



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. : 278/01/2012-13

Date:31/01/2013

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 (SE)	Sinter Plant - 1 (NW)	Nr. Workshop Spiral II (SW)
02.	Date of sampling	----	01/01/2013	01/01/2013	01/01/2013
03.	Time of sampling	Hr.	9.00	9.30	10.00
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	NW	NW	NW
06.	Average Wind Speed	Km/Hr.	5 to 12	5 to 12	5 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	47	49	46
11.	Permissible limits for PM 2.5	µg/m3	60	60	60
12.	Measured Concentration of PM 2.5	µg/m3	27	33	25
13.	Permissible limits for SO2	µg/m3	80	80	80
14.	Measured Concentration of SO2	µg/m3	12.3	12.7	11.1
15.	Permissible limits for NO2	µg/m3	80	80	80
16.	Measured Concentration of NO2	µg/m3	21.1	22.5	19.8
17.	Permissible limit for CO **	µg/m3	2000	2000	2000
18.	Measured Concentration of CO	µg/m3	212	242	226

Instrument Used: 1) Combo Sampler AAS 271 & Gaseous Sampling Attachment AAS 109

2) 2 Nos. Ecotach make Respirable Dust Sampler Model No. AAS 217 BL, PM 2.5 & PM 10 Sampler AAS 127, Gaseous Sampling Attachment

Calibration is due on: 1) 22/04/2013 2) 03/07/2013

Royal Environment Auditing & Consultancy Service

Diya



Mamraj
Analyst



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Tal. : Mundra, Dist. Kutch

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

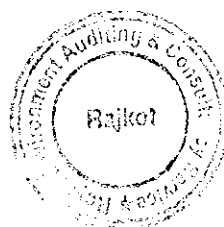
Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	----	Main Gate (SE)	Sinter Plant - 1 (NW)	Nr. Workshop Spiral - II (SW)
02.	Date of sampling	---	04/01/2013	04/01/2013	04/01/2013
03.	Time of sampling	Hr.	9.00	9.30	10.00
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	---	NW	NW	NW
06.	Average Wind Speed	Km/Hr.	4 to 11	4 to 11	4 to 11
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	50	53	48
11.	Permissible limits for PM 2.5	µg/m3	60	60	60
12.	Measured Concentration of PM 2.5	µg/m3	27	31	23
13.	Permissible limits for SO2	µg/m3	80	80	80
14.	Measured Concentration of SO2	µg/m3	11.7	12.2	10.8
15.	Permissible limits for NO2	µg/m3	80	80	80
16.	Measured Concentration of NO2	µg/m3	22.2	23.1	20.6
17.	Permissible limit for CO **	µg/m3	2000	2000	2000
18.	Measured Concentration of CO	µg/m3	215	256	221

Instrument Used: 1) Combo Sampler AAS 271 & Gaseous Sampling Attachment AAS 109

2) 2 Nos. Ecotach make Respirable Dust Sampler Model No. AAS 217 BL, PM 2.5 & PM 10 Sampler AAS 127, Gaseous Sampling Attachment

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Ref. No. : 280/01/2012-13

Date:31/01/2013

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 (SE)	Sinter Plant - 1 (NW)	Nr. Workshop Spiral - II (SW)
02.	Date of sampling	----	08/01/2013	08/01/2013	08/01/2013
03.	Time of sampling	Hr.	9.00	9.30	10.00
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	NW	NW	NW
06.	Average Wind Speed	Km/Hr.	3 to 11	3 to 11	3 to 11
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	45	50	41
11.	Permissible limits for PM 2.5	µg/m3	60	60	60
12.	Measured Concentration of PM 2.5	µg/m3	28	32	25
13.	Permissible limits for SO2	µg/m3	80	80	80
14.	Measured Concentration of SO2	µg/m3	12.9	13.3	11.7
15.	Permissible limits for NO2	µg/m3	80	80	80
16.	Measured Concentration of NO2	µg/m3	21.4	21.9	20.7
17.	Permissible limit for CO **	µg/m3	2000	2000	2000
18.	Measured Concentration of CO	µg/m3	221	245	232

Instrument Used: 1) Combo Sampler AAS 271 & Gaseous Sampling Attachment AAS 109

2) 2 Nos. Ecotach make Respirable Dust Sampler Model No. AAS 217 BL, PM 2.5 & PM 10 Sampler AAS 127, Gaseous Sampling Attachment
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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 (SE)	Sinter Plant - 1 (NW)	Nr. Workshop Spiral - II (SW)
02.	Date of sampling	----	11/01/2013	11/01/2013	11/01/2013
03.	Time of sampling	Hr.	9.00	9.30	10.00
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	NW	NW	NW
06.	Average Wind Speed	Km/Hr.	3 to 9	3 to 9	3 to 9
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	48	52	46
11.	Permissible limits for PM 2.5	µg/m³	60	60	60
12.	Measured Concentration of PM 2.5	µg/m ³	30	34	28
13.	Permissible limits for SO₂	µg/m³	80	80	80
14.	Measured Concentration of SO ₂	µg/m ³	12.3	12.7	11.6
15.	Permissible limits for NO₂	µg/m³	80	80	80
16.	Measured Concentration of NO ₂	µg/m ³	21.2	21.6	20.5
17.	Permissible limit for CO **	µg/m³	2000	2000	2000
18.	Measured Concentration of CO	µg/m ³	212	259	228

Instrument Used: 1) Combo Sampler AAS 271 & Gaseous Sampling Attachment AAS 109

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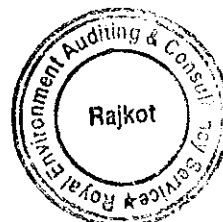
Test Method : As per IS Standards - 5182_2/4/6

Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	----	Main Gate (SE)	Sinter Plant - 1 (NW)	Nr. Workshop Spiral - II (SW)
02.	Date of sampling	----	15/01/2013	15/01/2013	15/01/2013
03.	Time of sampling	Hr.	9.00	9.30	10.00
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	NW	NW	NW
06.	Average Wind Speed	Km/Hr.	4 to 10	4 to 10	4 to 10
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	$\mu\text{g}/\text{m}^3$	100	100	100
10.	Measured Concentration of PM 10	$\mu\text{g}/\text{m}^3$	52	58	46
11.	Permissible limits for PM 2.5	$\mu\text{g}/\text{m}^3$	60	60	60
12.	Measured Concentration of PM 2.5	$\mu\text{g}/\text{m}^3$	28	33	26
13.	Permissible limits for SO₂	$\mu\text{g}/\text{m}^3$	80	80	80
14.	Measured Concentration of SO ₂	$\mu\text{g}/\text{m}^3$	12.8	13.0	11.9
15.	Permissible limits for NO₂	$\mu\text{g}/\text{m}^3$	80	80	80
16.	Measured Concentration of NO ₂	$\mu\text{g}/\text{m}^3$	21.5	21.9	20.6
17.	Permissible limit for CO **	$\mu\text{g}/\text{m}^3$	2000	2000	2000
18.	Measured Concentration of CO	$\mu\text{g}/\text{m}^3$	229	268	242

Instrument Used: 1) Combo Sampler AAS 271 & Gaseous Sampling Attachment AAS 109

2) 2 Nos. Ecotach make Respirable Dust Sampler Model No. AAS 217 BL, PM 2.5 & PM 10 Sampler AAS 127, Gaseous Sampling Attachment
Calibration is due on: 1) 22/04/2013 2) 03/07/2013

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Date:31/01/2013

Ref. No. : 283/01/2012-13

AMBIENT AIR QUALITY MONITORING REPORT

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Village: Samaghogha,
Tal. : Mundra, Dist. Kutch

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

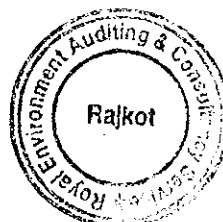
Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	----	Main Gate (SE)	Sinter Plant - 1 (NW)	Nr. Workshop Spiral - II (SW)
02.	Date of sampling	----	18/01/2013	18/01/2013	18/01/2013
03.	Time of sampling	Hr.	9.00	9.30	10.00
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	NW	NW	NW
06.	Average Wind Speed	Km/Hr.	5 to 12	5 to 12	5 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	$\mu\text{g}/\text{m}^3$	100	100	100
10.	Measured Concentration of PM 10	$\mu\text{g}/\text{m}^3$	50	56	42
11.	Permissible limits for PM 2.5	$\mu\text{g}/\text{m}^3$	60	60	60
12.	Measured Concentration of PM 2.5	$\mu\text{g}/\text{m}^3$	31	34	28
13.	Permissible limits for SO₂	$\mu\text{g}/\text{m}^3$	80	80	80
14.	Measured Concentration of SO ₂	$\mu\text{g}/\text{m}^3$	12.5	12.8	11.1
15.	Permissible limits for NO₂	$\mu\text{g}/\text{m}^3$	80	80	80
16.	Measured Concentration of NO ₂	$\mu\text{g}/\text{m}^3$	21.8	22.6	20.2
17.	Permissible limit for CO **	$\mu\text{g}/\text{m}^3$	2000	2000	2000
18.	Measured Concentration of CO	$\mu\text{g}/\text{m}^3$	220	249	231.0

Instrument Used: 1) Combo Sampler AAS 271 & Gaseous Sampling Attachment AAS 109

2) 2 Nos. Ecotach make Respirable Dust Sampler Model No. AAS 217 BL, PM 2.5 & PM 10 Sampler AAS 127, Gaseous Sampling Attachment

Calibration is due on: 1) 22/04/2013 2) 03/07/2013

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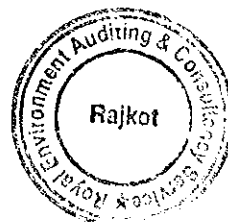
Test Method : As per IS Standards - 5182_2/4/6

Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	---	Main Gate (SE)	Sinter Plant - 1 (NW)	Nr. Workshop Spiral - II (SW)
02.	Date of sampling	---	22/01/2013	22/01/2013	22/01/2013
03.	Time of sampling	Hr.	9.00	9.30	10.00
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	NW	NW	NW
06.	Average Wind Speed	Km/Hr.	3 to 11	3 to 11	3 to 11
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	45
11.	Permissible limits for PM 2.5	µg/m3	60	60	60
12.	Measured Concentration of PM 2.5	µg/m3	29	31	26
13.	Permissible limits for SO2	µg/m3	80	80	80
14.	Measured Concentration of SO2	µg/m3	12.5	13.0	11.9
15.	Permissible limits for NO2	µg/m3	80	80	80
16.	Measured Concentration of NO2	µg/m3	22.7	23.2	20.9
17.	Permissible limit for CO **	µg/m3	2000	2000	2000
18.	Measured Concentration of CO	µg/m3	213	261	234.0

Instrument Used: 1) Combo Sampler AAS 271 & Gaseous Sampling Attachment AAS 109

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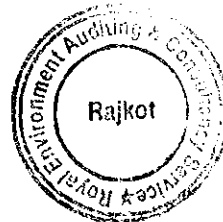
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Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	----	Main Gate (SE)	Sinter Plant - 1 (NW)	Nr. Workshop Spiral - II (SW)
02.	Date of sampling	----	25/01/2013	25/01/2013	25/01/2013
03.	Time of sampling	Hr.	9.00	9.30	10.00
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	NW	NW	NW
06.	Average Wind Speed	Km/Hr.	2 to 9	2 to 9	2 to 9
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	47	51	43
11.	Permissible limits for PM 2.5	µg/m3	60	60	60
12.	Measured Concentration of PM 2.5	µg/m3	32	35	27
13.	Permissible limits for SO2	µg/m3	80	80	80
14.	Measured Concentration of SO2	µg/m3	12.1	12.9	11.7
15.	Permissible limits for NO2	µg/m3	80	80	80
16.	Measured Concentration of NO2	µg/m3	21.3	22.2	20.9
17.	Permissible limit for CO **	µg/m3	2000	2000	2000
18.	Measured Concentration of CO	µg/m3	225	252	243.0

Instrument Used: 1) Combo Sampler AAS 271 & Gaseous Sampling Attachment AAS 109

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Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	----	Main Gate (SE)	Sinter Plant - 1 (NW)	Nr. Workshop Spiral - II (SW)
02.	Date of sampling	----	29/01/2013	29/01/2013	29/01/2013
03.	Time of sampling	Hr.	9.00	9.30	10.00
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	NW	NW	NW
06.	Average Wind Speed	Km/Hr.	3 to 10	3 to 10	3 to 10
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	45	53	42
11.	Permissible limits for PM 2.5	µg/m3	60	60	60
12.	Measured Concentration of PM 2.5	µg/m3	30	32	25
13.	Permissible limits for SO2	µg/m3	80	80	80
14.	Measured Concentration of SO2	µg/m3	12.8	13.2	12.1
15.	Permissible limits for NO2	µg/m3	80	80	80
16.	Measured Concentration of NO2	µg/m3	20.8	21.9	20.1
17.	Permissible limit for CO **	µg/m3	2000	2000	2000
18.	Measured Concentration of CO	µg/m3	232	268	252

Instrument Used: 1) Combo Sampler AAS 271 & Gaseous Sampling Attachment AAS 109

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01.	Location of Ambient	----	Main Gate (SE)	Sinter Plant - 1 (NW)	Nr. Workshop Spiral - II (SW)
02.	Date of sampling	----	30/01/2013	30/01/2013	30/01/2013
03.	Time of sampling	Hr.	9.00	9.30	10.00
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	NW	NW	NW
06.	Average Wind Speed	Km/Hr.	4 to 11	4 to 11	4 to 11
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	50	43
11.	Permissible limits for PM 2.5	µg/m3	60	60	60
12.	Measured Concentration of PM 2.5	µg/m3	31	34	28
13.	Permissible limits for SO2	µg/m3	80	80	80
14.	Measured Concentration of SO2	µg/m3	12.5	13.5	11.7
15.	Permissible limits for NO2	µg/m3	80	80	80
16.	Measured Concentration of NO2	µg/m3	21.2	22.3	20.4
17.	Permissible limit for CO **	µg/m3	2000	2000	2000
18.	Measured Concentration of CO	µg/m3	239	273	258.0

Instrument Used: 1) Combo Sampler AAS 271 & Gaseous Sampling Attachment AAS 109

2) 2 Nos. Ecotach make Respirable Dust Sampler Model No. AAS 217 BL, PM 2.5 & PM 10 Sampler AAS 127, Gaseous Sampling Attachment
Calibration is due on: 1) 22/04/2013 2) 03/07/2013

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Ref. No. : 287/01/2012-13

Date:31/01/2013

AMBIENT AIR QUALITY MONITORING REPORT

UpWind Direction

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	AAQM - 2	AAQM - 3	AAQM - 4
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	----	15/01/2013	16/01/2013	17/01/2013	18/01/2013
03.	Time of sampling	Hr.	10.30	9.00	9.00	10.30
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	NW	NW	NW	NW
06.	Average Wind Speed	Km/Hr.	4 to 10	4 to 11	5 to 10	5 to 12
07.	Average flow rate during sampling	m ³ /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/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	48	52	51	49
11.	Permissible limits for PM 2.5	µg/m ³	60	60	60	60
12.	Measured Concentration of PM 2.5	µg/m ³	30	28	29	37
13.	Permissible limits for SO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of SO ₂	µg/m ³	12.1	12.2	11.5	11.1
15.	Permissible limits for NO ₂	µg/m ³	80	80	80	80
16.	Measured Concentration of NO ₂	µg/m ³	19.2	20.5	21.1	21.8
17.	Permissible limit for CO **	µg/m ³	2000.0	2000.0	2000	2000
18.	Measured Concentration of CO	µg/m ³	221.0	203.0	265	235

Instrument used : 2 Nos of Envirotech make (RDS), and 2.5 Attachment Model No. APM - 460 BL, Gaseous Sampling Kit APM 411,
All are Calibration due on: 23/04/2013

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Ref. No. : 288/01/2012-13

Date:31/01/2013

AMBIENT AIR QUALITY MONITORING REPORT

DownWind Direction

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	AAQM - 6	AAQM - 7	AAQM - 8
01.	Location of Ambient	---	Labour Colony	New Colony (Shopping Centre)	ADMN Building	Weigh bridge
02.	Date of sampling	---	15/01/2013	16/01/2013	17/01/2013	18/01/2013
03.	Time of sampling	Hr.	11.00	9.30	9.30	11.00
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	---	NW	NW	NW	NW
06.	Average Wind Speed	Km/Hr.	4 to 10	4 to11	5 to 10	5 to 12
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	53	56	52	51
11.	Permissible limits for PM 2.5	µg/m3	60	60	60	60
10.	Measured Concentration of PM 2.5	µg/m3	33	29	34	33
13.	Permissible limits for SOx	µg/m3	80	80	80	80
14.	Measured Concentration of SOx	µg/m3	13.2	12.8	11.9	12.4
15.	Permissible limits for Nox	µg/m3	80	80	80	80
16.	Measured Concentration of NOx	µg/m3	19.9	20.9	22.1	22.5
17.	Permissible limit for CO **	µg/m3	2000.0	2000.0	2000	2000
18.	Measured Concentration of	µg/m3	234.0	217.0	245	240

Instrument used : 2 Nos of Envirotech make (RDS),and 2.5 Attachment Model No. APM - 460 BL, Gaseous Sampling Kit APM 411,

All are Calibration due on: 23/04/2013

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Ref. No. : 289/01/2012-13

Date:31/01/2013

FUGITIVE EMISSION MONITORING REPORT

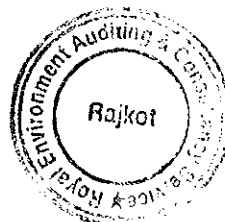
Name of company : Jindal Saw Limited,
Village: Samaghogha,
Tal. : Mundra, Dist. Kutch

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	----	15/01/2013	15/01/2013	16/01/2013
03.	Time of sampling	Hr.	11.30	12.00	10.00
04.	Duration of Sampling	Hr.	8.00	8.00	8.00
05.	Dominant Wind Direction (From)	-----	NW	NW	NW
06.	Average Wind Speed	Km/Hr.	4 to 10	4 to 10	4 to11
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	2423	1821
11.	Permissible limits for SO2	µg/m3	150	150	150
12.	Measured Concentration of SO2	µg/m3	12.8	13.1	11.9
13.	Permissible limits for NO2	µg/m3	120	120	120
14.	Measured Concentration of NO2	µg/m3	24.5	23.2	23.5
15.	Permissible limit for CO **	µg/m3	5000.0	5000.0	5000
16.	Measured Concentration of CO	µg/m3	268.0	248.0	225.0

Instrument used : 2 Nos of Envirotech make (RDS),and 2.5 Attachment Model No. APM - 460 BL, Gaseous Sampling Kit APM 411,
All are Calibration due on: 23/04/2013

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Date:31/01/2013

Ref. No. :290/01/2012-13

FUGITIVE EMISSION MONITORING REPORT

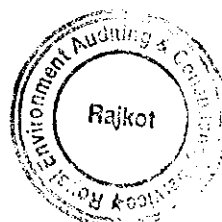
Name of company : Jindal Saw Limited,
Village: Samaghogha,
Tal. : Mundra, Dist. Kutch

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	----	16/01/2013	17/01/2013	17/01/2013
03.	Time of sampling	Hr.	10.30	10.00	10.30
04.	Duration of Sampling	Hr.	8.00	8.00	8.00
05.	Dominant Wind Direction (From)	----	NW	NW	NW
06.	Average Wind Speed	Km/Hr.	4 to11	5 to 10	5 to 10
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	1021	1052	2275
11.	Permissible limits for SO2	µg/m3	150	150	150
12.	Measured Concentration of SO2	µg/m3	12.1	13.2	12.8
13.	Permissible limits for NO2	µg/m3	120	120	120
14.	Measured Concentration of NO2	µg/m3	23.2	21.8	22.7
15.	Permissible limit for CO **	µg/m3	5000.0	5000.0	5000
16.	Measured Concentration of CO	µg/m3	229.0	218.0	212.0

Instrument used : 2 Nos of Envirotech make (RDS),and 2.5 Attachment Model No. APM - 460 BL, Gaseous Sampling Kit APM 411,
All are Calibration due on: 23/04/2013

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Ref. No. : 292/01/2012-13

Date: 31/01/2013

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	---	20/01/2013	20/01/2013	20/01/2013	19/01/2013	19/01/2013	21/01/2013
02	Attached to		Zinc Coating - Mg Converter - I	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	49	52	38	42	45
06	Ambient Temperature	°C	30	30	29	29	29	30
07	Average Velocity of Flue Gase	M/Sec.	4.5	6.6	10.5	10.6	12.9	12.4
08	Inlet	mg	1512	995	745	1632	1578	1062
09	Outlet	mg	15	39	46	49	47	50
10	Efficiency	%	99.01	96.08	93.83	97.00	97.02	95.29

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 Recalibration is Due on : 21/04/2013

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Ref. No. : 293/01/2012-13

Date:31/01/2013

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	—	20/01/2013	21/01/2013	21/01/2013	21/01/2013	19/01/2013	21/01/2013	20/01/2013
02	Attached to	—	Zinc Coating - II	Zn Coating-III	Zn Coating - IV & V	Mg Converter - II	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	47	56	54	50	49	41	43
06	Ambient Temperature	°C	30	30	31	31	31	32	32
07	Average Velocity of Flue Gase	M/Sec.	9.3	11.2	12.1	5.3	9.8	11.8	11.5
08	Inlet	mg	1685	1637	1543	1129	789	1562	1532
09	Outlet	mg	16	16	15	33	45	45	44
10	Efficiency	%	99.05	99.02	99.03	97.08	94.30	97.12	97.13

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 Recalibration is Due on : 21/04/2013

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Ref. No. : 294/01/2012-13

Date:31/01/2013

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	—	15/01/2013	15/01/2013	16/01/2013	16/01/2013	16/01/2013	16/01/2013
02	Time of sampling	Hr.	14.30	15.15	Not Running During Visit	11.30	12.15	13.00
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	124	128	—	58	62	88
08	Ambient Temperature	°C	33	33	—	31	32	32
09	Average Velocity of Flue Gases	M/Sec.	9.9	6.5	—	5.4	5.7	7.2
10	Isokinetic flow rate for P.M. Sampling	LPM	14	21	—	21	22	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	150
13	Measured Concentration of PM.	mg/Nm ³	45	43	—	47	45	44
14	Permissible limits for SO ₂	ppm	100	NA	NA	NA	NA	NA
15	Measured Concentration of SO ₂	ppm	12.1	—	—	—	—	—
16	Permissible limits for NO _x	ppm	50	NA	NA	NA	NA	NA
17	Measured Concentration of NO _x	ppm	6.9	—	—	—	—	—

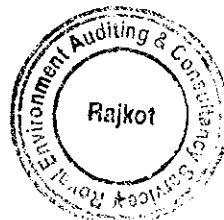
Note : Minimum Detectable Limit of SO₂ & Nox is 0.1 and 0.01 ppm respectively.

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

Both Stack kit Recalibration is Due on : 21/04/2013

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Ref. No. : 295/01/2012-13

Date:31/01/2013

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
01	Date of Sampling	---	17/01/2013	17/01/2013	17/01/2013	18/01/2013	18/01/2013	18/01/2013
02	Time of sampling	Hr.	11.30	12.15	13.00	12.30	14.15	15.00
03	Stack Attached to	---	Sinter Furnace	Tail End Stack	Flux	Primary Mixer De-duster system	Secondary Mixer De-duster system	Fuel Screening deduster System (Screening Flux Stack)
04	Air Pollution Control Measures	---	ESP	ESP	Bag Filter	---	---	Dust Collector
05	Stack Height	Meter	50	50	30	30	30	30
06	Stack Diameter	Meter	2	1.3	0.7	1.25	1.25	---
07	Stack Temperature	°C	139	153	54	51	56	48
08	Ambient Temperature	°C	30	31	32	32	34	34
09	Average Velocity of Flue Gases	M/Sec.	8.9	8.3	6.7	7.8	6.8	6.1
10	Isokinetic flow rate for P.M. Sampling	LPM	27	25	26	30	26	24
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0	2.0	2	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	42	44	43	38	42	31
14	Permissible limits for SO ₂	ppm	100	NA	NA	NA	NA	NA
15	Measured Concentration of SO ₂	ppm	13.6	---	---	---	---	---
16	Permissible limits for NO _x	ppm	50	NA	NA	NA	NA	NA
17	Measured Concentration of NO _x	ppm	19.4	---	---	---	---	---

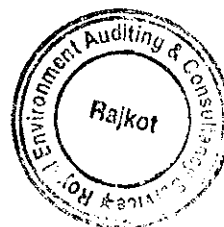
Note : Minimum Detectable Limit of SO₂ & Nox is 0.1 and 0.01 ppm respectively.

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

Both Stack kit Recalibration is Due on : 21/04/2013

NA= Not Applicable

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Ref. No. : 296/01/2012-13

Date:31/01/2013

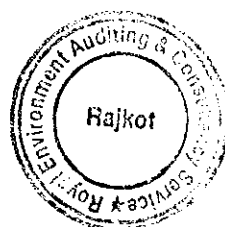
STACK EMISSION MONITORING RESULTS BLAST FURNCE & PCI

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	---	18/01/2013	18/01/2013	18/01/2013	19/01/2013	19/01/2013
02	Time of sampling	Hr.	15.45	16.30	17.15	9.00	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	32.00
06	Stack Diameter	Meter	1.380	1.380	1.484	2.250	---
07	Stack Temperature	°C	165	176	69	331	62
08	Ambient Temperature	°C	33	32	31	29	29
09	Average Velocity of Flue Gases	M/Sec.	7.6	7.1	8.0	8.4	7.5
10	Isokinetic flow rate for P.M. Sampling	LPM	22	20	30	18	28
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	3	2	41	3	52
14	Permissible limits for SO ₂	mg/Nm ³	40	40	40	40	100 (ppm)
15	Measured Concentration of SO ₂	mg/Nm ³	5.1	5.9	N.D.	N.D.	1.5 (ppm)
16	Permissible limits for NO _x	mg/Nm ³	25	25	25	25	50 (ppm)
17	Measured Concentration of Nox	mg/Nm ³	7.9	7.3	6.1	5.2	0.7(ppm)

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 Recalibration is Due on : 21/04/2013

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Ref. No. : 297/01/2012-13

Date:31/01/2013

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

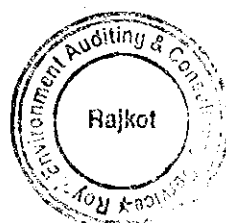
Sr. No.	Particulars	Unit	Stack No. 6	Stack No. 7	Stack No. 8	Stack No. 9
01	Date of Sampling	---	Not Running During Visit	Standby	19/01/2013	Standby
02	Time of sampling	Hr.			11.15	
03	Stack Attached to	---	6000 KVA D.G.	3240 KVA D.G.	3240 KVA D.G.	1180 KVA D.G.
04	Air Pollution Control Measures	---	---	---	---	---
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	---	---	118	---
08	Ambient Temperature	°C	---	---	31	---
09	Average Velocity of Flue Gases	M/Sec.	---	---	8.9	---
10	Isokinetic flow rate for P.M. Sampling	LPM	---	---	29	---
11	Gaseous Sampling Flow Rate	LPM	---	---	2.00	---
12	Permissible limits for PM	mg/Nm ³	150	150	150	150
13	Measured Concentration of PM.	mg/Nm ³	---	---	45	---
14	Permissible limits for SO ₂	ppm	100	100	100	100
15	Measured Concentration of SO ₂	ppm	---	---	18.5	---
16	Permissible limits for Nox	ppm	50	50	50	50
17	Measured Concentration of Nox	ppm	---	---	13.1	---

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

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

Recalibration is Due on : 06/05/2012

Royal Environment Auditing & Consultancy Service



M. Manoj
Analyst



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Ref. No. : 297/01/2012-13

Date:31/01/2013

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. 1	Stack No. 2	Stack No. 3	Stack No. 4	Stack No. 5	Stack No. 6
01	Date of Sampling	—	19/01/2013	Not Running During Visit	Not Running During Visit	19/01/2013	19/01/2013	19/01/2013
02	Time of sampling	Hr.	12.00			12.45	15.00	15.45
03	Stack Attached to	—	Core Shop-II	Bitumin Drying Oven - II	Bitumin Drying Oven - I	Barrel Grinding - I	Barrel Grinding - II	Core Cleaning & Dusting-II
04	Air Pollution Control Measures	—	—	—	—	Bag Filter	Bag Filter	Bag Filter
05	Stack Height	Meter	30	32.8	32.8	30	30	30
06	Stack Diameter	Meter	0.584	1.375	1.375	0.584	0.584	0.59
07	Stack Temperature	°C	62	—	—	45	41	40
08	Ambient Temperature	°C	32	—	—	32	34	34
09	Average Velocity of Flue Gases	M/Sec.	14.1	—	—	12.3	12.7	11.70
10	Isokinetic flow rate for P.M. Sampling	LPM	9	—	—	9	9	8
11	Gaseous Sampling Flow Rate	LPM	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	30	—	—	49	47	45
14	Permissible limits for SO ₂	mg/Nm ³	40	100 ppm	100 ppm	40	40	40
15	Measured Concentration of SO ₂	mg/Nm ³	4.1	—	—	2.1	1.9	2.4
16	Permissible limits for Nox	mg/Nm ³	25	50 ppm	50 ppm	25	25	25
17	Measured Concentration of Nox	mg/Nm ³	4.8	—	—	4.5	5.3	5.8

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 Recalibration is Due on : 21/04/2013

Royal Environment Auditing & Consultancy Service

Signature



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Analyst



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Ref. No. : 298/01/2012-13

Date:31/01/2013

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. 7	Stack No. 8	Stack No. 9	Stack No. 10	Stack No. 11	Stack No. 12
01	Date of Sampling	---	20/01/2013	20/01/2013	20/01/2013	20/01/2014	20/01/2015	20/01/2013
02	Time of sampling	Hr.	9.15	11.00	10.00	12.30	13.00	11.45
03	Stack Attached to	---	Mg Converter-I	Zn Coating - I	Zn Coating - II	Anneling Furnace - I	Anneling Furnace - II	Barrel Grinding - IV&V
04	Air Pollution Control Measures	---	Bag Filter	Cyclone Seprater & Bag Filter	Cyclone Seprater & Bag Filter	---	---	Bag Filter
05	Stack Height	Meter	30	30	30	32	32	25
06	Stack Diameter	Meter	0.488	0.584	0.584	1.375	1.375	0.488
07	Stack Temperature	°C	52	48	53	158	167	40
08	Ambient Temperature	°C	32	33	34	34	34	31
09	Average Velocity of Flue Gases	M/Sec.	6.1	4.9	7.8	7.4	6.8	13.5
10	Isokinetic flow rate for P.M. Sampling	LPM	10	9	13	22	20	10
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0	2.0	2.0	2.0	2.0
12	Permissible limits for PM	mg/Nm3	150	20 (Zn)	20 (Zn)	150	150	150
13	Measured Concentration of PM	mg/Nm3	39	15(Zn)	16 (Zn)	25	33	44
14	Permissible limits for SO2	mg/Nm3	40	NA	NA	100 (PPM)	100 (ppm)	40
15	Measured Concentration of SO2	mg/Nm3	N.D.	---	---	3.1(PPM)	3.0(PPM)	1.4
16	Permissible limits for Nox	mg/Nm3	25	NA	NA	50 (PPM)	50 (PPM)	25
17	Measured Concentration of Nox	mg/Nm3	5.5	---	---	5.8 (PPM)	5.3 (PPM)	5.2

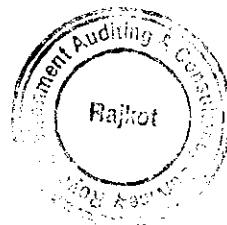
N.D= Not Detectable

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 Recalibration is Due on : 21/04/2013

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Ref. No. : 299/01/2012-13

Date:31/01/2013

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. 13	Stack No. 14	Stack No. 15	Stack No. 16	Stack No. 17
01	Date of Sampling	---	20/01/2013	20/01/2013	20/01/2013	20/01/2013	20/01/2013
02	Time of sampling	Hr.	14.30	Not Running During Visit	Not Running During Visit	15.30	Not Running During Visit
03	Stack Attached to	---	Core Cleaning & Dusting-I	Core Shop-IV	Core Shop-III	Core Shop-I	Shot Blasing (Coating Plant)
04	Air Pollution Control Measures	---	Bag Filter	---	---	---	Cyclone Seprater & Bag Filter
05	Stack Height	Meter	30	30	30	30	---
06	Stack Diameter	Meter	0.588	0.584	0.584	0.584	41
07	Stack Temperature	°C	48	---	---	38	---
08	Ambient Temperature	°C	32	---	---	33	---
09	Average Velocity of Flue Gases	M/Sec.	11.2	---	---	11.5	---
10	Isokinetic flow rate for P.M. Samplin	LPM	20	---	---	21	---
11	Gaseous Sampling Flow Rate	LPM	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	46	---	---	27	---
14	Permissible limits for SO ₂	mg/Nm ³	40	40	40	40	40
15	Measured Concentration of SO ₂	mg/Nm ³	N.D.	---	---	N.D.	---
16	Permissible limits for Nox	mg/Nm ³	25	25	25	25	25
17	Measured Concentration of Nox	mg/Nm ³	N.D.	---	---	2.1	---

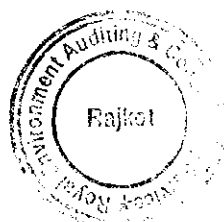
Note : Minimum Detectable Limit of SO₂ & Nox is 0.1 and 0.01 ppm respectively.

N.D.= Not Detectable

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

Both Stack kit Recalibration is Due on : 21/04/2013

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Ref. No. : 300/01/2012-13

Date:31/01/2013

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. 18	Stack No. 19	Stack No. 20	Stack No. 21	Stack No. 22	Stack No. 23
01	Date of Sampling	---	Not Running During Visit	21/01/2013	21/01/2013	21/01/2013	21/01/2013	21/01/2013
02	Time of sampling	Hr.		9.00	10.00	11.00	12.00	14.30
03	Stack Attached to	---	Shot Blasting (Coating Plant)	Mg Converter -II	Zinc Coating - III	Zn Coating - IV & V	Barrel Grinding- III	Sand Reclamation
04	Air Pollution Control Measures	---	Bag Filter	Bag Filter	Cyclone Seprater & Bag Filter	Cyclone Seprater & Bag Filter	Bag Filter	Bag Filter
05	Stack Height	Meter		30	30	30	30	32
06	Stack Diameter	Meter		0.488	---	---	---	---
07	Stack Temperature	°C	---	50	44	54	43	42
08	Ambient Temperature	°C	---	29	29	30	31	33
09	Average Velocity of Flue Gases	M/Sec.	---	4.7	10.8	12.3	11.4	13.2
10	Isokinetic flow rate for P.M. Sampling	LPM	---	8	19	21	21	24
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	20 (Zn)	20 (Zn)	150	150
13	Measured Concentration of PM.	mg/Nm ³	---	33	16 (Zn)	15 (Zn)	45	50
14	Permissible limits for SO ₂	mg/Nm ³		40	NA	NA	40	40
15	Measured Concentration of SO ₂	mg/Nm ³	---	N.D.	---	---	1.1	N.D.
16	Permissible limits for Nox	mg/Nm ³		25	NA	NA	25	25
17	Measured Concentration of Nox	mg/Nm ³	---	2.3	---	---	4.0	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 Recalibration is Due on : 21/04/2013

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Analyst

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 : 18th to 20th January, 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	3-4	3.5	10	Gravimetric	8	---	<i>Manoj</i>	Mr. Manoj Sonrat
2	JCO Plant Nr. JCO Press	Total Dust		02	3-4	3.5	10	Gravimetric	6	---		
3	Sinter Plant At First Floor	Total Dust		02	3-5	4	10	Gravimetric	5	---		
4	BF Plant (Cast House)	CO		02	0.2-0.3	0.25	2	Gravimetric	9	---		
		Total Dust			3-4	3.5	10					
5	Coating Plant (Blasting Area)	Total Dust		02	2-3	2.5	10	Gravimetric	4	---		
6	DISP Plant Main Entrance	Total Dust	02	4-5	4.5	10	Gravimetric	10	---			

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

Calibration Date Due on : 11/12/2013

For. Royal Environment Auditing & Consultancy Service



Manoj
Authorized Sign



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Ref. No. : 302/01/2012-13

Date:31/01/2013

WORK ZONE NOISE LEVEL MEASUREMENT

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

Date of Sampling : 18th to 20th January, 2013

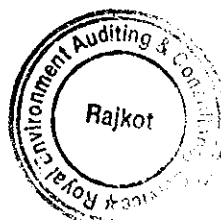
Sr. No.	Location of Sampling	Results Avg. in dB(A)
01.	Inside Control Room of Sinter Plant	67.5
02.	Nr. Stock House of BF	68.3
03.	Inside Control Room of BF	66.8
04.	Inside Control Room of Blower House	70.6
05.	Inside Control of Cast House	66.7
06.	Inside Control Room of CPP	69.9
07.	Inside Control Room of Annealing Furnace of DISP	67.5
08.	Inside Laboratory of BF	67.9
09.	Inside Laboratory of DISP	68.6
10.	Inside ID & OD Control Room of JCO Plant	67.3
11.	Inside Control Room – Mill area of Spiral Plant	70.8
12.	Inside Spiral – 1	70.9
13.	Nr. Pipe cutting Area of Spiral Plant	72.1
14.	Inside JCO Plant	69.2
15.	Nr. JCO Press	72.3
16.	Inside DISP Plant	71.5
17.	Inside Coating Plant	68.9

Instruments used : Sound level meter, Model : SL - 4001 (Lutron Make)

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

Recalibration is due on : 05/10/2013

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Ref. No. : 303/01/2012-13

Date:31/01/2013

AMBIENT NOISE LEVEL MEASUREMENT

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

Date of Sampling : 18th to 20th January, 2013

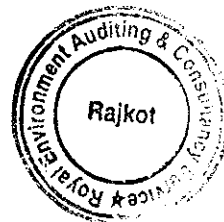
Sr. No.	Location of Sampling	Results in dB(A) (Day Time)	Results in dB(A) (Night Time)
	Permissible Limits	75.0	70.0
01.	Nr. Admin. Building	67.8	66.2
02.	Nr. Old Colony	67.3	66.2
03.	Nr. LPG Yard	68.4	66.5
04.	Nr. Sinter Plant	69.8	67.9
05.	Nr. R. O. Plant	67.6	64.7
06.	Nr. Gate No. 2	68.4	67.1
07.	Nr. New Colony	69.7	67.3

Instruments used : Sound level meter, Model : SL - 4001 (Lutron Make)

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

Recalibration is due on : 05/10/2013

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Ref. No. : 304/01/2012-13

Date:31/01/2013

WATER SAMPLE ANALYSIS REPORT

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

Date of Sample Collection : 22/01/2013

Source of Sample : Borewell Water Sample From Nr, Mess

Sr. No.	Parameters	Unit	Acceptable Limit(*)	Permissible Limits(*)	Results
01.	Colour	Pt.Co.Scale	5	15	Colourless
02	Odour	--	Agreeable	Agreeable	Odourless
03	pH	pH Unit	6.5 to 8.5	No Relaxation	7.48
04.	T.D.S.	mg/l	500	2000	1342
05.	Total Hardness	mg/l	200	600	430
06.	Turbidity	NTU	1	5	1.1
07.	Chloride	mg/l	250	1000	534
08.	Alkalinity	mg/l	200	600	312
09.	Phenolic Compound	mg/l	0.001	0.002	NIL
10.	Residual Chlorine	mg/l	0.2	1.0	NIL
11.	Fluoride	mg/l	1.0	1.5	0.3
12.	Ca as Ca	mg/l	75	200	223
13.	Mg as Mg	mg/l	30	100	192
14.	Copper	mg/l	0.05	1.5	NIL
15.	Iron	mg/l	0.3	No Relaxation	0.35
16.	Manganese	mg/l	0.1	0.3	0.38
17.	Sulphate	mg/l	200	400	0.14
18.	Nitrate	mg/l	45	No Relaxation	10

(*) Acceptable Limit & Permissible Limits as per IS 10500 : 2012, Drinking Water Specification

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Ref. No. : 305/01/2012-13

Date:31/01/2013

REPORT OF DOMESTIC WASTEWATER ANALYSIS

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

Source Of Sample Collection : Domestic Effluent After Treatment

Date of Sample Collection : 22/01/2013

Sr. No.	Parameters	Unit	GPCB limits	STP Inlet	STP Outlet
01.	pH	pH Unit	----	7.93	7.55
02.	BOD (3 Days at 27°C)	mg/l	<20	175	15
03.	Suspended Solids	mg/l	<30	84	16
04.	Residual Chlorine	mg/l	Min. 0.5	---	0.57

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