

Billing Proforma for Ambient Air Quality Monitored by : Jharkhand State Pollution Control Board

Name of city : Dhanbad
Name of State : Jharkhand

S.No.	Sampling Location	Station Type	Station Code	Month	Year	Parameters Monitored	Remarks
1	Regional Office Dhanbad	R	44	October	2007	Meteorological Data SO ₂ , NO _x , RSPM, SPM	
2	MADA, Jharia	I	332	October	2007	SO ₂ , NO _x , RSPM, SPM	
3	PDIL, Sindi	R	46	October	2007	SO ₂ , NO _x , RSPM, SPM	

Kindly fill in 'R' if station falls in Residential Area 'I' if station in Industrial Area 'S' if station falls in Sensitive area

Total number of monitoring stations. = 03 (Three)

Amount to be released = Rs 4266 × 3 = 12798.00

In words (Rs. Twelve Thousand Seven Hundred Ninty Eight Only)

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TABLE C : Summary of Ambient Air Quality Data Monitored by : Jharkhand State Pollution Control Board

Name of City : Dhanbad
 Name of State : Jharkhand

S. No.	Sampling Location Address	Station Type	Station Code	Month and Year	SO ₂				NO _x				RSPM					SPM				
					n	A.M.	S.D.	Max.	n	A.M.	S.D.	Max.	n	A.M.	G.M.	S.D.	Max.	n	A.M.	G.M.	S.D.	Max.
1	R.O Dhanbad	R	44	October 2007	34	17.41	1.26	19.02	34	50.32	3.20	53.69	18	56.28	56.10	4.93	62.66	18	150.22	141.83	53.88	216.00
2	MADA Jharia	I	332	October 2007	36	15.89	2.46	18.88	36	45.36	3.13	48.71	18	122.11	119.76	28.42	177.00	18	184.61	179.48	50.03	273.33
3	PDIL Sindri	R	46	October 2007	42	14.93	1.36	17.38	42	38.70	5.06	46.08	21	114.76	111.83	27.27	151.00	21	170.47	166.53	38.25	218.33

* Kindly fill in 'R' if station falls in Residential Area 'I' if station in Industrial Area 'S' if station falls in Sensitive area

* Kindly fill in Whether conditions as Clear / Cloudy/ Rainy/ Cycione/ Dust Storm/ Calm condition (one or more may be applicable)

Note n = No of observation (in days)
 A.M = Arithmetic mean in ug/m³
 S.D = Standard Deviation
 Max = Max value (24 hours average in ug/m³)
 G.M = Geometric Mean in ug/m³

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TABLE D : Meteorological Data Monitored by : Jhankhand State Pollution Control Board

Sampling Location Address : Regional Office, Dhanbad

Name of City : Dhanbad
Name of State : Jharkhand

Station Type : R
Station Code : 44
Month : November
Year : 2007

S. N O	Hrs	06.10				10.14				14.18				18.22				22.02				06.02				Weather Conditions	Remark
		Date	Temp	R.H	W.S	W.D.	Temp	R.H	W.S	W.D.	Temp	R.H	W.S	W.D.	Temp	R.H	W.S	W.D.	Temp	R.H	W.S	W.D.	Temp.	R.H	W.S		
1	3/4-10-07	27.62	85.75	0.750	EEN	30.87	79.50	0.250	EEN	29.870	78.75	0.950	EEN	28.750	85.00	0.525	EEN	27.75	85.50	0.450	EEN	26.12	84.00	0.625	EEN	Clear	
2	4/5-10-07	28.00	85.25	0.725	EES	30.00	83.00	0.850	EES	28.50	82.50	0.925	EEN	27.00	88.00	0.275	EEN	26.12	90.50	1.300	EEN	25.37	95.00	0.950	EEN	Cloudy / Clear	
3	8/9-10-07	28.50	83.75	1.875	EEN	31.620	78.75	3.100	WWN	29.25	77.25	3.825	WWN	27.750	82.75	2.250	WWN	25.75	83.00	1.750	WWS	25.120	84.00	1.825	WWS	Clear	
4	10/11-10-07	28.500	63.50	0.200	NNW	31.62	51.25	0.925	WWN	29.25	52.50	0.425	WWN	26.37	67.25	0.625	WWN	-	-	-	-	-	-	-	-	Clear	
5	23/24-10-07	22.87	64.50	1.725	WWN	21.120	50.75	1.325	WWS	27.75	46.00	1.550	WWS	25.25	54.25	1.325	WWS	23.87	59.25	0.425	WWS	20.370	76.25	0.275	WWS	Clear	
6	26/26-10-07	21.500	78.00	0.450	EEN	27.37	76.25	0.750	EES	27.620	67.00	1.125	EEN	23.37	62.00	1.150	EEN	20.000	62.00	0.175	EES	19.37	65.00	0.225	EES	Clear	
7	29/30-10-07	27.870	65.00	0.975	EES	29.25	60.75	1.225	EEN	27.25	61.25	1.075	EEN	26.12	56.50	1.150	EES	22.50	58.25	1.000	EES	21.37	63.25	1.200	EES	Clear	

* Kindly fill in 'R' if station falls in Residential Area 'I' if station in Industrial Area 'S' if station falls in Sensitive area
* Kindly fill in Whether conditions as Clear / Cloudy / Rainy/ Cyclopedia/ Dust Storm/ Calm condition (one or more may be applicable)

Note Temp = Average Temperature (in C)
R.H = Average Relative Humidity (in %)

W.S = Average Wind Speed (in Km/Hr)
W.D = Predominant Wind Direction

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TABLE A : Ambient Air Quality Data for SO2 and NOX Monitoring by : Jharkhand State Pollution Control Board

Sampling Location Address : Regione Office Dhanbad

City : Dhanbad

State : Jharkhand

Station Code : 44

Station Type : R

Month: October

Year : 2007

Parameter	Units
SO ₂	ug/M ³
NO _x	ug/ m ³

S. No	Hrs.	SO ₂								NO _x								Weather Conditions	Remarks
		Date	06-10	10-14	14-18	18-22	22-02	02-06	4 Hrs Max	24 Hrs-Avg	06-10	10-14	14-18	18-22	22-02	02-06	4 Hrs. Max		
1	3/4-10-07	16.04	-	31.38	14.64	13.60	12.03	31.38	17.53	39.36	-	76.19	44.44	37.14	35.23	76.19	46.47	Clear	
2	4/5-10-07	-	23.01	14.46	14.80	19.87	13.94	23.01	17.21	-	79.99	40.68	38.68	57.14	49.52	79.99	53.20	Cloudy/ Rainy	
3	8/9-10-07	18.83	15.69	17.57	20.01	17.33	15.25	20.01	17.44	60.95	62.85	54.85	51.32	42.44	37.69	62.85	51.68	Clear	
4	23/24-10-07	17.43	19.52	11.50	31.38	17.43	16.89	31.38	19.02	49.52	52.06	38.09	66.66	38.69	33.73	66.66	46.45	Clear	
5	25/26-10-07	21.96	21.62	18.13	19.87	13.07	13.62	21.96	18.04	66.66	50.79	53.33	57.14	47.61	46.62	57.14	53.69	Clear	
6	29/30-10-07	14.64	10.35	16.88	18.83	14.16	16.34	16.88	15.20	45.71	42.77	68.00	64.76	39.68	14.66	68.00	50.43	Clear	

* Kindly fill in 'R' if station falls in Residential Area 'I' if station in Industrial Area 'S' if station falls in Sensitive area

* Kindly fill in Whether conditions as Clear / Cloudy / Rainy/ Cyclopedia/ Dust Storm/ Calm condition (one or more may be applicable)

Note : 1- Kindly indicate reason if monitoring is not carried out for 24 hrs in a day or less than 8 days in a month

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TABLE B : Ambient Air Quality Data for RSPM and SPM Monitoring by : Jharkhand State Pollution Control Board

Sampling Location Address : Regione Office Dhanbad

City : Dhanbad

State : Jharkhand

Station Code : 44

Station Type : R

Month : November

Year : 2007

Parameter	Units
SO ₂	ug/m ³
NO _x	ug/ m ³

S. No	Hrs. Date	RSPM					SPM					Weather Conditions	Remarks
		06-14	14-22	22-06	8 Hrs Max	24 Hrs Avg	06-14	14-22	22-06	8Hrs. Avg	24 Hrs. Avg		
1	3/4-10-07	56.00	59.00	33.00	59.00	49.33	99.00	101.00	56.00	101.00	85.33	Clear	
2	4/5-10-07	77.00	40.00	51.00	77.00	56.00	137.00	70.00	89.00	137.00	98.66	Cloudy/ Rainy	
3	8/9-10-07	81.00	55.00	52.00	81.00	62.66	138.00	211.00	93.00	211.00	147.33	Clear	
4	23/24-10-07	44.00	46.00	67.00	67.00	52.33	86.00	176.00	177.00	177.00	146.33	Clear	
5	25/26-10-07	73.00	56.00	52.00	73.00	60.33	128.00	236.00	259.00	159.00	207.66	Clear	
6	29/30-10-07	66.00	55.00	50.00	66.00	57.00	176.00	215.00	257.00	257.00	216.00	Clear	

* Kindly fill in 'R' if station falls in Residential Area 'I' if station in Industrial Area 'S' if station falls in Sensitive area

* Kindly fill in Whether conditions as Clear / Cloudy / Rainy/ Cycione/ Dust Storm/ Calm condition (one or more may be applicable)

Note : 1- Kindly indicate reason if monitoring is not carried out for 24 hrs in a day or less than 8 days in a month

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TABLE A : Ambient Air Quality Data for SO2 and NOx Monitoring by : Jharkhand State Pollution Control Board

Sampling Location Address : MADA, Jharia

City : Dhanbad

State : Jharkhand

Station Code : 332

Station Type : I

Month: November

Year : 2007

Parameter	Units
SO2	ug/M ³
NOx	ug/M ³

S. No	Hrs.	SO2								NOX								Weather Conditions	Remarks
		Date	06-10	10-14	14-18	18-22	22-02	02-06	4 Hrs Max	24 Hrs-Avg	06-10	10-14	14-18	18-22	22-02	02-06	4 Hrs. Max		
1	3/4 -10-07	12.53	14.16	10.98	10.35	13.07	15.25	15.25	12.72	38.69	42.65	43.8	30.75	37.14	45.63	45.63	39.77	Clear/ Cloudy	
2	4/5-10-07	12.55	13.62	11.98	13.94	14.16	15.80	15.80	13.67	39.04	43.65	46.62	49.52	50.59	55.55	55.55	47.49	Clear	
3	8/9-10-07	13.62	16.89	18.19	15.41	15.80	13.94	18.19	15.64	41.66	48.61	47.61	46.78	42.65	39.36	48.61	44.44	Clear	
4	23/24-10-07	13.94	16.04	15.69	15.34	17.43	17.98	17.98	16.07	53.33	55.87	39.04	50.79	47.61	45.63	55.87	48.71	Clear	
5	25/26-10-07	14.64	13.07	16.89	32.54	17.43	15.80	32.54	18.39	53.33	45.71	37.69	45.71	45.63	43.65	53.33	45.28	Clear	
6	29/30-10-07	20.22	16.89	17.98	19.52	19.07	19.61	20.22	18.88	50.79	41.66	44.64	49.52	48.61	43.65	50.79	46.47	Clear	

* Kindly fill in 'R' if station falls in Residential Area 'I' if station in Industrial Area 'S' if station falls in Sensitive area

* Kindly fill in Whether conditions as Clear / Cloudy / Rainy/ Cyclopedia/ Dust Storm/ Calm condition (one or more may be applicable)

Note : 1- Kindly indicate reason if monitoring is not carried out for 24 hrs in a day or less than 8 days in a month

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TABLE B : Ambient Air Quality Data for RSPM and SPM Monitoring by : Jharkhand State Pollution Control Board

Sampling Location Address : MADA, Jharia

City : Dhanbad

State : Jharkhand

Station Code : 332

Station Type : I

Month : November

Year : 2007

Parameter	Units
SO ₂	ug/m ³
NO _x	ug/ m ³

S. No	Hrs. Date	RSPM					SPM					Weather Conditions	Remarks
		06-14	14-22	22-06	8 Hrs Max	24 Hrs Avg	06-14	14-22	22-06	8Hrs. Avg	24 Hrs. Avg		
1	3/4 -10-07	100.00	96.00	103.00	103.00	99.66	133.00	128.00	138.00	138.00	133.00	Clear/Cloudy	
2	4/5-10-07	93.00	117.00	111.00	117.00	107.00	127.00	154.00	162.00	162.00	147.66	Clear	
3	8/9-10-07	103.00	106.00	111.00	111.00	106.66	144.00	198.00	151.00	198.00	164.33	Clear	
4	23/24-10-07	154.00	122.00	103.00	154.00	126.33	212.00	250.00	358.00	358.00	273.00	Clear	
5	25/26-10-07	124.00	118.00	109.00	124.00	177.00	173.00	215.00	195.00	215.00	194.33	Clear	
6	29/30-10-07	125.00	121.00	102.00	125.00	116.00	177.00	220.00	188.00	220.00	195.00	Clear	

* Kindly fill in 'R' if station falls in Residential Area 'I' if station in Industrial Area 'S' if station falls in Sensitive area

* Kindly fill in Whether conditions as Clear / Cloudy / Rainy/ Cyclone/ Dust Storm/ Calm condition (one or more may be applicable)

Note : 1- Kindly indicate reason if monitoring is not carried out for 24 hrs in a day or less than 8 days in a month

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TABLE A : Ambient Air Quality Data for SO₂ and NO_x Monitoring by : Jharkhand State Pollution Control Board

Sampling Location Address : PDIL , Sindri

City : Dhanbad

State : Jharkhand

Station Code : 46

Station Type : R

Month: November

Year : 2007

Parameter	Units
SO ₂	ug/M ³
NO _x	ug/M ³

S. No	Hrs. Date	SO ₂								NO _x								Weather Conditions	Remarks
		06-10	10-14	14-18	18-22	22-02	02-06	4 Hrs Max	24 Hrs-Avg	06-10	10-14	14-18	18-22	22-02	02-06	4 Hrs. Max	24 Hrs. Avg		
1	3/4 -10-07	11.98	13.62	14.16	12.53	15.80	16.89	16.89	14.16	40.67	42.65	45.63	32.73	50.59	48.61	50.59	43.48	Clear / Cloudy	
2	4/5-10-07	14.71	16.89	14.66	18.52	16.34	23.19	23.19	17.38	29.76	34.72	32.73	37.69	36.70	49.26	49.26	36.81	Clear Rainy	
3	8/9-10-07	13.60	15.16	15.80	17.26	15.69	18.52	18.52	16.12	29.52	32.38	31.74	35.23	36.19	40.67	40.67	34.28	Clear Cloudy	
4	10/11-10-07	11.15	13.25	10.89	15.34	14.16	15.26	15.34	13.34	50.79	49.52	41.66	48.25	45.63	40.67	50.79	46.08	Clear	
5	23/24-10-07	17.43	20.22	11.98	10.89	14.16	13.07	17.43	14.62	49.52	46.98	35.71	32.73	37.69	34.72	49.52	39.55	Clear	
6	25/26-10-07	12.53	17.43	11.44	13.07	15.80	16.89	17.43	14.52	31.76	38.09	28.76	26.78	32.73	30.75	38.09	31.47	Clear	
7	29/30-10-07	15.34	17.43	11.44	10.89	15.80	15.25	17.43	14.35	44.44	48.25	28.76	29.76	38.69	45.63	48.25	39.25	Clear	

* Kindly fill in 'R' if station falls in Residential Area 'I' if station in Industrial Area 'S' if station falls in Sensitive area

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Note : 1- Kindly indicate reason if monitoring is not carried out for 24 hrs in a day or less than 8 days in a month

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TABLE B : Ambient Air Quality Data for RSPM and SPM Monitoring by : Jharkhand State Pollution Control Board

Sampling Location Address : PDIL , Sindri

City : Dhanbad

State : Jharkhand

Station Code : 46

Station Type : R

Month : November

Year : 2007

Parameter	Units
SO ₂	ug/m ³
NO _x	ug/ m ³

S. No	Hrs. Date	RSPM					SPM					Weather Conditions	Remarks
		06-14	14-22	22-06	8 Hrs Max	24 Hrs- Avg	06-14	14-22	22-06	8Hrs. Avg	24 Hrs. Avg		
1	3/4 -10-07	68.00	70.00	85.00	85.00	74.33	87.00	126.00	125.00	126.00	112.66	Clear / Cloudy	
2	4/5-10-07	86.00	96.00	112.00	112.00	98.00	120.00	146.00	170.00	170.00	145.33	Clear Rainy	
3	8/9-10-07	87.00	92.00	103.00	103.00	94.00	122.00	140.00	155.00	155.00	139.00	Clear Cloudy	
4	10/11-10-07	90.00	140.00	120.00	140.00	116.66	143.00	206.00	231.00	231.00	193.33	Clear	
5	23/24-10-07	156.00	121.00	122.00	156.00	133.00	209.00	177.00	177.00	209.00	187.66	Clear	
6	25/26-10-07	140.00	133.00	136.00	140.00	136.33	191.00	191.00	209.00	209.00	197.00	Clear	
7	29/30-10-07	169.00	101.00	183.00	183.00	151.00	216.00	153.00	286.00	286.00	218.33	Clear	

* Kindly fill in 'R' if station falls in Residential Area 'I' if station in Industrial Area 'S' if station falls in Sensitive area

* Kindly fill in Whether conditions as Clear / Cloudy / Rainy/ Cycione/ Dust Storm/ Calm condition (one or more may be applicable)

Note : 1- Kindly indicate reason if monitoring is not carried out for 24 hrs in a day or less than 8 days in a month

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