



GSTIN : 21AAACE6224D1ZE



# Environmental Research and Services (India) Pvt. Ltd.

(An ISO/IEC 17025 : (NABL) Accredited Laboratory, OSPCB Empanelled Laboratory and ISO 9001 : 2015 Certified Company)

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha  
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Test Report Format No.: ERSIPL/FM/37

## TEST REPORT (AMBIENT AIR)

Pg No: 1 of 1

ULR-TC7440180-00000134P**Date: 25 Dec 2018****Test Report No: ERSIPL/TR/AA/87**

Name and Address of the Customer : Dulanga Coal Mine of M/s NTPC Limited in Sundargarh district, Odisha.  
Sample Collected by : Representative of ERS (I) Pvt. Ltd.  
Sample Collected in presence of : Representative of Client.  
Date of Sampling/Monitoring : 02-03.12.2018  
Sample Received on : 11.12.2018  
Analysis Started on : 11.12.2018  
Analysis Completed on : 15.12.2018  
Method of Sampling : As per guidelines for sampling & measurement of notified AAQ parameters (NAAQS 2009)-CPCB  
Quantity of Sample : 01 sample for each parameter  
Environment Condition : Sunny, Temp-28<sup>0</sup>C/12<sup>0</sup>C


**Sample ID. No.**

1. ERSIPL/AA/860
2. ERSIPL/AA/861
3. ERSIPL/AA/862
4. ERSIPL/AA/863

**Locations (Core Zone)**

1. Near Site Office (NTPC), Kapurikachhar
2. Near Village Dulanga
3. Near Village Beldihi
4. Near Village Majhapara

Sl. No	Test Parameters	Test method	Unit	Permissible Limit as per NAAQ Standards CPCB Nov-2009	Results			
					ERSIPL/AA/860	ERSIPL/AA/861	ERSIPL/AA/862	ERSIPL/AA/863
1	Suspended Particulate Matter (SPM)	IS: 5182 (Part 4)- 1999, Reaffirmed 2014, Gravimetric Method	µg/m <sup>3</sup>	xx	168.54	254.88	288.54	214.82
2	Particulate Matter (size less than 10 µm) or PM 10	IS 5182 (Part 23): 2006, Reaffirmed -2017, Gravimetric Method	µg/m <sup>3</sup>	100.0	78.58	65.28	81.73	88.03
3	Particulate Matter (size less than 2.5 µm) or PM 2.5	ERSIPL/SOP/01 Issue No:02, Revision Date: 19.02.2018	µg/m <sup>3</sup>	60.0	30.65	29.16	31.90	28.86
4	Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, Reaffirmed-2017, Improved West & Gaeke Method	µg/m <sup>3</sup>	80.0	7.13	6.72	8.82	8.55
5	Oxides of Nitrogen (NO <sub>x</sub> )	IS 5182 (Part 6): 2006, Reaffirmed -2017	µg/m <sup>3</sup>	80.0	9.41	9.04	11.54	12.16
6	Carbon Monoxide (CO)	By CO Monitor	mg/m <sup>3</sup>	2.0	<1.14	<1.14	<1.14	<1.14

  
(Authorized Signatory)  
**S P Pattanavak**



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Test Report Format No.: ERSIPL/FM/37

## TEST REPORT (AMBIENT AIR)

Pg No: 1 of 1

ULR-TC7440180-00000135P

**Date: 25 Dec 2018**

**Test Report No: ERSIPL/TR/AA/88**

Name and Address of the Customer	:	Dulanga Coal Mine of M/s NTPC Limited in Sundargarh district, Odisha.
Sample Collected by	:	Representative of ERS (I) Pvt. Ltd.
Sample Collected in presence of	:	Representative of Client.
Date of Sampling/Monitoring	:	03-04.12.2018
Sample Received on	:	11.12.2018
Analysis Started on	:	11.12.2018
Analysis Completed on	:	15.12.2018
Method of Sampling	:	As per guidelines for sampling & measurement of notified AAQ parameters (NAAQS 2009)-CPCB
Quantity of Sample	:	01 sample for each parameter
Environment Condition	:	Sunny, Temp-30 <sup>0</sup> C/13 <sup>0</sup> C

### Sample ID. No.

1. ERSIPL/AA/864
2. ERSIPL/AA/865
3. ERSIPL/AA/866
4. ERSIPL/AA/867

### Locations (Buffer Zone)

1. Near Village Bendrichua
2. Near Village Rengalmunr
3. Near Village Khuntjharua
4. Near Village Kathfali

### **TEST FINDINGS:**

Sl. No	Test Parameters	Test method	Unit	Permissible Limit as per NAAQ Standards CPCB Nov-2009	Results			
					ERSIPL/AA/864	ERSIPL/AA/865	ERSIPL/AA/866	ERSIPL/AA/867
1	Suspended Particulate Matter (SPM)	IS: 5182 (Part 4)- 1999, Reaffirmed 2014, Gravimetric Method	µg/m <sup>3</sup>	xx	207.06	218.27	167.67	199.90
2	Particulate Matter (size less than 10 µm) or PM 10	IS 5182 (Part 23): 2006, Reaffirmed -2017, Gravimetric Method	µg/m <sup>3</sup>	100.0	75.42	81.78	74.64	64.20
3	Particulate Matter (size less than 2.5 µm) or PM 2.5	ERSIPL/SOP/01 Issue No:02, Revision Date: 19.02.2018	µg/m <sup>3</sup>	60.0	26.86	29.02	31.77	26.45
4	Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, Reaffirmed-2017, Improved West & Gaeke Method	µg/m <sup>3</sup>	80.0	<6.0	6.54	7.41	7.85
5	Oxides of Nitrogen (NO <sub>x</sub> )	IS 5182 (Part 6): 2006, Reaffirmed -2017	µg/m <sup>3</sup>	80.0	16.83	13.57	13.04	12.66
6	Carbon Monoxide (CO)	By CO Monitor	mg/m <sup>3</sup>	2.0	<1.14	<1.14	<1.14	<1.14

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Test Report Format No.: ERSIPL/FM/37

## TEST REPORT (AMBIENT AIR)

Pg No: 1 of 1

ULR-TC7440180-00000136P

**Date: 25 Dec 2018**

**Test Report No: ERSIPL/TR/AA/89**

Name and Address of the Customer	:	Dulanga Coal Mine of M/s NTPC Limited in Sundargarh district, Odisha.
Sample Collected by	:	Representative of ERS (I) Pvt. Ltd.
Sample Collected in presence of	:	Representative of Client.
Date of Sampling/Monitoring	:	20-21.12.2018
Sample Received on	:	22.12.2018
Analysis Started On	:	22.12.2018
Analysis Completed on	:	24.12.2018
Method of Sampling	:	IS 5182 : Part 5 : 1975, Reaffirmed 2014
Quantity of Sample	:	01 sample for each parameter
Environment Condition	:	Sunny, Temp-26 <sup>o</sup> C/10 <sup>o</sup> C

**Sample ID. No.**

**Locations (Core Zone)**

- |                  |   |
|------------------|---|
| 1. ERSIPL/AA/905 | 1. Near Site Office (NTPC), Kapurikachhar |
| 2. ERSIPL/AA/906 | 2. Near Village Dulanga                   |
| 3. ERSIPL/AA/907 | 3. Near Village Beldihi                   |
| 4. ERSIPL/AA/908 | 4. Near Village Majhapara                 |

Sl. No	Test Parameters	Test method	Unit	Permissible Limit as per NAAQ Standards CPCB Nov-2009	Results			
					ERSIPL/AA/905	ERSIPL/AA/906	ERSIPL/AA/907	ERSIPL/AA/908
1	Suspended Particulate Matter (SPM)	IS: 5182 (Part 4)- 1999, Reaffirmed 2014, Gravimetric Method	µg/m <sup>3</sup>	xx	195.30	201.95	218.61	232.62
2	Particulate Matter (size less than 10 µm) or PM 10	IS 5182 (Part 23): 2006, Reaffirmed -2017, Gravimetric Method	µg/m <sup>3</sup>	100.0	65.33	69.60	68.12	80.70
3	Particulate Matter (size less than 2.5 µm) or PM 2.5	ERSIPL/SOP/01 Issue No:02, Revision Date: 19.02.2018	µg/m <sup>3</sup>	60.0	27.11	29.39	31.93	32.93
4	Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, Reaffirmed-2017, Improved West & Gaeke Method	µg/m <sup>3</sup>	80.0	6.07	7.05	<6.0	7.12
5	Oxides of Nitrogen (NO <sub>x</sub> )	IS 5182 (Part 6): 2006, Reaffirmed -2017	µg/m <sup>3</sup>	80.0	11.95	9.04	10.34	12.52
6	Carbon Monoxide (CO)	By CO Monitor	mg/m <sup>3</sup>	2.0	<1.14	<1.14	<1.14	<1.14

(Authorized Signatory)

