

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	September	2007	Meteorological Data SO ₂ , NO _x , RSPM, SPM	
2	MADA, Jharia	I	332	September	2007	SO ₂ , NO _x , RSPM, SPM	
3	PDIL, Sindi	R	46	September	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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R.O. Dhanbad

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	September 2007	41	17.44	2.99	22.27	41	51.58	7.86	64.38	22	39.31	38.93	6.00	50.33	22	70.68	70.28	8.36	87.66
2	MADA Jharia	I	332	September 2007	60	15.21	1.80	17.63	60	43.26	8.84	53.16	30	110.13	105.65	31.17	165.33	30	154.90	152.06	30.54	206.66
3	PDIL Sindri	R	46	September 2007	60	14.93	2.82	21.18	60	42.18	3.44	49.04	30	83.30	80.21	23.16	118.33	30	115.50	113.11	24.71	156.00

* 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 : September
Year : 2007

S. NO	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	5/6-09-07	32.00	82.75	0.675	NNE	30.00	82.00	3.550	WWN	25.000	84.25	1.200	WWN	24.125	85.00	2.150	NNE	23.50	84.00	2.000	NNE	17.00	84.00	1.400	WWN	Cloudy	
2	7/8-09-07	29.00	85.75	1.825	EEN	28.75	84.00	2.200	WWN	23.25	84.25	0.350	WWN	22.75	83.00	0.825	WWN	22.50	82.75	0.475	WWN	21.50	81.50	1.100	WWN	Cloudy / Rainy	
3	10/11-09-07	28.25	87.25	0.950	EEN	28.000	83.25	1.575	WWN	23.00	89.25	2.325	WWS	23.875	87.50	1.450	WWN	23.00	85.50	0.500	NNW	22.000	84.00	0.625	WWN	Rainy/ Cloudy	
4	13/14-09-07	31.875	80.50	1.425	NNE	33.75	73.50	3.825	WWN	29.37	75.00	1.150	NNE	24.25	90.50	2.575	NNE	22.875	95.000	3.025	WWN	22.125	92.000	3.125	NNE	Clear/ Cloudy	
5	19/20-09-07	33.25	79.00	1.175	NNE	33.750	78.00	2.475	NNE	29.75	81.25	0.600	WWN	28.25	92.00	0.675	NNE	26.75	88.50	0.400	WWN	24.625	93.00	0.250	NNE	Clear	
6	21/22-09-07	28.125	81.50	1.025	NNE	30.00	92.50	0.950	NNE	25.625	87.75	1.500	WWN	24.75	85.00	1.650	WWN	24.125	84.25	1.775	WWN	23.30	85.00	1.025	WWN	Cloudy	
7	24/25-09-07	23.875	90.50	5.100	EEN	23.75	92.50	8.100	EEN	25.00	85.00	1.925	WWN	24.75	85.00	5.025	NNE	23.75	86.00	4.850	WWN	23.00	91.00	3.500	WWN	Rainy/ Cloudy	
8	26/27-09-07	29.250	87.25	1.200	EES	32.250	82.75	2.225	EES	28.750	82.50	1.550	EES	26.00	83.75	0.575	EEN	24.125	26.25	0.350	EEN	24.375	87.00	0.200	EEN	Clear/ Cloudy	
9	28/29-09-07	28.375	85.00	1.025	EEN	31.375	78.00	1.675	EEN	27.375	78.00	1.950	EES	26.50	79.50	1.400	EEN	25.25	84.50	1.775	EEN	24.25	84.50	1.725	EES	Cloudy	

* 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 Tomp = 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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(S.S. Hoda)
R.O. Dhanbad

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: September

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	7/8-09-07	18.07	19.17	16.93	15.06	18.83	14.40	19.17	17.07	65.80	61.90	56.23	48.76	62.85	46.21	65.80	56.95	Cloudy/ Rainy	
2	10/11-09-07	14.84	20.92	17.43	10.97	11.85	12.49	20.92	14.75	45.46	66.52	44.44	39.36	48.25	39.80	66.52	47.30	Cloudy/ Rainy	
3	13/14-09-07	19.61	-	33.47	15.34	15.69	18.83	33.47	20.58	64.49	-	114.28	46.98	37.14	59.04	114.28	64.38	Clear/ Cloudy	
4	19/20-09-07	14.64	12.55	15.69	18.41	11.87	15.69	18.41	14.80	36.19	34.82	38.09	53.33	33.97	39.04	53.33	39.24	Clear	
5	21/22-09-07	18.30	17.43	25.10	-	16.04	18.83	25.10	19.14	52.38	49.52	79.99	-	54.60	52.06	79.99	57.71	Cloudy	
6	24/25-09-07	-	-	-	12.55	14.64	14.72	14.72	13.97	-	-	-	53.33	41.90	45.14	53.33	46.79	Rainy/ Cloudy	
7	26/27-09-07	14.64	15.34	17.83	25.10	14.94	13.60	25.10	16.90	45.71	44.44	47.46	70.47	43.53	39.99	70.47	48.56	Cloudy/ Clear	
8	28/29-09-07	-	-	20.92	29.29	21.62	17.26	29.29	22.27	-	-	48.25	66.66	52.06	39.99	66.66	51.74	Cloudy	

* 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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R.O. Dhanbad

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 : September

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. Max	24 Hrs. Avg		
1	7/8-09-07	56.00	41.00	54.00	56.00	50.33	73.00	71.00	82.00	82.00	75.33	Cloudy/ Rainy	
2	10/11-09-07	48.00	41.00	27.00	48.00	38.66	77.00	65.00	52.00	77.00	64.66	Rainy/ Cloudy	
3	13/14-09-07	51.00	32.00	19.00	51.00	34.00	85.00	71.00	36.00	85.00	64.00	Rainy/ Cloudy	
4	19/20-09-07	35.00	40.00	22.00	40.00	32.33	64.00	75.00	50.00	75.00	63.00	Clear	
5	21/22-09-07	25.00	85.00	27.00	85.00	45.66	49.00	162.00	52.00	162.00	87.66	Cloudy	
6	24/25-09-07	-	38.00	42.00	42.00	40.00	-	66.00	82.00	82.00	74.00	Rainy/ Cloudy	
7	26/27-09-07	34.00	45.00	32.00	45.00	37.00	60.00	78.00	58.00	78.00	65.33	Cloudy/ Rainy	
8	28/29-09-07	-	41.00	32.00	41.00	36.50	-	80.00	63.00	80.00	71.50	Cloudy	

* 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: September

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	5/6-09-07	14.64	13.25	13.07	14.64	18.83	15.80	18.83	15.03	40.63	44.44	39.99	45.71	62.22	37.69	62.22	45.11	Clear/ Cloudy	
2	7/8-09-07	11.98	16.88	13.63	17.61	14.16	13.62	17.61	14.64	32.73	42.77	33.73	44.11	35.71	34.72	44.11	37.29	Cloudy	
3	10/11-09-07	14.16	14.64	15.80	22.75	11.98	14.71	22.75	15.67	41.66	49.52	48.61	54.56	42.65	47.61	54.56	47.43	Cloudy/ Rainy	
4	13/14-09-07	12.55	11.44	8.89	9.93	11.50	12.55	12.55	11.14	27.61	25.74	25.71	29.52	27.61	24.80	29.52	26.83	Clear	
5	17/18-09-07	14.64	16.04	21.62	10.98	18.30	22.31	22.31	17.31	40.95	62.22	45.71	39.19	52.38	64.76	64.76	50.36	Clear	
6	19/20-09-07	15.16	16.73	23.01	19.52	18.30	13.07	23.01	17.63	46.66	40.95	64.70	67.30	45.71	39.99	67.30	50.89	Clear/ Cloudy	
7	21/22-09-07	11.44	16.15	12.53	17.61	13.62	14.16	17.61	14.25	37.69	52.13	39.68	54.80	41.66	42.65	54.80	44.76	Clear/ Cloudy	
8	24/25-09-07	16.04	11.44	14.12	21.29	16.15	18.13	21.29	16.19	52.06	39.68	41.90	68.17	57.47	59.68	68.17	53.16	Cloudy/ Rainy	
9	26/27-09-07	9.93	19.82	16.15	14.64	14.16	16.34	19.82	15.17	28.57	46.78	37.42	35.23	32.73	35.71	46.78	30.61	Cloudy	
10	28/29-09-07	14.64	9.63	16.21	19.52	13.60	16.73	19.52	15.10	49.52	39.99	42.85	60.95	48.57	35.23	60.95	46.18	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 : PDIL Sindri

City : Dhanbad

State : Jharkhand

Station Code : 46

Station Type : R

Month : September

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. Max	24 Hrs. Avg		
1	5/6-09-07	66.00	69.00	76.00	76.00	70.33	90.00	95.00	105.00	105.00	96.06	Cloudy	
2	7/8-09-07	98.00	107.00	92.00	107.00	99.00	115.00	161.00	126.00	161.00	134.00	Clear	
3	10/11-09-07	71.00	67.00	71.00	71.00	69.66	82.00	115.00	116.00	116.00	104.23	Cloudy	
4	13/14-09-07	54.00	59.00	68.00	68.00	60.33	77.00	84.00	90.00	90.00	83.66	Clear	
5	17/18-09-07	77.00	92.00	86.00	92.00	85.00	104.00	138.00	119.00	138.00	120.33	Clear	
6	19/20-09-07	96.00	119.00	140.00	140.00	118.33	126.00	157.00	185.00	185.00	156.00	Clear/Rainy	
7	21/22-09-07	108.00	109.00	107.00	109.00	108.00	146.00	144.00	123.00	146.00	137.66	Clear/ Cloudy	
8	24/25-09-07	44.00	46.00	46.00	46.00	45.33	66.00	91.00	98.00	98.00	85.00	Cloudy/Rainy	
9	26/27-09-07	68.00	70.00	87.00	87.00	75.00	93.00	96.00	117.00	117.00	102.00	Cloudy	
10	28/29-09-07	83.00	116.00	107.00	116.00	102.00	105.00	154.00	147.00	154.00	135.33	Cloudy	

* 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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R.O. Dhanbad

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: September

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	5/6-09-07	11.50	12.03	13.07	13.60	12.55	13.07	13.60	12.63	34.28	35.23	37.14	38.09	36.19	39.04	39.04	36.66	Cloudy	
2	7/8-09-07	10.98	15.53	15.16	15.69	12.03	13.60	15.69	13.83	39.99	42.99	37.14	43.80	40.95	48.57	48.57	42.24	Clear	
3	10/11-09-07	11.44	16.15	12.53	13.07	14.16	14.33	16.15	13.61	39.68	54.80	38.69	41.66	43.65	46.99	54.80	44.24	Cloudy	
4	13/14-09-07	13.25	16.73	21.96	12.55	13.25	24.06	24.06	16.26	40.63	47.61	49.52	26.66	40.63	53.33	53.33	43.06	Clear	
5	17/18-09-07	15.69	22.31	23.01	23.71	17.98	24.41	24.41	21.18	33.33	45.71	46.98	52.06	38.69	46.98	52.06	43.95	Clear	
6	19/20-09-07	11.50	16.04	12.55	14.64	17.43	18.83	18.83	15.16	36.19	50.79	40.95	41.90	64.76	59.68	64.76	49.04	Clear/Rainy	
7	21/22-09-07	12.53	10.98	13.07	14.16	11.50	13.62	14.16	12.64	35.71	39.99	40.67	38.69	40.95	45.63	45.63	40.27	Clear/Cloudy	
8	24/25-09-07	10.46	15.41	12.53	16.15	13.67	13.62	16.15	13.64	28.57	41.43	31.74	44.11	40.67	41.66	44.11	38.03	Cloudy/Rainy	
9	26/27-09-07	10.98	12.23	9.55	14.16	13.07	14.16	14.16	12.40	36.19	41.66	39.37	36.70	50.59	46.62	50.59	41.85	Cloudy	
10	28/29-09-07	15.80	19.04	14.71	22.75	16.34	19.33	22.75	17.99	27.70	36.23	30.75	65.49	43.65	48.65	65.44	42.41	Cloudy	

* 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/ Cystone/ 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 : R

Month : September

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. Max	24 Hrs. Avg		
1	5/6-09-07	145.00	137.00	152.00	152.00	144.66	192.00	186.00	199.00	199.00	192.33	Clear / Cloudy	
2	7/8-09-07	93.00	115.00	107.00	115.00	105.00	133.00	160.00	143.00	160.00	145.33	Cloudy	
3	10/11-09-07	90.00	96.00	92.00	96.00	92.00	134.00	144.00	149.00	149.00	142.23	Cloudy/ Rainy	
4	13/14-09-07	111.00	131.00	132.00	132.00	124.66	151.00	177.00	163.00	177.00	163.66	Clear	
5	17/18-09-07	275.00	110.00	111.00	275.00	165.33	314.00	157.00	149.00	314.00	206.06	Clear	
6	19/20-09-07	99.00	107.00	97.00	107.00	101.00	137.00	147.00	136.00	147.00	140.00	Clear/ Cloudy	
7	21/22-09-07	113.00	116.00	121.00	121.00	116.66	163.00	173.00	180.00	180.00	172.00	Clear/ Cloudy	
8	24/25-09-07	86.00	99.00	96.00	99.00	93.66	126.00	144.00	153.00	153.00	141.66	Cloudy/ Rainy	
9	26/27-09-07	48.00	53.00	51.00	53.00	50.66	96.00	102.00	96.00	102.00	98.00	Cloudy	
10	28/29-09-07	108.00	115.00	100.00	115.00	107.66	152.00	151.00	138.00	152.00	147.00	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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