

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	August	2007	Meteorological Data SO ₂ , NO _x , RSPM, SPM	
2	MADA, Jharia	I	332	August	2007	SO ₂ , NO _x , RSPM, SPM	
3	PDIL, Sindi	R	46	August	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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(S.S. Hoda)
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	SO2				M				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	August 2007	52	14.95	2.60	18.46	52	45.00	6.38	57.23	27	65.03	61.71	20.42	90.33	27	89.67	87.48	20.30	115.10
2	MADA Jharia	I	332	August 2007	60	15.46	1.74	17.87	60	39.21	8.24	58.30	30	130.20	121.22	54.05	243.33	30	169.30	158.73	64.95	289.33
3	PDIL Sindri	R	46	August 2007	45	14.36	1.74	17.24	45	38.90	8.42	49.09	23	73.05	69.39	24.85	112.66	23	105.60	102.24	27.45	147.66

* 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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R.O. Dhanbad

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 : August
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			W.D.
1	2/8/2007	28.00	83.75	1.350	WWS	29.25	85.75	0.475	WWS	29.125	86.50	1.025	WWS	27.75	86.00	1.100	SSW	26.50	90.75	1.075	SSW	26.50	88.00	1.700	EEN	Cloudy		
2	6/8/2007	24.00	53.50	5.425	EEN	24.00	58.50	7.100	EEN	29.25	79.75	8.500	WWS	24.75	85.00	6.275	WWS	23.50	83.00	5.975	WWN	23.00	80.00	6.350	WWN	Cloudy / Rainy		
3	8/8/2007	24.00	63.50	3.500	NNE	26.000	62.00	3.400	NNE	27.62	81.50	0.925	NNE	26.625	85.50	0.750	WWN	27.25	85.50	1.125	WWN	27.125	85.00	1.750	WWN	Cloudy / Clear		
4	10/8/2007	30.125	83.50	2.350	EEN	35.25	76.00	1.725	EEN	32.32	91.50	1.250	SSW	30.62	92.00	1.250	EEN	-	-	-	-	-	-	-	-	-	Clear/ Cloudy	
5	13/08/07	27.25	80.75	2.900	WWN	27.125	83.25	3.425	WWN	23.25	88.00	3.375	WWN	21.25	85.50	6.950	WWN	26.25	91.00	2.900	WWN	20.00	88.75	0.875	WWN	Cloudy / Rainy		
6	16/08/07	24.75	84.00	2.975	WWS	22.00	84.00	1.525	WWS	24.00	92.00	0.325	WWS	24.00	85.00	0.125	EEN	23.625	82.00	0.100	EEN	23.00	84.00	0.125	EEN	Cloudy / Rainy		
7	20/08/07	25.50	85.50	5.275	EEN	25.25	86.25	8.250	EEN	25.25	84.00	5.575	EEN	25.50	77.00	4.075	EEN	23.50	76.25	2.525	EEN	22.00	76.00	0.600	EEN	Rainy/ Cloudy		
8	23/08/07	26.625	89.25	2.025	EEN	31.125	80.25	0.70	EEN	34.125	78.00	0.825	EEN	31.37	80.00	0.700	EEN	27.75	86.00	0.525	EEN	27.00	85.00	0.350	EEN	Clear		
9	27/08/07	28.62	87.00	1.05	EEN	33.75	84.25	1.875	EEN	29.37	79.00	2.450	EEN	25.00	86.00	2.175	EES	25.00	87.50	0.750	EES	25.00	86.00	0.975	EES	Cloudy / Rainy		
10	29/08/07	31.87	78.25	1.45	SSE	32.75	76.5	3.725	SSE	29.37	80.75	1.35	SSS	27.75	86.00	1.60	EEN	27.00	85.50	1.375	EEN	27.00	85.00	2.425	EEN	Clear/ 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

(J.S.A)

(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: August

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	Hrs Max	24 Hrs-Avg	06-10	10-14	14-18	18-22	22-02	02-06	Hrs. Max	24 Hrs. Avg		
1	2/3-08-07	12.55	15.69	14.68	15.41	15.25	16.89	16.89	15.07	52.66	76.19	56.14	60.15	46.62	45.63	76.19	57.23	Cloudy	
2	6/7-08/07	14.54	18.83	16.15	14.68	16.29	16.48	18.83	16.16	30.27	45.71	33.41	30.74	30.90	33.12	45.71	34.02	Cloudy/ Rainy	
3	8/9-08-07	10.46	8.80	5.23	8.00	12.78	9.29	12.78	9.09	44.44	41.45	78.09	33.54	44.44	42.32	78.09	47.37	Cloudy /Clear	
4	10/11-08-07	16.80	18.69	18.83	11.01	18.30	15.34	18.83	16.49	30.02	37.28	53.33	41.43	41.26	35.55	53.33	39.81	Clear/ Cloudy	
5	13/14-08-07	14.64	15.69	15.19	13.60	-	-	15.59	14.78	44.44	39.99	38.49	43.80	-	-	44.44	41.68	Cloudy/ Rainy	
6	16/17-08-07	13.94	11.74	-	-	12.39	10.65	13.94	12.18	46.78	54.80	-	-	47.06	40/10	54.80	47.28	Cloudy/ Rainy	
7	20/21/-08-07	13.25	14.64	20.41	13.94	-	-	20.41	15.56	36.82	31.74	68.13	34.28	-	-	68.13	42.74	Cloudy/ Rainy	
8	23/24/-08-07	12.55	20.92	-	11.80	23.01	24.06	24.06	18.46	36.82	57.14	-	41.02	62.85	59.04	62.85	51.37	Clear	
9	27/28-08/07	-	15.80	14.64	16.88	22.48	12.53	22.48	16.46	-	47.40	39.36	38.76	65.04	32.73	65.04	44.55	Cloudy/ Rainy	
10	29/30/-08-07	16.15	13.73	15.59	17.61	14.64	13.94	17.61	15.27	42.77	31.52	55.27	41.43	44.44	46.98	55.27	43.73	Clear/ 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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(S.S. Hoda)
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 : August

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	2/3-08-07	70.00	67.00	58.00	70.00	65.00	94.00	97.00	83.00	97.00	91.33	Cloudy	
2	6/7-08/07	33.00	29.00	40.00	40.00	34.00	59.00	51.00	62.00	62.00	57.33	Cloudy/ Rainy	
3	8/9-08-07	42.00	63.00	75.00	75.00	60.00	56.00	88.00	101.00	101.00	81.66	Cloudy /Clear	
4	10/11-08-07	93.00	107.00	71.00	107.00	90.33	115.00	136.00	94.00	136.00	115.10	Clear/ Cloudy	
5	13/14-08-07	99.00	54.00	-	99.00	76.00	100.00	76.00	-	100.00	88.00	Cloudy/ Rainy	
6	16/17-08-07	78.00	-	73.00	78.00	75.50	104.00	-	97.00	104.00	100.50	Cloudy/ Rainy	
7	20/21/-08-07	85.00	92.00	-	92.00	88.50	106.00	117.00	-	117.00	111.50	Cloudy/ Rainy	
8	23/24/-08-07	75.00	67.00	92.00	92.00	78.00	93.00	120.00	124.00	124.00	112.33	Clear	
9	27/28-08/07	49.00	47.00	47.00	49.00	47.33	80.00	70.00	69.00	80.00	73.00	Cloudy/ Rainy	
10	29/30/-08-07	33.00	36.00	38.00	38.00	35.66	63.00	73.00	62.00	73.00	66.00	Clear/ 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 NO_x Monitoring by : Jharkhand State Pollution Control Board

Sampling Location Address : MADA, Jharia

City : Dhanbad

State : Jharkhand

Station Code : 332

Station Type : I

Month: August

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	Hrs Max	24 Hrs-Avg	06-10	10-14	14-18	18-22	22-02	02-06	Hrs. Max	24 Hrs. Avg		
1	2/3-08-07	11.44	12.53	14.16	15.34	13.07	13.07	15.34	13.26	25.79	27.77	29.76	30.47	25.71	24.80	30.47	27.38	Cloudy/ Rainy	
2	6/7-08/07	20.55	18.35	16.21	21.06	19.07	11.98	21.06	17.87	61.48	57.47	53.33	67.46	52.57	57.53	67.46	58.30	Clear/ Cloudy	
3	8/9-08-07	16.04	15.41	17.61	14.68	16.15	17.93	17.93	16.30	34.38	33.41	34.45	32.08	36.09	42.85	42.85	36.71	Cloudy	
4	10/11-08-07	14.64	16.04	19.08	16.15	13.94	16.73	19.06	14.96	34.28	36.82	41.43	35.55	34.75	36.82	44.43	36.60	Clea	
5	13/14-08-07	13.62	20.92	16.83	21.96	15.34	13.94	21.96	17.43	29.76	49.52	43.80	51.42	40.63	35.55	51.42	41.78	Cloudy/ Rainy	
6	16/17-08-07	13.25	11.85	12.53	14.71	13.62	15.80	15.80	13.62	44.44	36.82	41.66	52.57	50.59	48.61	52.57	45.78	Cloudy	
7	20/21/-08-07	17.43	10.35	14.12	15.16	11.44	13.60	17.43	13.68	40.63	26.78	33.33	39.99	40.67	40.95	40.95	37.06	Cloudy	
8	23/24/-08-07	15.34	16.73	19.82	16.88	15.41	14.77	19.82	16.48	36.82	39.36	44.11	39.09	37.42	35.27	44.11	38.18	Clear/ Cloudy	
9	27/28-08/07	12.53	13.94	12.48	14.68	15.34	15.41	15.41	14.06	26.78	32.08	34.75	37.42	36.82	33.41	37.42	33.54	Cloudy/ Rainy	
10	29/30/-08-07	15.80	18.83	12.53	22.02	15.80	16.89	22.02	16.97	28.76	44.44	32.73	48.12	29.76	36.70	48.12	36.75	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 : MADA Jharia

City : Dhanbad

State : Jharkhand

Station Code : 332

Station Type : I

Month : August

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	2/3-08-07	102.00	137.00	156.00	156.00	131.66	132.00	171.00	187.00	187.00	168.33	Cloudy/ Rainy	
2	6/7-08/07	210.00	260.00	260.00	260.00	243.33	256.00	307.00	305.00	307.00	289.33	Clear/ Cloudy	
3	8/9-08-07	88.00	107.00	87.00	107.00	94.00	120.00	145.00	130.00	145.00	95.66	Cloudy	
4	10/11-08-07	169.00	184.00	199.00	199.00	184.00	227.00	247.00	258.00	258.00	244.00	Clea	
5	13/14-08-07	69.00	76.00	87.00	87.00	77.33	96.00	110.00	116.00	116.00	107.73	Cloudy/ Rainy	
6	16/17-08-07	85.00	83.00	92.00	92.00	86.66	124.00	117.00	127.00	127.00	122.66	Cloudy	
7	20/21/-08-07	73.00	70.00	82.00	82.00	75.00	109.00	105.00	115.00	115.00	110.33	Cloudy	
8	23/24/-08-07	167.00	180.00	152.00	180.00	166.33	225.00	241.00	207.00	241.00	224.33	Clear/ Cloudy	
9	27/28-08/07	124.00	128.00	135.00	135.00	129.00	168.00	171.00	172.00	172.00	170.33	Cloudy/ Rainy	
10	29/30/-08-07	109.00	123.00	112.00	123.00	114.66	149.00	170.00	162.00	170.00	160.33	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: August

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	Hrs Max	24 Hrs- Avg	06-10	10-14	14-18	18-22	22-02	02-06	Hrs. Max	24 Hrs. Avg		
1	2/3-08-07	-	-	-	15.79	16.88	19.05	19.05	17.24	-	-	-	37.73	39.29	42.96	42.96	39.99	Cloudy /Rainy	
2	10/11-08-07	10.98	9.93	21.62	15.34	13.07	16.73	21.62	14.61	37.14	39.04	66.03	41.90	52.38	58.09	66.03	49.09	Cloudy / Clear	
3	13/14-08-07	9.26	10.35	11.44	11.74	11.98	11.01	11.98	10.96	24.80	26.78	23.80	27.95	22.81	26.06	27.95	25.36	Cloudy /Rainy	
4	16/17-08-07	11.98	14.68	13.67	15.41	13.94	16.88	16.88	14.42	27.77	34.75	28.76	36.09	33.41	36.09	36.09	32.81	Cloudy /Rainy	
5	20/21-08-07	16.88	14.64	12.53	15.34	11.44	12.03	15.34	13.81	36.09	33.01	27.77	36.82	25.79	29.52	36.82	31.50	Cloudy /Rainy	
6	23/24-08-07	14.64	12.55	13.07	15.34	13.60	21.62	21.62	15.13	49.52	39.04	42.82	40.63	48.57	60.95	60.92	46.92	Cloudy	
7	27/28-08-07	11.98	16.88	13.07	18.35	14.71	14.16	18.35	14.85	37.69	52.13	40.67	57.47	44.64	43.65	57.47	46.04	Cloudy	
8	29/30-08-07	12.53	13.67	12.53	16.88	13.62	14.16	16.88	13.89	36.70	37.69	35.71	46.78	38.69	41.66	46.78	39.53	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 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 : July

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	2/3-08-07	-	63.00	36.00	63.00	49.50	-	116.00	63.00	116.00	89.50	Clear /Rainy	
2	10/11-08-07	101.00	139.00	98.00	139.00	112.66	133.00	178.00	132.00	178.00	147.66	Cloudy / Clear	
3	13/14-08-07	44.00	40.00	38.00	44.00	40.66	61.00	61.00	55.00	61.00	59.00	Cloudy /Rainy	
4	16/17-08-07	104.00	68.00	138.00	138.00	103.33	131.00	99.00	177.00	177.00	135.66	Cloudy /Rainy	
5	20/21/-08-07	64.00	63.00	68.00	68.00	65.00	97.00	94.00	96.00	97.00	95.66	Cloudy /Rainy	
6	23/24/-08-07	63.00	82.00	87.00	87.00	77.00	95.00	118.00	125.00	125.00	112.66	Cloudy	
7	27/28-08/07	75.00	78.00	73.00	78.00	75.33	101.00	104.00	102.00	104.00	102.33	Cloudy	
8	29/30/-08-07	67.00	80.00	74.00	80.00	60.89	95.00	109.00	103.00	109.00	102.33	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/ 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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