



OMSHIVA TEST HOUSE PVT. LTD.

Environmental Monitoring of NTPC Limited

D.S.T.P.P Darlipali, Zinc Nagar

Distt. Sundargarh, Odisha

Client:

NTPC Limited

For the (August Month-2024)

Submitted By:-

Omshiva Test House Pvt. Ltd.

**122-C, Aastha, Road No. 5A,
Patliputra Colony,
Patna – 800 013**

Submitted To:-

M/s NTPC Limited

**D.S.T.P.P Darlipali, Zinc Nagar
Distt. Sundargarh,
Odisha**

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OMSHIVA TEST HOUSE PRIVATE LIMITED

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TESTING | CONSULTING | RESOLVING | TRAINING

Head Office :

122-C, Aastha, Road No. 5A,
Patliputra Colony,
Patna – 800 013 (Bihar)
Contact us : +918676886249
+919431047908

Email : ceo@shivatesthouse.in
cao@shivatesthouse.in



TEST REPORT

Name and Address of Customer:

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha – 770 072

Sampling Details:

Sampling Period 01.08.24 to 31.08.24
Method of Sampling IS 5182 (Part - 14)
Sample Quantity & Container 30 ml x 6 for each (NO₂, SO₂, NH₃); Filter Paper & Sample Carriage Bottle
Packing & marking Filter Papers Packed in plastic bags with dates & Location names
Sample Collected by Mr. Amar Tiwari; Lab Representative

Information by Customer:

Name / Nature of Sample: AAQ (As per NAAQS)
Location of Sampling: Watch Tower (AAQMS -1)
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Analysis Details:

Sample Quantity 8
Sample Condition on Receipt Fit for analysis
Items required to be Tested As per contract
Any Specific Test Method No
Reporting Date 02.09.2024

ANALYSIS RESULTS

Date of Sampling	Parameters / Results											
	PM10 (µg/M ³) on 24hrly Basis	PM2.5 (µg/M ³) on 24hrly Basis	SO ₂ (µg/M ³) on 24hrly Basis	NO ₂ (µg/M ³) on 24hrly Basis	NH ₃ (µg/M ³) on 24hrly Basis	O ₃ (µg/M ³) on 24hrly Basis	CO (mg/M ³) on 1hrly Basis	Lead (µg/M ³) on 24hrly Basis	Benzene (µg/M ³) on 24hrly Basis	Benzo (a) pyrene (ng/M ³) on 24hrly Basis	As (ng/M ³) on 24hrly Basis	Ni (ng/M ³) on 24hrly Basis
Method of Test	IS 5182 (Part 23)	IS 5182 (Part-24)	IS 5182 (Part 2)	IS 5182 (Part 6)	IS 5182 (Part 5)	IS 5182 (Part 9)	IS 5182 (Part 10)	IS 5182 (Part 22)	IS 5182 (Part 11)	IS 5182 (Part 12)	AAS Method	AAS Method
01.08.24	65.5	34.7	15.2	30.4	12.1	37.1	0.46	0.11	0.12	0.11	0.19	1.12
02.08.24	66.6	37.7	15.2	29.2	11.1	37.7	0.44	0.23	0.13	0.14	0.27	1.16
08.08.24	58.1	34.3	13.6	34.2	13.0	41.0	0.53	0.16	0.11	0.15	0.28	1.21
09.08.24	65.6	38.8	12.0	33.8	18.7	42.1	0.46	0.14	0.12	0.11	0.28	1.18
16.08.24	64.5	36.7	11.6	32.7	18.1	40.2	0.49	0.26	0.12	0.14	0.18	1.15
17.08.24	57.0	36.0	12.8	33.6	13.6	37.1	0.46	0.23	0.15	0.12	0.32	1.18
23.08.24	68.8	39.7	10.1	33.8	19.2	39.3	0.58	0.21	0.21	0.18	0.19	1.10
24.08.24	65.8	35.1	15.0	25.9	15.5	41.9	0.56	0.19	0.14	0.13	0.18	1.19
Average	64.0	36.6	13.2	31.7	15.2	39.6	0.50	0.19	0.14	0.14	0.24	1.16
Limit as per NAAQS 2009	100	60	80	80	400	180	4	1	5	1	6	20

Vishal Sharma

Reviewed by :



Chittaranjan Das, Sec. I/c (Food, Residue & Water Proximate)

Abhishek Kumar, Sec. I/c (Air Proximate)

Sagar Gokhe, Sec. I/c (Metals)

Dr. (Mrs.) Shreyasee Prasad

Authorized Signatory:

Chittaranjan Das, Sec. I/c (Food, Residue & Water Proximate)

Authorized Signatory :

Abhishek Kumar, Sec. I/c (Air Proximate)

Authorized Signatory :

Sagar Gokhe, Sec. I/c (Metals)

Quality Manager :

Dr. (Mrs.) Shreyasee Prasad

----- END OF REPORT -----

N.B.: (1) This report applies only to sample tested as above. (2) Total Liability of our Laboratory is limited to invoiced amount. (3) Test Report endorsed only the tests and not the product certificate. (4) Test Report cannot be reproduced partially or full for legal/court purpose without written permission of the Laboratory.





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TEST REPORT

Name and Address of Customer:

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha – 770 072

Sampling Details:

Sampling Period 01.08.24 to 31.08.24
Method of Sampling IS 5182 (Part - 14)
Sample Quantity & Container 30 ml x 6 for each (NO₂, SO₂, NH₃); Filter Paper & Sample Carriage Bottle
Packing & marking Filter Papers Packed in plastic bags with dates & Location names
Sample Collected by Mr. Amar Tiwari; Lab Representative

Information by Customer:

Name / Nature of Sample: AAQ (As per NAAQS)
Location of Sampling: SWD AREA I (AAQMS -2)
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Analysis Details:

Sample Quantity 8
Sample Condition on Receipt Fit for analysis
Items required to be Tested As per contract
Any Specific Test Method No
Reporting Date 02.09.2024

ANALYSIS RESULTS

Date of Sampling	Parameters / Results											
	PM10 (µg/M ³) on 24hrly Basis	PM2.5 (µg/M ³) on 24hrly Basis	SO ₂ (µg/M ³) on 24hrly Basis	NO ₂ (µg/M ³) on 24hrly Basis	NH ₃ (µg/M ³) on 24hrly Basis	O ₃ (µg/M ³) on 24hrly Basis	CO (mg/M ³) on 1hrly Basis	Lead (µg/M ³) on 24hrly Basis	Benzene (µg/M ³) on 24hrly Basis	Benzo (a) pyrene (ng/M ³) on 24hrly Basis	As (ng/M ³) on 24hrly Basis	Ni (ng/M ³) on 24hrly Basis
Method of Test	IS 5182 (Part 23)	IS 5182 (Part-24)	IS 5182 (Part 2)	IS 5182 (Part 6)	IS 5182 (Part 5)	IS 5182 (Part 9)	IS 5182 (Part 10)	IS 5182 (Part 22)	IS 5182 (Part 11)	IS 5182 (Part 12)	AAS Method	AAS Method
01.08.24	62.6	32.1	13.1	30.9	10.0	37.7	0.53	0.19	0.14	0.13	0.17	1.16
02.08.24	64.5	35.1	13.3	28.1	10.1	39.8	0.49	0.21	0.15	0.12	0.25	1.13
08.08.24	55.7	32.6	9.4	28.7	10.1	40.7	0.45	0.19	0.13	0.11	0.26	1.18
09.08.24	71.1	37.6	11.4	34.2	19.1	45.6	0.58	0.19	0.14	0.13	0.23	1.15
16.08.24	67.8	35.5	12.3	35.0	18.6	43.5	0.51	0.23	0.15	0.12	0.22	1.21
17.08.24	59.6	34.7	10.5	30.7	12.4	42.8	0.43	0.19	0.13	0.14	0.27	1.21
23.08.24	63.7	37.7	8.4	33.0	17.0	32.5	0.45	0.24	0.23	0.16	0.15	1.14
24.08.24	59.7	33.4	8.1	29.3	15.0	40.1	0.54	0.24	0.16	0.15	0.16	1.26
Average	63.1	34.8	10.8	31.2	14.0	40.3	0.50	0.21	0.15	0.13	0.21	1.18
Limit as per NAAQS 2009	100	60	80	80	400	180	4	1	5	1	6	20

Vishal Sharma

Reviewed by :



Abhishek Kumar

Abhishek Kumar

Sagar Gokhe

Shreyasee Prasad

Authorized Signatory:
Chittaranjan Das, Sec. I/c (Food,
Residue & Water Proximate)

Authorized Signatory :
Abhishek Kumar, Sec. I/c (Air Proximate)

Authorized Signatory :
Sagar Gokhe, Sec. I/c (Metals)

Quality Manager :
Dr. (Mrs.) Shreyasee Prasad

----- END OF REPORT -----

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TEST REPORT

Name and Address of Customer :

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha - 770 072

Information by Customer :

Name / Nature of Sample : *AAQ (As per NAAQS)*
Location of Sampling : *SWD AREA 2 (AAQMS -3)*
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Sampling Details :

Sampling Period 01.08.24 to 31.08.24
Method of Sampling IS 5182 (Part - 14)
Sample Quantity & Container 30 ml x 6 for each (NO₂, SO₂, NH₃); Filter Paper & Sample Carriage Bottle
Packing & Marking Filter Papers Packed in plastic bags with dates & Location names
Sample Collected by Mr. Amar Tiwari; Lab Representative

Analysis Details :

Sample Quantity 8
Sample Condition on Receipt Fit for analysis
Items required to be Tested As per contract
Any Specific Test Method No
Reporting Date 02.09.2024

ANALYSIS RESULTS

Date of Sampling	Parameters / Results											
	PM10 (µg/M ³) on 24hrly Basis	PM2.5 (µg/M ³) on 24hrly Basis	SO ₂ (µg/M ³) on 24hrly Basis	NO ₂ (µg/M ³) on 24hrly Basis	NH ₃ (µg/M ³) on 24hrly Basis	O ₃ (µg/M ³) on 24hrly Basis	CO (mg/M ³) on 1hrly Basis	Lead (µg/M ³) on 24hrly Basis	Benzene (µg/M ³) on 24hrly Basis	Benzo (a) pyrene (ng/M ³) on 24hrly Basis	As (ng/M ³) on 24hrly Basis	Ni (ng/M ³) on 24hrly Basis
Method of Test	IS 5182 (Part 23)	IS 5182 (Part-24)	IS 5182 (Part 2)	IS 5182 (Part 6)	IS 5182 (Part 5)	IS 5182 (Part 9)	IS 5182 (Part 10)	IS 5182 (Part 22)	IS 5182 (Part 11)	IS 5182 (Part 12)	AAS Method	AAS Method
01.08.24	59.7	30.1	12.5	25.8	18.0	37.7	0.45	0.15	0.15	0.12	0.22	1.07
02.08.24	63.2	33.4	12.6	27.3	18.0	40.8	0.54	0.25	0.12	0.17	0.23	1.18
08.08.24	67.4	34.7	12.8	33.3	15.7	42.7	0.56	0.14	0.15	0.14	0.25	1.22
09.08.24	65.9	35.6	13.2	30.4	16.7	34.3	0.48	0.15	0.16	0.12	0.26	1.17
16.08.24	63.3	34.3	10.7	29.5	15.7	36.5	0.45	0.21	0.11	0.13	0.26	1.16
17.08.24	67.4	36.3	13.7	31.4	15.6	38.7	0.49	0.26	0.11	0.11	0.25	1.15
23.08.24	64.1	36.7	11.4	32.7	17.9	35.0	0.49	0.22	0.19	0.25	0.17	1.12
24.08.24	56.8	30.9	12.8	34.4	18.6	43.6	0.58	0.21	0.15	0.17	0.21	1.32
Average	63.5	34.0	12.5	30.6	17.0	38.7	0.51	0.20	0.14	0.15	0.23	1.17
Limit as per NAAQS 2009	100	60	80	80	400	180	4	1	5	1	6	20

Vishal Sharma

Reviewed by :



Authorized Signatory:

Chittaranjan Das, Sec. I/c (Food, Residue & Water Proximate)

Authorized Signatory:

Abhishek Kumar, Sec. I/c (Air Proximate)

Authorized Signatory:

Sagar Gokhe, Sec. I/c (Metals)

Authorized Signatory:

Dr. (Mrs.) Shreyasee Prasad

----- END OF REPORT -----

N.B.: (1) This report applies only to sample tested as above. (2) Total Liability of our Laboratory is limited to invoiced amount. (3) Test Report endorsed only the tests and not the product certificate. (4) Test Report cannot be reproduced partially or full for legal/court purpose without written permission of the Laboratory.





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TEST REPORT

Name and Address of Customer :

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha – 770 072

Sampling Details :

Sampling Period 01.08.24 to 31.08.24
Method of Sampling IS 5182 (Part - 14)
Sample Quantity & Container 30 ml x 6 for each (NO₂, SO₂, NH₃); Filter Paper & Sample Carriage Bottle
Packing & Marking Filter Papers Packed in plastic bags with dates & Location names
Sample Collected by Mr. Amar Tiwari; Lab Representative

Information by Customer :

Name / Nature of Sample : *AAQ (As per NAAQS)*
Location of Sampling : *CISF Colony (AAQMS -4)*
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Analysis Details :

Sample Quantity 8
Sample Condition on Receipt Fit for analysis
Items required to be Tested As per contract
Any Specific Test Method No
Reporting Date 02.09.2024

ANALYSIS RESULTS

Date of Sampling	Parameters / Results											
	PM10 (µg/M ³) on 24hrly Basis	PM2.5 (µg/M ³) on 24hrly Basis	SO ₂ (µg/M ³) on 24hrly Basis	NO ₂ (µg/M ³) on 24hrly Basis	NH ₃ (µg/M ³) on 24hrly Basis	O ₃ (µg/M ³) on 24hrly Basis	CO (mg/M ³) on 1hrly Basis	Lead (µg/M ³) on 24hrly Basis	Benzene (µg/M ³) on 24hrly Basis	Benzo (a) pyrene (ng/M ³) on 24hrly Basis	As (ng/M ³) on 24hrly Basis	Ni (ng/M ³) on 24hrly Basis
Method of Test	IS 5182 (Part 23)	IS 5182 (Part-24)	IS 5182 (Part 2)	IS 5182 (Part 6)	IS 5182 (Part 5)	IS 5182 (Part 9)	IS 5182 (Part 10)	IS 5182 (Part 22)	IS 5182 (Part 11)	IS 5182 (Part 12)	AAS Method	AAS Method
01.08.24	58.5	29.6	11.9	26.6	9.99	36.4	0.57	0.12	0.11	0.18	0.26	1.22
02.08.24	61.4	32.1	11.5	25.4	15.11	43.0	0.53	0.21	0.14	0.16	0.24	1.15
08.08.24	66.7	32.9	10.3	32.5	15.11	44.2	0.58	0.20	0.17	0.13	0.23	1.19
09.08.24	66.8	36.7	10.4	32.6	17.9	41.8	0.43	0.21	0.13	0.15	0.24	1.14
16.08.24	64.0	35.8	9.7	31.5	17.0	43.3	0.49	0.13	0.16	0.17	0.20	1.22
17.08.24	64.0	35.0	9.3	31.8	15.7	37.6	0.40	0.24	0.14	0.15	0.23	1.17
23.08.24	65.6	38.9	14.3	32.0	15.9	39.4	0.46	0.25	0.18	0.22	0.21	1.15
24.08.24	61.8	27.5	10.3	28.0	16.98	42.7	0.53	0.18	0.19	0.20	0.23	1.22
Average	63.6	33.6	11.0	30.1	15.5	41.1	0.50	0.19	0.15	0.17	0.23	1.18
Limit as per NAAQS 2009	100	60	80	80	400	180	4	1	5	1	6	20

Vishal Sharma

Reviewed by :



Chittaranjan Das, Sec. I/c (Food, Residue & Water Proximate)

Authorized Signatory:

Chittaranjan Das, Sec. I/c (Food, Residue & Water Proximate)

Abhishek Kumar

Authorized Signatory :

Abhishek Kumar, Sec. I/c (Air Proximate)

Sagar Gokhe

Authorized Signatory :

Sagar Gokhe, Sec. I/c (Metals)

Shreyasee Prasad

Quality Manager :

Dr. (Mrs.) Shreyasee Prasad

----- END OF REPORT -----

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TEST REPORT

Name and Address of Customer :

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha - 770 072

Information by Customer :

Name / Nature of Sample : AAQ (As per NAAQS)
Location of Sampling : Ash Pond (AAQMS -5)
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Sampling Details :

Sampling Period 01.08.24 to 31.08.24
Method of Sampling IS 5182 (Part - 14)
Sample Quantity & Container 30 ml x 6 for each (NO₂, SO₂, NH₃); Filter Paper & Sample Carriage Bottle
Packing & Marking Filter Papers Packed in plastic bags with dates & Location names
Sample Collected by Mr. Amar Tiwari; Lab Representative

Analysis Details :

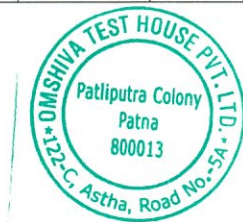
Sample Quantity 8
Sample Condition on Receipt Fit for analysis
Items required to be Tested As per contract
Any Specific Test Method No
Reporting Date 02.09.2024

ANALYSIS RESULTS

Date of Sampling	Parameters / Results											
	PM10 (µg/M ³) on 24hrly Basis	PM2.5 (µg/M ³) on 24hrly Basis	SO ₂ (µg/M ³) on 24hrly Basis	NO ₂ (µg/M ³) on 24hrly Basis	NH ₃ (µg/M ³) on 24hrly Basis	O ₃ (µg/M ³) on 24hrly Basis	CO (mg/M ³) on 1hrly Basis	Lead (µg/M ³) on 24hrly Basis	Benzene (µg/M ³) on 24hrly Basis	Benzo (a) pyrene (ng/M ³) on 24hrly Basis	As (ng/M ³) on 24hrly Basis	Ni (ng/M ³) on 24hrly Basis
Method of Test	IS 5182 (Part 23)	IS 5182 (Part-24)	IS 5182 (Part 2)	IS 5182 (Part 6)	IS 5182 (Part 5)	IS 5182 (Part 9)	IS 5182 (Part 10)	IS 5182 (Part 22)	IS 5182 (Part 11)	IS 5182 (Part 12)	AAS Method	AAS Method
01.08.24	57.2	28.4	10.2	25.4	9.3	35.1	0.58	0.18	0.16	0.15	0.24	1.11
02.08.24	59.5	30.5	10.7	30.9	16.0	36.65	0.56	0.23	0.17	0.15	0.26	1.17
08.08.24	61.5	33.0	12.0	26.8	14.3	42.08	0.59	0.17	0.19	0.15	0.27	1.21
09.08.24	67.8	36.3	9.3	34.6	15.4	41.2	0.55	0.18	0.15	0.16	0.25	1.19
16.08.24	66.3	37.2	8.5	32.6	16.2	33.3	0.43	0.23	0.19	0.15	0.23	1.11
17.08.24	59.6	33.4	10.3	29.8	14.3	38.15	0.51	0.22	0.16	0.13	0.31	1.19
23.08.24	59.8	33.3	12.4	33.2	16.6	35.1	0.43	0.27	0.24	0.21	0.14	1.16
24.08.24	57.7	25.5	9.4	30.4	19.7	43.26	0.59	0.23	0.23	0.21	0.15	1.17
Average	61.2	32.2	10.4	30.5	15.2	38.1	0.53	0.21	0.19	0.16	0.23	1.16
Limit as per NAAQS 2009	100	60	80	80	400	180	4	1	5	1	6	20

Vishal Sharma

Reviewed by :



Authorized Signatory:

Chittaranjan Das, Sec. I/c (Food, Residue & Water Proximate)

Abhishek Kumar

Authorized Signatory :

Abhishek Kumar, Sec. I/c (Air Proximate)

Sagar Gokhe

Authorized Signatory :

Sagar Gokhe, Sec. I/c (Metals)

Shreyasee Prasad

Quality Manager :

Dr. (Mrs.) Shreyasee Prasad

----- END OF REPORT -----

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Patna - 800 013 (Bihar)
Contact us : +918676886249
+919431047908

Email : ceo@shivatesthouse.in
cao@shivatesthouse.in



TEST REPORT

Name and Address of Customer :

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha - 770 072

Information by Customer :

Name / Nature of Sample : *AAQ (As per NAAQS)*
Location of Sampling : *Darlipali Village Area (AAQMS -6)*
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Sampling Details :

Sampling Period 01.08.24 to 31.08.24
Method of Sampling IS 5182 (Part - 14)
Sample Quantity & Container 30 ml x 6 for each (NO₂, SO₂, NH₃); Filter Paper & Sample Carriage Bottle
Packing & Marking Filter Papers Packed in plastic bags with dates & Location names
Sample Collected by Mr. Amar Tiwari; Lab Representative

Analysis Details :

Sample Quantity 8
Sample Condition on Receipt Fit for analysis
Items required to be Tested As per contract
Any Specific Test Method No
Reporting Date 02.09.2024

ANALYSIS RESULTS

Date of Sampling	Parameters / Results											
	PM10 (µg/M ³) on 24hrly Basis	PM2.5 (µg/M ³) on 24hrly Basis	SO ₂ (µg/M ³) on 24hrly Basis	NO ₂ (µg/M ³) on 24hrly Basis	NH ₃ (µg/M ³) on 24hrly Basis	O ₃ (µg/M ³) on 24hrly Basis	CO (mg/M ³) on 1hrly Basis	Lead (µg/M ³) on 24hrly Basis	Benzene (µg/M ³) on 24hrly Basis	Benzo (a) pyrene (ng/M ³) on 24hrly Basis	As (ng/M ³) on 24hrly Basis	Ni (ng/M ³) on 24hrly Basis
Method of Test	IS 5182 (Part 23)	IS 5182 (Part-24)	IS 5182 (Part 2)	IS 5182 (Part 6)	IS 5182 (Part 5)	IS 5182 (Part 9)	IS 5182 (Part 10)	IS 5182 (Part 22)	IS 5182 (Part 11)	IS 5182 (Part 12)	AAS Method	AAS Method
01.08.24	55.2	24.9	8.9	24.1	9.4	35.75	0.48	0.17	0.18	0.17	0.21	1.02
02.08.24	58.1	31.3	9.6	26.6	13.1	38.45	0.48	0.18	0.18	0.11	0.28	1.19
08.08.24	60.5	31.3	8.8	30.2	11.7	44.46	0.45	0.16	0.21	0.17	0.24	1.12
09.08.24	67.2	39.6	11.1	33.2	17.8	43.9	0.53	0.21	0.17	0.18	0.27	1.13
16.08.24	60.8	37.9	9.4	31.7	18.3	40.6	0.49	0.24	0.17	0.19	0.25	1.17
17.08.24	57.8	32.5	8.3	29.1	12.9	42.36	0.40	0.20	0.12	0.17	0.27	1.20
23.08.24	64.3	36.7	12.1	33.3	17.9	38.9	0.53	0.21	0.26	0.19	0.19	1.13
24.08.24	63.8	29.6	14.0	27.6	12.2	44.46	0.55	0.20	0.22	0.24	0.18	1.21
Average	61.0	33.0	10.3	29.5	14.2	41.1	0.49	0.20	0.19	0.18	0.24	1.15
Limit as per NAAQS 2009	100	60	80	80	400	180	4	1	5	1	6	20

Vishal Sharma

Reviewed by :

[Signature]



Abhishek Kumar

[Signature]

Shreyasee Prasad

Authorized Signatory:

Chittaranjan Das, Sec. I/c (Food, Residue & Water Proximate)

Authorized Signatory :

Abhishek Kumar, Sec. I/c (Air Proximate)

Authorized Signatory :

Sagar Gokhe, Sec. I/c (Metals)

Quality Manager :

Dr. (Mrs.) Shreyasee Prasad

----- END OF REPORT -----

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OMSHIVA TEST HOUSE PRIVATE LIMITED

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+919431047908

Email : ceo@shivatesthouse.in
ceo@shivatesthouse.in



TEST REPORT

Name and Address of Customer :

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha – 770 072

Sampling Details :

ULR Number STH/TR/24-25/08/08
Date of Sampling 01.08.2024
Sample Received on 02.08.2024
Method of Sampling IS 3025, APHA
Env. Condition Temp. 34 °C Humidity 72 %
Sample Quantity & Container 2 L. ; Polypropylene Bottle (02)
Sample Collected by Mr. Amar Tiwari; Lab Representative

Information by Customer :

Name / Nature of Sample : Effluent Sample
Location of Sampling : ETP Inlet
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Analysis Details :

Sample Code STH/24/08/08
Analysis Start Date 02.08.2024
Analysis Completion Date 07.08.2024
Sample Condition on Receipt Fit for analysis
Items required to be Tested As per request
Any Specific Test Method No
Reporting Date 02.09.2024

ANALYSIS RESULTS

Sl. No.	Parameters	Unit	Method of Test	Result
1.	pH at 25° C	----	IS 3025 (Part-11)	6.62
2.	Total Suspended Solids	mg/l.	IS 3025(Part-17)	105.0
3.	B.O.D. (3 days at 27°C)	mg/l.	IS 3025 (Part-44)	70.0
4.	C.O.D.	mg/l.	APHA 5220 B	280.0
5.	Oil and Grease	mg/l.	IS 3025 (Part-39)	3.5
6.	Fluoride as F	mg/l.	APHA (4500 F D)	1.2
7.	Phosphate as P	mg/l.	APHA 4500 -P-D	2.48
8.	Sulphate as SO ₄	mg/l.	IS 3025 (Part-24)	143.0
9.	Chloride as Cl	mg/l.	IS 3025 (Part-32)	194.0
10.	Ammonical Nitrogen as N	mg/l.	IS 3025 (Part-34)	22.4
11.	Total Kjeldahl Nitrogen as N	mg/l.	IS 3025 (Part-34)	34.2
12.	Sulphide as S	mg/l.	APHA (4500-S2 F):2017	BLQ (LOQ -0.2)
13.	Zinc as Zn	mg/l.	APHA (3500-Zn B) APHA (3111b):2017	BLQ(LOQ-0.01)
14.	Iron as Fe	mg/l.	IS 3025 (Part-53)	0.21
15.	Copper as Cu	mg/l.	APHA 3111 B	0.24
16.	Manganese as Mn	mg/l.	APHA 3111 B	BLQ(LOQ0.01)
17.	Nickel as Ni	mg/l.	APHA 3111 B	BLQ(LOQ-0.1)
18.	Arsenic as As	mg/l.	APHA 3114 B	BLQ(LOQ-0.01)
19.	Lead as Pb	mg/l.	APHA 3111 B	BLQ(LOQ-0.1)
20.	Total Chromium as Cr	mg/l.	APHA 3111 B	BLQ(LOQ-0.4)



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Email : ceo@shivatesthouse.in
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TEST REPORT

Name and Address of Customer :

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha - 770 072

Sampling Details :

ULR Number STH/TR/24-25/08/08
Date of Sampling 01.08.2024
Sample Received on 02.08.2024
Method of Sampling IS 3025, APHA
Env. Condition Temp. 34 °C Humidity 72%
Sample Quantity & Container 2 L. ; Polypropylene Bottle (02)
Sample Collected by Mr. Amar Tiwari; Lab Representative

Information by Customer :

Name / Nature of Sample : Effluent Sample
Location of Sampling : ETP Inlet
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Analysis Details :

Sample Code STH/24/08/08
Analysis Start Date 02.08.2024
Analysis Completion Date 07.08.2024
Sample Condition on Receipt Fit for analysis
Items required to be Tested As per request
Any Specific Test Method No
Reporting Date 02.09.2024

ANALYSIS RESULTS

Sl. No.	Parameters	Unit	Method of Test	Result
21.	Hexavalent Chromium (as Cr+6).	mg/l.	APHA 3111 B	0.028
22.	Cadmium as Cd	mg/l.	APHA 3111 B	BLQ(LOQ-0.1)
23.	Mercury as Hg	mg/l.	APHA 3112 B	BLQ(LOQ-0.001)
24.	Temperature	°C	APHA 2550 B 23 rd Edition 2017	25 th C
25.	Phenolic Compound as C ₆ H ₅ OH	mg/l.	APHA 6420 B	BLQ (LOQ -0.2)
26.	Total Organic Carbon	mg/l.	APHA 5310 B 23 rd Edition 2017	<4.0
27.	Turbidity	NTU	Not Specified	87.0
28.	Conductivity	μmhos/cm.	IS 3025 (Part-14)	1156.0
29.	Fixed Dissolved Solids (FDS)	mg/l.	IS 3025 (Part-18)	585.0
30.	Nitrate Nitrogen	mg/l.	APHA 4500 NH ₃ C	35.2
31.	Total Residual Chlorine	mg/l.	IS 3025 (Part-26)	BLQ (LOQ -0.2)
32.	Vanadium	mg/l.	APHA 3111 D	BLQ(LOQ-0.001)
33.	Cyanide as CN	mg/l.	IS 3025 (Part-27)	(LOD-0.005) BLQ
34.	Selenium as Se	mg/l.	APHA 3114 B	0.19
35.	Bio-Assay Test	---	IS 6582: 1971	92% Fish Survived after 96 hrs. in 100% Conc ⁿ Of Treated Effluent



Vishal Sharma

Reviewed by :

Sayan Sankar

Authorized Signatory :

S.S. Rukhaiyar, Sec. I/c (Effluent)

Piyali Das Sharma

Authorized Signatory :

Piyali Das Sharma, Sec. I/c (Mcb.)

Shreyasee Prasad

Quality Manager :

Dr. (Mrs.) Shreyasee Prasad

----- END OF REPORT -----

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Email : ceo@shivatesthouse.in
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TEST REPORT

Name and Address of Customer :

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha – 770 072

Sampling Details :

ULR Number STH/TR/24-25/08/09
Date of Sampling 01.08.2024
Sample Received on 02.08.2024
Method of Sampling IS 3025, APHA
Env. Condition Temp. 34 °C Humidity 72 %
Sample Quantity & Container 2 L. ; Polypropylene Bottle (02)
Sample Collected by Mr. Amar Tiwari; Lab Representative

Information by Customer :

Name / Nature of Sample : *Effluent Sample*
Location of Sampling : ETP outlet
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Analysis Details :

Sample Code STH/24/08/09
Analysis Start Date 02.08.2024
Analysis Completion Date 07.08.2024
Sample Condition on Receipt Fit for analysis
Items required to be Tested As per request
Any Specific Test Method No
Reporting Date 02.09.2024

ANALYSIS RESULTS

Sl. No.	Parameters	Unit	Method of Test	Limit as per E (P) Rules for Discharge on Inland Surface Water	Result
1.	pH at 25° C	----	IS 3025 (Part-11)	5.5 to 9.0	7.56
2.	Total Suspended Solids	mg/l.	IS 3025(Part-17)	100.00	17.0
3.	B.O.D. (3 days at 27°C)	mg/l.	IS 3025 (Part-44)	30.00	0.9
4.	C.O.D.	mg/l.	APHA 5220 B	250.00	5.0
5.	Oil and Grease	mg/l.	IS 3025 (Part-39)	10 mg/l.	0.7
6.	Fluoride as F	mg/l.	APHA (4500 F D)	2 mg/l.	0.48
7.	Phosphate as P	mg/l.	APHA 4500 -P-D	5 mg/l.	0.66
8.	Sulphate as SO ₄	mg/l.	IS 3025 (Part-24)	Not Specified	30.7
9.	Chloride as Cl	mg/l.	IS 3025 (Part-32)	Not Specified	37.5
10.	Ammonical Nitrogen as N	mg/l.	IS 3025 (Part-34)	50 mg/l.	5.2
11.	Total Kjeldahl Nitrogen as N	mg/l.	IS 3025 (Part-34)	100 mg/l.	7.2
12.	Sulphide as S	mg/l.	APHA (4500-S2 F):2017	2.0 mg/l	BLQ(LOD-0.2)
13.	Zinc as Zn	mg/l.	APHA (3500-Zn B) APHA (3111b):2017	5	BLQ(LOQ-0.01)
14.	Iron as Fe	mg/l.	IS 3025 (Part-53)	3 mg/l.	0.20
15.	Copper as Cu	mg/l.	APHA 3111 B	3 mg/l.	0.24
16.	Manganese as Mn	mg/l.	APHA 3111 B	2 mg/l.	BLQ(LOQ-0.01)
17.	Nickel as Ni	mg/l.	APHA 3111 B	Not Specified	BLQ(LOQ-0.1)
18.	Arsenic as As	mg/l.	APHA 3114 B	0.2 mg/l.	BLQ(LOQ-0.01)
19.	Lead as Pb	mg/l.	APHA 3111 B	0.1 mg/l.	BLQ(LOQ-0.1)
20.	Total Chromium as Cr	mg/l.	APHA 3111 B	2 mg/l.	BLQ(LOQ-0.4)



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122-C, Aastha, Road No. 5A,
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Patna – 800 013 (Bihar)
Contact us : +918676886249
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Email : coo@shivatesthouse.in
cao@shivatesthouse.in



TEST REPORT

Name and Address of Customer :

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha – 770 072

Sampling Details :

ULR Number STH/TR/24-25/08/09
Date of Sampling 01.08.2024
Sample Received on 02.08.2024
Method of Sampling IS 3025, APHA
Env. Condition Temp. 34 °C Humidity As per request
Sample Quantity & Container 2 L. ; Polypropylene Bottle (02)
Sample Collected by Mr. Amar Tiwari; Lab Representative

Information by Customer :

Name / Nature of Sample : *Effluent Sample*
Location of Sampling : ETP outlet
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Analysis Details :

Sample Code STH/24/08/09
Analysis Start Date 02.08.2024
Analysis Completion Date 07.08.2024
Sample Condition on Receipt Fit for analysis
Items required to be Tested As per request
Any Specific Test Method No
Reporting Date 02.09.2024

ANALYSIS RESULTS

Sl. No.	Parameters	Unit	Method of Test	Limit as per E (P) Rules for Discharge on Inland Surface Water	Result
21.	Hexavalent Chromium (as Cr+6).	mg/l.	APHA 3111 B	0.1 mg/l	0.001
22.	Cadmium as Cd	mg/l.	APHA 3111 B	2 mg/l.	BLQ(LOQ-0.01)
23.	Mercury as Hg	mg/l.	APHA 3112 B	0.01 mg/l.	BLQ(LOQ-0.001)
24.	Temperature	°C	APHA 2550 B 23 rd Edition 2017	---	25 th C
25.	Phenolic Compound as C ₆ H ₅ OH	mg/l.	APHA 6420 B	1.00 mg/l.	BLQ(LOD-1.0)
26.	Total Organic Carbon	mg/l.	APHA 5310 B 23 rd Edition 2017	Not Specified	<4.0
27.	Turbidity	NTU	Not Specified	Not Specified	24.0
28.	Conductivity	µmhos/cm.	IS 3025 (Part-14)	Not Specified	554.0
29.	Fixed Dissolved Solids (FDS)	mg/l.	IS 3025(Part-18)	Not Specified	280.0
30.	Nitrate Nitrogen	mg/l.	APHA 4500 NH ₃ C	10 mg/l.	9.34
31.	Total Residual Chlorine	mg/l.	IS 3025 (Part-26)	Not Specified	BLQ(LOD-1.0)
32.	Vanadium	mg/l.	APHA 3111 D	0.2 mg/l.	BLQ(LOQ-0.001)
33.	Cyanide as CN	mg/l.	IS 3025 (Part-27)	0.20 mg/l.	(LOD-0.005) BLQ
34.	Selenium as Se	mg/l.	APHA 3114 B	0.05 mg/l	0.23
35.	Bio-Assay Test	---	IS 6582: 1971	92% Fish Survived after 96 hrs. in 100% Conc ⁿ Of Treated Effluent	92% Fish Survived after 96 hrs. in 100% Conc ⁿ Of Treated Effluent



Vishal Sharma

Reviewed by :

Sayan Sankar

Authorized Signatory :

S.S. Rukhaiyar, Sec. I/c (Effluent)

Piyali Das Sharma

Authorized Signatory :

Piyali Das Sharma, Sec. I/c (Mcb.)

Shreyasee Prasad

Quality Manager :

Dr. (Mrs.) Shreyasee Prasad

----- END OF REPORT -----

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Email : ceo@shivatesthouse.in
ceo@shivatesthouse.in



TEST REPORT

Name and Address of Customer :

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha – 770 072

Information by Customer :

Name / Nature of Sample : *Effluent Sample*
Location of Sampling : *STP Outlet*
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Sampling Details :

Sampling Period 01.08.24 to 31.08.24
Method of Sampling IS 5182 (Part - 14)
Sample Quantity & Container 30 ml x 6 for each (NO₂, SO₂, NH₃); Filter Paper & Sample Carriage Bottle
Sample Collected by Mr. Amar Tiwari; Lab Representative

Analysis Details :

Sample Quantity 8
Sample Condition on Receipt Fit for analysis
Items required to be Tested As per contract
Any Specific Test Method No
Reporting Date 02.09.2024

ANALYSIS RESULTS

Sl. No.	Parameters	Unit	Method of Test	Limit as per E (P) Rules Schedule VI	Date of Sampling /Sample Code/ Result							
					01.08.24	08.08.24	09.08.24	16.08.24	17.08.24	23.08.24	24.08.24	31.08.24
					SC_STH/ 24/08/07	SC_STH/ 24/08/118	SC_STH/ 24/08/125	SC_STH/ 24/08/314	SC_STH/ 24/08/350	SC_STH/ 24/08/478	SC_STH/ 24/08/615	SC_STH/ 24/09/
1.	pH at 25° C	----	IS 3025 (Part-11)	5.5 to 9.0	7.09	7.04	7.09	7.05	7.02	7.06	7.04	7.1
2.	Total Suspended Solids	mg/l.	IS 3025 (Part-17)	100.00	21.0	20.0	18.0	19.0	20.0	18.0	21.0	17.0
3.	B.O.D. (3 days at 27°C)	mg/l.	IS 3025 (Part-44)	30.00	18.0	20.0	19.0	20.0	21.0	18.0	19.0	20.0
4.	C.O.D.	mg/l.	APHA 5220 B	250.00	220.0	210.0	190.0	200.0	210.0	190.0	220.0	180.0
5.	Ammonical Nitrogen as NH ₄ -N	mg/l.	IS 3025 (Part-34)	50.00	11.2	11.5	11.2	11.5	11.8	11.5	11.2	10.9
6.	Total Nitrogen	mg/l.	IS 3025 (Part-34)	---	18.0	18.3	18.0	18.3	18.9	18.6	18.9	18.0
7.	Fecal Coliform	MPN/100 ml	IS:1622	---	1.3x 10 ³ MPN/100 ML	1.7x 10 ³ MPN/100 ML	1.2x 10 ³ MPN/100 ML	1.4x 10 ³ MPN/100 ML	1.1x 10 ³ MPN/100 ML	1.3x 10 ³ MPN/100 ML	0.9x 10 ³ MPN/100 ML	1.4x 10 ³ MPN/100 ML



Vishal Sharma

Reviewed by :

Sayan Sankar

Authorized Signatory :
S.S. Rukhaiyar, Sec. I/c (Effluent)

Piyali Das Sharma

Authorized Signatory :
Piyali Das Sharma, Sec. I/c (Mcb.)

Shreyasee Prasad

Quality Manager :
Dr. (Mrs.) Shreyasee Prasad

----- END OF REPORT -----

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TEST REPORT

Name and Address of Customer :

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha – 770 072

Information by Customer :

Name / Nature of Sample : Ground Water Sample
Location of Sampling : Premises of NTPC Darlipali
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Sampling Details :

Sampling Period 01.08.24 to 31.08.24
Method of Sampling IS 5182 (Part - 14)
Sample Quantity & Container 30 ml x 6 for each (NO₂, SO₂, NH₃); Filter Paper & Sample Carriage Bottle
Sample Collected by Mr. Amar Tiwari; Lab Representative

Analysis Details :

Sample Quantity 8
Sample Condition on Receipt Fit for analysis
Items required to be Tested As per contract
Any Specific Test Method No
Reporting Date 02.09.2024

ANALYSIS RESULTS

Sl. No.	Parameters	Unit	Method of Test	Acceptable Limit	Permissible Limit in the absence of alternative source	Date of Sampling / Results				
						02.08.24	02.08.24	02.08.24	02.08.24	02.08.24
						CISF Colony (SC_ST H/24/08/23)	Field Hostel (SC_STH/24/08/24)	Project Site (SC_STH/24/08/25)	Darlipali Village Area (SC_ST H/24/08/26)	Darlipali Surrounding Area (SC_ST H/24/08/27)
1.	Temperature	°C	APHA 2550 B 23 rd Edition 2017	---	---	23.0	22.5	23.5	22.5	23.0
2.	pH	---	IS 3025 (Part-11)	6.5	8.5	7.37	7.05	7.11	7.29	7.31
3.	Total Dissolved Solids	mg/l.	IS 3025 (Part-16)	500	2000	261.0	324.0	312.0	284.0	322.0
4.	Conductivity	µmhos/cm.	IS 3025 (Part-14)	Not Specified		447.0	564.0	552.0	504.0	562.0
5.	Fluoride	mg/l.	APHA 4500 (F D)	1.0	1.5	0.25	0.23	0.27	0.24	0.26
6.	Calcium Hardness	mg/l.	IS 3025 (Part-40)	75.00	200.00	102.0	144.0	138.0	120.0	128.0
7.	Magnesium Hardness	mg/l.	IS 3025 (Part-46)	30.00	100.0	78.0	74.0	70.0	68.0	96.0
8.	Boron as B	mg/l.	APHA 4500 B B	0.5	1.0	<0.5	<0.5	<0.5	<0.5	<0.5
9.	BOD (3 days at 27°C)	mg/l.	IS 3025 (Part-44)	Not Specified		<1.0	<1.0	<1.0	<1.0	<1.0
10.	COD	mg/l.	IS 3025 (Part-58)	Not Specified		1.0	1.0	1.0	1.0	1.0
11.	Total Suspended Solids	mg/l.	IS 3025 (Part-17)	Not Specified		5.0	7.0	5.0	6.0	8.0
12.	Total. Coliform	/100 ml	IS: 1622:1981	Shall not be detectable in 100 ml		Not Detected/100 ml	Not Detected/100 ml	Not Detected/100 ml	Not Detected/100 ml	Not Detected/100 ml
13.	E. coli	/100 ml	IS: 1622:1981	Shall not be detectable in 100 ml		Not Detected/100 ml	Not Detected/100 ml	Not Detected/100 ml	Not Detected/100 ml	Not Detected/100 ml



Vishal Sharma

Reviewed by :

Sayan Sunkar

Authorized Signatory :
S.S. Rukhaiyar, Sec. I/c (Effluent)

Piyali Das Sharma

Authorized Signatory :
Piyali Das Sharma, Sec. I/c (Mcb.)

Shreyasee Prasad

Quality Manager :
Dr. (Mrs.) Shreyasee Prasad

----- END OF REPORT -----

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OMSHIVA TEST HOUSE PRIVATE LIMITED

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TESTING | CONSULTING | RESOLVING | TRAINING

Head Office :

122-C, Aastha, Road No. 5A,
Patliputra Colony,
Patna – 800 013 (Bihar)
Contact us : +918676886249
+919431047908

Email : ceo@shivatesthouse.in
cao@shivatesthouse.in



TEST REPORT

Name and Address of Customer :

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha – 770 072

Information by Customer :

Name / Nature of Sample : Surface Water Sample
Location of Sampling : Cooling Tower Blow Down
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Sampling Details :

ULR Number : STH/TR/24-25/08/28
Date of Sampling : 02.08.2024
Sample Received on : 03.08.2024
Method of Sampling : IS 3025, APHA
Env. Condition : Temp. 34 °C Humidity 72 %
Sample Quantity & Container : 2 L. ; Polypropylene Bottle (02)
Sample Collected by : Mr. Amar Tiwari; Lab Representative

Analysis Details :

Sample Code : STH/24/08/28
Analysis Start Date : 03.08.2024
Analysis Completion Date : 08.08.2024
Sample Condition on Receipt : Fit for analysis
Items required to be Tested : As per request
Any Specific Test Method : No
Reporting Date : 02.09.2024

ANALYSIS RESULTS

Parameters	Unit	Method of Test	Tolerance Limit as per IS 2296-1982					Results
			Class 'A'	Class 'B'	Class 'C'	Class 'D'	Class 'E'	
1. Temperature	°C	APHA 2550 B 23 rd Edition 2017	---	---	---	---	---	23°C
2. pH	--	IS 3025 (Part-11)	6.5 to 8.5	6.5 to 8.5	6.0 to 9.0	6.5 to 8.5	6.0 to 8.5	7.56
3. Conductivity	µmhos/cm.	IS 3025 (Part-14)	--	--	--	--	2250	724.0
4. BOD (3 days at 27 °C)	mg/l.	IS 3025 (Part-44)	2	3	3	--	--	0.6
5. COD	mg/l.	IS3025(Part-58)	--	--	--	--	--	2.0
Total Dissolved Solids	mg/l.	IS 3025 (Part-16)	500.00		1500		2100	408.0
6. Total Suspended Solids	mg/l.	IS 3025 (Part-17)	--	--	--	--	--	15.0
7. Fluoride	mg/l.	APHA 4500 (F D)	1.5	1.5	1.5	--	--	0.21
8. Phosphate as P	mg/l.	APHA 4500 (P D)	--	--	--	--	--	0.19
9. Calcium Hardness	mg/l.	IS 3025 (Part-40)	200	--	--	--	--	154.0
10. Magnesium Hardness	mg/l.	IS 3025 (Part-46)	200	--	--	--	--	94.0
11. Boron as B	mg/l.	APHA 4500 B B	---	--	--	--	2.0	BLQ(LOQ0.1)
12. Free Residual Chlorine	mg/l.	IS 3025 (Part-26)	--	--	--	--	--	BLQ(LOD-1.0)
13. Zinc as Zn	mg/l.	APHA (3111 B)	15	--	15	--	--	0.05
14. Chromium as Cr	mg/l.	APHA (3111 B)	0.05	--	0.05	--	--	BLQ(LOQ0.05)
15. Total. Coliform	/100 ml	IS: 1622:1981	Shall not be detectable in 100 ml					Detected/100 ml
16. E. coli	/100 ml	IS: 1622:1981	Shall not be detectable in 100 ml					Detected/100 ml



Vijay Sharma

Sayan Sunkar

Piyali Das Sharma

Shreyasee Prasad

Reviewed by :

Authorized Signatory :
S.S. Rukhaiyar, Sec. I/c (Effluent)

Authorized Signatory :
Piyali Das Sharma, Sec. I/c (Mcb.)

Quality Manager :
Dr. (Mrs.) Shreyasee Prasad

----- END OF REPORT -----

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122-C, Aastha, Road No. 5A,
Patliputra Colony,
Patna – 800 013 (Bihar)
Contact us : +918676886249
+919431047908

Email : ceo@shivatesthouse.in
cao@shivatesthouse.in



TEST REPORT

Name and Address of Customer :

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha – 770 072

Information by Customer :

Name / Nature of Sample : Surface Water Sample
Location of Sampling : Darlipali Talab
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Sampling Details :

ULR Number : STH/TR/24-25/08/29
Date of Sampling : 02.08.2024
Sample Received on : 03.08.2024
Method of Sampling : IS 3025, APHA
Env. Condition : Temp. 34 °C Humidity 72 %
Sample Quantity & Container : 2 L. ; Polypropylene Bottle (02)
Sample Collected by : Mr. Amar Tiwari; Lab Representative

Analysis Details :

Sample Code : STH/24/08/29
Analysis Start Date : 03.08.2024
Analysis Completion Date : 08.08.2024
Sample Condition on Receipt : Fit for analysis
Items required to be Tested : As per request
Any Specific Test Method : No
Reporting Date : 02.09.2024

ANALYSIS RESULTS

Parameters	Unit	Method of Test	Tolerance Limit as per IS 2296-1982					Results
			Class 'A'	Class 'B'	Class 'C'	Class 'D'	Class 'E'	
1. Temperature	°C	APHA 2550 B 23 rd Edition 2017	---	---	---	---	---	23.2°C
2. pH	--	IS 3025 (Part-11)	6.5 to 8.5	6.5 to 8.5	6.0 to 9.0	6.5 to 8.5	6.0 to 8.5	7.59
3. Conductivity	µmhos/cm	IS 3025 (Part-14)	--	--	--	--	2250	404.0
4. BOD (3 days at 27 °C)	mg/l.	IS 3025 (Part-44)	2	3	3	--	--	0.5
5. COD	mg/l.	IS3025(Part-58)	--	--	--	--	--	2.0
6. Total Dissolved Solids	mg/l.	IS 3025 (Part-16)	500.00		1500		2100	224.0
7. Total Suspended Solids	mg/l.	IS 3025 (Part-17)	--	--	--	--	--	12.0
8. Fluoride	mg/l.	APHA 4500 (F D)	1.5	1.5	1.5	--	--	0.22
9. Calcium Hardness	mg/l.	IS 3025 (Part-40)	200	--	--	--	--	82.0
10. Magnesium Hardness	mg/l.	IS 3025 (Part-46)	200	--	--	--	--	42.0
11. Boron as B	mg/l.	APHA 4500 B B	---	--	--	--	2.0	BLQ(LOQ0.1)
12. Total. Coliform	/100 ml	IS: 1622:1981	Shall not be detectable in 100 ml					Detected/100 ml
13. E. coli	/100 ml	IS: 1622:1981	Shall not be detectable in 100 ml					Detected/100 ml



Vishal Sharma

Reviewed by :

Sayan Sunkar

Authorized Signatory :
S.S. Rukhaiyar, Sec. I/c (Effluent)

Piyali Das Sharma

Authorized Signatory :
Piyali Das Sharma, Sec. I/c (Mcb.)

Shreyasee Prasad

Quality Manager :
Dr. (Mrs.) Shreyasee Prasad

----- END OF REPORT -----

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Head Office :

122-C, Aastha, Road No. 5A,
Patliputra Colony,
Patna – 800 013 (Bihar)
Contact us : +918676886249
+919431047908

Email : ceo@shivatesthouse.in
cao@shivatesthouse.in



TEST REPORT

Name and Address of Customer :

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha – 770 072

Information by Customer :

Name / Nature of Sample : Surface Water Sample
Location of Sampling : Out Let Plant Drain
Outside Area
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Sampling Details :

ULR Number STH/TR/24-25/08/30
Date of Sampling 02.08.2024
Sample Received on 03.08.2024
Method of Sampling IS 3025, APHA
Env. Condition Temp. 34 °C Humidity 72 %
Sample Quantity & Container 2 L. ; Polypropylene Bottle (02)
Sample Collected by Mr. Amar Tiwari; Lab Representative

Analysis Details :

Sample Code STH/24/08/30
Analysis Start Date 03.08.2024
Analysis Completion Date 08.08.2024
Sample Condition on Receipt Fit for analysis
Items required to be Tested As per request
Any Specific Test Method No
Reporting Date 02.09.2024

ANALYSIS RESULTS

Parameters	Unit	Method of Test	Tolerance Limit as per IS 2296-1982					Results
			Class 'A'	Class 'B'	Class 'C'	Class 'D'	Class 'E'	
1. Temperature	°C	APHA 2550 B 23 rd Edition 2017	---	---	---	---	---	22.6°C
2. pH	--	IS 3025 (Part-11)	6.5 to 8.5	6.5 to 8.5	6.0 to 9.0	6.5 to 8.5	6.0 to 8.5	7.19
3. Conductivity	µmhos/cm	IS 3025 (Part-14)	--	--	--	--	2250	435.0
4. BOD (3 days at 27 °C)	mg/l.	IS 3025 (Part-44)	2	3	3	--	--	0.9
5. COD	mg/l.	IS3025(Part-58)	--	--	--	--	--	5.0
6. Total Dissolved Solids	mg/l.	IS 3025 (Part-16)	500.00		1500		2100	246.0
7. Total Suspended Solids	mg/l.	IS 3025 (Part-17)	--	--	--	--	--	16.0
8. Fluoride	mg/l.	APHA 4500 (F D)	1.5	1.5	1.5	--	--	0.27
9. Calcium Hardness	mg/l.	IS 3025 (Part-40)	200	--	--	--	--	84.0
10. Magnesium Hardness	mg/l.	IS 3025 (Part-46)	200	--	--	--	--	50.0
11. Boron as B	mg/l.	APHA 4500 B B	---	--	--	--	2.0	BLQ(LOQ0.1)
12. Total. Coliform	/100 ml	IS: 1622:1981	Shall not be detectable in 100 ml					Detected/100 ml
13. E. coli	/100 ml	IS: 1622:1981	Shall not be detectable in 100 ml					Detected/100 ml



Vijay Sharma

Reviewed by :

Sayan Sunkar

Authorized Signatory :

S.S. Rukhaiyar, Sec. I/c (Effluent)

Piyali Das Sharma

Authorized Signatory :

Piyali Das Sharma, Sec. I/c (Mcb.)

Shreyasee Prasad

Quality Manager :

Dr. (Mrs.) Shreyasee Prasad

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Head Office :

122-C, Aastha, Road No. 5A,
Patliputra Colony,
Patna – 800 013 (Bihar)
Contact us : +918676886249
+919431047908

Email : ceo@shivatesthouse.in
ceo@shivatesthouse.in



TEST REPORT

Name and Address of Customer :

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha – 770 072

Information by Customer :

Name / Nature of Sample : Surface Water Sample
Location of Sampling : Raw Water Reservoir 01
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Sampling Details :

ULR Number : STH/TR/24-25/08/31
Date of Sampling : 02.08.2024
Sample Received on : 03.08.2024
Method of Sampling : IS 3025, APHA
Env. Condition : Temp. 34 °C Humidity 72 %
Sample Quantity & Container : 2 L. ; Polypropylene Bottle (02)
Sample Collected by : Mr. Amar Tiwari; Lab Representative

Analysis Details :

Sample Code : STH/24/08/31
Analysis Start Date : 03.08.2024
Analysis Completion Date : 08.08.2024
Sample Condition on Receipt : Fit for analysis
Items required to be Tested : As per request
Any Specific Test Method : No
Reporting Date : 02.09.2024

ANALYSIS RESULTS

Parameters	Unit	Method of Test	Tolerance Limit as per IS 2296-1982					Results
			Class 'A'	Class 'B'	Class 'C'	Class 'D'	Class 'E'	
1. Temperature	°C	APHA 2550 B 23 rd Edition 2017	---	---	---	---	---	23.4°C
2. pH	--	IS 3025 (Part-11)	6.5 to 8.5	6.5 to 8.5	6.0 to 9.0	6.5 to 8.5	6.0 to 8.5	7.59
3. Conductivity	µmhos/cm	IS 3025 (Part-14)	--	--	--	--	2250	320.0
4. BOD (3 days at 27 °C)	mg/l.	IS 3025 (Part-44)	2	3	3	--	--	0.8
5. COD	mg/l.	IS3025(Part-58)	--	--	--	--	--	4.0
6. Total Dissolved Solids	mg/l.	IS 3025 (Part-16)	500.00		1500		2100	186.0
7. Total Suspended Solids	mg/l.	IS 3025 (Part-17)	--	--	--	--	--	9.0
8. Fluoride	mg/l.	APHA 4500 (F D)	1.5	1.5	1.5	--	--	0.21
9. Calcium Hardness	mg/l.	IS 3025 (Part-40)	200	--	--	--	--	62.0
10. Magnesium Hardness	mg/l.	IS 3025 (Part-46)	200	--	--	--	--	36.0
11. Boron as B	mg/l.	APHA 4500 B B	---	--	--	--	2.0	BLQ(LOQ0.1)
12. Total. Coliform	/100 ml	IS: 1622:1981	Shall not be detectable in 100 ml					Detected/100 ml
13. E. coli	/100 ml	IS: 1622:1981	Shall not be detectable in 100 ml					Detected/100 ml



Vishal Sharma

Reviewed by :

Sayan Sunkar

Authorized Signatory :
S.S. Rukhaiyar, Sec. I/c (Effluent)

Piyali Das Sharma

Authorized Signatory :
Piyali Das Sharma, Sec. I/c (Mcb.)

Shreyasee Prasad

Quality Manager :
Dr. (Mrs.) Shreyasee Prasad

----- END OF REPORT -----

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122-C, Aastha, Road No. 5A,
Patliputra Colony,
Patna – 800 013 (Bihar)
Contact us : +918676886249
+919431047908

Email : ceo@shivatesthouse.in
ceo@shivatesthouse.in



TEST REPORT

Name and Address of Customer :

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha – 770 072

Information by Customer :

Name / Nature of Sample : Surface Water Sample
Location of Sampling : Raw Water Reservoir 02
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Sampling Details :

ULR Number : STH/TR/24-25/08/32
Date of Sampling : 02.08.2024
Sample Received on : 03.08.2024
Method of Sampling : IS 3025, APHA
Env. Condition : Temp. 34 °C Humidity 72 %
Sample Quantity & Container : 2 L. ; Polypropylene Bottle (02)
Sample Collected by : Mr. Amar Tiwari; Lab Representative

Analysis Details :

Sample Code : STH/24/08/32
Analysis Start Date : 03.08.2024
Analysis Completion Date : 08.08.2024
Sample Condition on Receipt : Fit for analysis
Items required to be Tested : As per request
Any Specific Test Method : No
Reporting Date : 02.09.2024

ANALYSIS RESULTS

Parameters	Unit	Method of Test	Tolerance Limit as per IS 2296-1982					Results
			Class 'A'	Class 'B'	Class 'C'	Class 'D'	Class 'E'	
1. Temperature	°C	APHA 2550 B 23 rd Edition 2017	---	---	---	---	---	23.4°C
2. pH	--	IS 3025 (Part-11)	6.5 to 8.5	6.5 to 8.5	6.0 to 9.0	6.5 to 8.5	6.0 to 8.5	7.49
3. Conductivity	µmhos/cm	IS 3025 (Part-14)	--	--	--	--	2250	308.0
4. BOD (3 days at 27 °C)	mg/l.	IS 3025 (Part-44)	2	3	3	--	--	0.7
5. COD	mg/l.	IS 3025 (Part-58)	--	--	--	--	--	3.0
6. Total Dissolved Solids	mg/l.	IS 3025 (Part-16)	500.00		1500		2100	172.0
7. Total Suspended Solids	mg/l.	IS 3025 (Part-17)	--	--	--	--	--	8.0
8. Fluoride	mg/l.	APHA 4500 (F D)	1.5	1.5	1.5	--	--	0.19
9. Calcium Hardness	mg/l.	IS 3025 (Part-40)	200	--	--	--	--	52.0
10. Magnesium Hardness	mg/l.	IS 3025 (Part-46)	200	--	--	--	--	40.0
11. Boron as B	mg/l.	APHA 4500 B B	---	--	--	--	2.0	BLQ(LOQ0.1)
12. Total. Coliform	/100 ml	IS: 1622:1981	Shall not be detectable in 100 ml					Detected/100 ml
13. E. coli	/100 ml	IS: 1622:1981	Shall not be detectable in 100 ml					Detected/100 ml



Vijay Sharma

Reviewed by :

Sayan Sankar

Authorized Signatory :

S.S. Rukhaiyar, Sec. I/c (Effluent)

Piyali Das Sharma

Authorized Signatory :

Piyali Das Sharma, Sec. I/c (Mcb.)

Shreyasee Prasad

Quality Manager :

Dr. (Mrs.) Shreyasee Prasad

----- END OF REPORT -----

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Email : ceo@shivatesthouse.in
ceo@shivatesthouse.in



TEST REPORT

Name and Address of Customer :

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha – 770 072

Sampling Details :

ULR Number STH/TR/24-25/08/17,18
Date of Sampling 01.08.2024
Sample Received on 02.08.2024
Method of Sampling IS 11255 (Part-1,2,3 & 7)
Env. Condition Temp. 34 °C Humidity 72 %
Instrument ID STH/Equip/53
Sample Quantity & Container 60 ml Thimble & Sample Glass Carriage
Sample Collected by Mr. Amar Tiwari; Lab Representative

Information by Customer :

Name / Nature of Sample : *Stack Emission*
Location of Sampling : *Within Premises*
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Analysis Details :

Sample Code Given Below
Analysis Start Date 02.08.2024
Analysis Completion Date 07.08.2024
Sample Condition on Receipt Fit for analysis
Items required to be Tested As per request
Any Specific Test Method No
Reporting Date 02.09.2024

ANALYSIS RESULTS

Parameters	Unit	Method of Test	Date of Sampling /Sample Code/ Results		
			01.08.24	01.08.24	
1. Type of Fuel			SC_ STH/24/08/17	SC_ STH/24/08/18	
2. Stack Connected to			Coal (552.90 Tons/Hrs. Approx.)	Coal (519.34 Tons/Hrs. Approx.)	
3. Generation Capacity	MW		Boiler No. 1 (Unit – 1)	Boiler No. 2 (Unit – 2)	
4. Load Unit	MW		800 MW	800 MW	
5. Height of Stack (as reported)	Meter		783.89	775.85	
6. Dia. of Stack at Top (as reported)	Meter		275.0 m.	275.0 m.	
7. Material of Construction	--		7.0 m.	7.0 m.	
8. Ambient Temperature	°C		Concrete	Concrete	
9. Flue Gas Temperature	°C		29.0	29.0	
10. Barometric Pressure	mm of Hg		106.0	110.0	
11. Velocity	m/sec.	IS 11255 (Part-3)	757.0	757.0	
12. Flow Rate	NM ³ /hr		21.6	20.6	
13. Sampling Point	Meter		2352292.9	2217797.9	
			90.00 m.	90.00 m.	
			Limit as per E(P) Rules	Concentration	Concentration
14. Particulate Matter (P.M.)	mg / NM ³	IS 11255 (Part-1)	30 mg / NM ³	13.2	16.0
15. Sulphur Dioxide (SO ₂)	mg / NM ³	IS 11255 (Part-2)	100 mg / NM ³	928.3	916.9
16. Oxides of Nitrogen (NO _x)	mg / NM ³	IS 11255 (Part-7)	100 mg / NM ³	287.7	280.1
17. Carbon Dioxide (CO ₂)	% V/V	IS 13270 – 1992	Not Specified	11.6	11.5
18. Mercury as Hg	mg / NM ³	US EPA (Method 29)	0.03	0.006	0.010

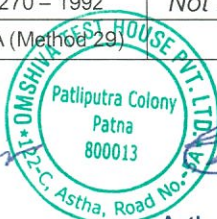
Vishal Sharma

Reviewed by :

Abhishek Kumar

Authorized Signatory :

Abhishek Kumar, Sec. I/c (Air Proximate)



Sagar Gokhe

Authorized Signatory :

Sagar Gokhe, Sec. I/c (Metals)

Shreyasee Prasad

Quality Manager :

Dr. (Mrs.) Shreyasee Prasad

----- END OF REPORT -----

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OMSHIVA TEST HOUSE PRIVATE LIMITED

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TESTING | CONSULTING | RESOLVING | TRAINING

Head Office :

122-C, Aastha, Road No. 5A,
Patliputra Colony,

Patna – 800 013 (Bihar)

Contact us : +918676886249

+919431047908

Email : ceo@shivatesthouse.in

ceo@shivatesthouse.in



TEST REPORT

Name and Address of Customer :

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha – 770 072

Information by Customer :

Name / Nature of Sample : **Stack Emission**
Location of Sampling : **Within Premises**
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Sampling Details :

ULR Number STH/TR/24-25/08/321,322
Date of Sampling 16.08.2024
Sample Received on 17.08.2024
Method of Sampling IS 11255 (Part-1,2,3 & 7)
Env. Condition Temp. 34 °C Humidity 72 %
Instrument ID STH/Equip/53
Sample Quantity & Container 60 ml Thimble & Sample Glass Carriage
Sample Collected by Mr. Amar Tiwari; Lab Representative

Analysis Details :

Sample Code Given Below
Analysis Start Date 17.08.2024
Analysis Completion Date 22.08.2024
Sample Condition on Receipt Fit for analysis
Items required to be Tested As per request
Any Specific Test Method No
Reporting Date 02.09.2024

ANALYSIS RESULTS

Parameters	Unit	Method of Test	Date of Sampling /Sample Code/ Results	
			16.08.24	16.08.24
1. Type of Fuel			SC_STH/24/08/321	SC_STH/24/08/322
2. Stack Connected to			Coal (552.90 Tons/Hrs. Approx.)	Coal (519.34 Tons/Hrs. Approx.)
3. Generation Capacity	MW		Boiler No. 1 (Unit – 1)	Boiler No. 2 (Unit – 2)
4. Load Unit	MW		800 MW	800 MW
5. Height of Stack (as reported)	Meter		786.88	778.52
6. Dia. of Stack at Top (as reported)	Meter		275.0 m.	275.0 m.
7. Material of Construction	--		7.0 m.	7.0 m.
8. Ambient Temperature	°C		Concrete	Concrete
9. Flue Gas Temperature	°C		36.0	36.0
10. Barometric Pressure	mm of Hg		36.0	115.0
11. Velocity	m/sec.	IS 11255 (Part-3)	755.0	756.0
12. Flow Rate	NM ³ /hr		19.3	20.7
13. Sampling Point	Meter		2571751.6	2205073.3
			90.00 m.	90.00 m.
			Limit as per E(P) Rules	Concentration
14. Particulate Matter (P.M.)	mg / NM ³	IS 11255 (Part-1)	30 mg / NM ³	13.8
15. Sulphur Dioxide (SO ₂)	mg / NM ³	IS 11255 (Part-2)	100 mg / NM ³	787.0
16. Oxides of Nitrogen (NO _x)	mg / NM ³	IS 11255 (Part-7)	100 mg / NM ³	281.7
17. Carbon Dioxide (CO ₂)	% V/V	IS 13270 – 1992	Not Specified	11.6
18. Mercury as Hg	mg / NM ³	US EPA (Method 1631)	0.03	0.007

Vishal Sharma
Reviewed by :

Abhishek Kumar
Authorized Signatory :
Abhishek Kumar, Sec. I/c (Air Proximate)

Sagar Gokhe
Authorized Signatory :
Sagar Gokhe, Sec. I/c (Metals)

Shreyasee Prasad
Quality Manager :
Dr. (Mrs.) Shreyasee Prasad

----- END OF REPORT -----

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TEST REPORT

Name and Address of Customer :

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha – 770 072

Sampling Details :

ULR Number STH/TR/24-25/08/10
Date of Sampling 01.08.2024
Sample Received on 02.08.2024
Method of Sampling IS 3025, APHA
Env. Condition Temp. 34 °C Humidity 72 %
Sample Quantity & Container 2 L. ; Polypropylene Bottle (02)
Sample Collected by Mr. Amar Tiwari; Lab Representative

Information by Customer :

Name / Nature of Sample : Effluent Sample
Location of Sampling : Ash Pond Sample
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Analysis Details :

Sample Code STH/24/08/10
Analysis Start Date 02.08.2024
Analysis Completion Date 07.08.2024
Sample Condition on Receipt Fit for analysis
Items required to be Tested As per request
Any Specific Test Method No
Reporting Date 02.09.2024

ANALYSIS RESULTS

Sl. No.	Parameters	Unit	Method of Test	Result
1.	pH at 25° C	mg/l.	IS 3025 (Part-11)	7.37
2.	Suspended Solids	mg/l.	IS 3025(Part-17)	4.0
3.	Oil & Grease	mg/l.	IS 3025 (Part-39)	0.5
4.	Fluoride as F	mg/l.	APHA 4500 (F D)	0.51



Vishal Sharma

Reviewed by :

S.S. Rukhaiyar

Authorized Signatory :

S.S. Rukhaiyar, Sec. I/c (Effluent)

----- END OF REPORT -----

Shreyasee Prasad

Quality Manager :

Dr. (Mrs.) Shreyasee Prasad

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TEST REPORT

Name and Address of Customer :

M/s NTPC Ltd.
D.S.T.P Darlipali,
Darpali Village
Sundargarh,
Odisha – 770 072

Sampling Details :

ULR Number STH/TR/24-25/08/485-490
Date of Sampling 23.08.2024
Sample Received on 24.08.2024
Method of Sampling IS 3025, APHA
Env. Condition Temp. 34 °C Humidity 72 %
Sample Quantity & Container 2 L. ; Polypropylene Bottle (02)
Sample Collected by Mr. Amar Tiwari; Lab Representative

Information by Customer :

Name / Nature of Sample : Ambient Noise Level
Location of Sampling : Noise
W.O No.: 4000291355-037-1019
WO Date: 31.12.2022

Analysis Details :

Sample Code NA
Analysis Start Date 24.08.2024
Analysis Completion Date 29.08.2024
Sample Condition on Receipt Fit for analysis
Items required to be Tested As per request
Any Specific Test Method No
Reporting Date 02.09.2024

ANALYSIS RESULTS

Sampling Location	Unit	Standards in dB(A)		TWA Of Noise Level	
		Industrial Area		Day Time (6.0 am to 10.0 pm)	Night Time (10.0 pm to 6.0 am)
		Day Time	Night Time		
1. Surrounding Village	dB(A)	75	70	63.8	57.9
2. Township	dB(A)	75	70	57.8	52.9
3. Coal Handling Plant	dB(A)	75	70	64.0	59.8
4. Service Building	dB(A)	75	70	65.1	56.9
5. Near Office Building	dB(A)	75	70	60.5	55.8
6. Plant Gate	dB(A)	75	70	61.9	55.8



Vishal Sharma

Reviewed by :

Abhishek Kumar

Authorized Signatory :
Abhishek Kumar, Sec. I/c (Air Proximate)

Shreyasee Prasad

Quality Manager :
Dr. (Mrs.) Shreyasee Prasad

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