



GSTIN : 21AAACE6224D1ZE



Environmental Research and Services (India) Pvt. Ltd.

(An ISO/IEC 17025 : 2005 (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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ULR-TC744020000000075P

Test Report Format No.: ERSIPL/FM/37

TEST REPORT (AMBIENT AIR)

Pg No: 1 of 1

Date: 22 Feb 2020

Test Report No: ERSIPL/TR/AA/036

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 : 03-04.02.2020
Sample Received on : 12.02.2020
Analysis Started on : 13.02.2020
Analysis Completed on : 19.02.2020
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

Sample ID. No:

Locations (Core Zone)

1. ERSIPL/AA/2539
2. ERSIPL/AA/2540
3. ERSIPL/AA/2541
4. ERSIPL/AA/2542

1. Near Site Office (NTPC), Kapurikachhar
2. Near Coal Lab
3. Near Work Shop
4. Near Village Dulanga

Sl. No	Test Parameters	Test method	Unit	Permissible Limit as per NAAQ Standards CPCB Nov-2009	Results			
					ERSIPL/AA/2539	ERSIPL/AA/2540	ERSIPL/AA/2541	ERSIPL/AA/2542
1	Suspended Particulate Matter (SPM)	IS: 5182 (Part 4)- 1999, Reaffirmed 2014, Gravimetric Method	$\mu\text{g}/\text{m}^3$	xx	234.81	174.28	228.19	249.04
2	Particulate Matter (size less than 10 μm) or PM 10	IS 5182 (Part 23): 2006, Reaffirmed -2017, Gravimetric Method	$\mu\text{g}/\text{m}^3$	100.0	72.80	61.59	82.28	74.32
3	Particulate Matter (size less than 2.5 μm) or PM 2.5	ERSIPL/SOP/01 Issue No:03, Revision Date: 01.02.2019	$\mu\text{g}/\text{m}^3$	60.0	34.38	28.78	32.84	31.87
4	Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, Reaffirmed-2017, Improved West & Gaeke Method	$\mu\text{g}/\text{m}^3$	80.0	7.41	6.41	<6.0	<6.0
5	Oxides of Nitrogen (NO _x)	IS 5182 (Part 6): 2006, Reaffirmed -2017	$\mu\text{g}/\text{m}^3$	80.0	12.21	10.07	13.70	10.68
6	Carbon Monoxide (CO)*	By CO Monitor	mg/m^3	2.0	<1.14	<1.14	<1.14	<1.14

*-Not covered under NABL Scope

(Authorized Signatory)
S.P.Pattanayak
Tech.Manager

.....END OF TEST REPORT.....



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ULR-TC74402000000076P

Test Report Format No.: ERSIPL/FM/37

TEST REPORT (AMBIENT AIR)

Pg No: 1 of 1

Date: 22 Feb 2020

Test Report No: ERSIPL/TR/AA/037

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 : 04-05.02.2020
 Sample Received on : 12.02.2020
 Analysis Started on : 13.02.2020
 Analysis Completed on : 19.02.2020
 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

Sample ID. No.

1. ERSIPL/AA/2543
2. ERSIPL/AA/2544
3. ERSIPL/AA/2545
4. ERSIPL/AA/2546

Locations (Buffer Zone)

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

TEST FINDINGS:

Sl. No	Test Parameters	Test method	Unit	Permissible Limit as per NAAQS Standards CPCB Nov-2009	Results			
					ERSIPL/AA/2543	ERSIPL/AA/2544	ERSIPL/AA/2545	ERSIPL/AA/2546
1	Suspended Particulate Matter (SPM)	IS: 5182 (Part 4)- 1999, Reaffirmed 2014, Gravimetric Method	$\mu\text{g}/\text{m}^3$	xx	176.74	167.46	203.13	205.73
2	Particulate Matter (size less than 10 μm) or PM 10	IS 5182 (Part 23): 2006, Reaffirmed -2017, Gravimetric Method	$\mu\text{g}/\text{m}^3$	100.0	72.12	60.11	75.78	55.94
3	Particulate Matter (size less than 2.5 μm) or PM 2.5	ERSIPL/SOP/01 Issue No:03, Revision Date: 01.02.2019	$\mu\text{g}/\text{m}^3$	60.0	29.12	35.42	29.70	29.79
4	Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, Reaffirmed-2017, Improved West & Gaeke Method	$\mu\text{g}/\text{m}^3$	80.0	7.26	9.13	7.34	6.41
5	Oxides of Nitrogen (NO _x)	IS 5182 (Part 6): 2006, Reaffirmed -2017	$\mu\text{g}/\text{m}^3$	80.0	10.18	14.04	12.90	12.95
6	Carbon Monoxide (CO)*	By CO Monitor	mg/m^3	2.0	<1.14	<1.14	<1.14	<1.14

*-Not covered under NABL Scope

.....END OF TEST REPORT.....


 (S. P. Pattnayak)
 Tech. Manager



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ULR-TC74402000000077P

Test Report Format No.: ERSIPL/FM/37

TEST REPORT (AMBIENT AIR)

Pg No: 1 of 1

Date: 22 Feb 2020

Test Report No: ERSIPL/TR/AA/038

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 : 15-16.02.2020
Sample Received on : 20.02.2020
Analysis Started on : 21.02.2020
Analysis Completed on : 22.02.2020
Method of Sampling : IS 5182 : Part 5 : 1975, Reaffirmed 2014
Quantity of Sample : 01 sample for each parameter
Environment Condition : Sunny

Sample ID. No.

Locations (Core Zone)

1. ERSIPL/AA/2599
2. ERSIPL/AA/2600
3. ERSIPL/AA/2601
4. ERSIPL/AA/2602

1. Near Site Office (NTPC), Kapurikachhar
2. Near Coal Lab
3. Near Work Shop
4. Near Village Dulanga

Sl. No	Test Parameters	Test method	Unit	Permissible Limit as per NAAQ Standards CPCB Nov-2009	Results			
					ERSIPL/AA/2599	ERSIPL/AA/2600	ERSIPL/AA/2601	ERSIPL/AA/2602
1	Suspended Particulate Matter (SPM)	IS: 5182 (Part 4)- 1999, Reaffirmed 2014, Gravimetric Method	$\mu\text{g}/\text{m}^3$	xx	189.10	235.69	193.12	226.47
2	Particulate Matter (size less than 10 μm) or PM 10	IS 5182 (Part 23): 2006, Reaffirmed -2017, Gravimetric Method	$\mu\text{g}/\text{m}^3$	100.0	67.04	55.67	74.71	79.59
3	Particulate Matter (size less than 2.5 μm) or PM 2.5	ERSIPL/SOP/01 Issue No:03, Revision Date: 01.02.2019	$\mu\text{g}/\text{m}^3$	60.0	31.05	27.27	33.43	26.64
4	Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, Reaffirmed-2017, Improved West & Gaeke Method	$\mu\text{g}/\text{m}^3$	80.0	7.38	6.84	9.98	7.89
5	Oxides of Nitrogen (NO _x)	IS 5182 (Part 6): 2006, Reaffirmed -2017	$\mu\text{g}/\text{m}^3$	80.0	13.75	16.22	10.85	17.10
6	Carbon Monoxide (CO)*	By CO Monitor	mg/m^3	2.0	<1.14	<1.14	<1.14	<1.14

*-Not covered under NABL Scope

(Authorized Signatory)

S.P.Pattanayak
Tech. Manager

.....END OF TEST REPORT.....

