



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. : 238/10/2013-14

Date: 31/10/2013

AMBIENT AIR QUALITY MONITORING REPORT

Name of company : Jindal Saw Limited,
Village: Samaghogha,
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182_2/4/6

Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	----	Main Gate (S)	Sinter Plant - 1 (NNW)	Nr. Workshop Spiral - II (W)
02.	Date of sampling	----	04/10/2013	04/10/2013	04/10/2013
03.	Time of sampling	----	9.15	9.35	9.50
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	W	W	W
06.	Average Wind Speed	Km/Hr.	2 to 12	2 to 12	2 to 12
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.	Permissible limits for PM 10	µg/m3	100	100	100
10.	Measured Concentration of PM 10	µg/m3	35	40	34
11.	Permissible limits for PM 2.5	µg/m3	60	60	60
12.	Measured Concentration of PM 2.5	µg/m3	26	32	28
13.	Permissible limits for SO2	µg/m3	80	80	80
14.	Measured Concentration of SO2	µg/m3	12.4	12.5	11.8
15.	Permissible limits for NO2	µg/m3	80	80	80
16.	Measured Concentration of NO2	µg/m3	22.5	21.3	21.5
17.	Permissible limit for CO **	µg/m3	2000	2000	2000
18.	Measured Concentration of CO	µg/m3	306	285	254

Instrument used : (1) Envirotech make 1 No. of RDS (APM - 460 BL) (2) 1 No. of Gaseous Sampling Kit (APM 411) (3) Ecotech make Attachment of 1 No. of PM 2.5 Sampler (AAS 127) (4) Ecotech make 2 Nos. of RDS (AAS 217 BL) (5) Gaseous sampling attachment (AAS 109) (6) Ecotech make 2 Nos. of PM 2.5 sampler (AAS 127)

Calibration due on: (1) 05/05/2014 (2) 05/05/2014 (3) 04/05/2014 (4) 06/05/2014 (5) 05/05/2014 (6) 06/05/2014

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Test Method : As per IS Standards - 5182_2/4/6

Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	----	Main Gate (S)	Sinter Plant - 1 (NNW)	Nr. Workshop Spiral - II (W)
02.	Date of sampling	----	05/10/2013	05/10/2013	05/10/2013
03.	Time of sampling	----	9.20	9.40	10.00
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	WSW	WSW	WSW
06.	Average Wind Speed	Km/Hr.	3 to 10	3 to 10	3 to 10
07.	Average flow rate during sampling	m ³ /Hr.	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2
09.	Permissible limits for PM 10	µg/m³	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	36	42	35
11.	Permissible limits for PM 2.5	µg/m³	60	60	60
12.	Measured Concentration of PM 2.5	µg/m ³	26	30	25
13.	Permissible limits for SO₂	µg/m³	80	80	80
14.	Measured Concentration of SO ₂	µg/m ³	12.1	13.2	12.3
15.	Permissible limits for NO₂	µg/m³	80	80	80
16.	Measured Concentration of NO ₂	µg/m ³	22.8	21.4	20.5
17.	Permissible limit for CO **	µg/m³	2000	2000	2000
18.	Measured Concentration of CO	µg/m ³	326	294	266

Instrument used : (1) Envirotech make 1 No. of RDS (APM - 460 BL) (2) 1 No. of Gaseous Sampling Kit (APM 411) (3) Ecotech make Attachment of 1 No. of PM 2.5 Sampler (AAS 127) (4) Ecotech make 2 Nos. of RDS (AAS 217 BL) (5) Gaseous sampling attachment (AAS 109) (6) Ecotech make 2 Nos. of PM 2.5 sampler (AAS 127)

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Name of company : Jindal Saw Limited,
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Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182_2/4/6

Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	----	Main Gate (S)	Sinter Plant - 1 (NNW)	Nr. Workshop Spiral - II (W)
02.	Date of sampling	----	11/10/2013	11/10/2013	11/10/2013
03.	Time of sampling	----	9.00	9.20	9.45
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	-----	E	E	E
06.	Average Wind Speed	Km/Hr.	4 to 12	4 to 12	4 to 12
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.	Permissible limits for PM 10	µg/m3	100	100	100
10.	Measured Concentration of PM 10	µg/m3	40	42	38
11.	Permissible limits for PM 2.5	µg/m3	60	60	60
12.	Measured Concentration of PM 2.5	µg/m3	28	33	24
13.	Permissible limits for SO2	µg/m3	80	80	80
14.	Measured Concentration of SO2	µg/m3	12.2	13.4	11.8
15.	Permissible limits for NO2	µg/m3	80	80	80
16.	Measured Concentration of NO2	µg/m3	21.8	23.4	22.5
17.	Permissible limit for CO **	µg/m3	2000	2000	2000
18.	Measured Concentration of CO	µg/m3	356	284	260

Instrument used : (1) Envirotech make 1 No. of RDS (APM - 460 BL) (2) 1 No. of Gaseous Sampling Kit (APM 411) (3) Ecotech make Attachment of 1 No. of PM 2.5 Sampler (AAS 127) (4) Ecotech make 2 Nos. of RDS (AAS 217 BL) (5) Gaseous sampling attachment (AAS 109)

(6) Ecotech make 2 Nos. of PM 2.5 sampler (AAS 127)

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Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182_2/4/6

Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	----	Main Gate (S)	Sinter Plant - 1 (NNW)	Nr. Workshop Spiral - II (W)
02.	Date of sampling	----	12/10/2013	12/10/2013	12/10/2013
03.	Time of sampling	----	9.15	9.30	9.50
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	-----	N	N	N
06.	Average Wind Speed	Km/Hr.	3 to 15	3 to 15	3 to 15
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.	Permissible limits for PM 10	µg/m3	100	100	100
10.	Measured Concentration of PM 10	µg/m3	42	44	40
11.	Permissible limits for PM 2.5	µg/m3	60	60	60
12.	Measured Concentration of PM 2.5	µg/m3	26	35	30
13.	Permissible limits for SO2	µg/m3	80	80	80
14.	Measured Concentration of SO2	µg/m3	12.7	12.8	11.6
15.	Permissible limits for NO2	µg/m3	80	80	80
16.	Measured Concentration of NO2	µg/m3	23.8	24.3	23.5
17.	Permissible limit for CO **	µg/m3	2000	2000	2000
18.	Measured Concentration of CO	µg/m3	335	294	254

Instrument used : (1) Envirotech make 1 No. of RDS (APM - 460 BL) (2) 1 No. of Gaseous Sampling Kit (APM 411) (3) Ecotech make Attachment of 1 No. of PM 2.5 Sampler (AAS 127) (4) Ecotech make 2 Nos. of RDS (AAS 217 BL) (5) Gaseous sampling attachment (AAS 109)

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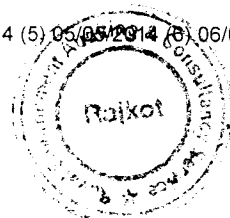
Test Method : As per IS Standards - 5182_2/4/6

Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	----	Main Gate (S)	Sinter Plant - 1 (NNW)	Nr. Workshop Spiral - II (W)
02.	Date of sampling	----	16/10/2013	16/10/2013	16/10/2013
03.	Time of sampling	----	9.30	9.50	10.10
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	W	W	W
06.	Average Wind Speed	Km/Hr.	4 to 12	4 to 12	4 to 12
07.	Average flow rate during sampling	m ³ /Hr.	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2
09.	Permissible limits for PM 10	µg/m ³	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	40	44	35
11.	Permissible limits for PM 2.5	µg/m ³	60	60	60
12.	Measured Concentration of PM 2.5	µg/m ³	32	36	30
13.	Permissible limits for SO ₂	µg/m ³	80	80	80
14.	Measured Concentration of SO ₂	µg/m ³	13.4	12.8	11.4
15.	Permissible limits for NO ₂	µg/m ³	80	80	80
16.	Measured Concentration of NO ₂	µg/m ³	24.8	23.3	21.8
17.	Permissible limit for CO **	µg/m ³	2000	2000	2000
18.	Measured Concentration of CO	µg/m ³	325	294	270

Instrument used : (1) Envirotech make 1 No. of RDS (APM - 460 BL) (2) 1 No. of Gaseous Sampling Kit (APM 411) (3) Ecotech make Attachment 1 No. of PM 2.5 Sampler (AAS 127) (4) Ecotech make 2 Nos. of RDS (AAS 217 BL) (5) Gaseous sampling attachment (AAS 109) (6) Ecotech make 2 Nos. of PM 2.5 sampler (AAS 127)

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Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	----	Main Gate (S)	Sinter Plant - 1 (NNW)	Nr. Workshop Spiral - II (W)
02.	Date of sampling	----	17/10/2013	17/10/2013	17/10/2013
03.	Time of sampling	----	9.40	10.00	10.30
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	-----	WNW	WNW	WNW
06.	Average Wind Speed	Km/Hr.	3 to14	3 to14	3 to14
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.	Permissible limits for PM 10	µg/m3	100	100	100
10.	Measured Concentration of PM 10	µg/m3	42	48	36
11.	Permissible limits for PM 2.5	µg/m3	60	60	60
12.	Measured Concentration of PM 2.5	µg/m3	30	35	28
13.	Permissible limits for SO2	µg/m3	80	80	80
14.	Measured Concentration of SO2	µg/m3	13.3	12.5	11.8
15.	Permissible limits for NO2	µg/m3	80	80	80
16.	Measured Concentration of NO2	µg/m3	23.4	22.5	20.3
17.	Permissible limit for CO **	µg/m3	2000	2000	2000
18.	Measured Concentration of CO	µg/m3	354	284	265

Instrument used : (1) Envirotech make 1 No. of RDS (APM - 460 BL) (2) 1 No. of Gaseous Sampling Kit (APM 411) (3) Ecotech make Attachment 1 No. of PM 2.5 Sampler (AAS 127) (4) Ecotech make 2 Nos. of RDS (AAS 217 BL) (5) Gaseous sampling attachment (AAS 109) (6) Ecotech make 2 Nos. of PM 2.5 sampler (AAS 127)

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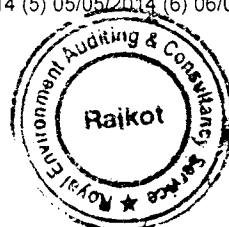
Test Method : As per IS Standards - 5182_2/4/6

Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	----	Main Gate (S)	Sinter Plant - 1 (NNW)	Nr. Workshop Spiral - II (W)
02.	Date of sampling	----	21/10/2013	21/10/2013	21/10/2013
03.	Time of sampling	----	9.15	9.30	9.50
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	WNW	WNW	WNW
06.	Average Wind Speed	Km/Hr.	3 to 12	3 to 12	3 to 12
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.	Permissible limits for PM 10	µg/m3	100	100	100
10.	Measured Concentration of PM 10	µg/m3	48	54	46
11.	Permissible limits for PM 2.5	µg/m3	60	60	60
12.	Measured Concentration of PM 2.5	µg/m3	35	34	32
13.	Permissible limits for SO2	µg/m3	80	80	80
14.	Measured Concentration of SO2	µg/m3	13.4	12.5	11.4
15.	Permissible limits for NO2	µg/m3	80	80	80
16.	Measured Concentration of NO2	µg/m3	23.5	22.7	21.3
17.	Permissible limit for CO **	µg/m3	2000	2000	2000
18.	Measured Concentration of CO	µg/m3	325	284	246

Instrument used : (1) Envirotech make 1 No. of RDS (APM - 460 BL) (2) 1 No. of Gaseous Sampling Kit (APM 411) (3) Ecotech make Attachment of 1 No. of PM 2.5 Sampler (AAS 127) (4) Ecotech make 2 Nos. of RDS (AAS 217 BL) (5) Gaseous sampling attachment (AAS 109) (6) Ecotech make 2 Nos. of PM 2.5 sampler (AAS 127)

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Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	----	Main Gate (S)	Sinter Plant - 1 (NNW)	Nr. Workshop Spiral - II (W)
02.	Date of sampling	----	22/10/2013	22/10/2013	22/10/2013
03.	Time of sampling	----	9.20	9.45	10.10
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	N	N	N
06.	Average Wind Speed	Km/Hr.	4 to 14	4 to 14	4 to 14
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.	Permissible limits for PM 10	µg/m3	100	100	100
10.	Measured Concentration of PM 10	µg/m3	46	52	42
11.	Permissible limits for PM 2.5	µg/m3	60	60	60
12.	Measured Concentration of PM 2.5	µg/m3	35	38	32
13.	Permissible limits for SO2	µg/m3	80	80	80
14.	Measured Concentration of SO2	µg/m3	13.5	12.8	11.7
15.	Permissible limits for NO2	µg/m3	80	80	80
16.	Measured Concentration of NO2	µg/m3	23.4	22.5	21.3
17.	Permissible limit for CO **	µg/m3	2000	2000	2000
18.	Measured Concentration of CO	µg/m3	334	296	260

Instrument used : (1) Envirotech make 1 No. of RDS (APM - 460 BL) (2) 1 No. of Gaseous Sampling Kit (APM 411) (3) Ecotech make Attachment of 1 No. of PM 2.5 Sampler (AAS 127) (4) Ecotech make 2 Nos. of RDS (AAS 217 BL) (5) Gaseous sampling attachment (AAS 109)

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01.	Location of Ambient	----	Main Gate (S)	Sinter Plant - 1 (NNW)	Nr. Workshop Spiral - II (W)
02.	Date of sampling	----	29/10/2013	29/10/2013	29/10/2013
03.	Time of sampling	----	9.05	9.20	9.40
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	WSW	WSW	WSW
06.	Average Wind Speed	Km/Hr.	3 to 12	3 to 12	3 to 12
07.	Average flow rate during sampling	m ³ /Hr.	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2
09.	Permissible limits for PM 10	µg/m ³	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	48	52	38
11.	Permissible limits for PM 2.5	µg/m ³	60	60	60
12.	Measured Concentration of PM 2.5	µg/m ³	25	32	23
13.	Permissible limits for SO ₂	µg/m ³	80	80	80
14.	Measured Concentration of SO ₂	µg/m ³	12.5	13.8	11.8
15.	Permissible limits for NO ₂	µg/m ³	80	80	80
16.	Measured Concentration of NO ₂	µg/m ³	22.4	21.3	20.8
17.	Permissible limit for CO **	µg/m ³	2000	2000	2000
18.	Measured Concentration of CO	µg/m ³	354	284	268

Instrument used : (1) Envirotech make 1 No. of RDS (APM - 460 BL) (2) 1 No. of Gaseous Sampling Kit (APM 411) (3) Ecotech make Attachment of 1 No. of PM 2.5 Sampler (AAS 127) (4) Ecotech make 2 Nos. of RDS (AAS 217 BL) (5) Gaseous sampling attachment (AAS 109) (6) Ecotech make 2 Nos. of PM 2.5 sampler (AAS 127)

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Test Method : As per IS Standards - 5182_2/4/6

Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	----	Main Gate (S)	Sinter Plant - 1 (NNW)	Nr. Workshop Spiral - II (W)
02.	Date of sampling	----	30/10/2013	30/10/2013	30/10/2013
03.	Time of sampling	----	9.10	9.25	9.45
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	SW	SW	SW
06.	Average Wind Speed	Km/Hr	4 to 13	4 to 13	4 to 13
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.	Permissible limits for PM 10	µg/m3	100	100	100
10.	Measured Concentration of PM 10	µg/m3	44	50	40
11.	Permissible limits for PM 2.5	µg/m3	60	60	60
12.	Measured Concentration of PM 2.5	µg/m3	26	35	22
13.	Permissible limits for SO2	µg/m3	80	80	80
14.	Measured Concentration of SO2	µg/m3	13.8	13.4	12.3
15.	Permissible limits for NO2	µg/m3	80	80	80
16.	Measured Concentration of NO2	µg/m3	21.7	22.6	20.8
17.	Permissible limit for CO **	µg/m3	2000	2000	2000
18.	Measured Concentration of CO	µg/m3	335	290	273

Instrument used : (1) Envirotech make 1 No. of RDS (APM - 460 BL) (2) 1 No. of Gaseous Sampling Kit (APM 411) (3) Ecotech make Attachment of 1 No. of PM 2.5 Sampler (AAS 127) (4) Ecotech make 2 Nos. of RDS (AAS 217 BL) (5) Gaseous sampling attachment (AAS 109) (6) Ecotech make 2 Nos. of PM 2.5 sampler (AAS 127)

Calibration due on: (1) 05/05/2014 (2) 05/05/2014 (3) 04/05/2014 (4) 06/05/2014 (5) 05/05/2014 (6) 06/05/2014

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Ref. No. : 248/10/2013-14

Date: 31/10/2013

AMBIENT AIR QUALITY MONITORING REPORT

Name of company : Jindal Saw Limited,
Village: Samaghogha,
Tal : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182_2/4/6

Sr.No.	Particulars	Unit	AAQM - 1 (S)	AAQM - 2 (SSW)	AAQM - 3 (WSW)	AAQM - 4 (NW)
01.	Location of Ambient	----	Old Colony (Nr. Environment Laboratory)	Nr. Rain Water Harvesting	LPG Yard (Nr. Water Reservoir)	Between Sinter - 2 & Spiral - 2
02.	Date of sampling	----	18/10/2013	20/10/2013	18/10/2013	20/10/2013
03.	Time of sampling	----	11.00	9.00	11.30	9.30
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	N	W	N	W
06.	Average Wind Speed	Km/Hr.	2 to 12	3 to 14	2 to 12	3 to 14
07.	Average flow rate during sampling	m3/Hr.	1.0	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2	0.2
09.	Permissible limits for PM 10	µg/m3	100	100	100	100
10.	Measured Concentration of PM 10	µg/m3	43	46	48	50
11.	Permissible limits for PM 2.5	µg/m3	60	60	60	60
12.	Measured Concentration of PM 2.5	µg/m3	24	26	28	28
13.	Permissible limits for SO2	µg/m3	80	80	80	80
14.	Measured Concentration of SO2	µg/m3	11.8	12.4	12.8	13.5
15.	Permissible limits for NO2	µg/m3	80	80	80	80
16.	Measured Concentration of NO2	µg/m3	18.2	18.8	19.5	19.3
17.	Permissible limit for CO **	µg/m3	2000	2000	2000	2000
18.	Measured Concentration of CO	µg/m3	235	240	245	270

Instrument used : (1) Envirotech make 2 Nos. RDS (APM - 460 BL) (2) 2 Nos. Gaseous Sampling Kit (APM 411)

(3) Ecotech make Attachment of 2 Nos. PM 2.5 Sampler (AAS 127)

Calibration due on: (1) 05/05/2014 (2) 05/05/2014 (3) 04/05/2014





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Ref. No. : 249/10/2013-14

Date: 31/10/2013

AMBIENT AIR QUALITY MONITORING REPORT

Name of company : Jindal Saw Limited,
Village: Samaghogha,
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182_2/4/6

Sr. No.	Particulars	Unit	AAQM - 5 (NE)	AAQM - 6 (SE)	AAQM - 7 (SSE)	AAQM - 8 (E)
01.	Location of Ambient	----	Labour Colony	New Colony (Shopping Centre)	Admin Building	Weigh bridge
02.	Date of sampling	----	18/10/2013	20/10/2013	18/10/2013	20/10/2013
03.	Time of sampling	----	12.00	10.00	12.30	10.30
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	N	W	N	W
06.	Average Wind Speed	Km/Hr.	2 to 12	3 to 14	2 to 12	3 to 14
07.	Average flow rate during sampling	m3/Hr.	1.0	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2	0.2
09.	Permissible limits for PM 10	µg/m3	100	100	100	100
12.	Measured Concentration of PM 10	µg/m3	45	48	51	53
11.	Permissible limits for PM 2.5	µg/m3	60	60	60	60
10.	Measured Concentration of PM 2.5	µg/m3	25	30	35	34
13.	Permissible limits for SOx	µg/m3	80	80	80	80
14.	Measured Concentration of SOx	µg/m3	12.3	13.4	12.9	13.8
15.	Permissible limits for Nox	µg/m3	80	80	80	80
16.	Measured Concentration of NOx	µg/m3	19.2	19.4	20.5	21.3
17.	Permissible limit for CO **	µg/m3	2000	2000	2000	2000
18.	Measured Concentration of	µg/m3	250	235	245	285

Instrument used : (1) Envirotech make 2 Nos. RDS (APM - 460 BL) (2) 2 Nos. Gaseous Sampling Kit (APM 411)

(3) Ecotech make Attachment of 2 Nos. PM 2.5 Sampler (AAS 127)

Calibration due on: (1) 05/05/2014 (2) 05/05/2014 (3) 04/05/2014



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Ref. No. : 250/10/2013-14

Date: 31/10/2013

FUGITIVE EMISSION MONITORING REPORT

Name of company : Jindal Saw Limited,
Village: Samaghogha,
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182_2/4/6

Sr. No.	Particulars	Unit	A - 1	A - 2	A - 3
01.	Location of Ambient	----	RMH Junction House	RMH Stock House	Sinter RMH Yard
02.	Date of sampling	----	19/10/2013	19/10/2013	27/10/2013
03.	Time of sampling	----	11.00	11.25	9.20
04.	Duration of Sampling	Hr.	8.00	8.00	8.00
05.	Dominant Wind Direction (From)	----	N	N	N
06.	Average Wind Speed	Km/Hr.	5 to 15	5 to 15	4 to 12
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.	Permissible limits for PM 10	µg/m3	3000	3000	3000
10.	Measured Concentration of PM 10	µg/m3	2156	2235	1854
11.	Permissible limits for SO2	µg/m3	150	150	150
12.	Measured Concentration of SO2	µg/m3	12.8	13.5	12.8
13.	Permissible limits for NO2	µg/m3	120	120	120
14.	Measured Concentration of NO2	µg/m3	20.3	21.8	21.6
15.	Permissible limit for CO **	µg/m3	5000	5000	5000
16.	Measured Concentration of CO	µg/m3	275	315	254

Instrument used : (1) Envirotech make 2 Nos. RDS (APM - 460 BL) (2) 2 Nos. Gaseous Sampling Kit (APM 411)

(3) Ecotech make Attachment of 2 Nos. PM 2.5 Sampler (AAS 127)

Calibration due on: (1) 05/05/2014 (2) 05/05/2014 (3) 04/05/2014

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Ref. No. : 251/10/2013-14

Date: 31/10/2013

FUGITIVE EMISSION MONITORING REPORT

Name of company : Jindal Saw Limited,
Village: Samaghogha,
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182_2/4/6

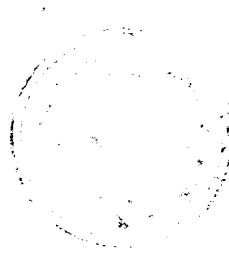
Sr. No.	Particulars	Unit	A - 4	A - 5	A - 6
01.	Location of Ambient	----	Sinter 2 Ground Hopper	DISP	Sinter 1 Main to PMD
02.	Date of sampling	----	27/10/2013	24/10/2013	24/10/2013
03.	Time of sampling	----	9.40	10.00	10.25
04.	Duration of Sampling	Hr.	8.00	8.00	8.00
05.	Dominant Wind Direction (From)	----	N	N	N
06.	Average Wind Speed	Km/Hr	4 to 12	4 to 16	4 to 16
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.	Permissible limits for PM 10	µg/m3	3000	3000	3000
10.	Measured Concentration of PM 10	µg/m3	1234	1126	2051
11.	Permissible limits for SO2	µg/m3	150	150	150
12.	Measured Concentration of SO2	µg/m3	13.1	12.8	12.7
13.	Permissible limits for NO2	µg/m3	120	120	120
14.	Measured Concentration of NO2	µg/m3	20.8	21.7	20.5
15.	Permissible limit for CO **	µg/m3	5000	5000	5000
16.	Measured Concentration of CO	µg/m3	240	265	276

Instrument used : (1) Envirotech make 2 Nos. RDS (APM - 460 BL) (2) 2 Nos. Gaseous Sampling Kit (APM 411)

(3) Ecotech make Attachment of 2 Nos. PM 2.5 Sampler (AAS 127)

Calibration due on (1) 05/05/2014 (2) 05/05/2014 (3) 04/05/2014

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Ref. No. : 252/10/2013-14

Date: 31/10/2013

Bag Filter Efficiency Report

APCM Inlet

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	Stack No. 1	Stack No. 2	Stack No. 3	Stack No. 4	Stack No. 5	Stack No. 6
01	Date of Sampling	---	21/10/2013	07/10/2013	18/10/2013	17/10/2013	17/10/2013	13/09/2013
02	Attached to		Zinc Coating -I	Common stack Mg Converter- I & II	Core Cleaning & Dusting-I	Barrel Grinding - I	Barrel Grinding - II	Sand Reclamation
03	Stack Height	Meter	30	30	30	30	30	32
04	Stack Diameter	Meter	0.488	0.584	0.588	0.584	0.584	---
05	Stack Temperature	°C	45	76	46	44	43	84
06	Ambient Temperature	°C	35	35	34	36	36	32
07	Average Velocity of Flue Gases	M/Sec.	13.5	16.5	14.2	12.5	13	13.4
08	IsoKinetic Flowrate for Sampling	LPM	24	26	25	22	23	21
09	Inlet	mg	1654	1654	1765	1946	1685	1568
10	Outlet	mg	16	42	38	38	42	32
11	Efficiency	%	99.03	97.46	97.85	98.05	97.51	97.96

Note : Minimum Detectable Limit of SO₂ & Nox is 0.1 and 0.01 ppm respectively.

Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS I

Both Stack kit have calibration Due on : 05/05/2014

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Ref No. : 253/10/2013-14

Date: 31/10/2013

Bag Filter Efficiency Report

APCM Inlet

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	Stack No. 7	Stack No. 8	Stack No. 9	Stack No. 10	Stack No. 11	Stack No. 12	Stack No. 13
01	Date of Sampling	---	21/10/2013	21/10/2013	21/10/2013	07/10/2013	18/10/2013	17/10/2013	17/10/2013
02	Attached to	---	Zinc Coating - II	Zinc Coating-III	Zinc Coating -IV & V	Mg Converter - III	Core Cleaning & Dusting-II	Barrel Grinding-III	Barrel Grinding- IV & V
03	Stack Height	Meter	30	30	30	30	30	30	25
04	Stack Diameter	Meter	---	---	---	0.488	0.588	0.584	0.488
05	Stack Temperature	°C	54	52	50	56	46	55	84
06	Ambient Temperature	°C	35	35	35	34	35	35	35
07	Average Velocity of Flue Gases	M/Sec	12.8	11.1	11.0	12.2	13.8	12.5	12
08	IsoKinetic Flowrate for Sampling	LPM	22	19	19	21	24	21	19
09	Inlet	mg	1685	1705	1615	1565	1654	1254	1425
10	Outlet	mg	18	16	18	35	50	42	44
11	Efficiency	%	98.93	99.06	98.89	97.76	96.98	96.65	96.91

Note : Minimum Detectable Limit of SO₂ & Nox is 0.1 and 0.01 ppm respectively.

Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS I

Both Stack kit have calibration Due on : 05/05/2014

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Ref. No. : 254/10/2013 14

Date: 31/10/2013

STACK EMISSION MONITORING RESULTS

Sinter Plant-I

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	Stack No. 1	Stack No. 2	Stack No. 3	Stack No. 4	Stack No. 5	Stack No. 6
01	Date of Sampling	---	05/10/2013	05/10/2013	Not Running During Visit	Not Running During Visit	05/10/2013	05/10/2013
02	Time of sampling	---	11.00	12.30			14.30	16.00
03	Stack Attached to	---	Sinter Furnace	Discharge End	Fuel & Flux Crusher and Screening	Fuel & Flux Crushing House	Secondary Mixture House	Primary Mixture House
04	Air Pollution Control Measures	---	ESP	ESP	Bag Filter	Bag Filter	---	---
05	Stack Height	Meter	50	32.8	32.8	27.05	36.08	19.75
06	Stack Diameter	Meter	2.0	1.30	1.40	0.70	1.25	1.25
07	Stack Temperature	°C	146	158	---	---	68	81
08	Ambient Temperature	°C	34	35	---	---	35	35
09	Average Velocity of Flue Gases	M/Sec.	10.2	16.8	---	---	5.1	5.3
10	Isokinetic flow rate for P.M. Sampling	LPM	14	22	---	---	19	19
11	Gaseous Sampling Flow Rate	LPM	2.0	---	---	---	---	---
12	Permissible limits for PM	mg/Nm3	150	150	150	150	150	150
13	Measured Concentration of PM	mg/Nm3	62	32	---	---	46	58
14	Permissible limits for SO2	ppm	100	NA	NA	NA	NA	NA
15	Measured Concentration of SO2	ppm	15.8	---	---	---	---	---
16	Permissible limits for NOx	ppm	50	NA	NA	NA	NA	NA
17	Measured Concentration of NOx	ppm	11.2	---	---	---	---	---

Note : Minimum Detectable Limit of SO2 & Nox is 0.1 and 0.01 ppm respectively.

Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS I

Both Stack kit have calibration Due on : 05/05/2014

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Ref. No : 255/10/2013-14

Date: 31/10/2013

STACK EMISSION MONITORING RESULTS

Sinter Plant- II

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	Stack No. 1	Stack No. 2	Stack No. 3	Stack No. 4	Stack No. 5	Stack No. 6	Stack No. 7
01	Date of Sampling	---	13/10/2013	13/10/2013	Not Running During Visit	13/10/2013	13/10/2013	13/10/2013	Not Running During Visit
02	Time of sampling	Hr.	10.30	12.00		14.00	15.15	16.30	
03	Stack Attached to	---	Sinter Furnace	Discharging End of sinter de-dusting system	Fuel crushing de-duster system (Flux)	Primary Mixer De-duster system	Secondary Mixer De-duster system	Fuel Screening deduster System (Flux Screening Stack)	Fuel crushing de-duster system (Fuel)
04	Air Pollution Control Measures	---	ESP	ESP	Dust Collector	---	---	Dust Collector	Dust Collector
05	Stack Height	Meter	50	50	30	30	30	30	30
06	Stack Diameter	Meter	2	1.3	0.7	1.25	1.25	0.7	0.7
07	Stack Temperature	°C	153	124	---	52	48	44	---
08	Ambient Temperature	°C	33	36	---	36	36	36	---
09	Average Velocity of Flue Gases	M/Sec.	11.8	10.5	---	4.2	3.5	4.8	---
10	Isokinetic flow rate for P.M. Sampling	LPM	15	15	---	16	14	19	---
11	Gaseous Sampling Flow Rate	LPM	2.0	---	---	---	---	---	---
12	Permissible limits for PM	mg/Nm ³	150	150	150	150	150	150	150
13	Measured Concentration of PM	mg/Nm ³	48	35	---	46	32	35	---
14	Permissible limits for SO ₂	ppm	100	NA	NA	NA	NA	NA	NA
15	Measured Concentration of SO ₂	ppm	15.6	---	---	---	---	---	---
16	Permissible limits for NO _x	ppm	50	NA	NA	NA	NA	NA	NA
17	Measured Concentration of NO _x	ppm	20.3	---	---	---	---	---	---

Note : Minimum Detectable Limit of SO₂ & Nox is 0.1 and 0.01 ppm respectively.

NA= Not Applicable

Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS I

Both Stack kit have calibration Due on : 05/05/2014

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Ref. No. : 256/10/2013-14

Date: 31/10/2013

STACK EMISSION MONITORING RESULTS

BLAST FURNACE-1 & PCI

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	Stack No. 1	Stack No. 2	Stack No. 3	Stack No. 4	Stack No. 5
01	Date of Sampling	---	09/10/2013	09/10/2013	09/10/2013	22/10/2013	19/10/2013
02	Time of sampling	Hr.	10.00	11.15	12.30	9.40	9.45
03	Stack Attached to	---	Boiler - I	Boiler - II	Dedusting System	Stove Stack	Coal Pulverization
04	Air Pollution Control Measures	---	---	---	Bag Filter	---	Bag Filter
05	Stack Height	Meter	45	45	35.0	50.0	32.0
06	Stack Diameter	Meter	1.380	1.380	1.484	2.250	---
07	Stack Temperature	°C	158	146	75	315	42
08	Ambient Temperature	°C	31	33	35	32	31
09	Average Velocity of Flue Gases	M/Sec.	6.3	7.1	7.2	5.5	6.20
10	Isokinetic flow rate for P.M. Sampling	LPM	19	21	26	12	25
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0	2.0	2.0	2.0
12	Permissible limits for PM	mg/Nm ³	150	150	150	150	150
13	Measured Concentration of PM.	mg/Nm ³	10	9	52	7	14.00
14	Permissible limits for SO ₂	mg/Nm ³	40	40	40	40	100 (ppm)
15	Measured Concentration of SO ₂	mg/Nm ³	4.2	5.3	N.D.	N.D.	N.D.
16	Permissible limits for NO _x	mg/Nm ³	25	25	25	25	50 (ppm)
17	Measured Concentration of Nox	mg/Nm ³	8.2	8.5	6.2	5.8	N.D.

Note : Minimum Detectable Limit of SO₂ & Nox is 0.1 and 0.01 ppm respectively.

Instrument Used : Stack Monitoring Kit - Vayubodhan make - VSS I

Both Stack kit have calibration Due on : 05/05/2014

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Ref. No.: 257/10/2013-14

Date: 31/10/2013

STACK EMISSION MONITORING RESULTS

BLAST FURNACE-2

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	Stack No. 1	Stack No. 2	Stack No. 3
01	Date of Sampling	---	19/10/2013	22/10/2013	19/10/2013
02	Time of sampling	Hr.	10.30	14.00	11.45
03	Stack Attached to	---	Dedusting System	Stove Stack	Iron Ore fine & Dust Collecting System
04	Air Pollution Control Measures	---	Bag Filter	---	Bag Filter
05	Stack Height	Meter	40.0	65.0	30.0
06	Stack Diameter	Meter	1.484	2.250	0.650
07	Stack Temperature	°C	43	315	42
08	Ambient Temperature	°C	33	35	34
09	Average Velocity of Flue Gases	M/Sec.	6.5	5.5	8.2
10	Isokinetic flow rate for P.M. Sampling	LPM	26	12	15
11	Gaseous Sampling Flow Rate	LPM	---	---	---
12	Permissible limits for PM	mg/Nm ³	150	150	150
13	Measured Concentration of PM.	mg/Nm ³	40	8	48
14	Permissible limits for SO ₂	mg/Nm ³	NA	NA	NA
15	Measured Concentration of SO ₂	mg/Nm ³	---	---	---
16	Permissible limits for NO _x	mg/Nm ³	NA	NA	NA
17	Measured Concentration of Nox	mg/Nm ³	---	---	---

Note : Minimum Detectable Limit of SO₂ & Nox is 0.1 and 0.01 ppm respectively.

**NA=Not Applicable

Instrument Used : Stack Monitoring Kit - Vayubodhan make - VSS I

Both Stack kit have calibration Due on : 05/05/2014

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Analyst



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Ref. No. : 258/10/2013-14

Date: 31/10/2013

STACK EMISSION MONITORING RESULTS

Captive Power Plant

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	Stack No. 6	Stack No. 7	Stack No. 8	Stack No. 9
01	Date of Sampling	---	Not running during visit	Not running during visit	22/10/2013	22/10/2013
02	Time of sampling	Hr.			12.15	11.15
03	Stack Attached to	---	6000 KVA D.G.	3240 KVA D.G.	3240 KVA D.G.	1180 KVA D.G.
04	Air Pollution Control Measures	---	---	---	---	---
05	Stack Height	Meter	57.0	35	35	35
06	Stack Diameter	Meter	1.984	1.484	1.484	0.980
07	Stack Temperature	°C	---	---	165	143
08	Ambient Temperature	°C	---	---	36	35
09	Average Velocity of Flue Gases	M/Sec.	---	---	9.4	8.3
10	Isokinetic flow rate for P.M. Sampling	LPM	---	---	24	26
11	Gaseous Sampling Flow Rate	LPM	---	---	2.0	2.0
12	Permissible limits for PM	mg/Nm ³	150	150	150	150
13	Measured Concentration of PM	mg/Nm ³	---	---	62	48
14	Permissible limits for SO ₂	ppm	100	100	100.0	100
15	Measured Concentration of SO ₂	ppm	---	---	24.5	20.5
16	Permissible limits for Nox	ppm	50	50	50.0	50
17	Measured Concentration of Nox	ppm	---	---	18.3	14.6

Note : Minimum Detectable Limit of SO₂ & Nox is 0.1 and 0.01 ppm respectively.

Instrument Used : Stack Monitoring Kit - Vayubodhan make - VSS I

Both Stack kit have calibration Due on : 05/05/2014





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Ref. No. 259/10/2013-14

Date: 31/10/2013

STACK EMISSION MONITORING RESULTS

Pipe Complex

Name of company : Jindal Saw Limited,
 Village : Saragnogna,
 Tal : Mundra, Dist : Kutch

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

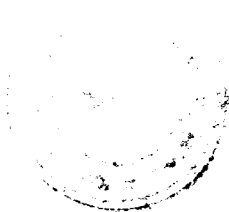
Sr. No.	Particulars	Unit	Stack No. 1	Stack No. 2	Stack No. 3	Stack No. 4	Stack No. 5	Stack No. 6	Stack No. 7
01	Date of Sampling	--	11/10/2013	11/10/2013	11/10/2013	11/09/2013	07/10/2013	17/10/2013	17/10/2013
02	Time of sampling	Hr.	14:15	15:15	Not Running During Visit	Not Running During Visit	10:00	12:30	14:00
03	Stack Attached to	--	Shot Blasing (Coating Plant) - I	Shot Blasing (Coating Plant) - II	Shot Blasing (Coating Plant) - III	Bitumin Drying Oven - I	Common stack Bitumin Drying Oven - II & Boiler	Barrel Grinding - I	Barrel Grinding - II
04	Air Pollution Control Measures	-	Bag Filter	Bag Filter	Bag Filter	---	---	Bag Filter	Bag Filter
05	Stack Height	Meter	10.0	10.0	10.0	32.8	32.8	30	30
06	Stack Diameter	Meter	0.41	0.41	1.125	1.375	1.375	0.584	0.584
07	Stack Temperature	°C	46	48	---	---	142	40	40
08	Ambient Temperature	°C	35	35	---	---	31	36	36
09	Average Velocity of the Gases	M/Sec	7.0	6.8	---	---	11.8	11.5	12.8
10	Isokinetic flow rate for P.M. Sampling	LPM	12	12	---	---	22	21	22
11	Gaseous Sampling flow Rate	LPM	2.0	2.0	---	---	2.0	2.0	2.0
12	Permissible limits for PM	mg/Nm ³	150	150	150	150	150	150	150
13	Measured Concentration of PM	mg/Nm ³	52	46	---	---	42	38	42
14	Permissible limits for SO ₂	mg/Nm ³	40	40	40	100 ppm	100 ppm	40	40
15	Measured Concentration of SO ₂	mg/Nm ³	6.2	5.5	---	---	7.5	3.5	4.4
16	Permissible limits for NO _x	mg/Nm ³	25	25	25	50 ppm	50 ppm	25	25
17	Measured Concentration of NO _x	mg/Nm ³	3.5	3.8	---	---	8.8	4.1	3.8

Note : Minimum Detectable Limit of SO₂ & NO_x is 0.1 and 0.01 ppm respectively

Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubohan make - VSS I

Both Stack kit have calibration due on : 05/05/2014

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Ref No : 260/10/2013-14

Date: 31/10/2013

STACK EMISSION MONITORING RESULTS

Pipe Copmplex

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	Stack No. 8	Stack No. 9	Stack No. 10	Stack No. 11	Stack No. 12	Stack No. 13
01	Date of Sampling	---	07/10/2013	07/10/2013	21/10/2013	21/10/2013	21/10/2013	21/10/2013
02	Time of sampling	Hr.	12.00	11.00	13.00	14.00	15.00	16.00
03	Stack Attached to	---	Common stack Mg Converter- I&II	Mg Converter -III	Zn Coating - I	Zn Coating - II	Zn Coating - III	Zn Coating - IV & V
04	Air Pollution Control Measures	---	Bag Filter	Bag Filter	Cyclone Seprater & Bag Filter	Cyclone Seprater & Bag Filter	Cyclone Seprater & Bag Filter	Cyclone Seprater & Bag Filter
05	Stack Height	Meter	30	30	30	30	30	30
06	Stack Diameter	Meter	0.488	0.488	0.584	0.584	0.584	0.850
07	Stack Temperature	°C	73	53	42	44	48	46
08	Ambient Temperature	°C	35	34	35	35	35	35
09	Average Velocity of flue Gases	M/Sec	15.8	11.4	12.8	11.8	10.6	10.2
10	isokinetic flow rate for P.M. Sampling	LPM	26	20	23	21	18	18
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0	---	---	---	---
12	Permissible limits for PM	mg/Nm3	150	150	20 (Zn)	20 (Zn)	20 (Zn)	20 (Zn)
13	Measured Concentration of PM	mg/Nm3	42	35	16 (Zn)	18 (Zn)	16 (Zn)	18 (Zn)
14	Permissible limits for SO2	mg/Nm3	40	40	NA	NA	NA	NA
15	Measured Concentration of SO2	mg/Nm3	N.D.	N.D.	---	---	---	---
16	Permissible limits for Nox	mg/Nm3	25	25	NA	NA	NA	NA
17	Measured Concentration of Nox	mg/Nm3	5.5	4.2	---	---	---	---

Note : Minimum Detectable Limit of SO2 & Nox is 0.1 and 0.01 ppm respectively.

N.D= Not Detectable

Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS I

Both Stack kit have calibration. Due on : 05/05/2014

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Ref. No : 261/10/2013-14

Date: 31/10/2013

STACK EMISSION MONITORING RESULTS

Pipe Complex

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	Stack No. 14	Stack No. 15	Stack No. 16	Stack No. 17	Stack No. 18	Stack No. 19
01	Date of Sampling	---	18/10/2013	18/10/2013	18/10/2013	18/10/2013	18/10/2013	18/10/2013
02	Time of sampling	Hr.	11.30	12.30	14.00	15.00	16.00	17.00
03	Stack Attached to	---	Core Cleaning & Dusting-I	Core Cleaning & Dusting-II	Core Shop-I	Core Shop-II	Core Shop-III	Core Shop-IV
04	Air Pollution Control Measures	---	Bag Filter	Bag Filter	---	---	---	---
05	Stack Height	Meter	30	30	30	30	30	30
06	Stack Diameter	Meter	0.588	0.59	0.584	0.584	0.584	0.584
07	Stack Temperature	°C	44	43	41	42	44	40
08	Ambient Temperature	°C	34	35	36	36	36	36
09	Average Velocity of Flue Gases	M/Sec.	13.5	13.3	4.8	4.5	4.2	10.8
10	Isokinetic flow rate for P.M. Sampling	LPM	24	23	20	22	19	19
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0	2.0	2.0	2.0	2.0
12	Permissible limits for PM	mg/Nm ³	150	150	150	150	150	150
13	Measured Concentration of PM	mg/Nm ³	38	50	44	30	42	50
14	Permissible limits for SO ₂	mg/Nm ³	40	40	40	40	40	40
15	Measured Concentration of SO ₂	mg/Nm ³	3.8	2.8	N.D.	4.4	5.5	4.2
16	Permissible limits for Nox	mg/Nm ³	25	25	25	25	25	25
17	Measured Concentration of Nox	mg/Nm ³	7.2	6.8	4.2	4.1	3.5	4.3

Note : Minimum Detectable Limit of SO₂ & Nox is 0.1 and 0.01 ppm respectively.

N.D= Not Detectable

Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS I

Both Stack kit have calibration Due on : 05/05/2014

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Ref. No. : 262/10/2013-14

Date: 31/10/2013

STACK EMISSION MONITORING RESULTS

Pipe Complex

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	Stack No. 20	Stack No. 21	Stack No. 22	Stack No. 23	Stack No. 24	Stack No. 25
01	Date of Sampling	---	10/10/2013	10/10/2013	10/10/2013	17/10/2013	17/10/2013	07/10/2013
02	Time of sampling	Hr.	10.30	11.30	14.30	15.00	16.00	15.30
03	Stack Attached to	---	Annealing Furnace - I	Annealing Furnace - I	Annealing Furnace - II	Barrel Grinding-III	Barrel Grinding -IV&V	Sand Reclamation
04	Air Pollution Control Measures	---	---	---	---	Bag Filter	Bag Filter	Bag Filter
05	Stack Height	Meter	32	32	32	30	25	32
06	Stack Diameter	Meter	1.375	1.375	1.375	0.488	0.488	0.885
07	Stack Temperature	°C	121	156	168	52	48	80
08	Ambient Temperature	°C	31	33	36	35	35	35
09	Average Velocity of Flue Gases	M/Sec.	7.8	8.1	7.5	11.5	10.8	11.3
10	Isokinetic flow rate for P.M. Sampling	LPM	25	24	22	20	19	18
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0	2.0	2.0	2.0	2.0
12	Permissible limits for PM	mg/Nm ³	150	150	150	150	150	150
13	Measured Concentration of PM	mg/Nm ³	35	30	42	40	44	38
14	Permissible limits for SO ₂	mg/Nm ³	100 (PPM)	100 (PPM)	100 (ppm)	40	40	40
15	Measured Concentration of SO ₂	mg/Nm ³	3.3(PPM)	4.8(PPM)	4.6(PPM)	3.5	2.8	N.D.
16	Permissible limits for Nox	mg/Nm ³	50 (PPM)	50 (PPM)	50 (PPM)	25	25	25
17	Measured Concentration of Nox	mg/Nm ³	4.1 (PPM)	5.0 (PPM)	5.8 (PPM)	4.2	5.1	N.D.

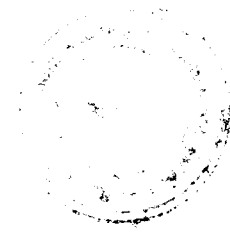
Note : Minimum Detectable Limit of SO₂ & Nox is 0.1 and 0.01 ppm respectively.

N.D= Not Detectable

Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS I

Both Stack kit have calibration Due on : 05/05/2014

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Ref. No. : 263/10/2013 14

Date: 31/10/2013

STACK EMISSION MONITORING RESULTS

Small Dia Ductile Iron Pipe Complex

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	Stack No. 1	Stack No. 2	Stack No. 3	Stack No. 4	Stack No. 5	Stack No. 6
01	Date of Sampling	---	10/10/2013	10/10/2013	07/10/2013	18/09/2013	21/10/2013	10/10/2013
02	Time of sampling	Hr.	15.30	16.30	17.00	Not Running During Visit	17.00	17.30
03	Stack Attached to	---	Annealing Furnace - I	Annealing Furnace - I	Magnesium Treatment	Socket Cleaning	Zinc Coating	Tri-Grinding Section
04	Air Pollution Control Measures	---	---	---	Bag Filter	Bag Filter	Bag Filter	Bag Filter
05	Stack Height	Meter	45	45	30	30	30	30
06	Stack Diameter	Meter	---	---	---	---	---	---
07	Stack Temperature	°C	131	142	78	---	44	38
08	Ambient Temperature	°C	36	36	35	---	35	35
09	Average Velocity of Flue Gases	M/Sec	7.3	6.3	6.5	---	8.4	10.3
10	isokinetic flow rate for P.M. Sampling	LPM	23	19	23	---	15	19
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0	---	---	---	---
12	Permissible limits for PM	mg/Nm ³	50	50	50	50	50	50
13	Measured Concentration of PM.	mg/Nm ³	20	25	35	---	26 (Zn)	32
14	Permissible limits for SO ₂	PPM	100	100	NA	NA	NA	NA
15	Measured Concentration of SO ₂	PPM	13.1	14.8	---	---	---	---
16	Permissible limits for Nox	PPM	50	50	NA	NA	NA	NA
17	Measured Concentration of Nox	PPM	4.4	5.6	---	---	---	---

Note : Minimum Detectable Limit of SO₂ & Nox is 0.1 and 0.01 ppm respectively.

N.D= Not Detectable

Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS 1

Both Stack kit have calibration Due on : 05/05/2014

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Ref. No. : 265/10/2013-14

Date: 31/10/2013

WORK ZONE NOISE LEVEL MEASUREMENT

Name of company : Sindal Saw Limited,
Village: Samaghogha,
Tal. : Mundra, Dist. Kutch

Date of Sampling : 19th to 21st October , 2013

Sr. No.	Location of Sampling	Results Avg. in dB(A)
01.	Inside Control Room of Sinter Plant	71.8
02.	Nr. Stock House of BF	73.5
03.	Inside Control Room of BF	69.1
04.	Inside Control Room of Blower House	68.2
05.	Inside Control of Cast House	66.8
06.	Inside Control Room of CPP	63.2
07.	Inside Control Room of Annealing Furnace of DISP	61.8
08.	Inside Laboratory of BF	61.2
09.	Inside Laboratory of DISP	65.8
10.	Inside ID & OD Control Room of JCO Plant	68.3
11.	Inside Control Room – Mill area of Spiral Plant	65.1
12.	Inside Spiral – 1	64.2
13.	Nr. Pipe cutting Area of Spiral Plant	71.2
14.	Inside JCO Plant	66.8
15.	Nr. JCO Press	65.7
16.	Inside DISP Plant	71.3
17.	Inside Coating Plant	68.3
18.	Nr. CCM SDP-II	71.3
19.	Inside Control Room of Annealing Furnace of SDP-II	65.7
20.	Inside New Coating Plant	71.3
21.	Inside Control Room of BF-2	70.3
22.	Inside Spiral-2	70.4
23.	Nr. Zinc Coating SDP-II	72.6
24.	Nr. Stock House of BF-2	66.8
25.	C/R Blower House of BF-2	67.3

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 : 29/09/2014



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Ref. No. : 266/10/2013-14

Date: 31/10/2013

AMBIENT NOISE LEVEL MEASUREMENT

Name of company : Jindal Saw Limited,
Village: Samaghogha,
Tal. : Mundra, Dist. Kutch

Date of Sampling : 19th to 21st October , 2013

Sr. No.	Location of Sampling	Results in dB(A) (Day Time)	Results in dB(A) (Night Time)
	Permissible Limits	75.0	70.0
01.	Nr. Admin. Building	66.8	64.1
02.	Nr. Old Colony	65.3	62.3
03.	Nr. LPG Yard	66.8	61.8
04.	Nr. Sinter Plant	67.2	63.5
05.	Nr. R. O. Plant	67.5	62.7
06.	Nr. Gate No. 2	66.8	62.6
07.	Nr. New Colony	65.3	63.5

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 : 29/09/2014

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Ref. No. : 267/10/2013-14

Date: 31/10/2013

REPORT OF DOMESTIC WASTE WATER ANALYSIS

Name of company : Jindal Saw Limited,
Village: Samaghogha,
Tal. : Mundra, Dist. Kutch

Source Of Sample Collection : Domestic Effluent After Treatment
Date of Sampling : 21/10/2013

Sr. No. Parameters	Unit	GPCB limits	STP Inlet	STP Outlet
01. pH	pH Unit	-----	7.41	7.25
02. BOD (3 Days at 27°C)	mg/l	<20	206	15
03. Suspended Solids	mg/l	<30	100	22
04. Residual Chlorine	mg/l	Min. 0.5	----	0.56

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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, BF, DISP, JCO & Coating Units at Jindal Saw Limited, Samaghogha.
 2 Raw materials, by products and finished products involved in the process: TOTAL DUST
 3 Particulars of sampling.

Date of Sampling : 19th to 21st October, 2013

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	Spiral Plant Nr. ID/OD	Total Dust	Personal Respirable Dust sampler APM 800	02	4-4.5	4.25	10	Gravimetric	7	----	<i>(Signature)</i>	Mr. Manoj Sonrat
2	JCO Plant Nr. JCO Press	Total Dust		02	3-3.5	3.25	10	Gravimetric	8	----		
3	Sinter Plant At First Floor	Total Dust		02	2-3	2.5	10	Gravimetric	6	----		
4	BF Plant (Cast House)	Total Dust		02	0.8-0.9	0.85	2	Gravimetric	8	----		
		Total Dust			3-4	3.5	10					
5	Coating Plant-1 (Blasting Area)	Total Dust		02	3-5	4.0	10	Gravimetric	7	----		
6	DISP Plant Main Entrance	Total Dust		02	4-5	4.5	10	Gravimetric	8	----		
7	Spiral Plant-2 Nr. ID/OD	Total Dust		02	2.0-3.0	2.5	10	Gravimetric	6	----		
8	Coating Plant-2 (Blasting Area)	Total Dust		02	4-6	5.0	10	Gravimetric	5	----		
9	Coating Plant-3 (Blasting Area)	Total Dust		02	3-5	4.0	10	Gravimetric	5	----		
10	Small Dia Ductile Iron pipe	Total Dust	02	4-5	4.5	10	Gravimetric	6	----			

Instruments used : Envirotech make personal sampler Model No. APM 800

Calibration Date Due on : 11/12/2013

(Signature)
Authorized Sign