23/22

Sr. No.	Particulars	Unit	A - 1	A - 2	A - 3
01.	Location of Ambient	---	BF-1 RMH Stock House	BF-2 RMH Stock House	Sinter RMH Yard
02.	Date of sampling	---	10/05/2017	10/05/2017	13/05/2017
03.	Time of sampling	---	9.15	9.10	9.20
04.	Duration of Sampling	Hr.	8.00	8.00	8.00
05.	Dominant Wind Direction (From)	---	W	WSW	WSW
06.	Average Wind Speed	Km/Hr.	6.5	6.5	5.5
07.	Average flow rate during sampling	m3/Hr.	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2
09.	<b>Permissible limits for PM 10*</b>	<b>µg/m3</b>	<b>3000</b>	<b>3000</b>	<b>3000</b>
10.	Measured Concentration of PM 10	µg/m3	1232	1456	1320
11.	<b>Permissible limits for SO2*</b>	<b>µg/m3</b>	<b>150</b>	<b>150</b>	<b>150</b>
12.	Measured Concentration of SO2	µg/m3	12.5	13.7	15.5
13.	<b>Permissible limits for NO2*</b>	<b>µg/m3</b>	<b>120</b>	<b>120</b>	<b>120</b>
14.	Measured Concentration of NO2	µg/m3	20.5	19.7	18.5
15.	<b>Permissible limit for CO **</b>	<b>µg/m3</b>	<b>2000</b>	<b>2000</b>	<b>2000</b>
16.	Measured Concentration of CO	µg/m3	BDL	BDL	BDL
17.	<b>Permissible limit for Pb*</b>	<b>µg/m3</b>	<b>2</b>	<b>2</b>	<b>2</b>
18.	Measured Concentration of Pb	µg/m3	ND	ND	ND

Instrument used : (1) 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. Gaseous Sampler (APM 109)  
All Calibration due on : 05/05/2018

BDL= Below Detectable Limit  
ND= Not Detectable

Royal Environment Auditing & Consultancy Service



*Ritesh*  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. :107/05/2017-18

Date : 03/06/2017

### FUGITIVE EMISSION MONITORING REPORT

Name of company : JINDAL SAW LIMITED  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_Part - 2/6/10/23/22

Sr. No.	Particulars	Unit	A - 4	A - 5	A - 6
01.	Location of Ambient	----	Sinter 2 Ground Hopper	DISP "CCM" Area	BF CAST HOUSE
02.	Date of sampling	----	13/05/2017	17/05/2017	17/05/2017
03.	Time of sampling	----	8.15	8.30	9.30
04.	Duration of Sampling	Hr.	8.00	8.00	8.00
05.	Dominant Wind Direction (From)	----	NW	WSW	WNW
06.	Average Wind Speed	Km/Hr.	5.5	4.2	4.2
07.	Average flow rate during sampling	m3/Hr.	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2
09.	<b>Permissible limits for PM 10*</b>	<b>µg/m3</b>	<b>3000</b>	<b>3000</b>	<b>3000</b>
10.	Measured Concentration of PM 10	µg/m3	1125	911	1388
11.	<b>Permissible limits for SO2*</b>	<b>µg/m3</b>	<b>150</b>	<b>150</b>	<b>150</b>
12.	Measured Concentration of SO2	µg/m3	13.3	12.5	15.5
13.	<b>Permissible limits for NO2*</b>	<b>µg/m3</b>	<b>120</b>	<b>120</b>	<b>120</b>
14.	Measured Concentration of NO2	µg/m3	22.4	18.2	23.3
15.	<b>Permissible limit for CO **</b>	<b>µg/m3</b>	<b>2000</b>	<b>2000</b>	<b>2000</b>
16.	Measured Concentration of CO	µg/m3	BDL	BDL	BDL
17.	<b>Permissible limit for Pb*</b>	<b>µg/m3</b>	<b>2</b>	<b>2</b>	<b>2</b>
18.	Measured Concentration of Pb	µg/m3	ND	ND	ND

Instrument used : (1) 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. Gaseous Sampler (APM 109)  
All Calibration due on : 05/05/2018

BDL= Below Detectable Limit  
ND= Not Detectable

Royal Environment Auditing & Consultancy Service



Ritesh  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 109/05/17-18

Date : 03/06/2017

### Performance Evaluation of Air Pollution Control Equipments

#### Sinter Plant-2 (GPCB ID:29017)

Name of company : JINDAL SAW LIMITED,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/3

Sr. No.	Particulars	Unit	S - 3	S - 7	S - 9
01	Date of Sampling	---	15/05/2017	15/05/2017	21/05/2017
02	Attached to	---	Fuel screening deduster system (Flux screening)	Sinter Furnace	Fuel Screening deduster System (Flux Screening)
03	Stack Height	Meter	30	50	50
04	Stack Diameter	Meter	0.7	2.0	0.7
05	Stack Temperature	°C	48	146	44
06	Ambient Temperature	°C	39	36	39
07	Average Velocity of Flue Gases	m/sec.	8.5	19.4	21.3
08	IsoKinetic Flowrate for Sampling	LPM	15	26	10
09	Inlet	mg/Nm <sup>3</sup>	1930	2355	726
10	Outlet	mg/Nm <sup>3</sup>	25	48	25
11	Efficiency	%	98.70	97.96	96.56

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on 12/09/2017

Royal Environment Auditing & Consultancy Service



Ritesh  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 110/05/17-18

Date : 03/06/2017

### Performance Evaluation of Air Pollution Control Equipments Pipe Plant (GPCB ID:18036)

Name of company : JINDAL SAW LIMITED,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/3

Sr. No.	Particulars	Unit	S - 12
01	Date of Sampling	---	20/05/2017
02	Attached to	---	Core Cleaning & Dusting - I
03	Stack Height	Meter	30
04	Stack Diameter	Meter	0.6
05	Stack Temperature	°C	42
06	Ambient Temperature	°C	38
07	Average Velocity of Flue Gases	m/sec.	6.5
08	IsoKinetic Flowrate for Sampling	LPM	11
09	Inlet	mg/Nm <sup>3</sup>	1532
10	Outlet	mg/Nm <sup>3</sup>	24
11	Efficiency	%	98.43

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on 12/09/2017

Royal Environment Auditing & Consultancy Service



Ritesh  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 111/05/17-18

Date : 03/06/2017

### Performance Evaluation of Air Pollution Control Equipments Pipe Plant (GPCB ID:18036)

Name of company : JINDAL SAW LIMITED,

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/3

Sr. No.	Particulars	Unit	S - 9	S - 15	S - 20	S - 21	S - 23
01	Date of Sampling	---	20/05/2017	13/05/2017	13/05/2017	19/05/2017	19/05/2017
02	Attached to	---	Zinc Coating - I	Zinc Coating - II	Zinc Coating - III	Zinc Coating - IV	Zinc Coating - V
03	Stack Height	Meter	30	30	30	30	30
04	Stack Duct Diameter	Meter	0.6	0.6	0.6	0.5	0.9
05	Stack Temperature	°C	47	44	42	48	46
06	Ambient Temperature	°C	35	36	37	38	39
07	Average Velocity of Flue Gases	m/sec.	11.2	10.5	12.3	11.7	11.2
08	IsoKinetic Flowrate for Sampling	LPM	20	18	22	20	20
09	Inlet	mg/Nm <sup>3</sup>	1435	1085	1132	1184	1155
10	Outlet	mg/Nm <sup>3</sup>	7	5	6	6	6
11	Efficiency	%	99.51	99.22	99.49	99.49	99.27

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on 12/09/2017

Royal Environment Auditing & Consultancy Service



Hitesh  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 112/05/17-18

Date : 03/06/2017

### Performance Evaluation of Air Pollution Control Equipments

#### Pipe Plant (SDP-2) (GPCB ID:18036)

Name of company : JINDAL SAW LIMITED,

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/3

Sr. No.	Particulars	Unit	S-8	S-8
01	Date of Sampling	---	11/05/2017	11/05/2017
02	Attached to	---	Mg Converter - 1	Mg Converter - 2
03	Stack Height	Meter	30	30
04	Stack Duct Diameter	Meter	0.5	0.5
05	Stack Temperature	°C	44	43
06	Ambient Temperature	°C	37	37
07	Average Velocity of Flue Gases	m/sec.	10.8	11.5
08	IsoKinetic Flowrate for Sampling	LPM	20	21
09	Inlet	mg/Nm <sup>3</sup>	1585	1680
10	Outlet	mg/Nm <sup>3</sup>	8	8
11	Efficiency	%	99.50	99.52

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on 12/09/2017

Royal Environment Auditing & Consultancy Service



Hitesh  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royalservice@live.com ■ admin@royalconsultancy.com

Ref. No. : 113/05/17-18

Date : 03/06/2017.

### STACK EMISSION MONITORING RESULTS

#### Sinter Plant - 1(GPCB ID:35456)

Name of company : JINDAL SAW LIMITED,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/2/3/7

Sr. No.	Particulars	Unit	S - 1	S - 3	S - 6
01	Date of Sampling	---	18/05/2017	18/05/2017	18/05/2017
02	Time of sampling	---	10.30	11.30	12.30
03	Stack Attached to	---	Fuel & Flux Crusher and Screening building	Sinter Furnace	Discharge End
04	Air Pollution Control Measures	---	Bag Filter	ESP	ESP
05	Stack Height	Meter	32.0	50	32
06	Stack Diameter	Meter	1.40	2.0	1.30
07	Stack Temperature	°C	48	143	133
08	Ambient Temperature	°C	36	38	39
09	Average Velocity of Flue Gases	m/sec.	6.5	5.4	10.5
10	Isokinetic flow rate for P.M. Sampling	LPM	19	18	20
11	Gaseous Sampling Flow Rate	LPM	NA	2.0	NA
12	Permissible limits for PM	mg/Nm <sup>3</sup>	150	150	150
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	13	35	18
14	Permissible limits for SO <sub>2</sub>	ppm	NA	100	NA
15	Measured Concentration of SO <sub>2</sub>	ppm	...	ND	....
16	Permissible limits for NO <sub>x</sub>	ppm	NA	50	NA
17	Measured Concentration of NO <sub>x</sub>	ppm	....	12.8	....

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on : 12/09/2017

NA= Not Applicable

ND=Not Detectable

Royal Environment Auditing & Consultancy Service



*R. K. Shah*  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bai Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royalservice@live.com ■ admin@royalconsultancy.com

Ref. No. : 114/05/17-18

Date : 03/06/2017

### STACK EMISSION MONITORING RESULTS

#### Sinter Plant -2 (GPCB ID:29017)

Name of company : JINDAL SAW LIMITED,

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/2/3/7

Sr. No.	Particulars	Unit	S - 1	S - 3	S - 6	S - 7	S - 9
01	Date of Sampling	---	16-05-2017	15-05-2017	22-05-2017	15-05-2017	16-05-2017
02	Time of sampling	Hr.	11.30	11.30	14.00	10.30	12.30
03	Stack Attached to	---	Fuel crushing de-duster system (Flux)	Fuel Screening deduster System (Flux Screening)	Secondary Mixer De-duster system	Sinter Furnace	Discharging End of sinter de-dusting system
04	Air Pollution Control Measures	---	Dust Collector	Dust Collector	Dust Collector	ESP	ESP
05	Stack Height	Meter	30	30	30	50	50
06	Stack Diameter	Meter	0.7	0.7	---	2	1.3
07	Stack Temperature	°C	45	45	54	135	115
08	Ambient Temperature	°C	37	39	38	36	39
09	Average Velocity of Flue Gases	m/sec.	8.20	7.65	3.84	11.2	16.5
10	Isokinetic flow rate for P.M. Sampling	LPM	17	16	11	21	15
11	Gaseous Sampling Flow Rate	LPM	NA	NA	NA	2.0	NA
12	Permissible limits for PM	mg/Nm <sup>3</sup>	150	150	150	150	150
13	Measured Concentration of PM	mg/Nm <sup>3</sup>	18	25	20	48	25
14	Permissible limits for SO <sub>2</sub>	ppm	NA	NA	NA	100	NA
15	Measured Concentration of SO <sub>2</sub>	ppm	---	---	---	2.5	---
16	Permissible limits for NO <sub>x</sub>	ppm	NA	NA	NA	50	NA
17	Measured Concentration of NO <sub>x</sub>	ppm	---	---	---	21.6	---

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on : 12/09/2017

NA= Not Applicable

ND= Not Detectable

Royal Environment Auditing & Consultancy Service



Hitesh  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royalservice@live.com ■ admin@royalconsultancy.com

Ref. No. : 115/05/17-18

Date : 03/06/2017

### STACK EMISSION MONITORING RESULTS BLAST FURNACE - 2 (GPCB ID:29026)

Name of company : JINDAL SAW LIMITED,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/2/3/7

Sr. No.	Particulars	Unit	S - 1	S - 4	S - 5
01	Date of Sampling	---	09/05/2017	09/05/2017	09/05/2017
02	Time of sampling	Hr.	10.00	11.00	12.00
03	Stack Attached to	---	Dedusting System	Coke fine building dust collecting system	Iron Ore fine & Dust Collecting System
04	Air Pollution Control Measures	---	Bag Filter	Bag Filter	Bag Filter
05	Stack Height	Meter	40.0	30.0	30.0
06	Stack Diameter	Meter	1.5	0.45	0.35
07	Stack Temperature	°C	47	52	48
08	Ambient Temperature	°C	34	37	39
09	Average Velocity of Flue Gases	m/sec.	20.1	9.1	8.5
10	Isokinetic flow rate for P.M. Sampling	LPM	9	16	15
11	Gaseous Sampling Flow Rate	LPM	NA	NA	NA
12	Permissible limits for PM	mg/Nm <sup>3</sup>	150	150	150
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	6	11	13
14	Permissible limits for SO <sub>2</sub>	mg/Nm <sup>3</sup>	NA	NA	NA
15	Measured Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	---	---	---
16	Permissible limits for NO <sub>x</sub>	mg/Nm <sup>3</sup>	NA	NA	NA
17	Measured Concentration of NO <sub>x</sub>	mg/Nm <sup>3</sup>	---	---	---

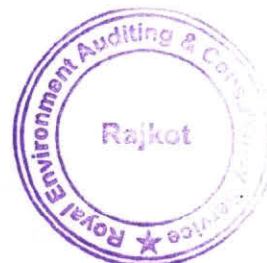
Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.

NA=Not Applicable

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on : 12/09/2017

Royal Environment Auditing & Consultancy Service



*Hitesh*  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royalservice@live.com ■ admin@royalconsultancy.com

Ref. No. : 116/05/17-18

Date : 03/06/2017

### STACK EMISSION MONITORING RESULTS BLAST FURNACE-1 (GPCB ID:18037)

Name of company : JINDAL SAW LIMITED,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/2/3/7

Sr. No.	Particulars	Unit	S - 1	S - 2	S - 3
01	Date of Sampling	---	10/05/2017	10/05/2017	10/05/2017
02	Time of sampling	Hr.	10.00	11.15	12.15
03	Stack Attached to	---	Dedusting System	Boiler - I	Boiler - II
04	Air Pollution Control Measures	---	Bag Filter	---	---
05	Stack Height	Meter	35.0	45	45
06	Stack Diameter	Meter	1.5	1.4	1.4
07	Stack Temperature	°C	46	135	126
08	Ambient Temperature	°C	35	37	39
09	Average Velocity of Flue Gases	m/sec.	10.1	5.2	4.8
10	Isokinetic flow rate for P.M. Sampling	LPM	18	16	15
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0	2.0
12	Permissible limits for PM	mg/Nm <sup>3</sup>	150	50	50
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	ND	ND	ND
14	Permissible limits for SO <sub>2</sub>	ppm	100	250	250
15	Measured Concentration of SO <sub>2</sub>	ppm	ND	ND	ND
16	Permissible limits for NO <sub>x</sub>	ppm	50	150	150
17	Measured Concentration of NO <sub>x</sub>	ppm	ND	12.5	15.3
18	Permissible limits for CO vol/vol	%	N.A.	1 % Max.	1 % Max.
19	Measured Concentration of CO vol/vol	%	N.A.	0.3	0.5

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.  
Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100  
Calibration due on : 12/09/2017

N.D=Not Detectable  
N.A.=Not Applicable



*H. K. Shah*  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 117/05/2017-18

Date : 03/06/2017

### STACK EMISSION MONITORING RESULTS

#### Pipe Plant (GPCB ID:18036)

Name of company : JINDAL SAW LIMITED,

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	S - 8	S - 9	S - 15	S - 20	S - 22	S - 23
01	Date of Sampling	---	11/05/2017	20/05/2017	13/05/2017	13/05/2017	11/05/2017	19/05/2017
02	Time of sampling	Hr.	11.30	10.30	10.15	11.15	12.30	12.30
03	Stack Attached to	---	Common stack Mg Converter- I&II	Zn Coating - I	Zn Coating - II	Zn Coating - III	Mg Converter-III	Zn Coating - IV & V
04	Air Pollution Control Measures	---	Bag Filter	Cyclone Separator & Bag Filter	Cyclone Separator & Bag Filter	Cyclone Separator & Bag Filter	Bag Filter	Cyclone Separator & Bag Filter
05	Stack Height	Meter	30	30	30	30	30	30
06	Stack Diameter	Meter	0.5	0.6	0.6	0.6	0.5	0.9
07	Stack Temperature	°C	42	44	42	40	48	44
08	Ambient Temperature	°C	37	35	36	37	38	39
09	Average Velocity of Flue Gases	m/sec.	10.5	10.5	10.1	11.1	10.8	10.6
10	Isokinetic flow rate for P.M. Sampling	LPM	19	18	18	20	20	20
11	Gaseous Sampling Flow Rate	LPM	2.0	---	---	---	2.0	2.0
12	Permissible limits for PM	mg/Nm <sup>3</sup>	150	20 (Zn)	20 (Zn)	20 (Zn)	150	20 (Zn)
13	Measured Concentration of PM	mg/Nm <sup>3</sup>	8	7 (Zn)	5 (Zn)	6 (Zn)	10	6 (Zn)
14	Permissible limits for SO <sub>2</sub>	mg/Nm <sup>3</sup>	40	NA	NA	NA	40	NA
15	Measured Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	ND	---	---	---	ND	---
16	Permissible limits for Nox	mg/Nm <sup>3</sup>	25	NA	NA	NA	25	NA
17	Measured Concentration of Nox	mg/Nm <sup>3</sup>	4.4	---	---	---	3.4	---

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on : 12/09/2017

NA=Not Applicable

ND=Not Detectable

Royal Environment Auditing & Consultancy Service



Hitesh  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2960695 ■ E-mail : royalservice@live.com ■ admin@royalconsultancy.com

Ref. No. : 118/05/2017-18

Date : 03/06/2017

### STACK EMISSION MONITORING RESULTS

#### Pipe Plant (GPCB ID:18036)

Name of company : JINDAL SAW LIMITED,

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	S - 1	S - 2	S - 3	S - 4	S - 12
01	Date of Sampling	---	17/05/2017	17/05/2017	17/05/2017	17/05/2017	17/05/2017
02	Time of sampling	Hr.	10.00	12.00	14.00	15.00	11.00
03	Stack Attached to	---	Core Shop-I	Core Shop-II	Core Shop-III	Core Shop-IV	Core Cleaning & Dusting-I
04	Air Pollution Control Measures	---	---	---	---	---	Bag Filter
05	Stack Height	Meter	30	30	30	30	30
06	Stack Diameter	Meter	0.584	0.58	0.584	0.584	0.6
07	Stack Temperature	°C	42	44	40	37	43
08	Ambient Temperature	°C	35	39	39	39	38
09	Average Velocity of Flue Gases	m/sec.	3.7	3.5	3.8	3.6	6.2
10	Isokinetic flow rate for P.M. Sampling	LPM	15	14	15	15	11
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0	2.0	2.0	2.0
12	Permissible limits for PM	mg/Nm <sup>3</sup>	150	150	150	150	150
13	Measured Concentration of PM	mg/Nm <sup>3</sup>	14	18	16	20	24
14	Permissible limits for SO <sub>2</sub>	mg/Nm <sup>3</sup>	40	40	40	40	40
15	Measured Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	1.4	1.8	1.5	1.3	ND
16	Permissible limits for Nox	mg/Nm <sup>3</sup>	25	25	25	25	25
17	Measured Concentration of Nox	mg/Nm <sup>3</sup>	3.5	2.8	3.1	3.0	5.5

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on : 12/09/2017

Royal Environment Auditing & Consultancy Service



Ritesh  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royalservice@live.com ■ admin@royalconsultancy.com

Ref. No. : 119/05/2017-18

Date : 03/06/2017

### STACK EMISSION MONITORING RESULTS

#### Pipe Plant (GPCB ID:18036)

Name of company : JINDAL SAW LIMITED,

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	S - 7
01	Date of Sampling	---	17/05/2017
02	Time of sampling	Hr.	14.30
03	<b>Stack Attached to</b>	---	<b>Sand Reclamation</b>
04	Air Pollution Control Measures	---	Bag Filter
05	Stack Height	Meter	30
06	Stack Diameter	Meter	0.9
07	Stack Temperature	°C	68
08	Ambient Temperature	°C	39
09	Average Velocity of Flue Gases	m/sec.	10.2
10	Isokinetic flow rate for P.M. Sampling	LPM	17
11	Gaseous Sampling Flow Rate	LPM	2.0
12	<b>Permissible limits for PM</b>	<b>mg/Nm<sup>3</sup></b>	<b>150</b>
13	Measured Concentration of PM	mg/Nm <sup>3</sup>	40
14	<b>Permissible limits for SO<sub>2</sub></b>	<b>mg/Nm<sup>3</sup></b>	<b>40</b>
15	Measured Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	2.5
16	<b>Permissible limits for NO<sub>x</sub></b>	<b>mg/Nm<sup>3</sup></b>	<b>25</b>
17	Measured Concentration of NO <sub>x</sub>	mg/Nm <sup>3</sup>	12.5

Note : Minimum Detectable Limit of SO<sub>2</sub> & No<sub>x</sub> is 0.1 and 0.01 ppm respectively.

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on : 12/09/2017

Royal Environment Auditing & Consultancy Service



Hitesh  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royallengironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 125/05/2017-18

Date : 03/06/2017

### WORK ZONE NOISE LEVEL MEASUREMENT

#### SINTER PLANT- 1 (GPCB ID:35456)

Name of company : JINDAL SAW LIMITED.

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

Date of sampling : 12th May, 2017

Sr. No.	Location of Sampling	Value in dB(A)		
		Min.	Max.	Leq
1	Inside Control Room	41.3	46.4	43.4
2	Inside Mechanical Room	47.4	55.1	53.2
3	Inside Electrical Room	44.3	47.3	45.5
4	Inside Plant Office	45.2	54.2	48.3

Instruments used : Sound level meter, Model : SL - 4030 (Lutron Make)

Range : A - 30 to 80 dB, B-50 to 100 dB,C-80 to 130 dB.

Recalibration is due on : 12/09/2017

Royal Environment Auditing & Consultancy Service

Hitesh  
Analyst





# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royalservice@live.com ■ admin@royalconsultancy.com

Ref. No. : 126/05/2017-18

Date : 03/06/2017

### WORK ZONE NOISE LEVEL MEASUREMENT BLAST FURNACE- 1 (GPCB ID:18037)

Name of company : JINDAL SAW LIMITED,

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

Date of sampling : 14th May, 2017

Sr. No.	Location of Sampling	Value in dB(A)		
		Min.	Max.	Leq
01.	Nr. Stock House	62.5	75.2	66.8
02.	Inside Control Room	47.3	54.3	49.3
03.	Inside Control room of Cast House	45.5	53.2	48.2
04.	Inside Laboratory	41.2	47.3	44.3
05.	Inside Control Room of Blower House	53.7	58.3	54.2
06.	Inside Control Room of CPP	52.8	60.2	55.3

Instruments used : Sound level meter, Model : SL - 4030 (Lutron Make)

Range : A - 30 to 80 dB, B-50 to 100 dB, C-80 to 130 dB.

Recalibration is due on : 12/09/2017

Royal Environment Auditing & Consultancy Service



H. K. Shah  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.  
Ph.: +91 281 2360695 ■ E-mail : royalservice@live.com ■ admin@royalconsultancy.com

Ref. No. : 127/05/2017-18

Date : 03/06/2017

### WORK ZONE NOISE LEVEL MEASUREMENT PIPE PLANT (GPCB ID:18036)

Name of company : JINDAL SAW LIMITED,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Date of sampling : 14th May, 2017

Sr. No.	Location of Sampling	Value in dB(A)		
		Min.	Max.	Leq
01.	Inside Control Room of Annealing Furnace of DISP / SDP	45.5	51.2	47.2
02	Inside Control Room – Mill Area of Spiral Plant	56.4	60.5	56.6
03	Nr. Pipe Cutting Area of Spiral Plant	61.2	74.2	68.2
04	Inside JCO Plant	63.3	73.2	67.3
05	Inside DISP / SDP Plant	66.4	70.5	68.7
06	Inside Coating Plant	62.5	68.5	64.3
07	Nr. CCM SDP-2	60.8	67.3	62.7
08	Inside Control Room of Annealing Furnace of SDP-2	45.4	55.5	54.4
09	Nr. Zinc Coating SDP-2	60.2	69.7	64.5
10	Near Mould Shop	65.5	78.2	73.2

Instruments used : Sound level meter, Model : SL - 4030 (Lutron Make)

Range : A - 30 to 80 dB, B-50 to 100 dB,C-80 to 130 dB.

Recalibration is due on : 12/09/2017

Royal Environment Auditing & Consultancy Service



Hitesh  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royalservice@live.com ■ admin@royalconsultancy.com

Ref. No. : 128/05/2017-18

Date : 03/06/2017

### AMBIENT NOISE LEVEL MEASUREMENT

Name of company : JINDAL SAW LIMITED,

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

Date of sampling : 16th May, 2017

Sr. No.	Location of Sampling	Value in dB(A) Day Time			Value in dB(A) Night Time		
		Min.	Max.	Leq	Min.	Max.	Leq
01.	Admin. Building	45.3	61.2	48.2	45.1	57.4	49.5
02.	Old Colony	42.5	54.3	47.3	43.2	55.2	48.3
03.	Nr. LPG Yard	47.3	54.4	50.2	45.5	56.3	50.5
04.	New Colony (School)	45.5	58.3	52.7	44.1	54.2	53.2
05.	Nr. SDP-2	55.3	60.5	57.3	54.3	58.3	55.5
06.	Nr. Coating Plant	56.4	63.2	58.8	55.2	61.5	58.2
07.	Nr. Gate No. 2	51.7	57.4	55.3	48.3	55.7	52.3
08.	Nr. Sinter Plant-1	57.2	70.3	68.3	56.3	65.7	61.3
09.	Nr. Sinter Plant-2	58.3	67.2	63.7	54.4	67.2	64.4
10.	Nr. Blast Furnace-1	54.4	61.4	57.2	53.7	61.3	58.3
11.	Nr. Blast Furnace-2	56.3	60.8	58.4	48.5	58.5	54.5
12.	Nr. Main Gate (Security Office)	48.8	58.3	54.1	45.7	57.7	52.4

Instruments used : Sound level meter, Model : SL - 4030 (Lutron Make)

Range : A - 30 to 80 dB, B-50 to 100 dB, C-80 to 130 dB.

Recalibration is due on : 12/09/2017

Royal Environment Auditing & Consultancy Service



Hester  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royalservice@live.com ■ admin@royalconsultancy.com

Ref. No. : 129/05/2017-18

Date : 03/06/2017

### WORK ZONE NOISE LEVEL MEASUREMENT BLAST FURNACE - 2 (GPCB ID:29026)

Name of company : JINDAL SAW LIMITED,

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

Date of sampling : 20th May, 2017

Sr. No.	Location of Sampling	Value in dB(A)		
		Min.	Max.	Leq
01.	Inside Control Room	51.2	60.8	57.2
02.	Nr. Stock House	58.3	64.4	60.5
03.	C/R Blower House	58.8	65.3	62.3

Instruments used : Sound level meter, Model : SL - 4030 (Lutron Make)

Range : A - 30 to 80 dB, B-50 to 100 dB, C-80 to 130 dB.

Recalibration is due on : 12/09/2017

Royal Environment Auditing & Consultancy Service

Ritesh  
Analyst





# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 130/05/2017-18

Date : 03/06/2017

### WORK ZONE NOISE LEVEL MEASUREMENT

#### SINTER PLANT - 2 (29017)

Name of company : JINDAL SAW LIMITED,

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

Date of sampling : 15th May, 2017

Sr. No.	Location of Sampling	Value in dB(A)		
		Min.	Max.	Leq
01.	Inside Control Room	48.5	55.2	51.4
02.	Inside Operator Room	57.3	60.2	58.3
03.	Near Proportioning Bulding	56.4	65.3	63.3
04.	Near Crusher House	64.2	67.4	64.2

Instruments used : Sound level meter, Model : SL - 4030 (Lutron Make)

Range : A - 30 to 80 dB, B-50 to 100 dB, C-80 to 130 dB.

Recalibration is due on : 12/09/2017

Royal Environment Auditing & Consultancy Service

Hitesh  
Analyst





# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royalsenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 131/05/2017-18

Date : 03/06/2017

### REPORT OF DOMESTIC WASTE WATER ANALYSIS

Name of company : JINDAL SAW LIMITED,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Source of Sample Collection : Sewage Treatment Plant (Inlet & Outlet)

Date of Sampling : 20/05/2017

Test Method : As per IS Standards - 3025

Sr. No.	Parameters	Unit	GPCB limits for Treated Effluent	Raw Sewage	Treated Effluent
01.	pH	pH Unit	----	8.35	7.25
02.	BOD (3 Days at 27°C)	mg/l	<20	170	8
03.	Total Dissolve Solid	mg/l	...	1535	1645
04.	COD	mg/l	...	140	36
05.	Total Suspended Solid	mg/l	<30	165	12
06.	Oil & Grease	mg/l	...	ND	ND
07.	Residual Chlorine	mg/l	Min. 0.5	----	0.70

ND=Not Detectable

Royal Environment Auditing & Consultancy Service



Ritesh  
Analyst



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 108/05/17-18

Date : 03/06/2017

### Performance Evaluation of Air Pollution Control Equipments Blast Furnace Plant-1(GPCB ID:18037)

Name of company : JINDAL SAW LIMITED,

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/3

Sr. No.	Particulars	Unit	S - 1
01	Date of Sampling	---	10/05/2017
02	Attached to	---	De-dustingSystem
03	Stack Height	Meter	35
04	Stack Duct Diameter	Meter	1.4
05	Stack Temperature	°C	48
06	Ambient Temperature	°C	35
07	Average Velocity of Flue Gases	m/sec.	12.2
08	IsoKinetic Flowrate for Sampling	LPM	21
09	Inlet	mg/Nm <sup>3</sup>	915
10	Outlet	mg/Nm <sup>3</sup>	N.D.
11	Efficiency	%	100 %

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on 12/09/2017

Royal Environment Auditing & Consultancy Service



Hitesh  
Analyst

Ref. No. : 120/05/2017-18


Date : 03/06/2017

**Form No. 37**  
**(Prescribed under Rule 12-B)**

Register containing particulars of monitoring of working environment required under Section 7-A (a)(e).

- 1 Name of the Department/Plant.: **Sinter Plant-2 at JINDAL SAW LIMITED, Samaghogha. (GPCB ID:29017)**
- 2 Raw materials, by products and finished products involved in the process. **TOTAL DUST**
- 3 Particulars of sampling

Date of Sampling : 15th May, 2017

Sr. No	Location Operation monitored	Identified Contaminate	Sampling Instrument used	Airborne Contamination			TWA concentration (As given in Second Schedule)	Reference Method	Number of workers exposed at the location being monitored	Remarks	Signature of person taking samples	Name (in block letters)
				Number of sample	Range	Average	mg/m3					
1	Sinter Plant At First Floor	Total Dust	Personal Respirable Dust sampler IAS 001	02	1.0-1.5	1.35	10	Gravimetric	4	---		Mr. Hitesh Garaniya

Instruments used : Envirotech make personal sampler, Model No. IAS 001

Calibration Due on. : 12/11/2017

For. Royal Environment Auditing & Consultancy Service



  
Authorized Sign

**Form No. 37**  
**(Prescribed under Rule 12-B)**

Register containing particulars of monitoring of working environment required under Section 7-A (a)(e).

1 Name of the Department/Plant.: **Sinter Plant-1 at JINDAL SAW LIMITED, Samaghogha. (GPCB ID: 35456)**

2 Raw materials, by products and finished products involved in the process. **TOTAL DUST**

3 Particulars of sampling

Date of Sampling : 15th May, 2017

Sr. No	Location Operation monitored	Identified Contaminate	Sampling Instrument used	Airborne Contamination			TWA concentration (As given in Second Schedule)	Reference Method	Number of workers exposed at the location being monitored	Remark	Signature of person taking samples	Name (in block letters)
				Number of sample	Range	Average	mg/m3					
1	Sinter Plant At First Floor	Total Dust	Personal Respirable Dust sampler IAS 001	02	1.8-2.2	2.0	10	Gravimetric	3	---	<i>Hitesh</i>	Mr.Hitesh Garaniya

Instruments used : Envirotech make personal sampler, Model No. IAS 001

Calibration Due on. : 12/11/2017

For. Royal Environment Auditing & Consultancy Service



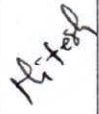
*Hitesh*  
Authorized Sign

**Form No. 37**  
(Prescribed under Rule 12-B)

Register containing particulars of monitoring of working environment required under Section 7-A (a)(e).

- 1 Name of the Department/Plant.: **BF Plant-1 at JINDAL SAW LIMITED, Samaghogha. (GPCB ID: 18037)**
- 2 Raw materials, by products and finished products involved in the process, **TOTAL DUST & CO.**
- 3 Particulars of sampling

Date of Sampling : 15th May, 2017

Sr. No	Location Operation monitored	Identified Contaminate	Sampling Instrument used	Airborne Contamination			TWA concentration (As given in Second Schedule)	Reference Method	Number of workers exposed at the location being monitored	Remark	Signature person taking samples	Name (in block letters)
				Number of sample	Range	Average	mg/m <sup>3</sup>					
1	BF Plant (Cast House)	CO	Personal Respirable Dust sampler IAS 001	02	10-14	12.0	50 (ppm)	Gravimetric	6	---		Mr. Hitesh Garaniya
		Total Dust			2.5-3.0	2.75	10					

Instruments used : Envirotech make personal sampler, Model No. IAS 001  
Calibration Due on. : 12/11/2017

For. Royal Environment Auditing &amp; Consultancy Service

  
Authorized Sign



**Form No. 37**  
**(Prescribed under Rule 12-B)**

Register containing particulars of monitoring of working environment required under Section 7-A (a)(e).

1 Name of the Department/Plant.: **BF Plant-2 at JINDAL SAW LIMITED, Samaghogha. (GPCB ID: 29026)**

2 Raw materials, by products and finished products involved in the process. **TOTAL DUST & CO.**

3 Particulars of sampling

Date of Sampling : 15th May, 2017

Sr. No	Location Operation monitored	Identified Contaminate	Sampling Instrument used	Airborne Contamination			TWA concentration (As given in Second Schedule)	Refrance Method	Number of workers exposed at the location being monitored	Remark	Signature person taking samples	Name (in block letters)
				Number of sample	Range	Average	mg/m3					
1	BF Plant (Cast House)	CO	Personal Respirable Dust sampler IAS 001	02	5-8	6.5 (ppm)	50 (ppm)	Gravimetric	6	---	<i>Hitesh</i>	Mr.Hitesh Garaniya
		Total Dust			1.8-2.0	1.9	10					

Instruments used : Envirotech make personal sampler, Model No. IAS 001

Calibration Due on. : 12/11/2017

For. Royal Environment Auditing & Consultancy Service



*Hitesh*  
Authorized Sign

**Form No. 37**  
**(Prescribed under Rule 12-B)**

Register containing particulars of monitoring of working environment required under Section 7-A (a)(e).

1 Name of the Department/Plant.: **DISP,JCO & Coating Units at JINDAL SAW LIMITED, Samaghogha.(GPCB ID: 18036)**2 Raw materials, by products and finished products involved in the process. **TOTAL DUST**

3 Particulars of sampling

Date of Sampling : 15th May, 2017

Sr. No	Location Operation monitored	Identified Contaminate	Sampling Instrument used	Airborne Contamination			TWA concentration (As given in Second Schedule)	Reference Method	Number of workers exposed at the location being monitored	Remark	Signature of person taking samples	Name (in block letters)
				Number of sample	Range	Average	mg/m3					
1	Spiral Plant (Nr. ID/OD)	Total Dust	Personal Respirable Dust sampler IAS 001	02	1.0-1.5	1.3	10	Gravimetric	5	----	<i>Hitesh</i>	Mr. Hitesh Garaniya
2	JCO Plant (Nr. JCO Press)	Total Dust		02	1.4-2.0	1.7	10	Gravimetric	4	----		
3	Coating Plant-1 (Shot Blasting Area)	Total Dust		02	1.2-1.5	1.35	10	Gravimetric	3	----		
4	CCM Area (SDP / DISP)	Total Dust		02	3.5-4.5	4.0	10	Gravimetric	4	----		
5	Coating Plant-2 (Shot Blasting Area)	Total Dust		02	2.5-3.0	2.75	10	Gravimetric	5	----		
6	CCM Area (SDP-2)	Total Dust		02	1.6-2.0	1.8	10	Gravimetric	3	----		

Instruments used : Envirotech make personal sampler, Model No. IAS 001

Calibration Due on. : 12/11/2017

For. Royal Environment Auditing &amp; Consultancy Service



*Hitesh*  
Authorized Sign