

**BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN ZONE KOLKATA BENCH
Original Application No.25 of 2024/EZ.**

Suo Motu matter In re: News item
appearing in The Hindu Bureau
dated 21.12.2023 entitled "6 dead,
100 infected in suspected cholera
outbreak in Rourkela".

..... Petitioner / Appellant

Vs.

District Magistrate, Rourkela & OthersRespondent / Defendant

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SPCB Odisha, R.No.3

Through

Kolkata

Date:

Smt Papiya Banerjee Bihani,
Advocates for the Respondent No.3
(State Pollution Control Board, Odisha)
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Phone No.:9831493390

BEFORE THE NATIONAL GREEN TRIBUNAL

EASTERN ZONE KOLKATA BENCH

Original Application No.25 of 2024/EZ.

04 MAR 2024

Suo Motu matter In re: News item appearing in The Hindu Bureau dated 21.12.2023 entitled "6 dead, 1000 infected in suspected cholera outbreak in Rourkela".

..... Petitioner / Appellant

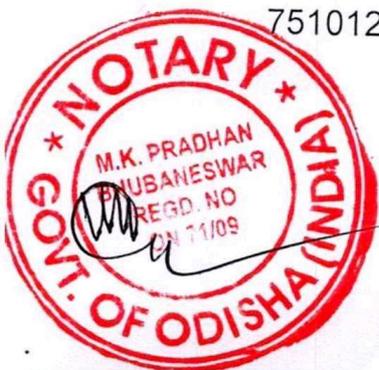
Vs.

District Magistrate, Rourkela & Others

.....Respondent / Defendant

AFFIDAVIT ON BEHALF OF STATE POLLUTION CONTROL BOARD, RESPONDENT NO.3 IN COMPLIANCE TO DIRECTION DTD.25.01.2024 OF THIS HON'BLE TRIBUNAL.

I, Dr. Kailasam Murugesan, IFS, son of late Paramasivam Kailasam aged around 56 years, at present working as Member Secretary, State Pollution Control Board, having my office at Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, P.O. Nayapalli, Bhubaneswar, Dist – Khurda, Odisha-751012, do hereby solemnly affirm and state as under:



1. That I am the Member Secretary of the Respondent No.3 Board and, as such, am well-acquainted with the facts and circumstances with the case and competent to swear this affidavit.
2. That this Hon'ble Tribunal while taking note of the affidavit dtd.19.01.2024 filed by the R.No.3 Board has been pleased to direct for constitution of a committee comprising of the following members.
 - i. Senior Scientist, Odisha State Pollution Control Board,
 - ii. Senior Scientist, Indian Council of Medical Research,
 - iii. Officer of Senior Rank, Health and Family Welfare Department, Government of Odisha,
 - iv. Officer of Senior Rank, Water Corporation of Odisha (WATCO), Government of Odisha,
 - v. Officer of Senior Rank, Public Health and Engineering Department, Government of Odisha,
 - vi. Officer of Senior Rank, Housing and Urban Development Department, Government of Odisha, and



vii. District Magistrate, Rourkela (Sundargarh).

The committee has been directed to inspect the area in question and submit report. The R.No.3 Board has been declared as the Nodal Office for all logistic purposes and for filing the report of the committee on affidavit.

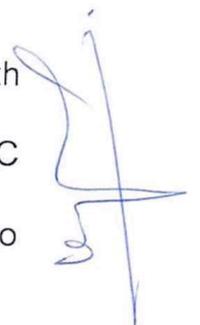
3. That it is further humbly submitted that after receipt of the copy of the aforesaid order dtd.19.01.2024, the R.No.3 Board has nominated Dr.Anup Kumar Mallick, Addl. Chief Environment Scientist and Regional Officer, Rourkela to represent the committee who shall also act as the Nodal Officer and communicated the same to other members of the committee vide Board's letter No.1341 dtd.31.01.2024. A copy of the letter dtd.31.01.2024 is annexed to this affidavit and marked as ANNEXURE – R3/4.

4. That the Regional Officer, Rourkela of the R.No.3 Board intimated that the committee constituted by the Hon'ble Tribunal has inspected the site on dtd.09.02.2024 in and around the water intake points, water treatment plants and various areas of Rourkela city to verify the possible causes of spread of Cholera disease in the area and its preventive

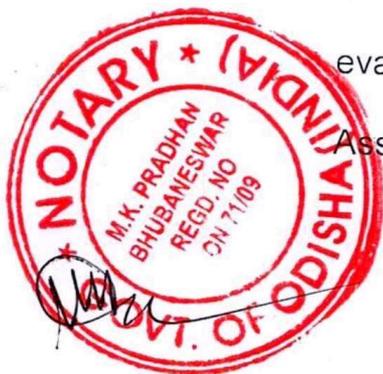


measures. The committee after visit of the site and verifying the allegations regarding cause of Cholera has submitted their report with the following recommendations:

- a. All water intake points should be free from any type of debris and intake pump shall be covered with double layer MS screen barricade. Regular/periodical cleaning near the intake well area shall be carried out so that there shall be free flow of water near the water Intake pump point to reduce the load of bacteria growth on the river water.
- b. All the water treatment Plants shall be upgraded with automatic operating system using Scada or PLC based with automatic chlorine dosing system to ensure water quality of the supplied water.
- c. The outlet of all WTPs shall be installed with online water quality (for drinking water standards) monitoring system and facility shall be provided to store online data in a central sever.



- d. Trained, skilled and adequate personnel shall be deployed at all the water treatment plants for proper operation. Proper monitoring and supervision of the treatment plants along with maintenance of log book (manual/e-log) for each activity and to be signed by a senior officer on weekly basis to ensure the quality of drinking water supply.
- e. A full proof mechanism shall be developed to collect sample from the end user points and analysed of different water supply pipe network to detect the water leakage points, Contamination points and possible water leakage points through the proper planned preventive maintenance to ensure water quality at end user points.
- f. A NABL accredited laboratory may be provided for the water testing from the treatment plant and end users. The performance of the Laboratory shall be evaluated through Quality Control & Quality Assurance Mechanisms and parallel sampling



through other NABL accredited laboratory time to time.

- g. A review of implementation of recommended action points shall be carried out once in two months.

The joint inspection report committee is annexed to this affidavit and marked as ANNEXURE – R3/5 Colly.

5. That this affidavit is filed in compliance of the direction dtd.19.01.2024 of the Hon'ble Tribunal in order to bring on record the joint inspection report of the committee.
6. That the Respondent No.3 Board craves the leave of this Hon'ble Tribunal to file further affidavit if necessary.
7. That the annexures annexed to the present affidavit are true and correct copies of their originals.
8. That the contents of the above paragraphs are true and correct to the best of my knowledge, as derived from the official records, and that nothing material has been concealed therefrom.



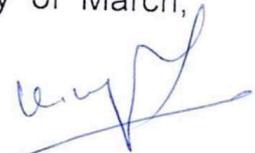

DEPONENT
Member Secretary
State Pollution Control Board
Odisha, Bhubaneswar

MANJULA KUMAR PRADHAN
NOTARY PUBLIC
BHUBANESWAR
REGD. NO. ON-71/2008
PH:-9437627119 (M)

VERIFICATION:

I, the above named deponent, do hereby verify that the contents of the above affidavit are true and correct to the best of my knowledge, as derived from official records, and that nothing material has been concealed therefrom.

Verified at Bhubaneswar on this the 4th day of March, 2024.



DEPONENT
Member Secretary
State Pollution Control Board
Odisha, Bhubaneswar

SWORN BEFORE ME



MANJULA KUMAR PRADHAN
NOTARY PUBLIC
BHUBANESWAR
REGD. NO. ON-71/2008
PH:-9437627119 (M)



ANNEXURE-R3/4



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STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST AND ENVIRONMENT, GOVERNMENT OF ODISHA]
Paribesh Bhawan, A/118, Nilakanthanagar, Unit - VIII,
Bhubaneswar - 751 012, INDIA

No. 1341

Date: 31/01/2024

VII - L - Misc - 1060

E-mail / Speed Post

To

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Sub: OA No.25/2024/EZ (Earlier OA No.755/2023/PB) - In Re.: News item appearing in The Hindu dated 21.12.2023, titled "6 dead, 1000 infected in suspected cholera outbreak in Rourkela" vs. District Magistrate, Rourkela & Others.

Sir/Madam,

The Hon'ble NGT, EZB, Kolkata while adjudicating the OA vide their order dtd.25.01.2024 has been pleased to constitute a committee comprising of the following members:

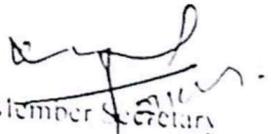
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- (a) Senior Scientist, Odisha State Pollution Control Board.
- (b) Senior Scientist, Indian Council of Medical Research.
- (c) Officer of Senior Rank, Health and Family Welfare Department, Government of Odisha.
- (d) Officer of Senior Rank, Water Corporation of Odisha (WATCO), Government of Odisha.
- (e) Officer of Senior Rank, Public Health and Engineering Department, Government of Odisha.
- (f) Officer of Senior Rank, Housing and Urban Development Department, Government of Odisha, and
- (g) District Magistrate, Rourkela (Sundargarh).

And directed for inspection of the area in question by the committee and submit its report on affidavit within 4 weeks. The State Pollution Control Board, Odisha shall be the Nodal Office for all logistic purposes and for filing the report of the committee on affidavit. A copy of the order dtd.25.01.2024 and affidavit dtd.19.01.2024 filed by the Board in this case are enclosed for your reference. Dr. Anup Kumar Mallick, Additional Chief Environmental Scientist (M-9437006727) and Regional Officer, Rourkela has been nominated on behalf of the Board to represent the committee, who shall also act as the Nodal Officer. Hence, you are requested to depute your representative in the manner directed by the Hon'ble Tribunal vide order dtd.25.01.2024 at para-9 for the purpose of inspection and submission of the report within the stipulated time fixed by the Hon'ble Tribunal. The case is posted to 07.03.2024 for hearing.

Encl: As above.

Yours faithfully,


Member Secretary

Memo No. 1342 / Date: 31/01/2024

Copy along with copy of enclosure forwarded to the Regional Officer, SPC Board, Rourkela for information and necessary action.

Encl: As above.

E-mail/Speed Post


Member Secretary

ANNEXURE-R 3/5 Colly

Joint Inspection Report of the Committee constituted under para 9 of the Order Dtd. 25.01.2024 of Hon'ble National Green Tribunal, Eastern Zone Bench, Kolkata in the matter of Original Application No.25/2024/EZ (Earlier O.A. No.755/2023/PB) in Re: News item appearing in The Hindu Dtd. 21.12.2023, titled "6 dead, 1000 infected in suspected cholera outbreak in Rourkela"

In response to the order dated 25.01.2024 of Hon'ble National Green Tribunal, Eastern Zone Bench, Kolkata in the matter of Original Application No.25/2024/EZ (Earlier O.A. No.755/2023/PB) - in Re: News item appearing in The Hindu Dtd. 21.12.2023 titled "6 dead, 100 infected in suspected cholera outbreak in Rourkela" vs. District Magistrate, Rourkela & Others, the committee constituted under para 9 of the order comprising of following authorized officials jointly inspected on dtd.09.02.2024 in & around the water intake points, water treatment plants and various areas of Rourkela city to verify the possible causes of spread of cholera disease in the area and its prevention measures. Prior to the filed visit, a preparatory meeting was held in the office chamber of the Regional Officer, SPCB, Odisha, Rourkela between committee members;

- I. Dr. Gavali Parag Harshad, IAS, Collector and District Magistrate, Sundargarh
- II. Er. Prasanta Kumar Mohapatra, Engineer in Chief, Odisha Water Supply & Sewerage Board, Bhubaneswar
- III. Dr. Debduitta Bhattacharya, Deputy Director/ SEE, Indian Council of Medical Research, RMRC, Bhubaneswar
- IV. Dr. Ashok Paikray, JD, IDSP, O/o DPH, Health and Family Welfare Department, Government of Odisha
- V. Shri Sarat Chandra Mishra, COO, Water Corporation of Odisha (WATCO), Government of Odisha
- VI. Er. Pareswar Jena, Addl. Chief Engineer, O/o EIC, PH Circle, Bhubaneswar, Public Health and Engineering Organization, Government of Odisha,
- VII. Dr. Anup Kumar Mallick, Addl. Chief Environmental Scientist and Regional Officer SPCB, Rourkela, Odisha

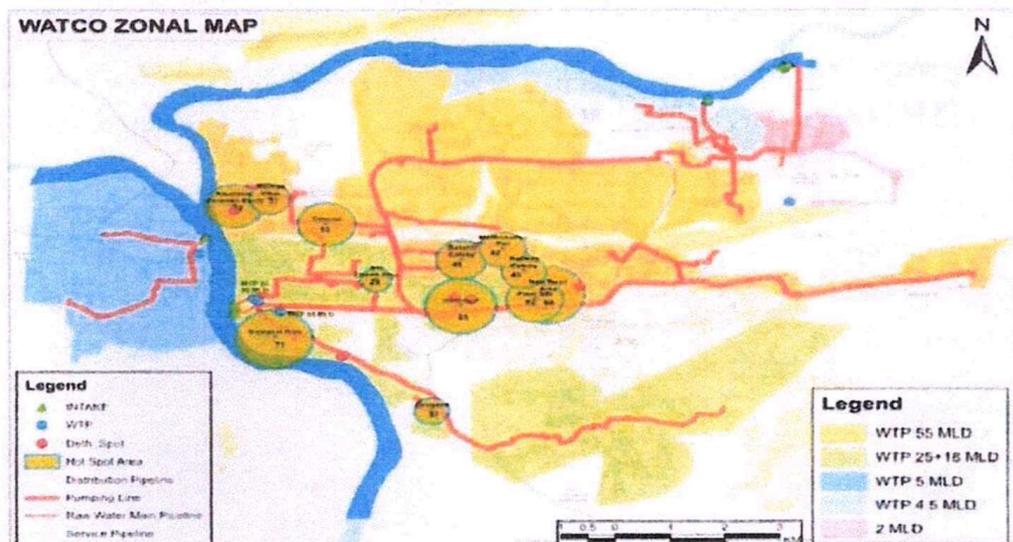
On the day of inspection, Collector and District Magistrate, Sundargarh could not able to attend the joint committee visit due to his personal appearance before the Hon'ble High Court of Odisha, Cuttack. Further, Collector and District Magistrate, Sundargarh along with Addl. Chief Environmental Scientist and Regional Officer SPCB, Rourkela, Odisha again

visited all the water intake points, water treatment plants, various distribution system and other concerned areas.

Besides above Dr. Kanhu Charan Nayak, D.P.H.O., Sundargarh and Smt. (Dr.) Pushpamitra Mishra, ADUPHO, Rourkela, and Er. P. K. Mohanty, GM, Water Corporation of Odisha (WATCO) also accompanied the committee members during site visit.

Background:-

- Rourkela City is a Municipal Corporation in the district of Sundargarh and spreads over 53.3 square km and has 40 wards with 71,368 households out of which 41,837 are slum households which reside in 105 slums. The total present population of Rourkela would be around 4,92,205 approximately.
- Besides Rourkela Municipal Corporation area, Rourkela city has another urban township area namely Rourkela Steel Plant Township of Rourkela Steel Plant of M/s. Steel Authority of India Ltd. with 18 numbers of residential sectors i.e., sector No.1 to 9 and sector No.13 to 22 spreading over 34 sq. Km . There are 24000 nos. of households and 223 nos of slums. However, there is no such outbreak of cholera disease in Steel Township area.
- The Water Corporation of Odisha (WATCO) wholly-owned, not-for-profit Company of the Government of Odisha, is engaged for supplying water in the households of Rourkela Municipal Corporation of Area. Out of 40 wards of Rourkela Municipal Corporation, 37 wards have been fully covered by WATCO water supply and 3 wards (ward no: 1,2 & 3) are partly covered. WATCO has 6 treatment plants with a capacity of 109.80 MLD. WATCO has provided 47,677 numbers of house connections in the



catchment area with a distribution length of around 809.09 kilometres (approximately). Around 981 roadside stand posts are there.

- The main sources of supply of water in Rourkela are the rivers Brahmani & Koel. WATCO has 6 nos. of raw water treatment plants with a capacity of 109.80 MLD. WATCO has provided 47,677 numbers of house connections in the RMC area with a distribution length of around 809.09 kilometres (Approximately). Around 981 road side stand posts are there.
- There is a sudden increase in number of diarrhoea cases in Rourkela city since 11.12.2023, the District Administration through its stake holders, had taken all precautionary, control & further prevention measures to get rid over the situation. Further, the stool samples collected on 16.12.2023 were sent to District Public Health Laboratory at Sundargarh, who confirmed the presence Vibrio Cholerae in the rectal swabs.
- The outbreak of Acute Gastroenteritis (AGE) in Rourkela during December 2023 was caused by Vibrio cholerae O1 as it was the major bacterial pathogen isolated from most of the clinical cases.
 - a) Vibrio cholerae is a species of Gram-negative, facultative anaerobe and comma-shaped bacteria.
 - b) During infection, V. cholerae secretes cholera toxin (CT), a protein that causes profuse, watery diarrhoea (known as "rice-water stool").
 - c) V. cholerae has 2 serogroups called O1 and O139 which are responsible for cholera outbreaks.
 - d) Infection is mainly through drinking contaminated water and is linked to sanitation, hygiene and chances of contamination through the leakage points in water supply line to the households and slum area. When ingested, it invades the intestinal mucosa which can cause diarrhoea and vomiting in a host within several hours to 2-3 days of ingestion.
- As the diarrhoea is a water borne disease and based on the V. cholerae positive samples in the city, a spot map was generated and accordingly action plan was prepared and executed for control & prevention of diseases. V. cholerae infection happen in the city and around the slum areas under Rourkela. In the meantime, Rourkela Municipal Corporation had detected & reported 60 water leakage points

in different wards under RMC area. The leakage points have been repaired by WATCO on war footing basis.

Immediate Action Taken By District Administration, Rourkela Municipal Corporation and Health & family welfare department

The action taken to control & prevent the disease by the District Administration, Rourkela Municipal Corporation and Health & family welfare department are as follows

- a) Dedicated beds round the clock were provided in Rourkela Govt. hospital & Private hospitals for ADD patients. 223 Nos. of Medical camps were conducted at the hot spot areas.
- b) Daily monitoring & supervision were conducted by CPMU staff along with ADUPHO, Panposh.
- c) During Outbreak situation 13 nos. of MO MBBS & 5 nos. of MO AYUSH, 28 nos. of Nursing Officers, 11 nos. of LTs & 8 nos. of Pharmacists were deputed to Rourkela for functionalization of 24X7 OPD services at UPHC & UCHC level.
- d) Monitoring by City, District & state level authority during the ADD outbreak.
- e) 4 Asst. Prof from SCB, Medical college & Hospital & 4 Asst. Prof were deployed from GMCH Sundargarh (Medicine -1, Pead -1, Community Med -1 & Microbiology -1)
- f) Treatment of all diarrhoea patients of the district made free in any BSKY patients referred through Govt. Hospital.
- g) Visit by Epidemiologist and Microbiologists from ICMR-RMRC, Bhubaneswar, collection of clinical samples by them for laboratory confirmation of etiological agents.
- h) Monitoring by Central team during the ADD outbreak.
- i) Private health Institution Institutional strengthening.
- j) Availability of drugs supply.
- k) Ambulance services for Emergency Transportation Functionalization of 24x7 urban Health Institution.
- l) Deployment for 24x7 functionalization of urban outbreak situation under Rourkela.
- m) Massive drive is going on by HW (F) & ASHA along with RRT team, everyday house to house visited in the affected areas & distributed ORS packet, Zink tablet & along with for safe drinking water, halazone tablet in every household.
- n) In the House-to-House visit field level staff counsel for safe drinking water (after boiling of 20 minutes) & hand hygiene practices.
- o) Free Medical Camps conducted in the hot spots.

- p) Public Health Division of Rourkela Municipal Corporation, Rourkela had conducted various surveys on food & safety as well as awareness programme and the copy of report is enclosed for kind reference.
- q) Further the action taken report of various departments are enclosed herewith for kind reference of Hon'ble NGT as annexure -I.

Observations of the Committee:

A. Water Treatment Plant at Koelnagar

1. Intake well (01 Number) and 0.75MLD Water Treatment Plant at Koelnagar (Lat: 22° 16'1.00"N & Long: 84° 53'8.00"E) of WATCO was visited by the committee. Water is pumped from Koel River. Regular/ periodical cleaning near the intake well area was not carried out
2. Water treatment plant comprises of cascading aeration system, mixing channel, clariflocculator, settling tank, sand bed filter and treated water tank with chlorination system.
3. Backwash of sand bed filters and underflow of clariflocculator and settling tank flushed back to the river, upstream to the intake point. Algae were observed to be deposited on surface of the mixing channel, aerator and settling tank.
4. Chlorination system has been provided at the treated water tank. No online water quality monitoring system has been provided to ensure the water quality of the supplied water on real time basis in the water supply network.

B. Water Treatment Plant at Jhirpani

5. Water Treatment Plant at Jhirpani (Lat:22° 16'28.00"N& Long: 84° 53'57.30"E) of WATCO is of 2MLD capacity. It has one intake point. Water is pumped from Koel River.
6. Water treatment plant comprises of cascading aeration system, mixing channel (lime and alum feeding), settling tank, sand bed filter and treated water tank with chlorination system.
7. Backwash of sand bed filters and underflow of settling tank flushed back to the river, downstream to the intake point.
8. Open defecation was observed near the water intake point. Dumping of household/municipal waste near water intake point was observed.

9. Chlorination system has been provided at the treated water tank. No online water quality monitoring system has been provided to ensure the water quality of the supplied water on real time basis in the water supply network.

C. Water Treatment Plant at Panposh (In front of Rourkela One building of RMC)

10. Water Treatment Plant at Panposh (Lat:22°13'14.00"N & Long: 84°48'37.00"E) of WATCO is of 55MLD capacity. Water is pumped from Brahmani River.

11. Automation of this plant was under progress. Online water monitoring system was being installed.

D. Water Treatment Plant at Panposh (near Hockey Chowk)

12. Water Treatment Plant at Panposh inside WATCO Campus (Lat: 22°22'31.00"N & Long: 84°80'69"E) of WATCO is of 43MLD (18MLD+25MLD) capacity. It has two intake points. Water is pumped from Brahmani River near Circuit House.

13. Water treatment plant comprises of cascading aeration system, mixing channel (lime and alum feeding), settling tank, sand bed filter and treated water tank with chlorination system.

14. Backwash of sand bed filters and underflow of settling tank flushed back to the municipality drain, downstream to the intake point.

15. During joint inspection, water sample from various sources, water treatment plant Outlets, end user points (outbreak of cholera in December-2023) were collected by the Regional Office, Rourkela, SPCB, Odisha. Analysis report of the water sample collected during visit are enclosed as Annexure-II.

E. Water Treatment Plant at Vedvyas (near Vedvyas temple)

16. Water Treatment Plant at Vedvyas near Vedvyas temple (Lat: 22°22'31.00"N & Long: 84°80'69"E) of WATCO is of 4.5MLD capacity. It has one intake points. Water is pumped from Brahmani River.

17. Water treatment plant comprises of cascading aeration system, mixing channel (lime and alum feeding), settling tank, sand bed filter and treated water tank with chlorination system.

18. It was learnt from the WATCO official that the treated water is being supplied to Jharatarang and Brahmanitarang area which is outside of Rourkela City.

▼ Other Observations: -

- At present there is no cases of Cholera outbreak in Rourkela city as per the report of Health & family Welfare Department, Govt. Of Odisha.
- The Water Corporation of Odisha (WATCO) has been operating a Sewage Treatment Plant of Capacity 40 MLD near Balughat, Rourkela for treatment of domestic wastewater generated from Rourkela City. SPC Board, Odisha has been monitoring quality of River Water Brahmani, Sankh & Koel River etc. and the water quality of Sewage Treatment Plant of Capacity 40 MLD of Rourkela City on monthly basis at strategic points for the parameters related to Pollution as per the standard specified by CPCB and MoEF & CC, Government of India. Analysis Reports for the last three months of STP and Water quality of river Brahmani & Koel are enclosed for kind reference as Annexure-III.
- The Baikuntha burning ghat and clogging of water near the intake point of Water Treatment Plant at Koelnagar is resulting in accumulation of debris which may provide ideal environment for growth and proliferation of bacterial pathogens and coliforms.
- The water treatment plant and surrounding areas was found very dirty and may be regularly cleaned to avoid any cross contamination.
- The 3rd party laboratory which was responsible for testing of the water samples from the treatment plants was not NABL accredited neither they have any External Quality Control (EQAS) or Internal Quality Control (IQC) in place to ensure the quality control. The laboratory staffs were also not having any Standard Operating Procedure (SOP) in place for the testing of water quality. The instruments used in the laboratory did not have any calibration certificate.
- During the day of inspection, it was observed that adequate Chlorine dosing was carried out at all the water treatment plant outlets. The water samples were collected from various intake points, water treatment plants outlets and other end user locations and sealed water samples were sent to Central Laboratory of SPCB, Odisha, Head Office, Bhubaneswar for analysis of pH, BOD, COD, TDS, residual Free chlorine, Total Coliform Bacteria and Fecal Coliform bacteria. As the water samples were not analysed during sampling for residual Free chlorine and were analysed at Central Laboratory of SPCB, Odisha, Bhubaneswar, there might be loss of residual free chlorine in the water sample which is revealed from the analysis reports.

- It is also revealed from the analysis reports that Fecal Coliform bacteria is absent in the water samples of all the treatment plant outlets and different end user locations of the supplied water. However, Total Coliform is present only in the out let of 43 MLD Water Treatment Plant, Panposh (near Hockey Chowk) which might be due to presence of chlorine resistant Coliform. The concentration of other parameters like pH, TDS & Flouride etc. in the water samples collected at different end user locations of the supplied water are within the prescribed standard as per IS 10500:2012 for drinking water. Analysis reports are enclosed for kind reference as Annexure-IV.

Recommendations:

Considering the aforesaid facts, findings and in view of the above observations, the committee is of the opinion that there are possible chances of contamination of water through the aforesaid leakage points/treated water storage tank and inadequate chlorine dosing after contamination. The Committee recommends the following points for further prevention of such outbreak of waterborne diseases in Rourkela

1. All water intake points should be free from any type of debris and intake pump shall be covered with double layer MS screen barricade. Regular/ periodical cleaning near the intake well area shall be carried out so that there shall be free flow of water near the water Intake pump point to reduce the load of bacteria growth on the river water.
2. All the water treatment Plants shall be upgraded with automatic operating system using Scada or PLC based with automatic chlorine dosing system to ensure water quality of the supplied water.
3. The outlet of all WTPs shall be installed with online water quality (for drinking water standards) monitoring system and facility shall be provided to store online data in a central sever.
4. Trained, skilled and adequate personnel shall be deployed at all the water treatment plants for proper operation. Proper monitoring and supervision of the treatment plants along with maintenance of log book (manual/e-log) for each activity and to be signed by a senior officer on weekly basis to ensure the quality of drinking water supply.
5. A full proof mechanism shall be developed to collect sample from the end user points

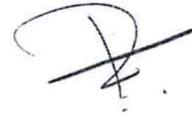
and analysed of different water supply pipe network to detect the water leakage points, Contamination points and possible water leakage points through the proper planned preventive maintenance to ensure water quality at end user points.

6. A NABL accredited laboratory may be entrusted for the water testing from the treatment plant and end users. The performance of the Laboratory shall be evaluated through Quality Control & Quality Assurance Mechanisms and parallel sampling through other NABL accredited laboratory time to time if felt necessary.

. A review of implementation of recommended action points shall be carried out once in two months.



Shri P. K. Mohapatra, EIC,
Odisha Water Supply & Sewerage Board,
Bhubaneswar



Dr. Gavali Parag Harshad, IAS
Collector and District Magistrate,
Sundargarh, Odisha



Dr. A. K. Paikray, JD, IDSP,
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Department, Bhubaneswar



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Shri Pareswar Jena, ACE, O/o EIC, PH Circle,
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Organization,



Shri Sarat Chandra Mishra, COO, Water
Corporation of Odisha (WATCO),
Bhubaneswar



Dr. Anup Kumar Mallick,
Nodal Officer,
Addl. Chief Env. Scientist and Regional Officer
State Pollution Control Board, Rourkela, Odisha

Detail report of Acute Diarrhoea Diseases (ADD) outbreak under RMC

Status Report of Suspected ADD OUTBREAK AT ROURKELA AS ON 22/01/2024

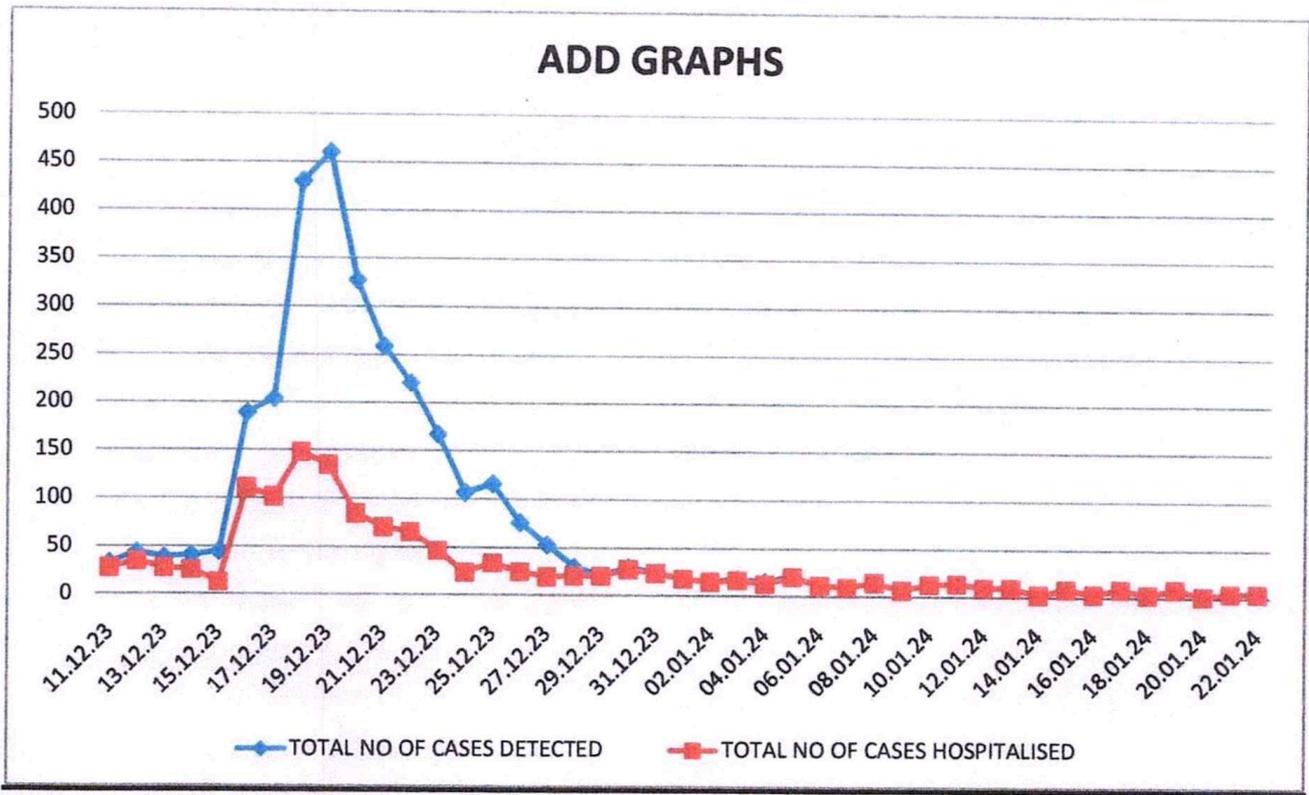
DATE	NO OF CASES DETECTED AT CAMPS (RRT)	NO OF CASES DETECTED AT HOSPITAL (OPD)	TOTAL NO OF CASES DETECTED	TOTAL NO OF CASES HOSPITALISED	NO OF CASES DISCHARGED	NO OF CASES REFERRED	NO OF LAM A	NO OF DEATHS IF ANY	TOTAL CASES CONTINUING UNDER TREATMENT AT HOSPITAL	NO OF CRITICAL CASES
	A	B	C(A+B)	D	E	F	G	H	I	J
11.12.23	5	28	33	28	25	0	3	0	0	
12.12.23	9	35	44	35	34	0	1	0	0	
13.12.23	11	28	39	28	23	1	4	0	0	
14.12.23	15	26	41	26	24	0	2	0	0	
15.12.23	32	13	45	13	12	0	1	0	0	
16.12.23	78	111	189	111	92	4	12	3	0	
17.12.23	102	102	204	102	71	16	14	1	0	
18.12.23	166	264	430	148	129	4	13	2	0	
19.12.23	142	318	460	135	121	7	7	0	0	
20.12.23	120	207	327	85	74	4	7	0	0	
21.12.23	73	186	259	71	63	2	6	0	0	
22.12.23	66	155	221	66	54	6	6	0	0	
23.12.23	43	124	167	47	40	4	3	0	0	
24.12.23	23	84	107	24	14	3	4	3	0	
25.12.23	42	74	116	34	28	2	4	0	0	
26.12.23	6	70	76	25	21	1	3	0	0	
27.12.23	6	47	53	20	16	2	2	0	0	
28.12.23	4	26	30	21	18	0	3	0	0	
29.12.23	0	21	21	21	19	2	0	0	0	
30.12.23	2	28	30	28	20	7	1	0	0	
31.12.23	0	24	24	24	19	2	3	0	0	
01.01.24	0	18	18	18	18	0	0	0	0	
02.01.24	0	15	15	15	12	2	1	0	0	

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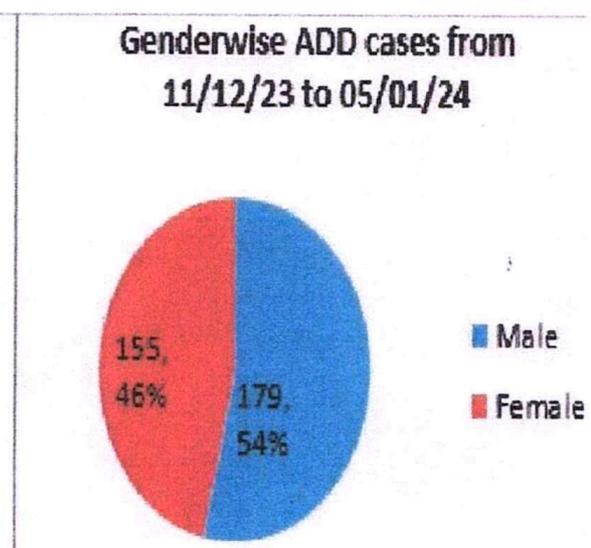
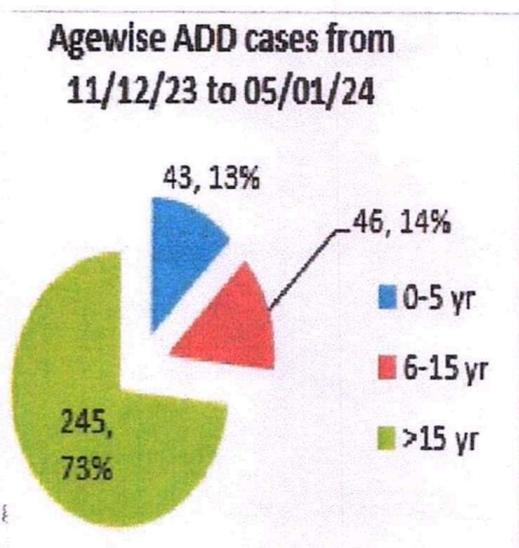
Status Report of Suspected ADD OUTBREAK AT ROURKELA AS ON 22/01/2024

DATE	NO OF CASES DETECTED AT CAMPS (RRT)	NO OF CASES DETECTED AT HOSPITAL (OPD)	TOTAL NO OF CASES DETECTED	TOTAL NO OF CASES HOSPITALISED	NO OF CASES DISCHARGED	NO OF CASES REFERRED	NO OF LAM A	NO OF DEATHS IF ANY	TOTAL CASES CONTINUING UNDER TREATMENT AT HOSPITAL	NO OF CRITICAL CASES
	A	B	C(A+B)	D	E	F	G	H	I	J
03.01.24	1	17	18	17	12	3	2	0	0	
04.01.24	2	13	15	13	11	0	2	0	0	
05.01.24	0	21	21	21	19	1	1	0	0	
06.01.24	0	12	12	12	9	2	1	0	0	
07.01.24	0	10	10	10	7	0	3	0	0	
08.01.24	0	15	15	15	12	2	1	0	0	
09.01.24	0	7	7	7	5	2	0	0	0	
10.01.24	0	13	13	13	10	2	1	0	0	
11.01.24	0	14	14	14	12	1	1	0	0	
12.01.24	0	10	10	10	8	0	2	0	0	
13.01.24	0	10	10	10	6	4	0	0	0	
14.01.24	0	3	3	3	3	0	0	0	0	
15.01.24	0	9	9	9	5	0	3	0	1	
16.01.24	0	4	4	4	3	0	1	0	0	
17.01.24	0	9	9	9	8	0	1	0	0	
18.01.24	0	3	3	3	2	1	0	0	0	
19.01.24	0	9	9	9	7	0	1	0	1	
20.01.24	0	2	2	2	1	0	0	0	1	
21.01.24	0	5	5	5	0	1	1	0	3	
22.01.24	0	5	5	5	1	0	0	0	4	
Cumulative Total	948	2195	3143	1316	1088	88	121	9	10	

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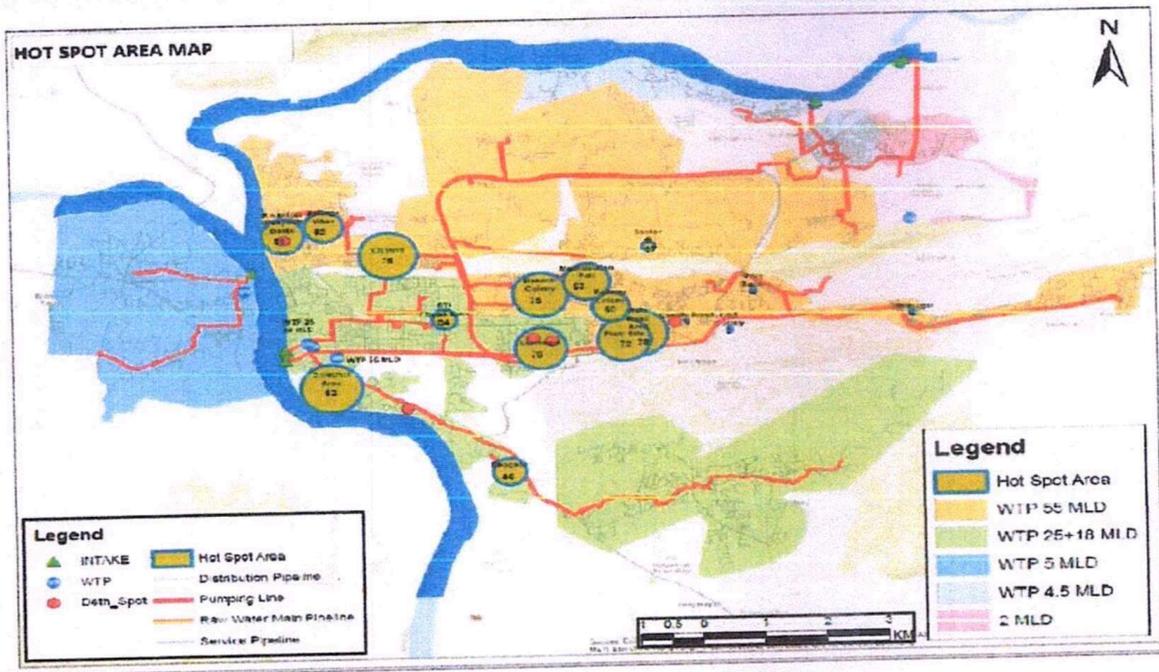


Age and gender wise distribution of ADD (n=334)



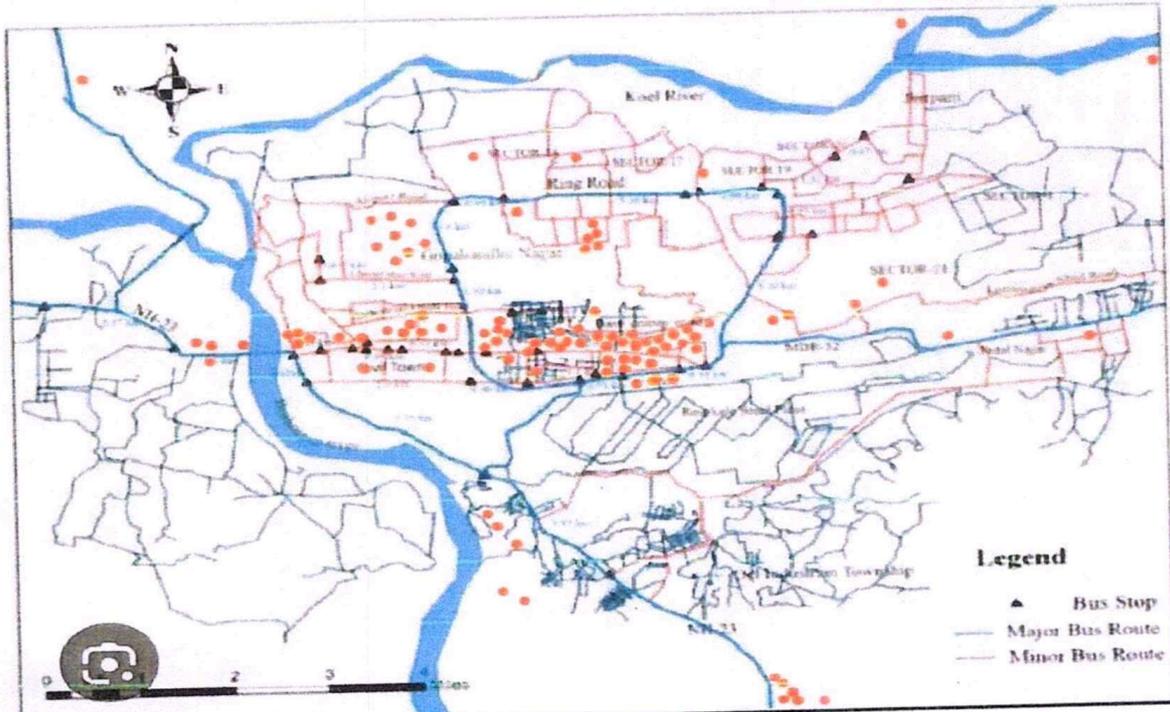
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HOT SPOT AREAS MAP:



Spot map of V Cholerae positive cases among ADD cases.

Based on the *V.cholerae* positive samples in the city of Rourkela, a spot map was generated. The map indicated that almost all *V.cholerae* infection happen in the city and around the water line supply and the designated slum areas under Rourkela.



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RRT Team:

- 13 nos. of RRT (Rapid Response Team) are deployed at field level for medical camp.
- Medical camps conducted as per the hot spot areas updation based on daily hospitalized case load & daily reports by RRT team.
- The RRTs visited the field as per the daily micro plan prepared based on daily hot spot areas.
- Emergency contact no: 7077311234 circulated to at field level.

Micro plan:

- RRTs Micro plan prepared daily basis according to the hot spot areas
- The below mentioned table shows the sample micro plan prepared for RRTs:

MICROPLAN FOR DIARRHOEA OUT BREAK DATED- 23.12.2023

RRT (MMV/MHU) TEAM	VEHICLE NO.	Place	HW(F) Name	Phone Number
RRT 1	MP17G3105	TILKANAGAR KA, FULBARI	PURNIMA SAHU	9439984994
RRT 2	BISRA MHU	BASANTI COLONY 2 KUMBHARPADA	Sulami Nutan Minz	9439989332
RRT 3	MP17 DA 0489	KOILA GATE KUMBHARPADA	ANUSUYA BEHERA	9439984996
RRT 4	MP17 DA 0406	MALLIK BASTI MEDINIPUR BASTI JHUMPUDI BASTI	Lina Rani Kalo	9439989796
RRT 5	BIRKERA MHU	SECTOR 6 AREA SECTOR6-H BLOCK	MANJULA SA BARSHA PATEL	7894775823 7978744657
RRT 6	MP17 G3110	BALIJODI UTKAL NAGAR	RANJITA MAHANTA	7853086806
RRT 7	KUANRMUNDA MHU	CONTRACTOR COLONY MUNDARI BASTI JAMTOLI	KABITA NAYAK	9439987013
RRT 8	MP20 GB0424	NALA ROAD 2 &3 GTLIN PLANT SIDE 3 HASANPUR	MAMATA PRADHAN	9439988687
RRT 9	MP17 G3019	GANDHI NAGAR KHA MAGUNI BASTI MACHHLI BASTI STATION ROAD	SUSMITA XAXA	7894306170
RRT 10	URBAN MHU	KUSTA BASTI NAYABAZAR BHABANIPUR CHHEND BASTI	Anjana Sahoo	9439984992
RRT 11	MP17 G3106	CO-OP COLONY CHHEND BASTI C2 SOCIAL HOME	SUJATA SAHOO	9583656391
RRT 12	MP20 GB 0408	BIRJAPALI RAJIV BASTI CHORATOLA RAGHUNATHPALLI	MANISHA MOHANTY PRAVATI NAYAK	8456844333 7894107996
RRT 13	MP17 G3104	MALGODAM GBPALI1 GBPALI2 GBPALI3 & 10	JHARANA RANJIT	7077642991

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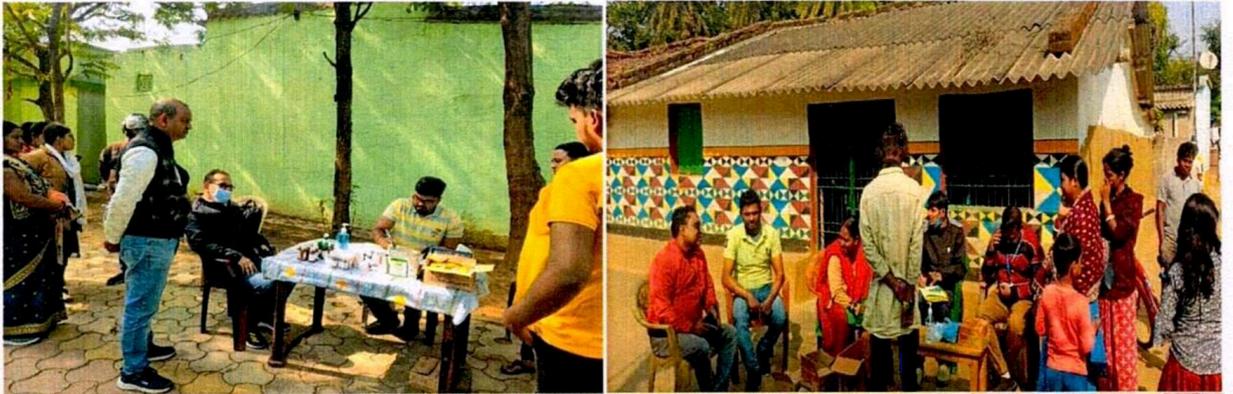
Medical Camp:

- Medical camps conducted as per the hot spot areas updation based on daily hospitalized case load & daily reports by RRT team.
- In medical camp anti Diarrheal medicine given along with ORS packet are distributed.
- Medical camps conducted as per the hot spot areas updation based on daily hospitalized case load & daily reports by RRT team.
- 1020 no.of medical camps conducted in the hotspot areas.

DAILY MEDICAL CAMP CONDUCTED BY RRTS		
Date	No. Medical Camp held	No of areas camp held
11.12.2023	21	21
12.12.2023	21	21
13.12.2023	21	21
14.12.2023	21	21
15.12.2023	23	23
16-12-2023	21	21
17-12-2023	21	21
18-12-2023	21	21
19-12-2023	21	21
20-12-2023	21	21
21-12-2023	21	21
22-12-2023	28	28
23-12-2023	28	28
24-12-2023	28	28
25-12-2023	36	36
26-12-2023	37	37
27-12-2023	37	37
28-12-2023	39	39
29-12-2023	37	37
30-12-2023	36	36
31-12-2023	38	38
01-01-2024	39	39
02-01-2024	39	39
03-01-2024	26	26
04-01-2024	28	28
05-01-2024	39	39
06-01-2024	39	39
07-01-2024	39	39
08-01-2024	39	39
09-01-2024	39	39
10-01-2024	39	39
11-01-2024	7	7
12-01-2024	7	7
13-01-2024	7	7
14-01-2024	7	7
15-01-2024	7	7
16-01-2024	6	6
17-01-2024	6	6
18-01-2024	6	6
19-01-2024	6	6
20-01-2024	6	6
21-01-2024	6	6
22-01-2024	6	6
Cumulative Total	1020	1020

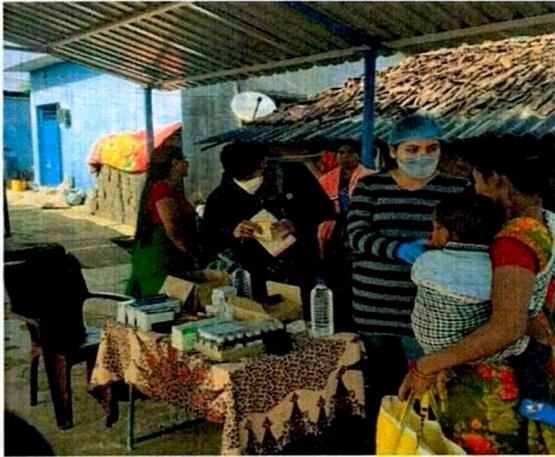
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MEDICAL CAMP PHOTOS:



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MEDICAL CAMP PHOTOS:



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ORS & HALAZONE STOCK

Sl.no.	Name	Received	Distributed
01	ORS	250000	206660
02	HALAZONE	350000	320698

House to house visit details:

- Massive drive is going on by HW (F) & ASHA along with RRT team , everyday house to house visited in the affected areas & distributed ORS packet, Zink tablet & along with for safe drinking water, halazone tablet in every household.
- In the House to House visit field level staff counsel for safe drinking water (after boiling of 20 minutes) & hand hygiene practices.
- Emergency contact no: 7077311234 circulated to at field level.
- Distribution of soap at affected areas by RMC.
- 54 nos of HW (F), 208 ASHA and 447 MAS group engaged for field level sensitization and house to house visit.

Daily House to House Visit Report of ADD Outbreak, Rourkela (22.01.2024)

Date	HH Visit	UHC / UPHC Visit	TOTAL	New Cases	Total Affected Cases(Cumulative)	Medication	ORS(in pkt.)	Halazone
11.12.2023	454	168	622	22	22	22	1795	2221
12.12.2023	1006	163	1169	26	48	26	2113	4120
13.12.2023	1117	184	1301	22	70	22	2556	3904
14.12.2023	1623	218	1841	20	90	20	3773	5844
15.12.2023	1117	226	1343	22	112	22	4107	5201
16.12.2023	2660	266	2926	45	157	45	7188	7502
17.12.2023	3769	274	4043	87	244	87	8659	12008
18.12.2023	3866	249	4115	66	310	66	8444	12312
19.12.2023	3907	248	4155	63	373	93	8916	12444
20.12.2023	3985	231	4216	82	455	175	8807	13302
21.12.2023	4132	204	4336	40	495	194	8946	12954
22.12.2023	4205	187	4392	23	518	176	8889	12541
23.12.2023	4512	146	4658	18	536	128	8215	13877
24.12.2023	4601	141	4742	7	543	97	8411	11986
25.12.2023	4756	133	4889	23	566	102	7985	12337
26.12.2023	4892	162	5054	5	571	22	7698	13207
27.12.2023	4963	121	5084	1	572	12	7560	12244
28.12.2023	4991	97	5088	0	572	3	4206	12668
29.12.2023	5325	92	5417	0	572	2	4632	10266
30.12.2023	5101	86	5187	0	572	2	3513	11500
31.12.2023	4962	88	5050	0	572	3	3640	8684
01.01.2024	4516	74	4590	0	572	4	3817	8106
02.01.2024	5213	69	5282	0	572	9	3772	8201
03.01.2024	5425	51	5476	0	572	11	3506	7852
04.01.2024	5321	38	5359	0	572	8	4227	6599
05.01.2024	2652	22	2674	0	572	6	6802	6841
06.01.2024	2772	19	2791	0	572	5	8316	9406
07.01.2024	2691	17	2708	0	572	0	8073	13455
08.01.2024	1766	11	1777	0	572	2	6456	8991
09.01.2024	1624	7	1631	0	572	0	4918	10112
10.01.2024	1577	4	1581	0	572	1	8954	10224
11.01.2024	1809	3	1812	0	572	0	4542	5107
12.01.2024	1264	1	1265	0	572	0	2416	3248
13.01.2024	1045	0	1045	0	572	0	2114	2729

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Date	HH Visit	UHC / UPHC Visit	TOTAL	New Cases	Total Affected Cases(Cumulative)	Medication	ORS(in pkt.)	Halazone
14.01.2024	923	0	923	0	572	0	1757	1988
15.01.2024	652	0	652	0	572	0	1364	1124
16.01.2024	547	0	547	0	572	0	1021	876
17.01.2024	513	0	513	0	572	0	1215	1007
18.01.2024	423	0	423	0	572	0	865	896
19.01.2024	386	0	386	0	572	0	774	787
20.01.2024	342	0	342	0	572	0	722	734
21.01.2024	269	0	269	0	572	0	565	668
22.01.2024	213	0	213	0	572	0	411	625
Cumulative total	117887	4000	121887	572	20554	1365	206660	320698

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House to house visit Photos



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Sensitization meeting:

- 4 nos of Public health Manager (PHM) & 2 nos. of District level officer ADPHCO & DPHCO are engaged for Community level sensitization meeting & MAS level & ASHA level Sensitization meeting.
- All sensitization meeting area conducted according to the daily micro plan based on case load in hot spot areas.
- 54 nos of HW (F), 208 ASHA and 447 MAS group also engaged for field level sensitization
- Supervision, monitoring & sensitization meeting conducted by CPMU staff & ADUPHO, Rourkela.

Micro plan of Public health Managers:

- Micro plan of PHM are prepared daily basis as density of case load in the areas
- The sensitize all field level staffs , community members ,Stakeholder meeting at field level, MAS members , along with monitor the field level activities like house to house survey , testing , distribution of IEC , Making etc.

MICROPLAN FOR DIARRHOEA OUT BREAK DATED- 23.12.2023

Sl.No	CONCERNED PHM	Place	HW(F)	Phone Number
1	SASMITA GOSWAMY	TILKANAGAR KA,	PURNIMA SAHU	9439984994
		FULBARI	ANUSUYA BEHERA	9439984996
		UTTAMBASTI		
		KUMBHARPADA		
		KOILA GATE		
2	ATISH DAS	NALA ROAD 2 & 3	MAMATA PRADHAN	9439988687
		PLANT SIDE 3		
		HASANPUR		
		GANDHI NAGAR KHA	SUSMITA XAXA	7894306170
		STATION ROAD		
3	PRADEEP NAG	CHHEND BASTI		
		CO-OP COLONY	SUJATA SAHOO	9583656391
		CHHEND BASTI	SASWATI PATRA	9337700316
		C2 SOCIAL HOME		
4	DEBASISH DASH	BIRJAPALI	MANISHA MOHANTY	8456844333
		RAJIV BASTI		
		CHORATOLA	PRAVATI NAYAK	7894107996
		RAGHUNATHPALLI		

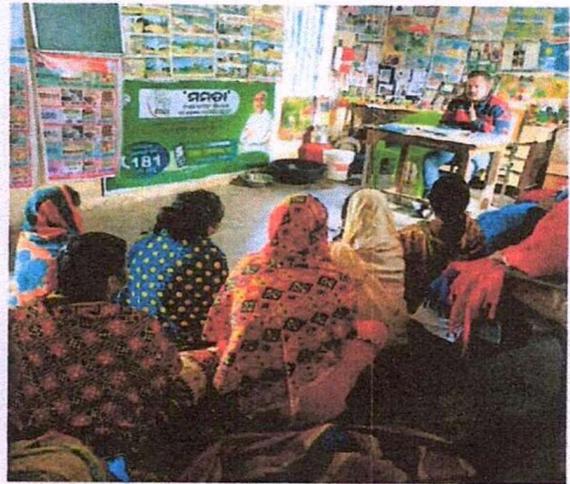
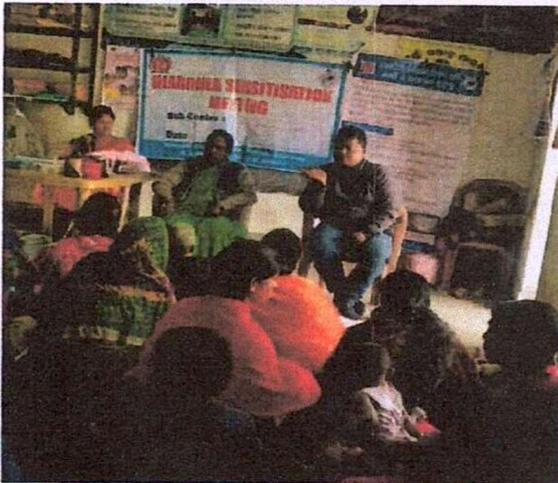
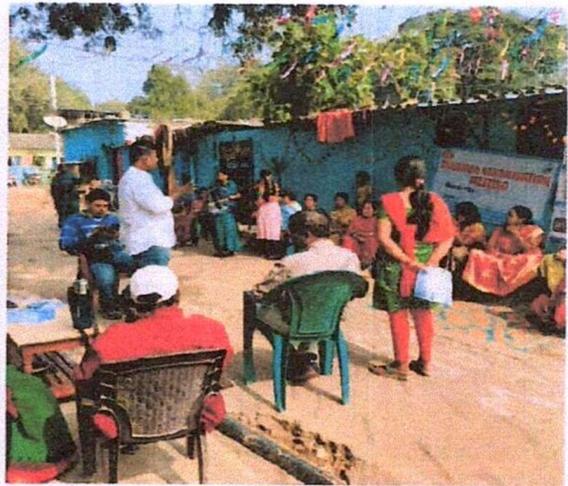
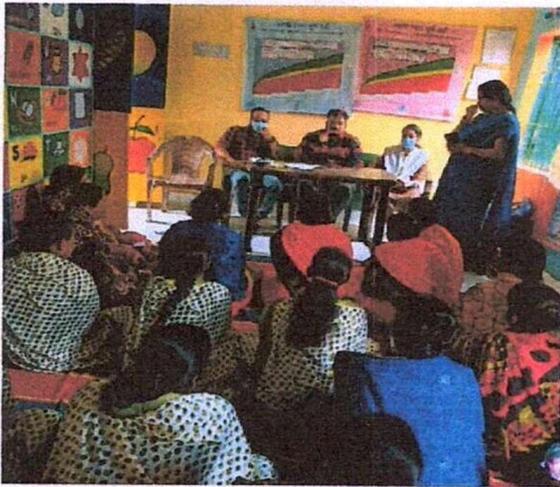
Field level sensitization meeting by Public Health Manager

DATE	NO PHM	NUMBER OF SENSITIZATION MEETING HELD	NO OF AREAS
15.12.2023	4	16	16
16-12-2023	4	16	16
17-12-2023	4	16	16
18-12-2023	4	16	16
19-12-2023	4	16	16
20-12-2023	4	16	16
21-12-2023	4	16	16
22-12-2023	4	16	16
23-12-2023	4	16	16
24-12-2023	4	16	16
25-12-2023	4	16	16
26-12-2023	4	16	16
27-12-2023	4	16	16
28-12-2023	4	16	16
29-12-2023	4	16	16

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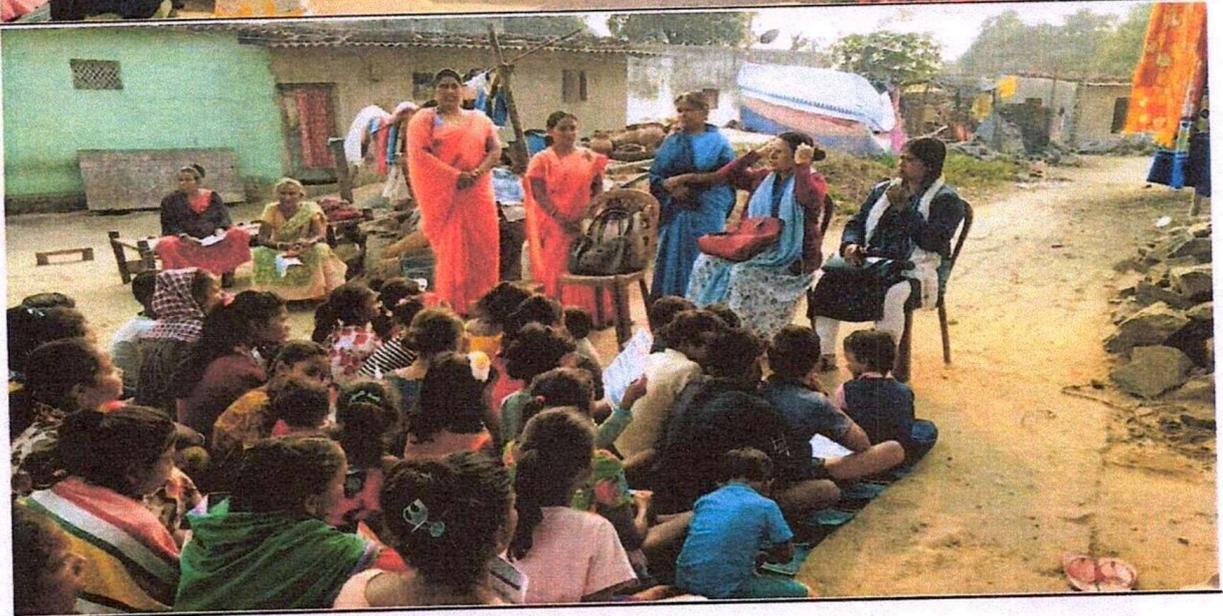
DATE	NO OF PHM	NUMBER OF SENSITIZATION MEETING HELD	NO OF AREAS
30-12-2023	4	16	16
31-12-2023	4	16	16
01-01-2024	4	16	16
02-01-2024	4	16	16
03-01-2024	4	16	16
04-01-2024	4	16	16
05-01-2024	4	16	16
06-01-2024	4	16	16
07-01-2024	4	16	16
08-01-2024	4	16	16
09-01-2024	4	16	16
10-01-2024	4	16	16
11-01-2024	4	16	16
12-01-2024	4	16	16
13-01-2024	4	16	16
14-01-2024	4	16	16
15-01-2024	4	16	16
Cumulative Total		512	512

Sensitization meeting Photos:



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Field level sensitization meeting



Field level ADD sensitization meeting



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Micro plan of District level official (DPHCO & ADPHCO):

- Micro plan are prepared daily basis according to the hot spot areas & ADD case load
- They attend the sensitization meeting at field level & sensitize for Diarrhoea related preventive behavioral changes measures at field level.
- Procedure of hand washing
- ORS demonstration
- Plan for House to house visit by MAS members for IPC to cover all house hold.
- Visit school level of ADD sensitization.
- Below mentioned some of sample micro plan of Diarrhoea cases

MICROPLAN FOR DIARRHOEA CASES 25-12-2023				
TEAM	PLACE/ AREA	SUBCENTER	HW(f)S	PHONE NUMBER
DPHCO	PLANT SITE	NALA ROAD	MAMATA PRADHAN	9439988687
	POWER HOUSE ROAD			
	RAILWAY COLONY	RAILWAY COLONY	SONALI BEHERA	7873195281
ADPHCO	STATION ROAD	GANDHI ROAD	SUSMITA XAXA	7894306170
	GANDHI ROAD			
MICROPLAN FOR DIARRHOEA CASES 26-12-2023				
TEAM	PLACE/ AREA	SUBCENTER	HW(f)S	PHONE NUMBER
DPHCO	TULSI TOLA	CHHEND	BEBBY BISWAL	9439988688
	DHAMRA BASTI			
	CHHEND COLONY			
ADPHCO	MISHRA KHATAL	SEC 20	LALITA SAHU	9439989323
	NEHERUPALI 1			
MICROPLAN FOR DIARRHOEA CASES 27-12-2023				
TEAM	PLACE/ AREA	SUBCENTER	HW(f)S	PHONE NUMBER
DPHCO	SECTOR 18 AREA	SECTOR 18	URMILA HATI	8457982462
	AMBAGAN 2			
	AMBAGAN 3			
ADPHCO	GOLGHAR	SECTOR 5	SARMISTA SAHOO	9439987015
	RAMESWARPALLI			

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PHOTOS OF SENSITIZATION MEETING CONDUCTED BY DISTRICT LEVEL OFFICIAL AT FIELD LEVEL:



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Daily reports:

- According to the micro plan official visited field level & in the evening submitted their daily

①

Awareness activity report on ADD, Rourkela

Date: 22.12.2023

NUHM, Rourkela

Name of the Staff engaged : Mahendra Bagh, DPHCO, Sundargarh

: Tiramani Pradhan, ADPHCO, Sundargarh

Area allotted: 1. Oram Pada (Udit Nagar)

2. Kalinga vihar, II Chend.

3. Naya Bazar, Gopabandhupall

4. Mal Godam

1. Sub-centre: Oram pada

- Name of UHND visited : Sital Pada, Population 533, House hold-116, Diarrhoea admitted-1 & recovered (Bijaya Nag: 25 Years (M))
- Name of Staff attended:
- HW(F): Sukanti Perua
- AWW: Tanuja Suna
- AWW: Sukanti Majhi
- ASHA: Ranjana Barik

Activities

Sensitization Meeting:

Approximate participants: 30

Participants: Mass Members, UHND Beneficiaries, CWC social workers.

- Discussion regarding diarrhoea & its preventive measures.
- Procedure of hand washing
- ORS demonstration
- Leaflet distribution
- Plan for h-t-h visit by MAS member for IPC to cover all house hold.
- School visit: Uditit Nagar High school (school closed for x-mas) Discussed with the emergence staff of school & provide leaflets.

Handwritten signature and date: 22/12/23, DPHCO

Handwritten signature and date: 22/12/23, DPHCO

Handwritten signature and date: 48 di, 22.12.23

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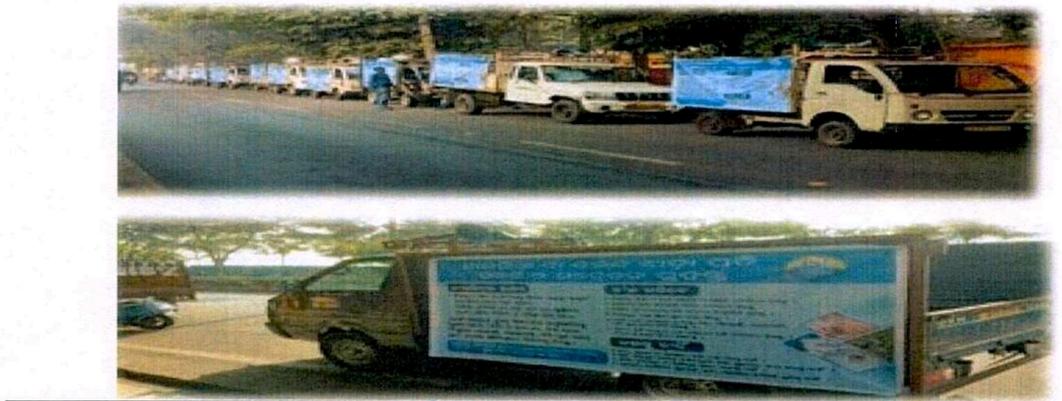
IEC & BCC measures

- IEC measures are going on through distribution of leaflet, erection of hoarding & door to door counseling by field level staff etc.
- 20 Nos. Hoardings were displayed at various key places of the city.
- 1500 nos. of banner & 150000 leaflets distributed at field level.
- MAS (Mahila Arogya Samiti) Level & Community level sensitization meeting with keystoneholder are going on every affected area, for ADD outbreak.
- 447 nos. of MAS level sensitization conducted
- Miking announcements are going on field level by RMC & NUHM, Rourkela.
- Emergency contact no: 7077311234 circulated to at field level.
- Disinfectant of well by field level staff

Hoarding



Miking



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Miking & leaflet distribution

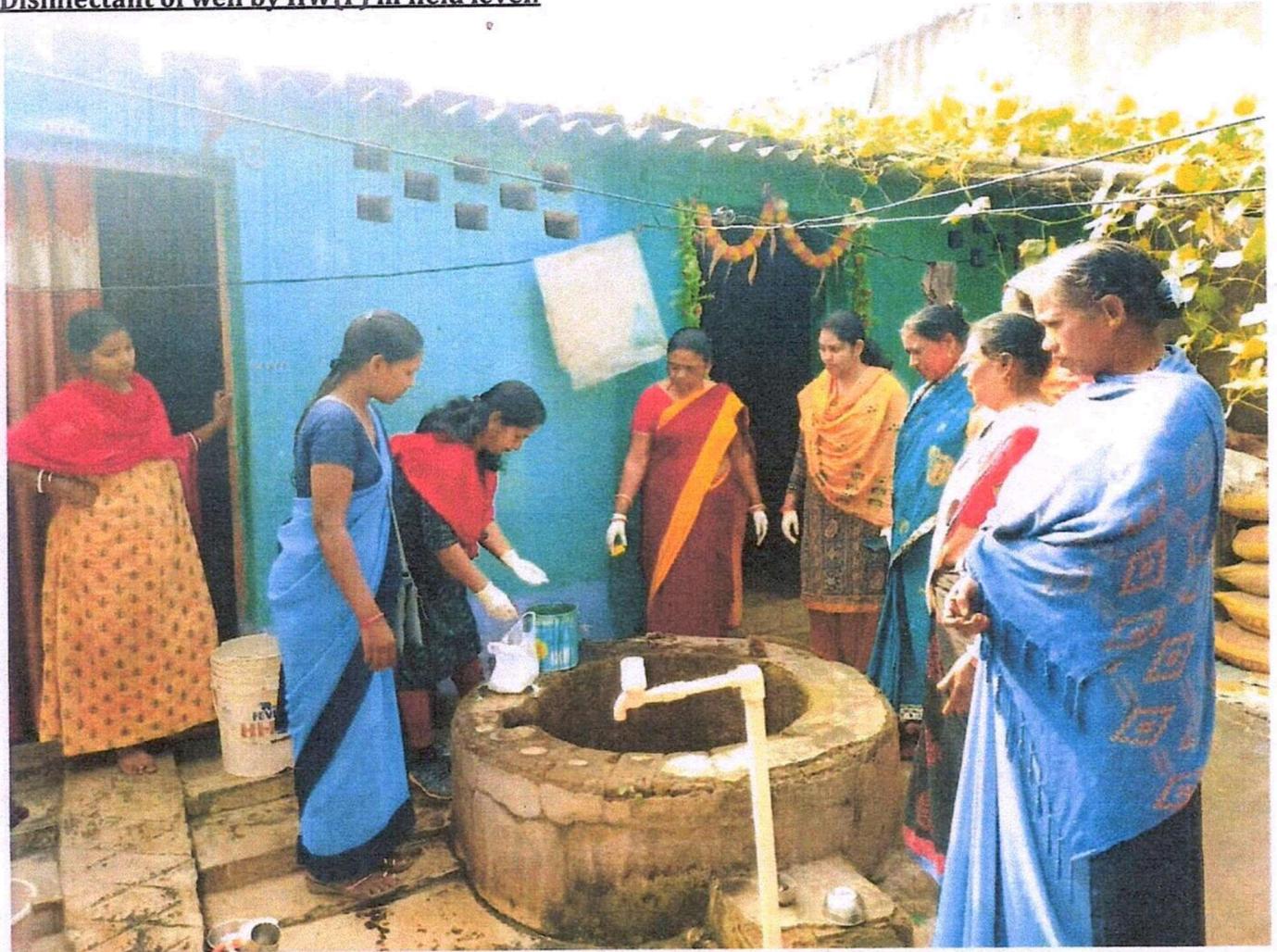


Leaflet distribution photos:



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Disinfectant of well by HW(F) in field level:



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HR Deployment details:

- In view of Outbreak situation 13 nos. of MO MBBS & 5 nos. of MO AYUSH, 28 nos. of Nursing Officers, 11 nos. of LTs & 8 nos. of Pharmacists were deputed to Rourkela for fictionalization of 24X7 OPD services at UPHC & UCHC level.

Sl.no.	Name of Institution	Categories of Staff	No of Staff
1	Sundargarh DHH	Medical Officer(MBBS)	5
2		Medical Officer (AYUSH)	4
3	GMH Sundargarh	Nursing Officer	18
4		LT	11
5		Pharmacist	06
6	DHH Jharsuguda	Medical Officer(MBBS)	5
7		Pharmacist	2
8		Nursing Officer	10
9	DHH Sambalpur	Medical Officer(MBBS)	4
	Total		65

ROASTER DUTY CHAT FOR 24X7 DUTY HOURS AT UPHC LEVEL:

Diarrhoea Roaster Duty				
SL NO	NAME OF THE STAFF	DESIGNATION	Shift Duty & Time	UPHC NAME
1	DR.GOURAV BHUSAN	MO(I/C)	MORING SHIFT	UPHC Chhend
2	SUBHASHREE PATI	PHARMACIST		
3	RITA DUNG DUNG	STAFF NURSE		
4	SWAYAM PRAVA DEO	LT		
5	PRIYANKA PASAYAT	STAFF NURSE		
6	KANTI MAJHI	STAFF NURSE		
7	RASHMITA SAHU	TB ANM		
8	GULAP GHASI	ATTENDANT		
1	DR.BANDITA BOITY	MO(I/C)	NIGHT SHIFT 8.00PM TO 8.00AM	
2	SILVA PATEL	STAFF NURSE		
3	SURABHE NAIK	STAFF NURSE		
4	SUKANTI SORENG	STAFF NURSE		
5	SANJIWAN KULLU	SECURITY GUARD		
6	SANTOSH NAYAK	SUPPORT STAFFS		

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Diarrhoea Roaster Duty

SL NO	NAME OF THE STAFF	DESIGNATION	Shift Duty & Time	UPHC NAME
7	Harapriya Mahato	Sanitary Worker		
1	Dr. Madhulita Sahoo	MEDICAL OFFICER	MORING SHIFT (8A.M TO 8P.M)	UPHC SECTOR-6
2	Rosalin Kiro	STAFF NURSE		
3	Sweta Tirpathy	STAFF NURSE		
4	Aditya Prasad Nayak	LT		
5	Bikram Das	STAFF NURSE		
6	Deepika Singh	Pharmacisit		
7	Panchami Mohato	ATTENDANT		
8	Mahendra Deep	ATTENDANT		
1	Dr. Kusal Singh	MEDICAL OFFICER	NIGHT SHIFT 8.00PM TO 8.00AM	
2	Dharitri Chawan	STAFF NURSE		
3	Sagarika Nayak	STAFF NURSE		
4	Champati Kishan	STAFF NURSE		
5	Binashree Gardia	LT		
6	Satyam Badaik	SEURITY GUARD		
7	Janamejay Patra	SUPPORT STAFFS		
1	Dr. Sumitra Bhagwar	MEDICAL OFFICER	MORING SHIFT (8A.M TO 8P.M)	
2	Prasantimayee Das	STAFF NURSE		
3	Sujata Kullu	STAFF NURSE		
4	Devi Prasad Das	LT		
5	Sunitilata Das	STAFF NURSE		
6	Nishi Padma	Pharmacisit		
7	Manjulata Sahoo	ATTENDANT		
8	Srikant Mahato	ATTENDANT		
1	Dr. Retesh Kumar Samal	MO(I/C)	NIGHT SHIFT 8.00PM TO 8.00AM	UPHC KOELNAGAR
2	Sumita Dung Dung	STAFF NURSE		
3	Rasmita Jaypuria	STAFF NURSE		
4	Supriya Deep	STAFF NURSE		
5	Oscar Soy	LT		
6	Bhaskara Mahato	SEURITY GUARD		
1	Dr. Jyoti Anuja	MEDICAL OFFICER	MORING SHIFT (8A.M TO 8P.M)	UPHC DAV MAC
2	Bijayalaxmi Nayak	STAFF NURSE		
3	Sangyan Priyambada Swain	STAFF NURSE		
4	Sukanti Behera	LT		
5	JAYAKRISHNA MAREI	STAFF NURSE		
6	Golaka Bihari Panda	Pharmacisit		
7	Khirodini Karlo	ATTENDANT		
1	Dr. Jugal Kishore Bhoi	MEDICAL OFFICER	NIGHT SHIFT 8.00PM TO 8.00AM	
2	Netrananda Banchha	Pharmacist		
3	Anchal Sahu	STAFF NURSE		
4	Rupali Rupachhandra Nayak	STAFF NURSE		
5	Ajit Oram	Support Staff		
6	Premasila Patta	LT		
7	Fhalindra Singh	SEURITY GUARD		
8	Anil Nayak	Support Staff		
1	Dr. Lipsa Sahoo	MEDICAL OFFICER	MORING SHIFT (8A.M TO 8P.M)	UFWC BALUGHAT
2	Punam Surin	STAFF NURSE		
3	Supriya Mohanta	STAFF NURSE		
4	Subham Kumar Pattnaik	LT		
5	Mohini Mahanta	TB HWF		
6	Gourab Babu	Pharmacisit		
7	Jasinta Lakra	ATTENDANT		
1	Dr. Harapriya Paramanik	MEDICAL OFFICER	NIGHT SHIFT	
2	Nitin Xaxa	SN MALE		
3	Priyambada Parida	STAFF NURSE		

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Diarrhoea Roaster Duty

SL NO	NAME OF THE STAFF	DESIGNATION	Shift Duty Time	UPHC NAME
4	Ketaki Rani Rohidas	STAFF NURSE	8.00PM TO 8.00AM	
5	Supriya Sahoo	LT		
6	George Kandulna	SECURITY GUARD		
1	Dr. Premesh Mishra	MEDICAL OFFICER	MORING SHIFT (8A.M TO 8P.M)	UPHC TILKANAGAR
2	Dr. Gyana Ranjan Dash	MEDICAL OFFICER		
3	Sunita Saudia	STAFF NURSE		
4	Alina Ekka	STAFF NURSE		
5	Ankita Singh	LT		
6	Himandri Pradhan	TB HW f		
7	Pama Hansdah	Pharmacisit		
8	Sangeeta Kurmi	Support Staff		
9	Bharat Sahu	Support Staff		
10	Indra Mahato	Support Staff		
11	Arun Mahanto	SECURITY GUARD		
1	Dr. Sipun Kumar Nayak	MEDICAL OFFICER	NIGHT SHIFT 8.00PM TO 8.00AM	
2	Nima Goud	Pharmacisit		
3	Roshila Kerketta	STAFF NURSE		
4	Rojalin Choudhry	STAFF NURSE		
5	Mahima Oram	LT		
6	Rajeeb Singh	SECURITY GUARD		
1	Dr. Bishnupriya Dei	MEDICAL OFFICER	MORING SHIFT (8A.M TO 8P.M)	UPHC SECTOR-22
2	Saraswati Bhumij	STAFF NURSE		
3	Padmini Gouda	STAFF NURSE		
4	Fatin Bhoi	LT		
5	Deepika Mahanta	TB HW f		
6	Rebati Giri	Support Staff		
1	Maytriranjana Mohanty	MEDICAL OFFICER	NIGHT SHIFT 8.00PM TO 8.00AM	
2	Dibya Jyoti Rout	Pharmacisit		
3	Pankajini Behera	STAFF NURSE		
4	Usarani Bhuyan	STAFF NURSE		
5	Ruchika Dash	LT		
6	Anuj Sharma	Support Staff		
7	Pranaya Nayak	SECURITY GUARD		
1	Dr. Rahul kumar Singh	MEDICAL OFFICER	MORING SHIFT (8A.M TO 8P.M)	UPHC GOPABANDHUPALLI
2	Swarnalata Tigga	STAFF NURSE		
3	Sangita Pujari	STAFF NURSE		
4	Kishan Prabhanjan Dhal	LT		
5	Laxmipriya Mahanta	STAFF NURSE		
6	Swastika Kar	Pharmacisit		
7	Jyoti Lakra	Support Staff		
1	Dr. Basudev Murmu	MEDICAL OFFICER	NIGHT SHIFT(8.00 P.M TO 8.00A.M)	
2	Kirankumar Bharsagar	Pharmacisit		
3	Minati Bakli	STAFF NURSE		
4	Chuleswari Kariali	STAFF NURSE		
5	Surabhi Pradhan	TB HW f		
6	Mita Patel	LT		
7	Sama Tirkey	SECURITY GUARD		
1	Dr. Shuvendu Kar	MEDICAL OFFICER	MORING SHIFT (8A.M TO 8P.M)	UPHC MAHATABROAD
2	Alice Barla	STAFF NURSE		
3	Suchitra Sahu	STAFF NURSE		
4	Raja Laxmi Parida	LT		
5	Puspalata Nayak	STAFF NURSE		
6	Bijay Kansari	Pharmacisit		
7	Narasingha Mundari	Support Staff		
8	Singhasana Nayak	Support Staff		

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Diarrhoea Roaster Duty				
SL NO	NAME OF THE STAFF	DESIGNATION	Shift Duty & Time	UPHC NAME
1	Dr. Manoj Kumar Sethi	MEDICAL OFFICER	NIGHT SHIFT(8.00 P.M TO 8.00 A.M)	
2	Dr. Sunil	MEDICAL OFFICER		
3	Pratap Kallo	Pharmacist		
4	Laxmipriya Mohanty	STAFF NURSE		
5	Niturani Mishra	STAFF NURSE		
6	Kumuduni Bag	LT		
7	Sankarsan Kansari	SEURITY GUARD		
1	Dr. Sonali Mohanty	MEDICAL OFFICER	MORING SHIFT (8A.M TO 8P.M)	UPHC HAMIRPUR
2	Elizabeth Tirkey	STAFF NURSE		
3	Dharitri Toppo	STAFF NURSE		
4	Ramachandra Maharana	LT		
1	Dr. R. N. Majhi	MEDICAL OFFICER	NIGHT SHIFT(8.00 P.M TO 8.00 A.M)	
2	Anjalina Barla	STAFF NURSE		
3	Rasmita Behera	STAFF NURSE		
4	Ghaneswar Giri	LT		

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Strengthening of Urban Health Institution:

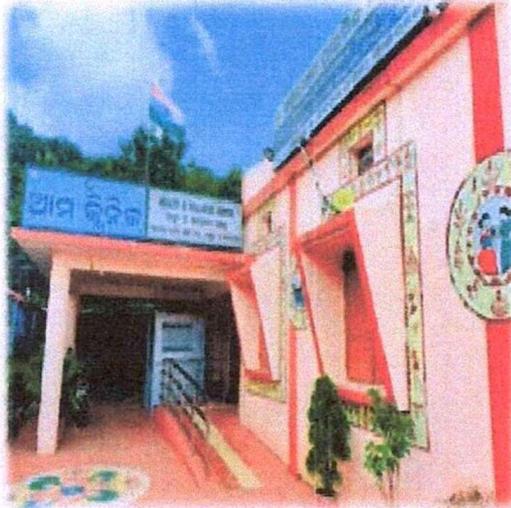
- All the UPHCs (Urban Primary Health Institution) are providing 24x7 OPD & IPD services
- Institutional level ORS & Halazone conner
- Deployment of additional manpower to provide 24x7 dedicated services at urban health institution level.
- Adequately supply drug at institutional level
- Adequately available IV Fluid & other anti Diarrhoeal medicine at institutional level

Night OPD Photos



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24 x 7 dedicated services at institutional level



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Bed occupancy:

- Dedicated beds round the clock also available at UCHC level (30 nos. bed) & at UPHC level (2 nos. bed)

Sl.no.	Name of Urban Institution	No.of Bad
01	UCHC Panposh	30
02	UPHC DAV MAC	2
03	UPHC BALUGHAT	2
04	UPHC KOELNAGAR	2
05	UPHC CHHEND	2
06	UPHC TILKANAGAR	2
07	UPHC HAMIRPUR	2
08	UPHC GOPABADHUPALLI	2
09	UPHC SECTOR 6	2
10	UPHC UFWC	2
11	UPHC SECTOR 22	2
	Total No	50 nos.

Bed occupancy of other health institution under Rourkela:

	RGH		JP HOSPITAL		HI-TECH		IGH, ROURKELA		TOTAL	
	GENERAL	ICU	GENERAL	ICU	GENERAL	ICU	GENERAL	ICU	GENERAL	ICU
AVAILABALE	155	0	307	50	470	60	600	20	1532	130
OCCUPIED	126	0	247	20	200	60	223	15	796	95
VACANT	29	0	60	30	270	0	397	5	736	35

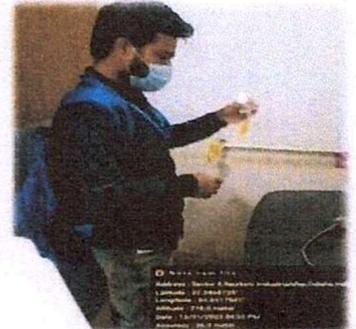
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Testing:

- To identify the water contamination, Water testing is going on throughout the hotspot area along with other mild affected areas by the UPHC / UCHC Lab Technician.
- Apart from One Dedicated Team from UCHC visited to different Hotspot area of Rourkela city for water Testing.
- During ADD outbreak different labs like UPHC, UCHC, RGH, IGH, DPHL Sundargarh were used for testing of stool samples /rectal swab and water samples from affected OPD/IPD ADD cases.
- Under the emergency situation of ADD outbreak, SOP and protocols were developed for collection of patients sample and subsequent test for the causative agent.
- Sundargarh DPHL lab played key role in isolation of the pathogenic organism as well as antibiotic sensitivity assay. During the initial part of this outbreak, 33 samples were also tested in RMRC Bhubaneswar

Sl.no.	Total OT Test	Total H2S Test	Total stool sample
01	745	522	434

Water testing at field level Photos:



Emergency Transportation Facility:

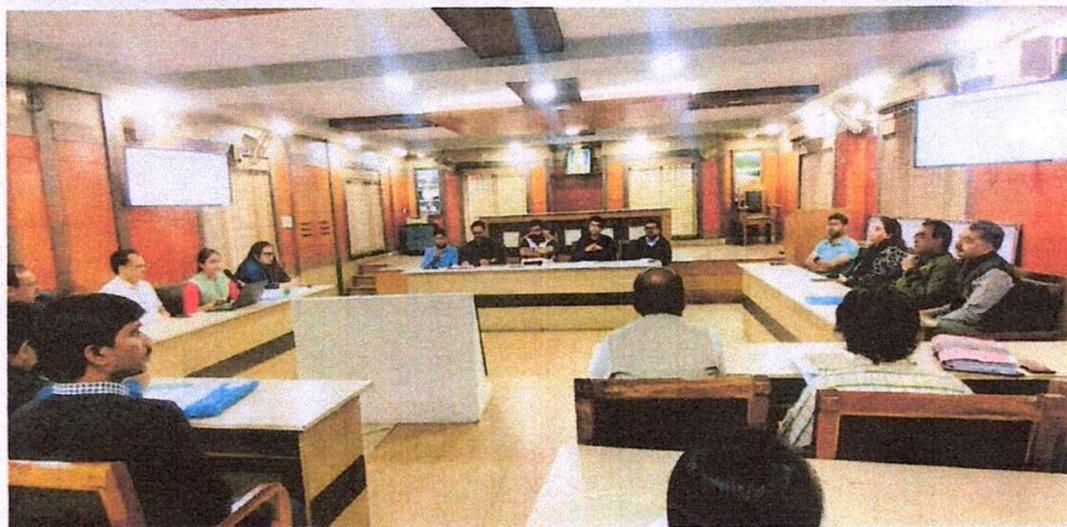
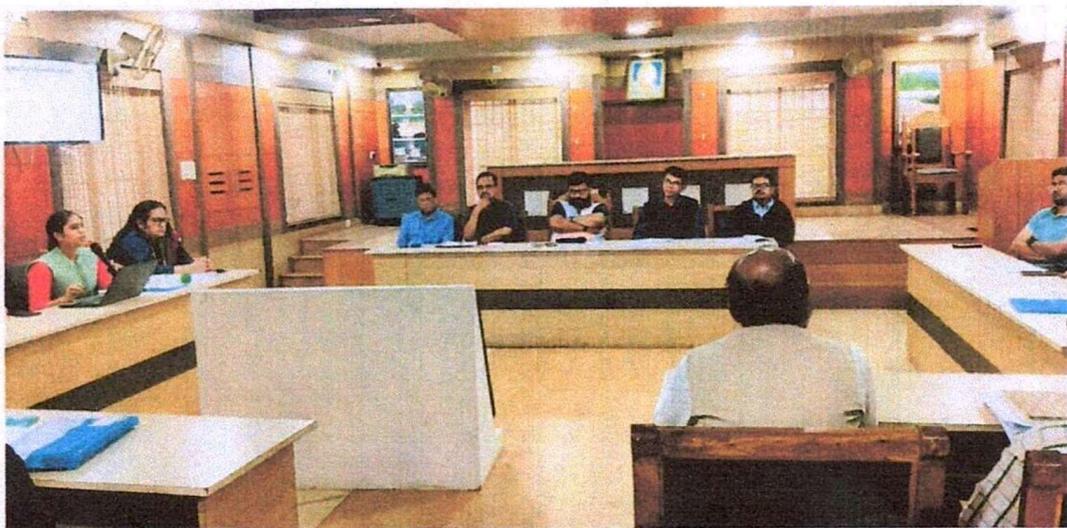
- For emergency transportation facility, 10 nos of dedicated Ambulance deployed at different UPHC level under Rourkela Urban.
- 24 X 7 dedicated Ambulance services are provided at facility level.



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Co-ordination meeting along with other line department conducted by administration

- In view of ADD outbreak situation, co- ordination meeting with other line department was conducted by the Administrative Authority. And discussed below mentioned points
 - Institutional level strengthening
 - For strengthening of field level surveillance
 - IEC /BCC at field level
 - Testing at institutional level & field level
 - Departmentally analysis of daily reports etc.



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Monitoring & Supervision:

- Daily monitoring & supervision conducted by CPMU staff along with ADUPHO
- Monitoring by City, District & state level authority during the ADD outbreak
- Monitoring by Central team during the ADD outbreak

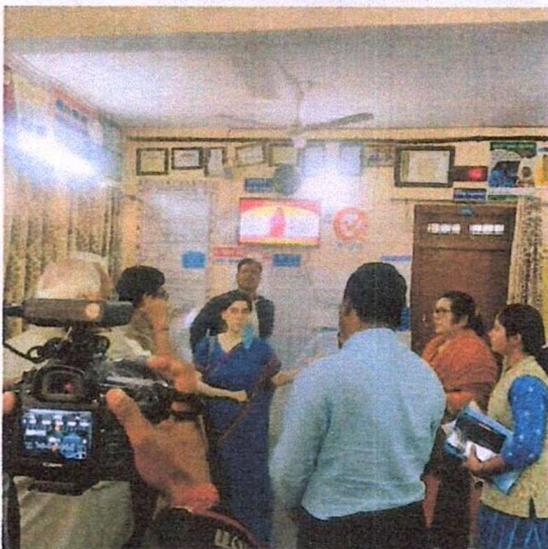
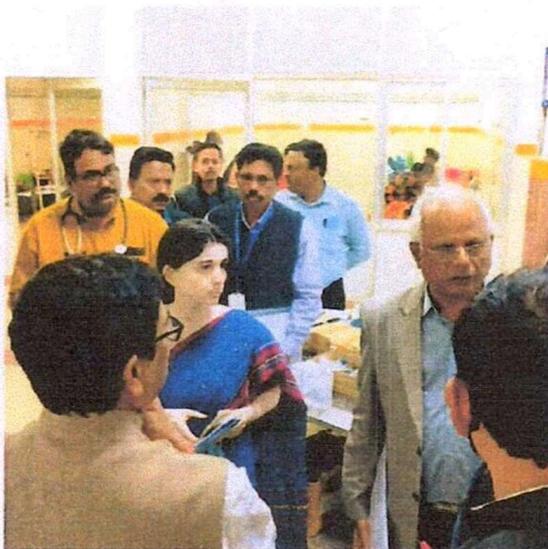
Photos of monitoring by state Authorities & ADUPHO along with CPMU Team:



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In view of ADD outbreak situation under Rourkela, monitoring & supervision in different health Institution by Health Secretary , Director of Public Health , Collector & DM & Commissioner at RGH & UPHC DAV MAC:

- Meeting with Govt & Private health Institution
- Monitor Institutional strengthening
 - Bed availability
 - Availability of drugs supply
 - Dedicated Ambulance services for Emergency Transportation facility.
 - Functionalization of 24 X7 urban Health Institution.
 - Manpower deployment for 24x 7 functionalization of urban Health institution.



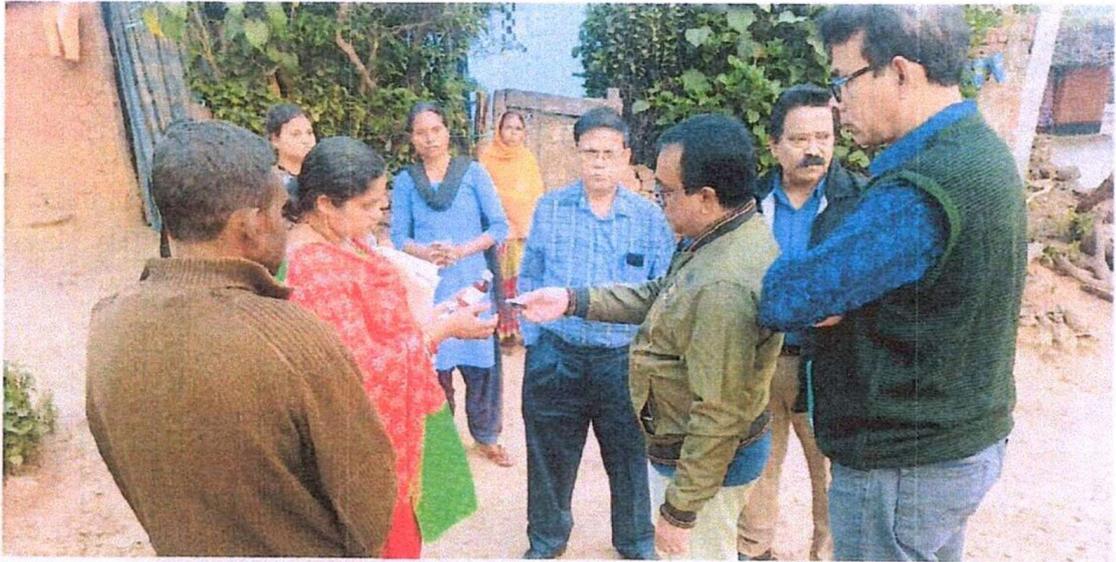
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Field level monitoring by Commissioner RMC



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Field level monitoring by Central team:



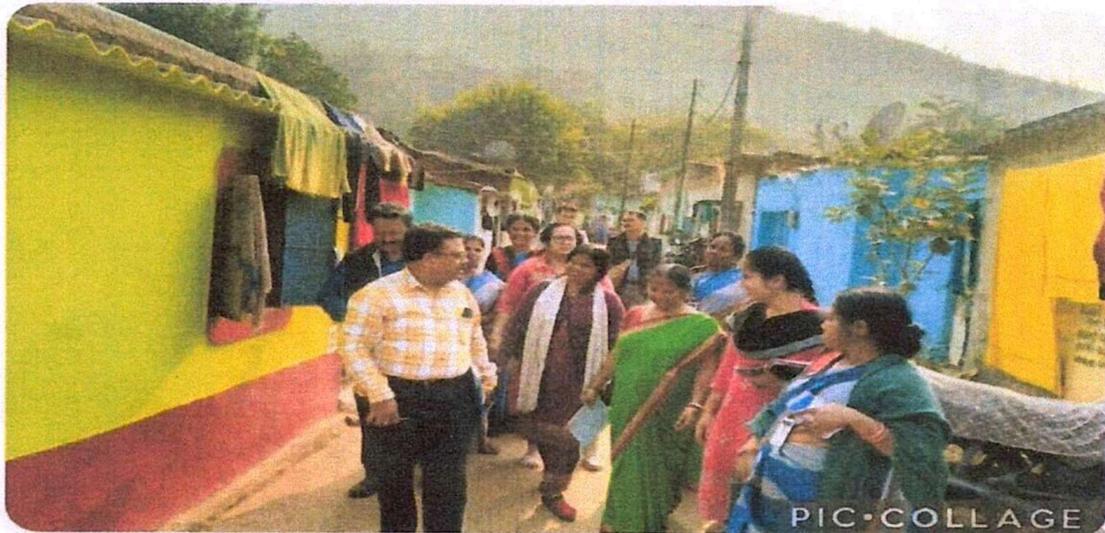
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UPHC DAV MAC visited by central team



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Field visited by central team level



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Standards followed during the outbreak:

1 Case finding and Treatment Protocol for ADD:

A Standard Operating Procedure for case definition and treatment protocol as devised by Deputy Superintendent of RGH dated 19/12/2023 is shown as Annexure 1.

2 Laboratory investigation:

During ADD outbreak different labs like UPHC ,UCHC ,RGH, IGH, DPHL Sundargarh were used for testing of stool samples /rectal swab and water samples from affected OPD/IPD ADD cases.

Under the emergency situation of ADD outbreak, SOP and protocols were developed for collection of patients sample and subsequent test for the causative agent.

3 Water Quality:

Water quality was tested by OT test and H2S test by Health Officer Rourkela and by Urban Health Rourkela.

4 Food Quality:

Food sample testing by Health Officer Rourkela using FSO

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22.01.24



**OFFICE OF THE DIRECTOR
ROURKELA GOVT. HOSPITAL**

E-Mail: directorrrgh.rourkela@odisha.gov.in, Phone/Fax: (0661) 2400161



Letter No. 3899 /RGH

Date 21/12/2023

To, **All health establishment of the District
(Public/Private/NGO/PSU & Other)**

Subject: Request for adherence of ADD treatment protocol.

Madam/Sir,

As you all are aware that, an ADD outbreak reported at Rourkela city in last few days. Accordingly some of the health establishment are providing treatment to such patients. For smooth management of this situation and for ensuring proper treatment of such patients, a treatment/referral & discharge protocol has been prepared by the experts of SCBMCH, Cuttack, GMCH, Sundargarh & Rourkela Govt. Hospital based on different criteria as per the instruction of District Administration.

All hospitals (providing treatment of ADD cases) are hereby requested to start follow the treatment protocol prepared by the expert with immediate effect & cooperate with the Administration for smooth management of this situation.

For any query related to these protocol, the clarification Director, RGH mail id may be communicated.

Encl : As above.

Yours faithfully

**Director In-charge
Rourkela Govt. Hospital**

Memo No. 3900 /RGH Date 21/12/2023

Copy to :

1. The ADUPHO, Rourkela /DPHO, Sundargarh for information and necessary action.
2. The CDM & PHO, Sundargarh for information.
3. The Commissioner, RMC for information.
4. The Collector & District Magistrate, Sundargarh for kind information.
5. The Director Health Services/Director Public Health, Odisha for kind information.
6. The Commissioner cum Secretary, H & FW, Odisha for kind information.

**Director In-charge
Rourkela Govt. Hospital**

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ADD Treatment Protocol: Paediatric Cases

Case Definition:

- Any Children who have acute watery diarrhoea
 Or
 Any Children recently travelled to suspected area
 Or
 Any Children with laboratory confirmed vibrio Cholera.



Assessment of Dehydration & full clinical examination

Assess	Condition	Normal	Irritable/Less active*	Lethargic / Comatose*
	Eyes	Normal	Sunken	Sunken
	Tongue	Normal	Dry	Dry
	Thirst	Normal	Thirsty (drinks eagerly)	Unable to drink*
	Skin pinch	Normal	Goes back slowly*	Goes back very slowly*
	Radial pulse	Normal	Reduced*	Uncountable or absent*
Diagnosis		No sign of dehydration	If at least 2 signs including one (*) sign is present, diagnose Some Dehydration	If some dehydration plus one of the (*) signs are present, diagnose Severe Dehydration
Management		A	B	C

- A – Diarrhoea with No dehydration
 B – Diarrhoea with some dehydration
 C – Diarrhoea with severe dehydration

NO DEHYDRATION	SOME DEHYDRATION	SEVERE DEHYDRATION
<p>Start ORS</p> <ul style="list-style-type: none"> Less than 1 year - 50 to 100 ml/each loose stool More than 1 year -100 to 200 ml/each loose stool. <p>↓</p> <p>Observe & Reassess</p>	<p>Start 75 ml /kg of ORS over 4 hours & for every stool pass give 50 to 100 ml per stool (less than one year) & more than one year 100 to 200 ml per stool pass.</p> <p>↓</p> <p>Observe & Reassess</p>	<p>IV fluid : RL (Ringer Lactate)</p> <p>Less than one year : 30 ml per kg IV fluid over one hour followed by 70 ml/kg IV fluid over 5 hours</p> <p>More than one year : 30 ml/kg IV fluid over 30 minutes followed by 70 ml/kg IV fluid over 2 hours 30 minutes</p> <p>↓</p> <p>Observe & Reassess</p> <p>If improved : Treat as Mild or Moderate as per dehydration status</p> <p>If not improved & severity persist: Repeat the above administration of the IV fluid & if consideration of higher centre /ICU.</p>

- Mean body weight of each child must be taken and considered for the entire treatment.

ADD Treatment Protocol: Paediatric Cases



Antibiotics: As per culture sensitivity currently available. Child with no dehydration should be managed with ORS only and careful observation.

- **Moderate to Severe Dehydration:** Inj. Cefoperazone + Sulbactam (100 mg/kg/day) in two divided doses in 100 ml NS for 3 days.



Injection Piperacilin + Tazobactam (100mg/kg/dose) in 8 hourly in 100 ml NS for 3 days.



Injection Meropenam (20 mg/kg/dose) in 8 hourly in 100 ml NS for 3 days.



Zinc: It should be started as soon as vomiting stops.

- 2 to 6 months – Syp. Zinc (20/5) 2.5 ml orally OD x 2 weeks
- 6 months to 5 years – Syp. Zinc (20/5) 5 ml orally or tablet zinc 20 mg OD x 2 weeks

Vomiting:

- Injection Ondansetran 0.1 – 0.2 ml/kg/dose thrice daily
- **During the administration of the drugs, it is suggested that child feeding to be continued.**

Laboratory Test: CBC/CRP/RFT/Serum Electrolytes/RBS/Stool Routine Microscopy/Hanging Drop/Stool Culture & Sensitivity in selected cases.

Referral Criteria :

- **Shock – 20 ml/kg bolus NS IV Fluid (Then refer to higher centre)**
- **Dyselectrolytemia**
- **Persistent Anuria after IV fluid administration**
- **Unconscious/Coma**
- **Other Co-morbidities (CHD/ Severe Anaemia)**

Discharge Criteria:

- No stool or less than 2 episodes of stool in a day.
- No features of dehydration
- Adequate Urination
- Absence of vomiting and other constitutional symptoms
- Taking Orally
- Mother is confident of feeding child with ORS.

Medication during Discharge

- **ORS**
- **Tablet or Syp. Zinc to be continued for two weeks**
- **Feeding to be continued**
- **Counselled about sanitation and personal hygiene**

ADD Treatment Protocol: Adult Cases

Case Definition:

Any adult who have acute watery diarrhoea
 Or
 Any symptomatic adult recently travelled to suspected area
 Or
 Any adult with laboratory confirmed vibrio Cholera.

MILD DEHYDRATION	MODERATE DEHYDRATION (Patient Thirsty , Dry Tongue, Sunken Eyes, Concentrated Urine)	SEVERE DEHYDRATION (Decrease BP <90, Altered Mentation, Cold Calmly Extremities, Lethargy)
Start ORS (2.5 ltrs over 4 to 6 hours) then 250 ml ORS after each episode of loose motion. ↓ OPD based management Follow up telephonically	<ul style="list-style-type: none"> • Hospitalization • IV Fluid of choice -RL • IV Fluid of choice in case of shock/ oliguria – NS <p>➤ Dose</p> <ul style="list-style-type: none"> • First 30 min – 30 ml/kg body weight (1500 m approx) • Next 2 hours 30 min 70 ml/kg body weight (3500 ml approx.). • ORS should be encouraged as soon as patient is able to drink. Preferably 250 ml after each loose motion. • Special precaution to be taken in patients of CCF , Cirrhosis of liver & CKD. 	Same as Moderate + Vasopressor Agent + Catheterization and Input/ Output charting

Antibiotics: As per culture sensitivity currently available. Patient with no dehydration should be managed with ORS only and careful observation.

1ST Choice: Injection Cefoperazone + Salbactam (2 gm) 1 vial with 100 ml NS IV BD X 3 to 5 days

.Or

Injection Piperacillin + Tazabatam (4.5 gm) with 100 ml NS 1 vial IV TID X 3 to 5 days

and Injection Metronidazole one bottle IV TID

2nd Choice: Injection Meropenam (1gm) with 100 ml NS 1 vial IV TID x 3 to 5 days

Oral – Tab Moxifloxacin 400 mg – 1 tablet OD for 5 days

- Tab Metronidazole 400 mg 1 tab TDS for 5 days

ADD Treatment Protocol: Adult Cases

3. Other Medications

- Injection Ondansetron 4mg – 1 ample IV TDS/SOS if vomiting
- Correction of electrolyte imbalance
- Correction of acidosis if present
- Use of vasopressor (Dopamin/Norad/Dobutamin)
- Cap Rebecadotril 100 mg TDS (may be use to reduce stool volume)

Laboratory Test: CBC/RFT/LFT/Serum Electrolytes/ABG/RBS/Stool Routine Microscopy/Stool Culture & Sensitivity in selected cases. Follow up with CBC/RFT/Electrolyte.

Referral Criteria:

- Renal Dysfunction – Acute Kidney Injury (AKI) requiring Dialysis.
- Refractory Septic Shock
- Multiple Organ Dysfunction Syndrome (MODS)
- Refractory Dyselectrolytemia
- Any Co-morbidity Condition
- Any other conditions as decided by treating physician.

Discharge Criteria:

- No loose motion & vomiting for last 48 to 72 hours.
- Serum urea creatinine in decreasing trend in case of AKI
- Repeat CBC before Discharge to rule out sepsis
- Urine output at least 1500 ml in last 24 hours. Vital Stable

Discharge Advice

- ORS
- Oral Antibiotics eg. Moxifloxacin or Nitrofurantoin
- Pre-probiotics
- Counselling about sanitation and personal hygiene.
- Follow up of the patient telephonically for three days for worsening of symptoms.

Evening Briefing:

- Daily report analysis as per the daily hospitalized case load in Govt. and private health institution & according to the reports daily submitted by the RRT & field level staff in House to house visit.
- Hot spot areas finalization according to the density of daily Hospitalized ADD case load.
- Preparation of daily RRT Micro plan according the daily hot spot areas finalization.
- Preparation of IEC & BCC plan based on the hot spot finalization on daily basis.
 - Sensitization meeting micro plan of DPHCO & ADPHCO & Public Health Officer
 - House to House visit plan of field level staffs
 - IEC distribution plan
 - Miking
- Testing plan.
- Drug supply for next day.
 - ORS availability
 - Zink availability
 - Halazone tablet availability
 - Anti Diarrhoeal drug etc.
- Based on the data analysis monitoring micro plan also prepared.

di
22.01.24

Photos of daily Evening briefing:



di
22.01.24

DIARRHEA EPIDEMIC DECEMBER 2023

DIARRHEA AFFECTED AREA IN ROURKELA (HOTSPOTS):



FOOD SAFETY DATA:

1. 3 Food Safety Officers from Sundargarh were deputed to Rourkela on immediate basis to assist and work with existing Food Safety team of Rourkela. Accordingly, a microplan was prepared and executed according. (A xerox copy of microplan encl.)
2. Mobile Food Testing Laboratory (MFTL) has been deputed from Bhubaneswar on immediate basis for testing food samples.
3. Water samples were collected from all the hotspots areas and sent to State Food Testing Laboratory (SFTL), Bhubaneswar with special messenger for microbiological testing. (A Xerox copy of detailed food inspection report encl.)
4. IEC activities such as
 - a. distribution of 12 Golden rules reflecting Good Hygiene Practices (GHP) were done during food inspections in different areas.
 - b. awareness drive was conducted for hawkers, roadside vendors, food vending establishments, restaurants, etc., for using boiling water for drinking and cooking purposes.
 - c. Gupchup thelas were instructed not to serve gupchup pani to consumers.
 - d. Cut fruits stalls were prohibited.

Complied Data of Food Safety Activities during the Epidemic		
01	Total Inspections Conducted (13.12.2023 to 30.12.2023)	449
02	Total Samples Collected (Food and Water)	326
03	Water Samples Collected	71
04	Non-conforming water samples	23
05	Food samples destroyed (in kg.)	120 kgs approx.
06	Total fine collected	Rs. 26,000/-

Microplan for Food Inspection

Date	Team	Area
15.12.2023	RMC FSOs	Basanti Colony
16.12.2023	RMC FSOs	Plant site & Panposh
17.12.2023	RMC FSOs	Kalinga Vihar, Balughat & Deogaon
18.12.2023	RMC FSOs	MS Marg, Main Road, Daily Market, STI and Panposh Road
19.12.2023	RMC FSOs	Balughat, Deogaon, Panposh
20.12.2023	RMC FSOs	Timber Colony, Gopabandhupali, Railway Colony, Madhusudanpalli
21.12.2023	Team 1	Bondamunda, Uditnagar
	Team 2	Powerhouse Road, Civil Township
22.12.2023	Team 1	Basanti Colony, Sector 7
	Team 2	Gandhi Road, MS Marg, Uditnagar
23.12.2023	Team 1	STI, Civil Township
	Team 2	Kalinga Vihar, Chhend, Panposh
24.12.2023	Team 1	Fertilizer, Balijodi
	Team 2	Bondamunda
25.12.2023	Team 1	Ambagan Market, Gajapati Market

	Team 2	Sector 5
26.12.2023	Team 1	Civil Township
	Team 2	
27.12.2023	Team 1	Koelnagar
	Team 2	Kalinga Vihar, Chhend, Civil Township
28.12.2023	Team 1	Timber Colony, Gopabandhupali, Railway Colony, Basanti Colony
	Team 2	Uditnagar, Chhend
29.12.2023	Team 1	MS Marg, Station Road
	Team 2	
30.12.2023	Team 1	Sector 8, 9
	Team 2	

Team 1: Swagatika Behera (DO), Monali Behera (FSO), Kundan Luhar (FSO)

Team 2: Pratap Rudra Mandal (DO), Diksha Dey (FSO), Monalisa Toppo (FSO)

FOOD INSPECTION REPORT

Date	Area	Total Establishment Inspected	Action	No of case launched for violation of Sec 69 and amount collected	Reports
13.12.2023	Shaktinagar, KoelNagar	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 15 Hotel & Restaurant -05	Total Sample collected -04 Food destroyed: 5 kgs approx. Improvement notice issued	Fine- Rs. 1,500/-	SFTL sample for results are awaited.
14.12.2023	Orampada & Uditnagar	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 20 Hotel & Restaurant -10	Food destroyed: 19 kgs approx. Improvement notice issued	Fine Rs.1,000/-	SFTL sample for results are awaited.
15.12.2023	Basanti Colony	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 24	Food destroyed: 13 kgs approx. Improvement notice issued	Fine Rs.2,000/-	SFTL sample for results are awaited.
16.12.2023	Plant site & Panposh	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 13 Hotel & Restaurant -05	Improvement notice and notice to license are issued	Fine Rs.2,500/-	SFTL sample results are awaited.
17.12.2023	Kalinga Vihar, Balughat & Deogaon	Fast food centers including Tiffin Stalls, panipuri stalls, snacks	Sample collected-18 (water samples: 2)	Fine Rs.1,500/-	16 food samples are conforming.

		centers etc. - 35	Food destroyed: 22 kgs approx. Improvement notice and notice to license are issued		2 water samples are not conforming with standards.
18.12.2023	MS Marg, Main Road, Daily Market, STI and Panposh Road	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 48	Sample collected- 5 (water samples: 3) Food destroyed: 15 kgs approx. Improvement notice and notice to license are issued	Fine Rs.1,300/-	2 food samples are conforming. 2 water samples not conforming with standards.
19.12.2023	Balughat, Deogaon, Panposh	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 17	Sample collected-21 (water samples: 3) (MFTL) Food destroyed: 9 kgs approx. Improvement notice and notice to license are issued	Fine Rs.1,200/-	MFTL samples are conforming. SFTL sample for microbial test results are awaited.
20.12.2023	Timber Colony, Gopabandhupali, Railway Colony, Madhusudanpalli	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 22	Sample collected-35 (water samples: 7) (MFTL) Food destroyed: 10 kgs approx. Improvement notice and notice to license are issued	Fine Rs.2,000/-	MFTL samples are conforming. 5 water samples not conforming with standards.

21.12.2023

Diesel Chowk
Tikanaaga
Bondamunda,
Uditnagar,
Powehouse Road,
Civil Township

Fast food
centers
including Tiffin
Stalls, panipuri
stalls, snacks
centers etc. -
38

Sample
collected: 23
water
samples: 12)

Fine
Rs. 1,000/-

MFTL
samples are
conforming

Food
destroyed: 4
kgs approx.

9 water
samples not
conforming
with
standards

Notice to
license are
issued

22.12.2023

Basanti Colony,
Sector 7, Gandhi
Road, MS Marg,
Uditnagar

Fast food
centers
including Tiffin
Stalls, panipuri
stalls, snacks
centers etc. -
31

Sample
collected: 41
(water
samples: 11)

Fine
Rs 2,000/-

MFTL
samples are
conforming.

Food
destroyed: 2
kgs approx.

4 water
samples not
conforming
with
standards.

Notice to
license are
issued

23.12.2023

STI Chowk, Civil
Township, Kalinga
Vihar, Chhend,
Panposh

Fast food
centers
including Tiffin
Stalls, panipuri
stalls, snacks
centers etc. -
31

Sample
collected: 33
(water
samples: 8)

Fine
Rs. 1,000/-

MFTL
samples are
conforming.

Food
destroyed: 2
kgs approx.

All water
samples are
conforming
with
standards.

Notice to
license are
issued

24.12.2023

Fertilizer, Baijodi,
Bondamunda

Fast food
centers
including Tiffin
Stalls, panipuri
stalls, snacks
centers etc. -
25

Sample
collected: 21
(water
samples: 3)

Fine
Rs. 1,500/-

MFTL
samples are
conforming.

Food
destroyed: 2
kgs approx.

All water
samples are
conforming
with
standards.

Notice to
license are
issued

25.12.2023

Ambagan Market,
Gajapati Market,
Sector 5

Fast food
centers
including Tiffin
Stalls, panipuri

Sample
collected: 25
(water
samples: 2)

Fine
Rs. 1,000/-

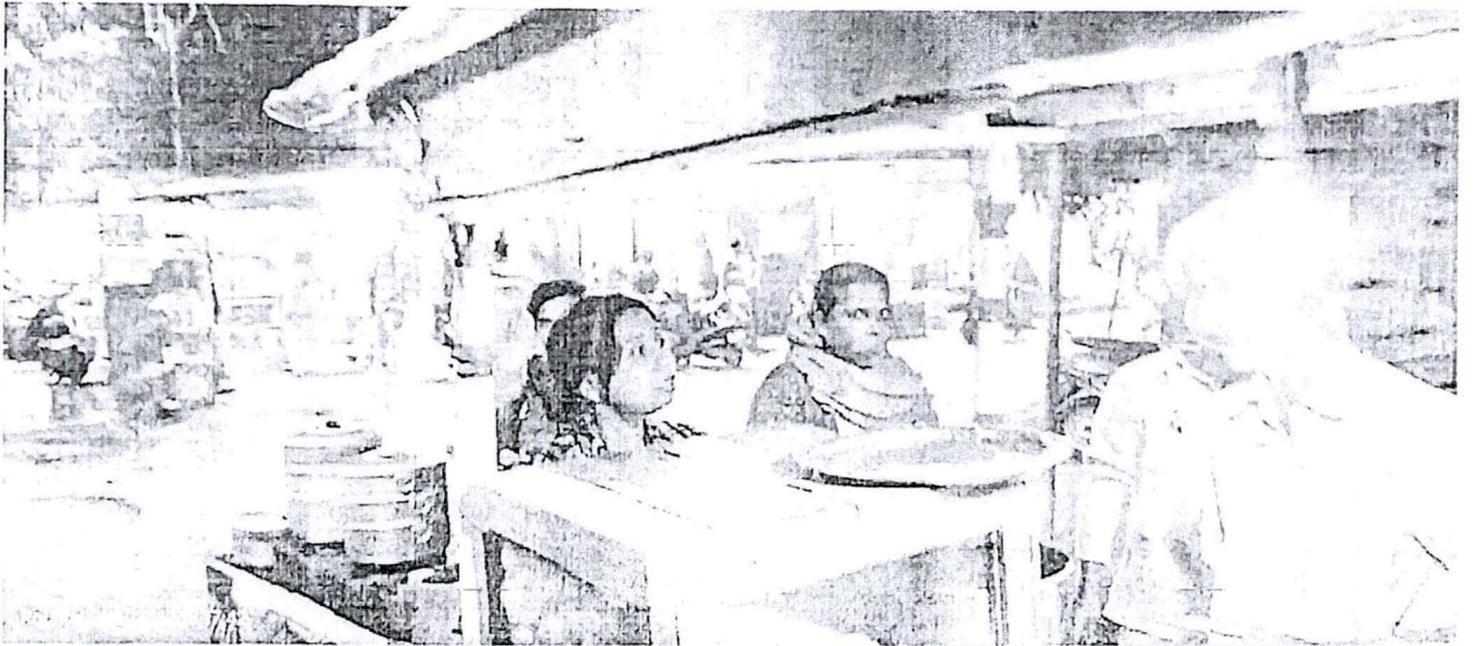
MFTL
samples are
conforming

		stalls, snacks centers etc. - 17	Food destroyed: 5 kgs approx.		1 water sample not conforming with standards.
			Notice to license are issued		
26.12.2023	Civil Township	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 19	Sample collected: 21 (water samples: 6) Food destroyed: 2 kgs approx. Notice to license are issued	Fine Rs.1,200/-	MFTL samples are conforming. All water samples are conforming with standards.
27.12.2023	Koelnagar, Kalinga Vihar, Chhend, Civil Township	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 21	Sample collected: 24 (water samples: 9) Food destroyed: 6 kgs approx. Notice to license are issued	Fine Rs.4,000/-	MFTL samples are conforming. All water samples are conforming with standards.
28.12.2023	Timber Colony, Gopabandhupalli, Railway Colony, Basanti Colony, Uditnagar, Chhend	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 26	Sample collected: 26 (water samples: 3) Food destroyed: 2 kgs approx. Notice to license are issued	Fine Rs.1,300/-	MFTL samples are conforming. All water samples are conforming with standards.
29.12.2023	Madhusudan Marg, Station Road	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 17	Sample collected: 21 (MFTL) Food destroyed: 2 kgs approx.	Nil	MFTL samples are conforming. All water samples are conforming

			Notice to license are issued		with standards.
30.12.2023	Sector 8, 9	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 10	Sample collected: 8 (water samples: 2) Notice to license are issued	Nil	All water samples are conforming with standards.

Sharma
Designated Officer FSSAI
Rourkela Municipal Corporation

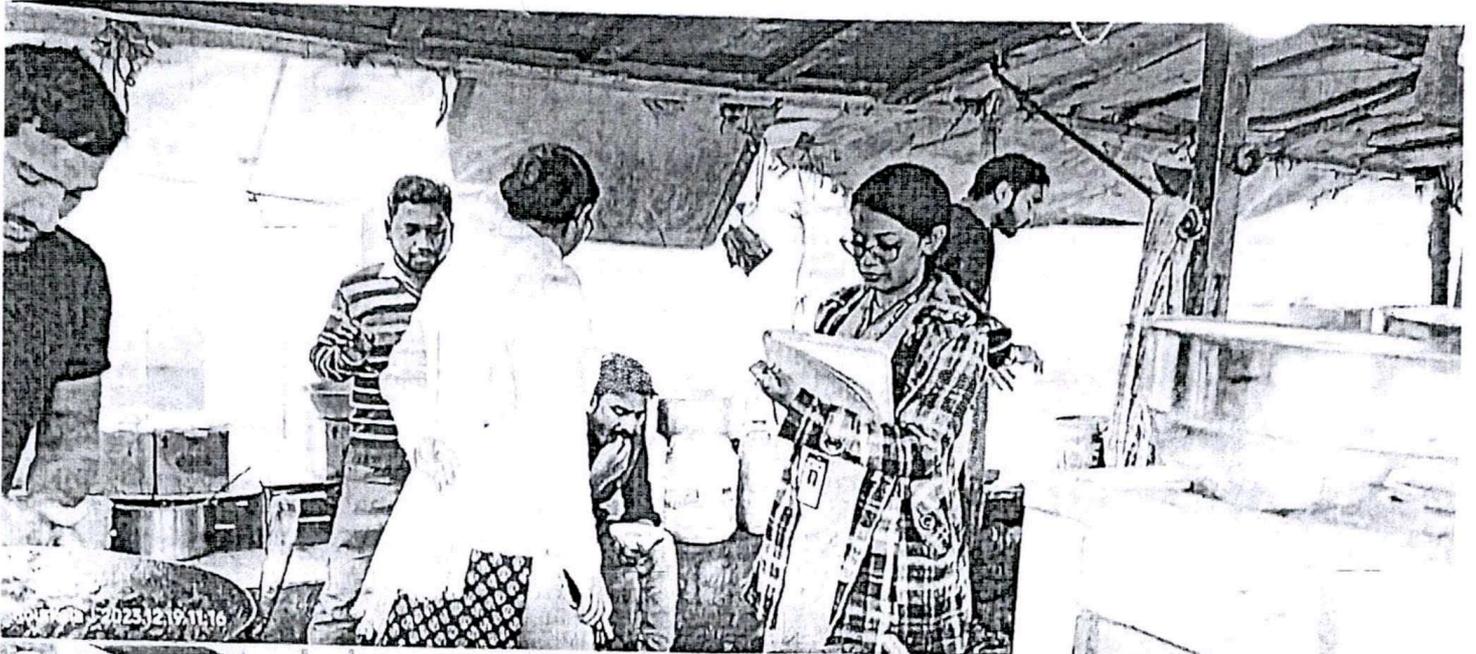
[Signature]
Health Officer
Rourkela Municipal Corporation
Rourkela

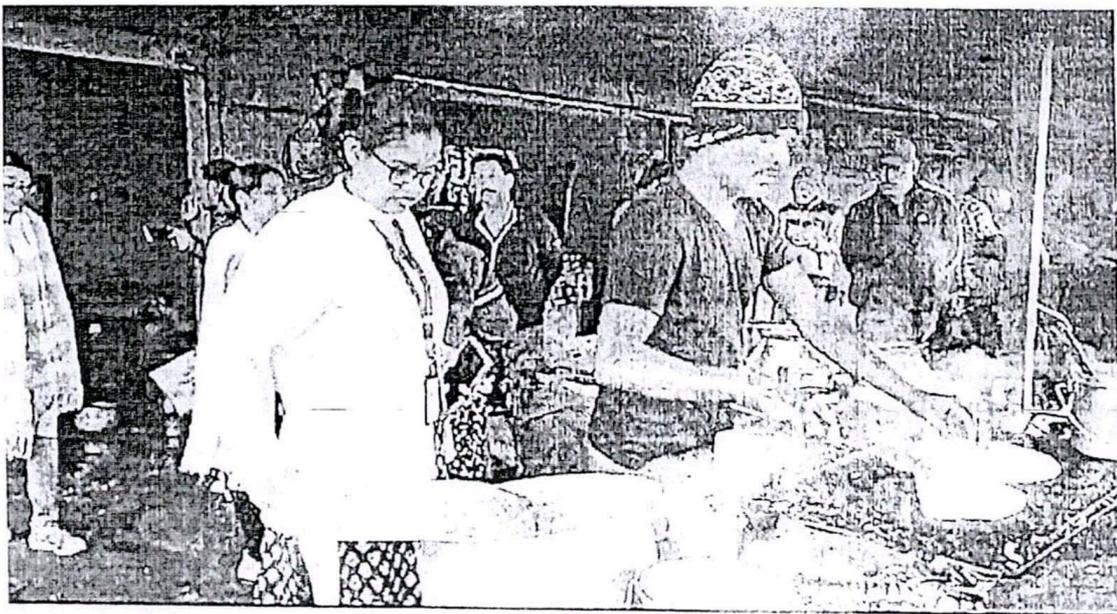
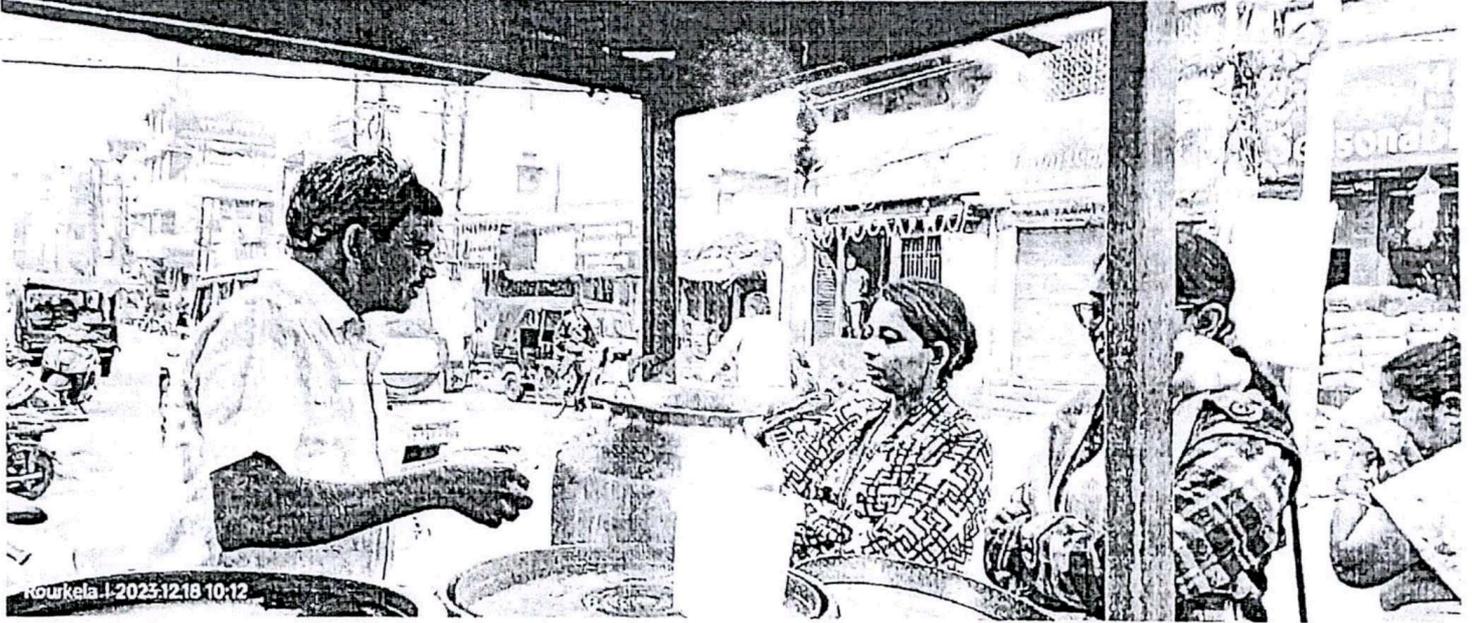


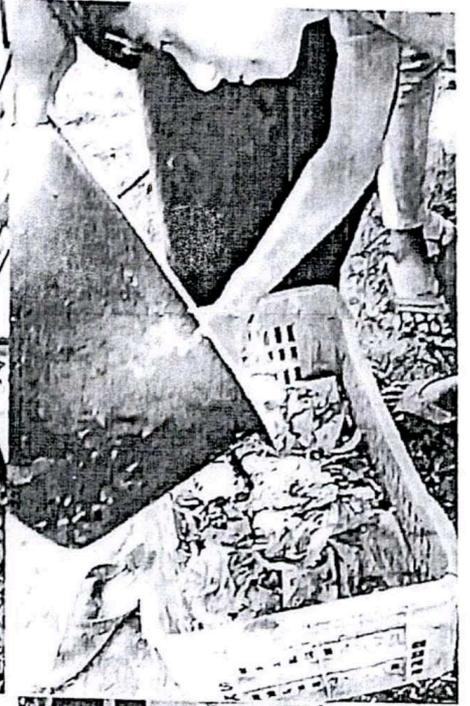


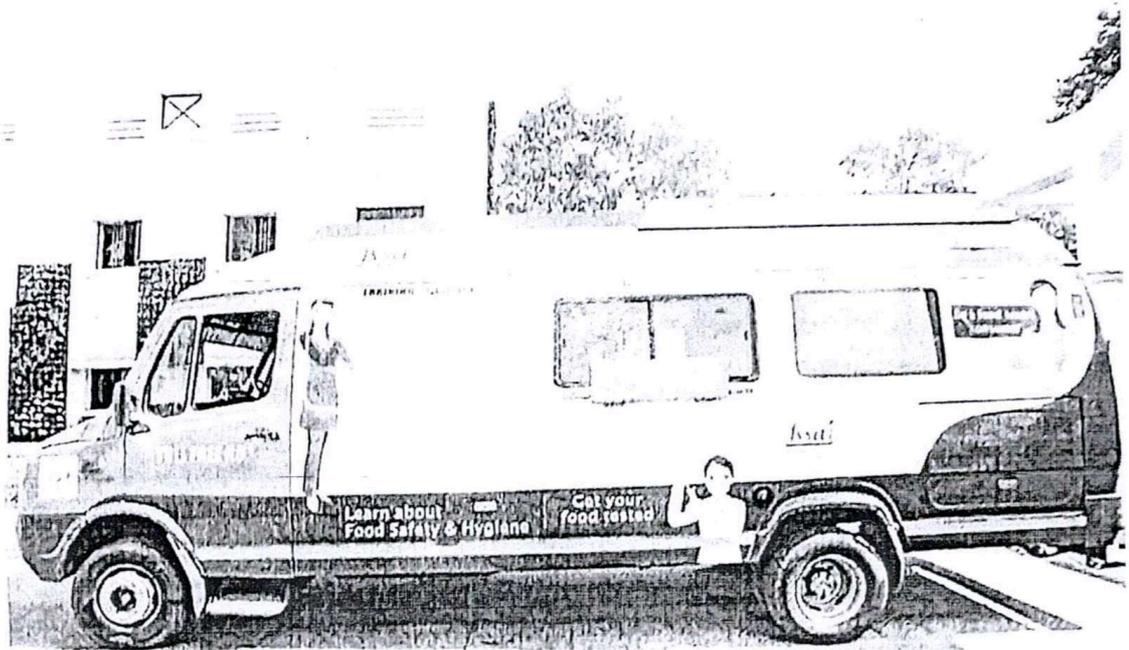
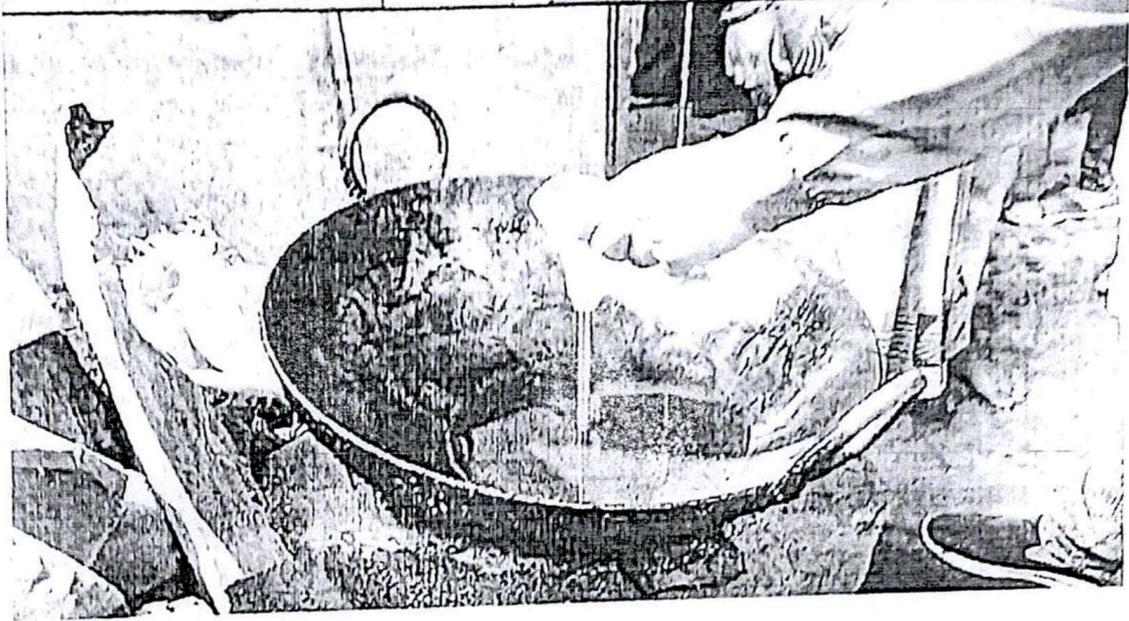
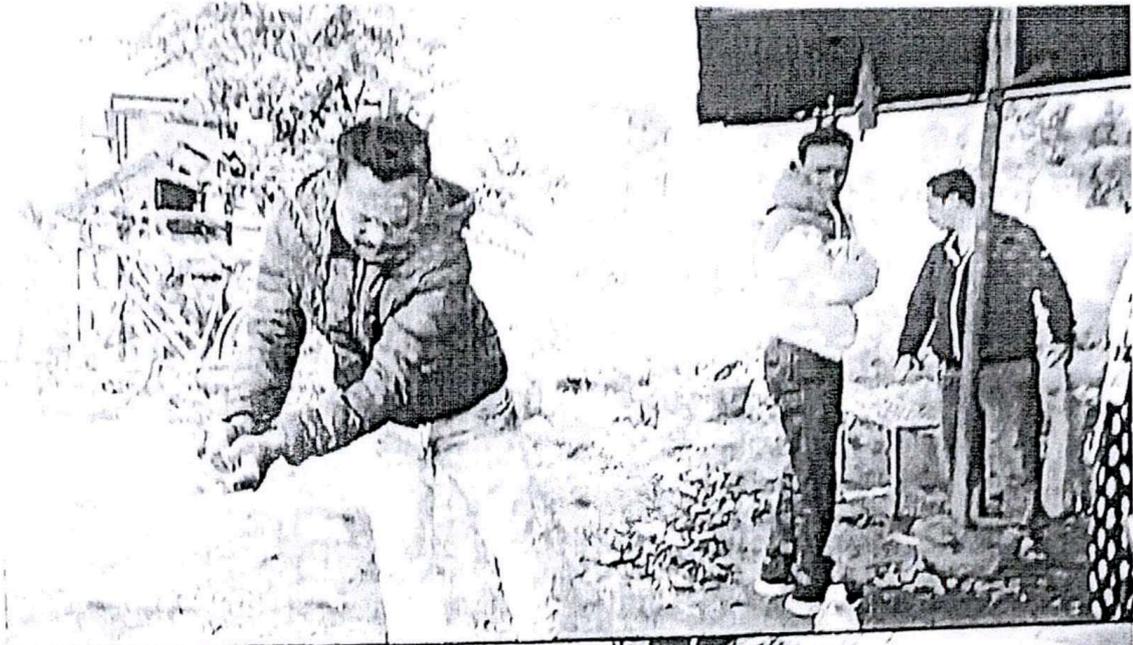
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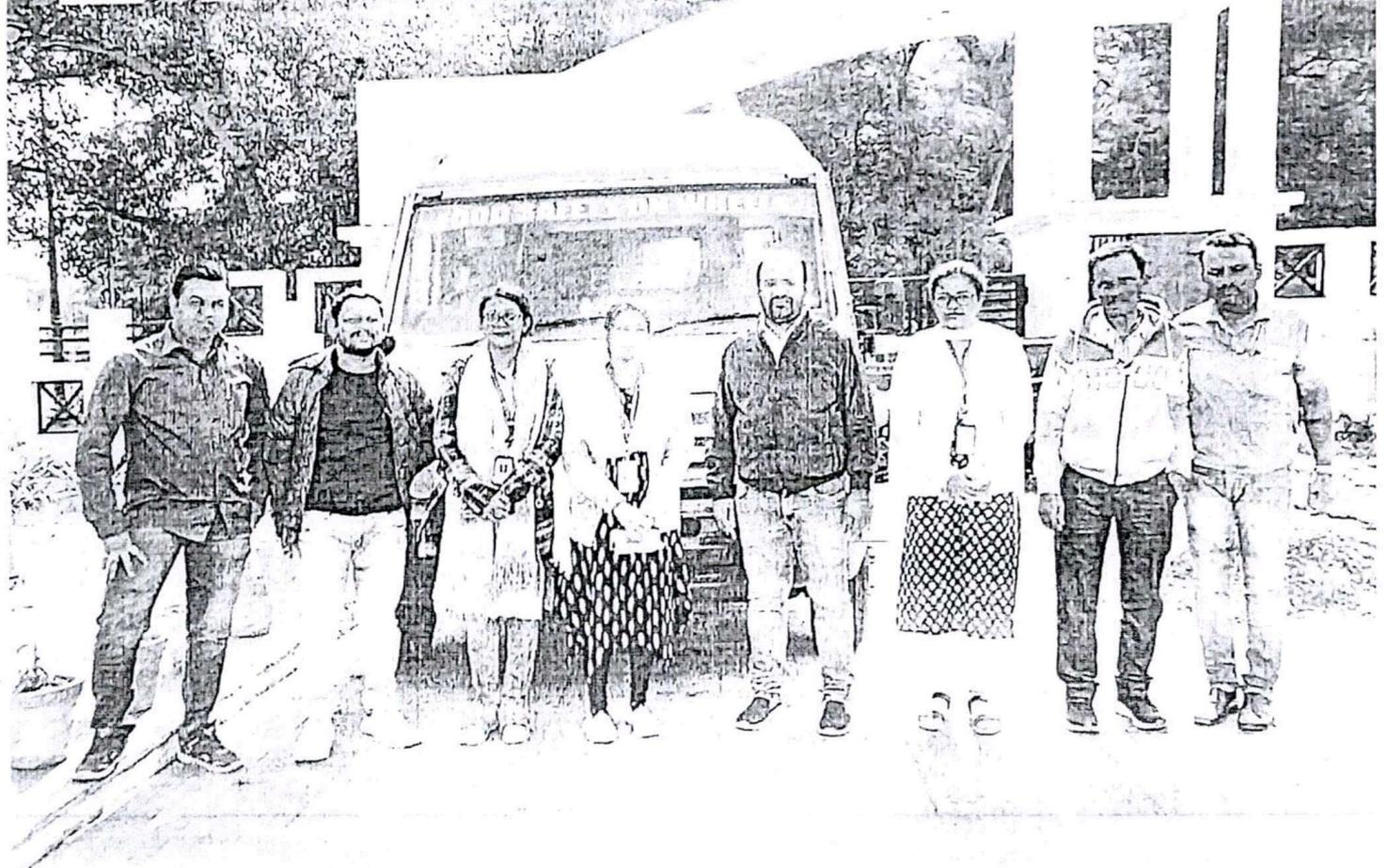












Sl No	Water sampling Location	Latitude	Longitude	Parameters
1.	Baikuntha Ghat Ghat Intake point, INLET RMC	22.266775	84.898640	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
2.	Baikuntha Ghat Koel River Main Stream	22.267836	84.885988	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
3.	WATCO, Koelnagar Tap Water, Supply outlet Water	22.266936	84.886605	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
4.	WATCO, Jhirpani, Tap Supply Sampling Point	22.274322	84.899127	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
5.	Main Stream of Koel River at Jhirpani WATCO intake point	22.275449	84.899883	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
6.	WATCO Section-III, Koel Nagar overhead tank water	22.256608	84.890007	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
7.	WATCO Sakti Nagar overhead tank water Supply	22.256710	84.898906	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
8.	SAIL Water Treatment plant	22.255872	84.885165	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
9.	Koel U/s, Baikunthaghat, Sail Intake Point	22.268209	84.883350	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
10.	55 MLD Water Treatment Plant Outlet	22.220543	84.809875	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
11.	Plant Site Road Tap Water	22.222686	84.855423	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
12.	Nala Road Supply Tap Water	22.223180	84.860499	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
13.	Oram Pada Udit Nagar Tap Water	22.221596	84.842933	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
14.	Kisantola Panposh Basti Tap Water	22.244661	84.802449	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
15.	18 MLD Intake Pump House at Panposh	22.221987	84.802789	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
16.	25 MLD Intake Pump House at Panposh	22.222257	84.802345	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
17.	43 MLD Supply water PumpHouse	22.222379	84.806613	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
18.	Vedvyas Water Intake of WATCO Plant	22.236415	84.797172	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
19.	Vedvyas Water Treatment Plant of Watco	22.233479	84.795737	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC

Oct, 2023

Annexure - III



FAX : 2562822/2560955
TEL : 2564033/2563294
EPABX : 2561909/2562847
E-mail : paribesh1@ospceboard.org
Website : www.ospceboard.org

STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST, ENVIRONMENT & CLIMATE CHANGE, GOVERNMENT OF ODISHA]
Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII,

Bhubaneswar - 751 012

(CENTRAL LABORATORY)

No. 523 /

VI-SC (LEM) Proj-321/22-23

Dt. 09.01.2024 /

To

By email

The Regional Officer,
State Pollution Control Board, Odisha,
Rourkela

Sub : Test Reports of water sample received under NWMP for the month of October, 2023

Ref : Your letter No. 4340 dated 10.10.2023

Sir,

With reference to the above cited letter, please find enclosed herewith the test reports of water samples submitted to the Central Laboratory on 11.10.2023, collected under NWMP under your jurisdiction, for the month of October, 2023.

Encl : (i) NS/357/11/2023
(ii) NS/358/11/2023

Yours faithfully,

N. Mahapatra
Chief Env. Scientist (Lab.)



CENTRAL LABORATORY
STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
Bhubaneswar - 751 024

E-mail: centrallab@ospcboard.org



TEST REPORT

Page 1 of 1

1. ULR No. : TC127402400000006F
 2 (i). Report No. : OS/99/02/2024
 3 (i) Date : 20.02.2024
 4. Sample Submitted By : Sri A. Sahoo, JSA,
 (Name and address) Regional Office, SPCB, Odisha, Rourkela
 5. Reference Letter No. : 616 dt.13.02.2024
 6. Date of sample receipt : 13.02.2024
 7. Sample Description :
 (i) Discipline : Chemical Testing (ii) Group : Water
 (Biological Testing, (Water/ Pollution and Environment (iii) Sub Group : Surface water
 Chemical testing) / Atmospheric Pollution/ Soil and water / Ground water/ Drinking
 Hazardous Waste) water / Wastewater/ Effluent/ Ambient Air/
 Stack/ Soil and Hazardous Waste)
 8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 -19.02.2024
 9. If uncertainty is desired by Customer : No
 10. Analysis Results :
 (Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits * (IS : 2296-1982)	Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
				Others/ Feb - 24/ SW/269 Baikuntha Ghat Intake point, INLET RMC Results
1.	pH	6.5-8.5	4500-H ⁻ -B, APHA, 23 rd Edn., 2017	6.6
2.	Total Suspended Solids (TSS), mg/L	-	2540 D, APHA, 23 rd Edn., 2017	16.0
3.	Total Dissolved Solids (TDS), mg/L	1500, max	2540 C, APHA, 23 rd Edn., 2017	92.0
4.	Dissolved Oxygen (DO), mg/L	4, min	4500-O-C, APHA, 23 rd Edn., 2017	10.8
5.	Biochemical Oxygen Demand (BOD, 3 days at 27° C), mg/L	3, max	IS 3025: Part 44	1.2
6.	Chemical Oxygen Demand (COD), mg/L	-	5220 B, APHA, 23 rd Edn., 2017	7.8
7.	Nitrate as N (NO ₃ ⁻ -N), mg/L	-	4500 - NO ₃ ⁻ -E, APHA, 23 rd Edn., 2017	0.307
8.	Fluoride (F ⁻) mg/L	1.5	4500-F-C, APHA, 23 rd Edn., 2017	0.24

* Tolerance limit for inland surface water subject to pollution (IS : 2296-1982), for Class 'C' (Drinking source with conventional treatment and disinfection)

11. Deviation from Test Method, if any :
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
 If Yes,
 (a) Date of Sampling : (b) Method Used* :
 (c) Name of Sampler with Designation :

-----End of Test Report-----

Usharani Patnaik
20.2.2024
Authorised Signatory
(Water/wastewater)

(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

Niranjan Mallick
20/2/2024
Board Analyst
(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

- (i) The results stated above relate only to the items tested.
 (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.
 (iii) The laboratory is not responsible for the authenticity of photocopied Test Reports.
 (iv) The Test Item will not be retained for more than 15 days from the date of issue of Test Report except in case as required by applicable Regulation.



**CENTRAL LABORATORY
STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
Bhubaneswar - 751 024

E-mail: centrallab@ospceboard.org



TC-12740

TEST REPORT

Page 1 of 1

1. ULR No. : TC127402400000007F
- 2 (i). Report No. : OS/101/02/2024
- 2 (ii). Amendment No : ---
- 3 (i) Date : 20.02.2024
- 3 (ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Sahoo, JSA,
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
 - (i) Discipline : Chemical Testing
(Biological Testing,
Chemical testing)
 - (ii) Group : Water
(Water/ Pollution and Environment
/ Atmospheric Pollution/ Soil and
Hazardous Waste)
 - (iii) Sub Group : Surface water
(Surface water/ Ground water/ Drinking
water / Wastewater/ Effluent/ Ambient Air/
Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19 .02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits * (IS : 2296-1982)	Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
				Others/ Feb - 24/SW/270 Baikuntha Ghat Koel River Main Stream Results
1.	pH	6.5-8.5	4500-H ⁺ -B, APHA, 23 rd Edn., 2017	6.7
2.	Total Suspended Solids (TSS), mg/L	-	2540 D, APHA, 23 rd Edn., 2017	11.0
3.	Total Dissolved Solids (TDS), mg/L	1500, max	2540 C, APHA, 23 rd Edn., 2017	120.0
4.	Dissolved Oxygen (DO), mg/L	4, min	4500-O-C, APHA, 23 rd Edn., 2017	9.4
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 ^o C), mg/L	3, max	IS 3025: Part 44	1.1
6.	Chemical Oxygen Demand (COD), mg/L	-	5220 B, APHA, 23 rd Edn., 2017	7.8
7.	Nitrate as N (NO ₃ ⁻ -N), mg/L	-	4500 - NO ₃ ⁻ -E, APHA, 23 rd Edn., 2017	0.398
8.	Fluoride (F ⁻) mg/L	1.5	4500-F-C, APHA, 23 rd Edn., 2017	0.19

* Tolerance limit for inland surface water subject to pollution (IS : 2296-1982), for Class 'C'
(Drinking source with conventional treatment and disinfection)

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
If Yes,
(a) Date of Sampling : (b) Method Used* :
(c) Name of Sampler with Designation :

-----End of Test Report-----

Usharani Patnaik
20.2.2024
Authorised Signatory
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

N. Mallick
20/2/24
Board Analyst
(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

- (i) The results stated above relate only to the items tested.
- (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory
- (iii) The laboratory is not responsible for the authenticity of photocopied Test Reports
- (iv) The Test Item will not be retained for more than 15 days from the date of issue of Test Report except in case as required by applicable Regulation.

Head Office: State Pollution Control Board, Odisha, Paribesh Bhawan, A/116, Nilakanthanagar, Unit-VIII, Bhubaneswar - 751 012, FAX: 2562922/2560955
TEL: 2564033/2563294 EPABX: 2561909/2562847, E-mail: paribesh1@ospceboard.org Website: www.ospceboard.org



**CENTRAL LABORATORY
STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
Bhubaneswar - 751 024

E-mail: centrallab@ospceboard.org



TC-12740

TEST REPORT

Page 1 of 1

1. ULR No. : TC127402400000008F
 2 (i). Report No. : OS/103/02/2024
 3 (i) Date : 20.02.2024
 4. Sample Submitted By : Sri A. Sahoo, JSA,
(Name and address) Regional Office, SPCB, Odisha, Rourkela
 5. Reference Letter No. : 616 dt.13.02.2024
 6. Date of sample receipt : 13.02.2024
 7. Sample Description :

(i) Discipline : Chemical Testing
(Biological Testing,
Chemical testing)

(ii) Group : Water
(Water/ Pollution and Environment
/ Atmospheric Pollution/ Soil and
Hazardous Waste)

(iii) Sub Group : Drinking water
(Surface water/ Ground water/ Drinking
water / Wastewater/ Effluent/ Ambient Air/
Stack/ Soil and Hazardous Waste)

8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
 9. If uncertainty is desired by Customer : No
 10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/271
					WATCO, Koelnagar Tap Water, Supply outlet water
					Results
1.	pH	6.5-8.5	No relaxation	4500-H* -B, APHA 23 rd Edn., 2017	6.8
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 rd Edn., 2017	<10
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 rd Edn., 2017	104.0
	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 rd Edn., 2017	10.3
4.	Biochemical Oxygen Demand (BOD, 3 days at 27° C), mg/L	-	-	IS 3025: Part 44	1.6
5.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 rd Edn., 2017	12.0
6.	Nitrate as N (NO ₃ ⁻ -N), mg/L	-	-	4500 - NO ₃ ⁻ -E, APHA, 23 rd Edn., 2017	0.329
7.	Fluoride (F ⁻) mg/L	1.0	1.5	4500-F-C, APHA, 23 rd Edn., 2017	0.19

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
 If Yes,
 (a) Date of Sampling : (b) Method Used* :
 (c) Name of Sampler with Designation :

-----End of Test Report-----

20-2-2024
 Authorised Signatory
 (Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

Board Analyst

(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

- (i) The results stated above relate only to the items tested.
 (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.
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 TEL: 2564033/2563294 EPABX : 2561909/2562847, E-mail: paribesh@ospceboard.org Website: www.ospceboard.org



CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
Bhubaneswar - 751 024
E-mail: centrallab@ospcbboard.org

TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/104/02/2024
- 2(ii). Amendment No : ---
- 3 (i) Date : 20.02.2024
- 3(ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Sahoo, JSA,
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :

(i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)	(ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)	(iii) Sub Group : Drinking water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
--	--	--
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW/271
					WATCO, Koelnagar Tap Water, Supply outlet water
					Results
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 rd Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 rd Edn., 2017	<1.8(Absent)
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 rd Edn., 2017	<1.8(Absent)

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
If Yes,

(a) Date of Sampling :	(b) Method Used* :
(c) Name of Sampler with Designation :	

-----End of Test Report-----

N. Pattanaik
20/02/2024
Authorised Signatory
(Biological)
(Mrs. Nishiprava Pattanaik, AES)

Usharani Patnaik
20.2.2024
Authorised Signatory
(Water/wastewater)
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

N. Mallick
20/02/2024
Board Analyst
(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

- (i) The results stated above relate only to the items tested.
- (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.
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TEL : 2564033/2563294 EPABX : 2561909/2562847. E-mail : paribesh@ospcbboard.org Website : www.ospcbboard.org



OSPCB/CNL/F0718

CENTRAL LABORATORY
STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
Bhubaneswar - 751 024

E-mail: centrallab@ospcbboard.org



TEST REPORT

Page 1 of 1

1. ULR No. : TC12740240000009F
 2 (i). Report No. : OS/105/02/2024
 3 (i) Date : 20.02.2024
 4. Sample Submitted By : Sri A. Sahoo, JSA,
 (Name and address) Regional Office, SPCB, Odisha, Rourkela
 5. Reference Letter No. : 616 dt.13.02.2024
 6. Date of sample receipt : 13.02.2024
 7. Sample Description :

- 2(ii). Amendment No : ---
 3(ii) Amendment Date : ---

(i) Discipline : Chemical Testing
 (Biological Testing,
 Chemical testing)

(ii) Group : Water
 (Water/ Pollution and Environment
 / Atmospheric Pollution/ Soil and
 Hazardous Waste)

(iii) Sub Group : Drinking water
 (Surface water/ Ground water/ Drinking
 water / Wastewater/ Effluent/ Ambient Air/
 Stack/ Soil and Hazardous Waste)

8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024

9. If uncertainty is desired by Customer : No

10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/272
					WATCO, Jhirpani Tap Supply Sampling point
					Results
1.	pH	6.5-8.5	No relaxation	4500-H ⁺ -B, APHA, 23 rd Edn., 2017	6.7
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 rd Edn., 2017	11.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 rd Edn., 2017	108.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 rd Edn., 2017	9.5
5.	Biochemical Oxygen Demand (BOD, 3 days at 27° C), mg/L	-	-	IS 3025: Part 44	1.2
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 rd Edn., 2017	7.8
7.	Nitrate as N (NO ₃ ⁻ -N), mg/L	-	-	4500 - NO ₃ ⁻ -E, APHA, 23 rd Edn., 2017	0.396
8.	Fluoride (F) mg/L	1.0	1.5	4500-F-C, APHA, 23 rd Edn., 2017	0.19

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
 If Yes,
 (a) Date of Sampling : _____ (b) Method Used* : _____
 (c) Name of Sampler with Designation : _____

-----End of Test Report-----

Usharani Patnaik
20.2.2024
Authorised Signatory
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

N. Niranjan Mallick
Board Analyst
(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

- (i) The results stated above relate only to the items tested.
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 TEL: 2564033/2563294 EPABX: 2561909/2562847. E-mail : paribesh1@ospcbboard.org; Website : www.ospcbboard.org



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TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/106/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
- (i) Discipline : Chemical Testing and Biological Testing
(Biological Testing, Chemical testing)
- (ii) Group : Water
(Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
- (iii) Sub Group : Drinking water
(Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW/272
					WATCO, Jhirpani , Tap Supply Sampling point
					Results
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 rd Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 rd Edn., 2017	<1.8(Absent)
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 rd Edn., 2017	<1.8(Absent)

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
If Yes,
- (a) Date of Sampling : (b) Method Used* :
- (c) Name of Sampler with Designation :

-----End of Test Report-----

N. Pattanaik
20/02/2024
Authorised Signatory
(Biological)

(Mrs. Nishiprava Pattanaik, AES)

U. Patnaik
20.2.2024
Authorised Signatory
(Water/wastewater)

(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

N. Mallick
Board Analyst
(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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TEL: 2564033/2563294 EPABX : 2561909/2562847, E-mail: paribesh1@ospcbboard.org Website: www.ospcbboard.org



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OSPCB/CNL/F0718

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E-mail: centrallab@ospboard.org



TEST REPORT

Page 1 of 1

1. ULR No. : TC127402400000010F
 2 (i). Report No. : OS/107/02/2024
 3 (i) Date : 20.02.2024
 2(ii). Amendment No : ---
 3(ii) Amendment Date : ---
 4. Sample Submitted By : Sri A. Sahoo, JSA,
 (Name and address) Regional Office, SPCB, Odisha, Rourkela
 5. Reference Letter No. : 616 dt.13.02.2024
 6. Date of sample receipt : 13.02.2024
 7. Sample Description :

(i) Discipline : Chemical Testing

(Biological Testing,
Chemical testing)

(ii) Group : Water
(Water/ Pollution and Environment
/ Atmospheric Pollution/ Soil and
Hazardous Waste)

(iii) Sub Group : Surface water
(Surface water/ Ground water/ Drinking
water / Wastewater/ Effluent/ Ambient Air/
Stack/ Soil and Hazardous Waste)

8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024

9. If uncertainty is desired by Customer : No

10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits * (IS : 2296-1982)	Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
				Others/ Feb - 24/SW/273 ---
				Main Stream of Koel River at Jhirpani WATCO intake point
				Results
1.	pH	6.5-8.5	4500-H ⁺ -B, APHA, 23 rd Edn., 2017	6.8
2.	Total Suspended Solids (TSS), mg/L	-	2540 D, APHA, 23 rd Edn., 2017	14.0
3.	Total Dissolved Solids (TDS), mg/L	1500, max	2540 C, APHA, 23 rd Edn., 2017	112.0
4.	Dissolved Oxygen (DO), mg/L	4, min	4500-O-C, APHA, 23 rd Edn., 2017	9.4
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 ^o C), mg/L	3, max	IS 3025: Part 44	1.1
6.	Chemical Oxygen Demand (COD), mg/L	-	5220 B, APHA, 23 rd Edn., 2017	7.8
7.	Nitrate as N (NO ₃ ⁻ -N), mg/L	-	4500 - NO ₃ ⁻ -E, APHA, 23 rd Edn., 2017	0.354
8.	Fluoride (F) mg/L	1.5	4500-F-C, APHA, 23 rd Edn., 2017	0.18

* Tolerance limit for inland surface water subject to pollution (IS : 2296-1982), for Class 'C' (Drinking source with conventional treatment and disinfection)

11. Deviation from Test Method , if any :
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
 If Yes,

(a) Date of Sampling : (b) Method Used* :

(c) Name of Sampler with Designation :

-----End of Test Report-----

Usharani Patnaik
20.2.2024
Authorised Signatory
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

N. Niranjan Mallick
20/2/24
Board Analyst

(Mr. Niranjan Mallick, Chief Env. Scientist)

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 TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : paribesh@ospboard.org Website : www.ospboard.org



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E-mail: centrallab@ospcbboard.org

TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/108/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :

(i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)	(ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)	(iii) Sub Group : Surface water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
--	--	---
8. Analysis Starting Date-Analysis Completion Date :-13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits * (IS : 2296-1982)	Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
				Others/ Feb - 24/ SW/273
				Main Stream of Koel River at Jhirpani WATCO intake point
				Results
1.	Free Residual Chlorine (R.Cl), mg/L	-	4500 Cl-B, APHA, 23 rd Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	5000, max	9221-B, APHA, 23 rd Edn., 2017	350
3.	Fecal Coliform (FC), MPN/100 ml	-	9221-E, APHA, 23 rd Edn., 2017	13

* Tolerance limit for inland surface water subject to pollution (IS : 2296-1982), for Class 'C' (Drinking source with conventional treatment and disinfection)

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
If Yes,

(a) Date of Sampling :	(b) Method Used* :
(c) Name of Sampler with Designation :	

-----End of Test Report-----

Pattanaik
20/02/2024
Authorised Signatory
(Biological)
(Mrs. Nishiprava Pattanaik, AES)

Usharani
20.2.2024
Authorised Signatory
(Water/wastewater)
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

N. Mallick
Board Analyst
(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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TEL: 2564033/2563294 EPABX: 2561909/2562847, E-mail: paribeshi@ospcbboard.org Website: www.ospcbboard.org



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CENTRAL LABORATORY
STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
Bhubaneswar - 751 024

E-mail: central@ospcbboard.org



TEST REPORT

Page 1 of 1

1. ULR No. : TC127402400000011F
- 2 (i). Report No. : OS/109/02/2024
- 3 (i) Date : 20.02.2024
- 2(ii). Amendment No : ---
- 3(ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Sahoo, JSA,
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
 - (i) Discipline : Chemical Testing
(Biological Testing, Chemical testing)
 - (ii) Group : Water
(Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
 - (iii) Sub Group : Drinking water
(Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/274
					WATCO Section – III, Koel Nagar over head tank water
					Results
1.	pH	6.5-8.5	No relaxation	4500-H ⁻ -B, APHA, 23 rd Edn., 2017	6.9
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 rd Edn., 2017	<10
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 rd Edn., 2017	112.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 rd Edn., 2017	12.8
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 ^o C), mg/L	-	-	IS 3025: Part 44	1.6
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 rd Edn., 2017	12.0
7.	Nitrate as N (NO ₃ ⁻ -N), mg/L	-	-	4500 - NO ₃ ⁻ -E, APHA, 23 rd Edn., 2017	0.309
8.	Fluoride (F ⁻) mg/L	1.0	1.5	4500-F-C, APHA, 23 rd Edn., 2017	0.20

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
If Yes,
 - (a) Date of Sampling :
 - (b) Method Used* :
 - (c) Name of Sampler with Designation :

-----End of Test Report-----

Usharani Patnaik
9.2.2024
Authorised Signatory
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

Niranjan Mallick
20/2/24
Board Analyst
(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

- (i) The results stated above relate only to the items tested.
- (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.
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- (iv) The Test Item will not be retained for more than 15 days from the date of issue of Test Report except in case as required by applicable Regulation.

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TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail: paribesh@ospcbboard.org Website: www.ospcbboard.org



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Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
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E-mail: centrallab@ospcbboard.org

TEST REPORT

Page 1 of 1

1. ULR No. : -----
 2 (i). Report No. : OS/110/02/2024
 3 (i) Date : 20.02.2024
 4. Sample Submitted By : Sri A. Sahoo, JSA,
 (Name and address) Regional Office, SPCB, Odisha, Rourkela
 5. Reference Letter No. : 616 dt.13.02.2024
 6. Date of sample receipt : 13.02.2024
 7. Sample Description :
 (i) Discipline : Chemical Testing and Biological Testing
 (Biological Testing, Chemical testing)
 (ii) Group : Water
 (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
 (iii) Sub Group : Drinking water
 (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
 8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
 9. If uncertainty is desired by Customer : No
 10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits*		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW/274
					WATCO Section – III, Koel Nagar over head tank water
					Results
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0. min	4500 Cl-B, APHA, 23 rd Edn., 2017	1.33
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 rd Edn., 2017	<1.8(Absent)
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 rd Edn., 2017	<1.8(Absent)

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
 If Yes,
 (a) Date of Sampling : (b) Method Used* :
 (c) Name of Sampler with Designation :

-----End of Test Report-----

Nishiprava
20/02/2024
Authorised Signatory
(Biological)
(Mrs. Nishiprava Pattanaik, AES)

Usharani
20.2.2024
Authorised Signatory
(Water/wastewater)
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

Niranjan
Board Analyst
(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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 (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.
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Head Office: State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nishanthanagar, Unit-VIII, Bhubaneswar - 751 012, FAX : 2562822/2560955
 TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : paribesh@ospcbboard.org Website : www.ospcbboard.org



OSPCB/CNL/F0718

**CENTRAL LABORATORY
STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
Bhubaneswar - 751 024

E-mail: centrallab@ospcbboard.org



TEST REPORT

Page 1 of 1

1. ULR No. : TC127402400000012F
 2 (i). Report No. : OS/111/02/2024
 3 (i) Date : 20.02.2024
 4. Sample Submitted By : Sri A. Sahoo, JSA,
 (Name and address) Regional Office, SPCB, Odisha, Rourkela
 5. Reference Letter No. : 616 dt.13.02.2024
 6. Date of sample receipt : 13.02.2024
 7. Sample Description :

- 2(ii). Amendment No : ---
 3(ii) Amendment Date : ---

(i) Discipline : Chemical Testing
 (Biological Testing,
 Chemical testing)

(ii) Group : Water
 (Water/ Pollution and Environment
 / Atmospheric Pollution/ Soil and
 Hazardous Waste)

(iii) Sub Group : Drinking water
 (Surface water/ Ground water/ Drinking
 water / Wastewater/ Effluent/ Ambient Air/
 Stack/ Soil and Hazardous Waste)

8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
 9. If uncertainty is desired by Customer : No
 10. Analysis Results :
 (Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/275
					WATCO Sakti Nagar overhead tank water supply
					Results
1.	pH	6.5-8.5	No relaxation	4500-H ⁻ -B, APHA, 23 rd Edn., 2017	6.8
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 rd Edn., 2017	11.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 rd Edn., 2017	116.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 rd Edn., 2017	7.9
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 ^o C), mg/L	-	-	IS 3025: Part 44	1.2
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 rd Edn., 2017	7.8
7.	Nitrate as N (NO ₃ ⁻ -N), mg/L	-	-	4500 - NO ₃ ⁻ -E, APHA, 23 rd Edn., 2017	0.329
8.	Fluoride (F) mg/L	1.0	1.5	4500-F-C, APHA, 23 rd Edn., 2017	0.18

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method, if any :
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
 If Yes,
 (a) Date of Sampling : (b) Method Used* :
 (c) Name of Sampler with Designation :

-----End of Test Report-----

Usharani Patnaik
 20.02.2024
 Authorised Signatory
 (Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

Niranjan Mallick
 Board Analyst
 (Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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OSPCB/CNL/F0718



TC-12740

TEST REPORT

Page 1 of 1

1. ULR No. : TC12740240000013F
 2 (i). Report No. : OS/113/02/2024
 3 (i) Date : 20.02.2024
 4. Sample Submitted By : Sri A. Sahoo, JSA,
 (Name and address) Regional Office, SPCB, Odisha, Rourkela
 5. Reference Letter No. : 616 dt.13.02.2024
 6. Date of sample receipt : 13.02.2024
 7. Sample Description :

(i) Discipline : Chemical Testing
 (Biological Testing,
 Chemical testing)

(ii) Group : Water
 (Water/ Pollution and Environment
 / Atmospheric Pollution/ Soil and
 Hazardous Waste)

(iii) Sub Group : Drinking water
 (Surface water/ Ground water/ Drinking
 water / Wastewater/ Effluent/ Ambient Air/
 Stack/ Soil and Hazardous Waste)

8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
 9. If uncertainty is desired by Customer : No
 10. Analysis Results :
 (Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/276
					SAIL Water Treatment plant
					Results
1.	pH	6.5-8.5	No relaxation	4500-H* -B, APHA, 23 rd Edn., 2017	6.8
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 rd Edn., 2017	12.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 rd Edn., 2017	136.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-Q-C, APHA, 23 rd Edn., 2017	8.7
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 ^o C), mg/L	-	-	IS 3025: Part 44	1.1
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 rd Edn., 2017	7.8
7.	Nitrate as N (NO ₃ ⁻ -N), mg/L	-	-	4500 - NO ₃ ⁻ -E, APHA, 23 rd Edn., 2017	0.375
8.	Fluoride (F ⁻) mg/L	1.0	1.5	4500-F-C, APHA, 23 rd Edn., 2017	0.17

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
 If Yes,
 (a) Date of Sampling : _____ (b) Method Used* : _____
 (c) Name of Sampler with Designation :

-----End of Test Report-----

Central Lab
20.2.2024
Authorized Signatory
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

Niranjan Mallick
Board Analyst
(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
Bhubaneswar - 751 024

E-mail: centrallab@ospcbboard.org

TEST REPORT

Page 1 of 1

1. ULR No. : -----
 2 (i). Report No. : OS/114/02/2024
 3 (i) Date : 20.02.2024
 4. Sample Submitted By : Sri A. Sahoo, JSA,
 (Name and address) Regional Office, SPCB, Odisha, Rourkela
 5. Reference Letter No. : 616 dt.13.02.2024
 6. Date of sample receipt : 13.02.2024
 7. Sample Description :

(i) Discipline : Chemical Testing
 and Biological Testing
 (Biological Testing,
 Chemical testing)

(ii) Group : Water
 (Water/ Pollution and Environment
 / Atmospheric Pollution/ Soil and
 Hazardous Waste)

(iii) Sub Group : Drinking water
 (Surface water/ Ground water/ Drinking
 water / Wastewater/ Effluent/ Ambient Air/
 Stack/ Soil and Hazardous Waste)

8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
 9. If uncertainty is desired by Customer : No
 10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits*		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW /276
					SAIL Water treatment plant
					Results
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 rd Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 rd Edn., 2017	<1.8(Absent)
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 rd Edn., 2017	<1.8(Absent)

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
 If Yes,
 (a) Date of Sampling : (b) Method Used* :
 (c) Name of Sampler with Designation :

-----End of Test Report-----

N. Pattanaik
 20/02/2024
 Authorised Signatory
 (Biological)
 (Mrs. Nishprava Pattanaik, AES)

Usharani Patnaik
 20.2.2024
 Authorised Signatory
 (Water/wastewater)
 (Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

N. Mallick
 20/02/2024
 Board Analyst
 (Mr. Niranjan Mallick, Chief Env. Scientist)

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 TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail: paribesh@ospcbboard.org Website: www.ospcbboard.org



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Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
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E-mail: centrallab@ospceboard.org

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TEST REPORT

Page 1 of 1

1. ULR No. : TC12740240000014F
 2 (i). Report No. : OS/115/02/2024
 3 (i) Date : 20.02.2024
 2(ii). Amendment No : ---
 3(ii) Amendment Date : ---
 4. Sample Submitted By : Sri A. Sahoo, JSA,
 (Name and address) Regional Office, SPCB, Odisha, Rourkela
 5. Reference Letter No. : 616 dt.13.02.2024
 6. Date of sample receipt : 13.02.2024
 7. Sample Description :

(i) Discipline : Chemical Testing
 (Biological Testing,
 Chemical testing)

(ii) Group : Water
 (Water/ Pollution and Environment
 / Atmospheric Pollution/ Soil and
 Hazardous Waste)

(iii) Sub Group : Surface water
 (Surface water/ Ground water/ Drinking
 water / Wastewater/ Effluent/ Ambient Air/
 Stack/ Soil and Hazardous Waste)

8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024

9. If uncertainty is desired by Customer : No

10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits * (IS : 2296-1982)	Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
				Others/ Feb - 24/SW/277 Koel U/s, Baikunthaghat, SAIL Intake point
				Results
1.	pH	6.5-8.5	4500-H ⁺ -B, APHA, 23 rd Edn., 2017	6.9
2.	Total Suspended Solids (TSS), mg/L	-	2540 D, APHA, 23 rd Edn., 2017	13.0
3.	Total Dissolved Solids (TDS), mg/L	1500, max	2540 C, APHA, 23 rd Edn., 2017	104.0
4.	Dissolved Oxygen (DO), mg/L	4, min	4500-O-C, APHA, 23 rd Edn., 2017	8.6
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 ^o C), mg/L	3, max	IS 3025: Part 44	1.2
6.	Chemical Oxygen Demand (COD), mg/L	-	5220 B, APHA, 23 rd Edn., 2017	7.8
7.	Nitrate as N (NO ₃ ⁻ -N), mg/L	-	4500 - NO ₃ ⁻ -E, APHA, 23 rd Edn., 2017	0.321
8.	Fluoride (F) mg/L	1.5	4500-F-C, APHA, 23 rd Edn., 2017	0.17

* Tolerance limit for inland surface water subject to pollution (IS : 2296-1982), for Class 'C' (Drinking source with conventional treatment and disinfection)

11. Deviation from Test Method , if any :
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
 If Yes,
 (a) Date of Sampling : _____ (b) Method Used* : _____
 (c) Name of Sampler with Designation : _____

-----End of Test Report-----

(Signature)
 Authorised Signatory
 (Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

(Signature)
 Board Analyst

(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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 TEL : 2564033/2563294 EPABX : 2561909/2562847. E-mail : paribesh1@spcbboard.org Website : www.ospcbboard.org



CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
Bhubaneswar - 751 024

E-mail: centrallab@ospcbboard.org

TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/116/02/2024
- 2(ii). Amendment No : ---
- 3 (i) Date : 20.02.2024
- 3(ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Sahoo, JSA,
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :

(i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)	(ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)	(iii) Sub Group : Surface water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
--	--	---
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits * (IS : 2296-1982)	Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
				Others/ Feb - 24/SW /277 Koel U/s, Baikunthaghat, SAIL Intake point
				Results
1.	Free Residual Chlorine (R.Cl), mg/L	-	4500 CI-B, APHA, 23 rd Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	5000, max	9221-B, APHA, 23 rd Edn., 2017	7900
3.	Fecal Coliform (FC), MPN/100 ml	-	9221-E, APHA, 23 rd Edn., 2017	1700

* Tolerance limit for inland surface water subject to pollution (IS : 2296-1982), for Class 'C' (Drinking source with conventional treatment and disinfection)

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
If Yes,
(a) Date of Sampling : (b) Method Used* :
(c) Name of Sampler with Designation :

-----End of Test Report-----

Nishprava Pattanaik
20/02/2024
Authorised Signatory
(Biological)
(Mrs. Nishprava Pattanaik, AES)

Usharani Patnaik
20.2.2024
Authorised Signatory
(Water/wastewater)
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

Niranjan Mallick
20/2/2024
Board Analyst
(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail: paribesh1@ospcbboard.org Website : www.ospcbboard.org



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STATE POLLUTION CONTROL BOARD, ODISHA**

OSPCB/CNL/F0718

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
Bhubaneswar - 751 024

E-mail: centrallab@ospeboard.org



TEST REPORT

Page 1 of 1

1. ULR No. : TC12740240000015F
- 2 (i). Report No. : OS/117/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :

- 2(ii). Amendment No : ---
- 3(ii) Amendment Date : ---

- | | | |
|--|--|--|
| (i) Discipline : Chemical Testing
(Biological Testing,
Chemical testing) | (ii) Group : Water
(Water/ Pollution and Environment
/ Atmospheric Pollution/ Soil and
Hazardous Waste) | (iii) Sub Group : Drinking water
(Surface water/ Ground water/ Drinking
water / Wastewater/ Effluent/ Ambient Air/
Stack/ Soil and Hazardous Waste) |
|--|--|--|

8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/278
					55 MLD Water Treatment plant outlet
					Results
1.	pH	6.5-8.5	No relaxation	4500-H ⁻ -B, APHA, 23 rd Edn., 2017	6.8
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 rd Edn., 2017	<10
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 rd Edn., 2017	112.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 rd Edn., 2017	10.0
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 ^o C), mg/L	-	-	IS 3025: Part 44	1.3
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 rd Edn., 2017	7.8
7.	Nitrate as N (NO ₃ ⁻ -N), mg/L	-	-	4500 - NO ₃ ⁻ -E, APHA, 23 rd Edn., 2017	0.393
8.	Fluoride (F ⁻) mg/L	1.0	1.5	4500-F-C, APHA, 23 rd Edn., 2017	0.18

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No - No
If Yes,
(a) Date of Sampling : (b) Method Used* :
(c) Name of Sampler with Designation :

-----End of Test Report-----

Usharani Patnaik
20.02.2024

Authorised Signatory
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

Niranjan Mallick
20.02.2024

Board Analyst
(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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TEL : 2564033/2563294 EPABX : 2561909/2562847. E-mail : paribesh1@ospeboard.org Website : www.ospeboard.org



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Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
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E-mail: centrallab@ospceboard.org

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TEST REPORT

Page 1 of 1

1. ULR No. : TC12740240000016F
 2 (i). Report No. : OS/119/02/2024
 3 (i) Date : 20.02.2024
 4. Sample Submitted By : Sri A. Sahoo, JSA,
 (Name and address) Regional Office, SPCB, Odisha, Rourkela
 5. Reference Letter No. : 616 dt.13.02.2024
 6. Date of sample receipt : 13.02.2024
 7. Sample Description :

(i) Discipline : Chemical Testing
 (Biological Testing,
 Chemical testing)

(ii) Group : Water
 (Water/ Pollution and Environment
 / Atmospheric Pollution/ Soil and
 Hazardous Waste)

(iii) Sub Group : Drinking water
 (Surface water/ Ground water/ Drinking
 water / Wastewater/ Effluent/ Ambient Air/
 Stack/ Soil and Hazardous Waste)

8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
 9. If uncertainty is desired by Customer : No
 10. Analysis Results :
 (Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/279
					Plant site Road Tap Water
					Results
1.	pH	6.5-8.5	No relaxation	4500-H ⁺ -B, APHA, 23 rd Edn., 2017	6.7
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 rd Edn., 2017	12.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 rd Edn., 2017	96.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 rd Edn., 2017	2.2
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 ^o C), mg/L	-	-	IS 3025: Part 44	1.2
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 rd Edn., 2017	7.8
7.	Nitrate as N (NO ₃ ⁻ -N), mg/L	-	-	4500 - NO ₃ ⁻ -E, APHA, 23 rd Edn., 2017	0.422
8.	Fluoride (F ⁻) mg/L	1.0	1.5	4500-F-C, APHA, 23 rd Edn., 2017	0.17

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
 If Yes,
 (a) Date of Sampling : (b) Method Used* :
 (c) Name of Sampler with Designation :

-----End of Test Report-----

Usharani Patnaik
 20.02.2024
 Authorised Signatory
 (Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

Niranjan Mallick
 20/2/24
 Board Analyst
 (Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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**CENTRAL LABORATORY
STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandake Industrial Estate, Patia,
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E-mail: centrallab@ospcbboard.org

TEST REPORT

Page 1 of 1

1. ULR No. : -----
 2 (i). Report No. : OS/120/02/2024
 3 (i) Date : 20.02.2024
 4. Sample Submitted By : Sri A. Sahoo, JSA,
(Name and address) Regional Office, SPCB, Odisha, Rourkela
 5. Reference Letter No. : 616 dt.13.02.2024
 6. Date of sample receipt : 13.02.2024
 7. Sample Description :
 (i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)
 (ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
 (iii) Sub Group : Drinking water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
 8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
 9. If uncertainty is desired by Customer : No
 10. Analysis Results :
 (Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits*		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW /279
					Plant Site Road Tap Water
					Results
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 rd Edn., 2017	<0.04 ---
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 rd Edn., 2017	<1.8(Absent)
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 rd Edn., 2017	<1.8(Absent)

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
 If Yes,
 (a) Date of Sampling : (b) Method Used* :
 (c) Name of Sampler with Designation :

-----End of Test Report-----

Pattanaik
20/02/2024
Authorised Signatory
(Biological)
(Mrs. Nishprava Pattanaik, AES)

Usharani
20.2.2024
Authorised Signatory
(Water/wastewater)
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

Niranjan Mallick
Board Analyst
(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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 TEL: 2564033/2563294 EPABX: 2561909/2562847, E-mail: paribesh1@ospcbboard.org Website: www.ospcbboard.org



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STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
Bhubaneswar - 751 024

E-mail: centrallab@ospboard.org

OSPCB/CNL/F0718



TEST REPORT

Page 1 of 1

1. ULR No. : TC12740240000017F
 2 (i). Report No. : OS/121/02/2024
 3 (i) Date : 20.02.2024
 4. Sample Submitted By : Sri A. Sahoo, JSA,
 (Name and address) Regional Office, SPCB, Odisha, Rourkela
 5. Reference Letter No. : 616 dt.13.02.2024
 6. Date of sample receipt : 13.02.2024
 7. Sample Description :
 (i) Discipline : Chemical Testing (ii) Group : Water (iii) Sub Group : Drinking water
 (Biological Testing, (Water/ Pollution and Environment (Surface water/ Ground water/ Drinking
 Chemical testing) / Atmospheric Pollution/ Soil and water / Wastewater/ Effluent/ Ambient Air/
 Hazardous Waste) Stack/ Soil and Hazardous Waste)
 8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
 9. If uncertainty is desired by Customer : No
 10. Analysis Results :
 (Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/280
					Nala Road, Supply Tap Water
					Results
1.	pH	6.5-8.5	No relaxation	4500-H*-B, APHA, 23 rd Edn., 2017	6.8
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 rd Edn., 2017	11.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 rd Edn., 2017	100.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 rd Edn., 2017	10.4
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 ^o C), mg/L	-	-	IS 3025: Part 44	1.1
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 rd Edn., 2017	7.8
7.	Nitrate as N (NO ₃ ⁻ -N), mg/L	-	-	4500 - NO ₃ ⁻ -E, APHA, 23 rd Edn., 2017	0.321
8.	Fluoride (F) mg/L	1.0	1.5	4500-F-C, APHA, 23 rd Edn., 2017	0.16

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method, if any :
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
 If Yes,
 (a) Date of Sampling : (b) Method Used* :
 (c) Name of Sampler with Designation :

-----End of Test Report-----

Usharani Patnaik
 20.02.2024

Authorised Signatory
 (Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

Niranjan Mallick
 20.02.2024

Board Analyst

(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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 TEL: 2564033/2563294 EPABX: 2561909/2562847. E-mail: paribesh1@ospboard.org Website: www.ospboard.org



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TEST REPORT

Page 1 of 1

1. ULR No. : TC12740240000018F
 2 (i). Report No. : OS/123/02/2024
 3 (i) Date : 20.02.2024
 4. Sample Submitted By : Sri A. Sahoo, JSA,
 (Name and address) Regional Office, SPCB, Odisha, Rourkela
 5. Reference Letter No. : 616 dt.13.02.2024
 6. Date of sample receipt : 13.02.2024
 7. Sample Description :

- 2(ii). Amendment No : ---
 3(ii) Amendment Date : ---

- (i) Discipline : Chemical Testing
 (Biological Testing,
 Chemical testing)
 (ii) Group : Water
 (Water/ Pollution and Environment
 / Atmospheric Pollution/ Soil and
 Hazardous Waste)
 (iii) Sub Group : Drinking water
 (Surface water/ Ground water/ Drinking
 water / Wastewater/ Effluent/ Ambient Air/
 Stack/ Soil and Hazardous Waste)

8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024

9. If uncertainty is desired by Customer : No

10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit).	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/281
					Oram Pada Udit Nagar Tap Water
					Results
1.	pH	6.5-8.5	No relaxation	4500-H ⁻ -B, APHA, 23 rd Edn., 2017	6.9
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 rd Edn., 2017	12.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 rd Edn., 2017	116.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 rd Edn., 2017	8.6
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 ^o C), mg/L	-	-	IS 3025: Part 44	1.8
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 rd Edn., 2017	12.0
7.	Nitrate as N (NO ₃ ⁻ -N), mg/L	-	-	4500 - NO ₃ ⁻ -E, APHA, 23 rd Edn., 2017	0.389
8.	Fluoride (F ⁻) mg/L	1.0	1.5	4500-F-C, APHA, 23 rd Edn., 2017	0.18

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :

12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
 If Yes,

- (a) Date of Sampling : (b) Method Used* :
 (c) Name of Sampler with Designation :

-----End of Test Report-----

Usharani
20.2.2024

Authorised Signatory
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

Niranjan Mallick
20/2/24

Board Analyst

(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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 TEL : 2564033/2563294 EPABX : 2561909/2562847. E-mail : pub@spcboard.org; Website : www.spcboard.org



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TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/124/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :

(i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)	(ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)	(iii) Sub Group : Drinking water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
--	--	--
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits*		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW /281
					Oram Pada Udit Nagar Tap Water
					Results
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 rd Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 rd Edn., 2017	<1.8(Absent)
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 rd Edn., 2017	<1.8(Absent)

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
If Yes,

(a) Date of Sampling :	(b) Method Used* :
(c) Name of Sampler with Designation :	

-----End of Test Report-----

A. Pattanaik
20/02/2024
Authorised Signatory
(Biological)
(Mrs. Nishiprava Pattanaik, AES)

Usharani Patnaik
20.2.2024
Authorised Signatory
(Water/wastewater)
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

N. Mallick
20/02/24
Board Analyst
(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : paribesh@ospcb.org Website : www.ospcb.org



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E-mail: centrallab@ospcbboard.org

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TEST REPORT

Page 1 of 1

1. ULR No. : TC12740240000020F
- 2 (i). Report No. : OS/127/02/2024
- 2(ii). Amendment No : ---
- 3 (i) Date : 20.02.2024
- 3(ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Sahoo, JSA,
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :

(i) Discipline : Chemical Testing (Biological Testing, Chemical testing)	(ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)	(iii) Sub Group : Drinking water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
--	--	--
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/283 Kishantola Panposh Basti Tap Water
					Results
1.	pH	6.5-8.5	No relaxation	4500-H* -B, APHA, 23 rd Edn., 2017	6.9
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 rd Edn., 2017	13.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 rd Edn., 2017	124.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 rd Edn., 2017	9.6
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 ^o C), mg/L	-	-	IS 3025: Part 44	1.2
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 rd Edn., 2017	7.8
7.	Nitrate as N (NO ₃ ⁻ -N), mg/L	-	-	4500 - NO ₃ ⁻ -E, APHA, 23 rd Edn., 2017	0.377
8.	Fluoride (F ⁻) mg/L	1.0	1.5	4500-F-C, APHA, 23 rd Edn., 2017	0.17

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
If Yes,

(a) Date of Sampling :	(b) Method Used* :
(c) Name of Sampler with Designation :	

-----End of Test Report-----

Usharani Patnaik
20.2.2024

Authorised Signatory
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

M. Niranjan Mallick
20/2/2024

Board Analyst

(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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TEL : 2564033/2563294 EPABX : 2561909/2562847. E-mail: paribesh1@ospcbboard.org Website: www.ospcbboard.org



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E-mail: centrallab@ospcboard.org

TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/128/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :

(i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)	(ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)	(iii) Sub Group : Drinking water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
--	--	--
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits*		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW /283 Kishantola Panposh Basti Tap Water
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 rd Edn., 2017	Results <0.04
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 rd Edn., 2017	<1.8(Absent)
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 rd Edn., 2017	<1.8(Absent)

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
If Yes,

(a) Date of Sampling :	(b) Method Used* :
(c) Name of Sampler with Designation :	

-----End of Test Report-----

Nattarash
20/02/2024
Authorised Signatory
(Biological)
(Mrs. Nishiprava Pattanaik, AES)

Usharani
20.2.2024
Authorised Signatory
(Water/wastewater)
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

Niranjan Mallick
20/02/2024
Board Analyst
(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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TEL: 2564033/2563294 EPABX: 2561909/2562847. E-mail: paribesh@ospcboard.org Website: www.ospcboard.org



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STATE POLLUTION CONTROL BOARD, ODISHA

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E-mail: centrallab@ospboard.org



TEST REPORT

Page 1 of 1

1. ULR No. : TC12740240000021F
 2 (i). Report No. : OS/129/02/2024
 3 (i) Date : 20.02.2024
 4. Sample Submitted By : Sri A. Sahoo, JSA,
 (Name and address) Regional Office, SPCB, Odisha, Rourkela
 5. Reference Letter No. : 616 dt.13.02.2024
 6. Date of sample receipt : 13.02.2024
 7. Sample Description :

- 2(ii). Amendment No : ---
 3(ii) Amendment Date : ---

- (i) Discipline : Chemical Testing
 (Biological Testing,
 Chemical testing)
 (ii) Group : Water
 (Water/ Pollution and Environment
 / Atmospheric Pollution/ Soil and
 Hazardous Waste)
 (iii) Sub Group : Drinking water
 (Surface water/ Ground water/ Drinking
 water / Wastewater/ Effluent/ Ambient Air/
 Stack/ Soil and Hazardous Waste)

8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
 9. If uncertainty is desired by Customer : No
 10. Analysis Results :
 (Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/284
					18 MLD Intake Pump House at Panposh
					Results
1.	pH	6.5-8.5	No relaxation	4500-H* -B, APHA, 23 rd Edn., 2017	6.9
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 rd Edn., 2017	18.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 rd Edn., 2017	128.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 rd Edn., 2017	9.3
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 ^o C), mg/L	-	-	IS 3025: Part 44	1.1
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 rd Edn., 2017	7.8
7.	Nitrate as N (NO ₃ ⁻ -N), mg/L	-	-	4500 - NO ₃ ⁻ -E, APHA, 23 rd Edn., 2017	0.402
8.	Fluoride (F) mg/L	1.0	1.5	4500-F-C, APHA, 23 rd Edn., 2017	0.16

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
 If Yes,
 (a) Date of Sampling : (b) Method Used* :
 (c) Name of Sampler with Designation :

-----End of Test Report-----

Usharani Patnaik
20.2.2024
Authorized Signatory
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist) .

M. Niranjan Mallick
20/2/24
Board Analyst

(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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E-mail: centrallab@ospcbboard.org

TEST REPORT

Page 1 of 1

1. ULR No. : -----
2 (i). Report No. : OS/130/02/2024
3 (i) Date : 20.02.2024

- 2(ii). Amendment No : ---
3(ii) Amendment Date : ---

4. Sample Submitted By : Sri A. Sahoo, JSA,
(Name and address) Regional Office, SPCB, Odisha, Rourkela

5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024

7. Sample Description :

(i) Discipline : Chemical Testing
and Biological Testing
(Biological Testing,
Chemical testing)

(ii) Group : Water
(Water/ Pollution and Environment
/ Atmospheric Pollution/ Soil and
Hazardous Waste)

(iii) Sub Group : Drinking water
(Surface water/ Ground water/ Drinking
water / Wastewater/ Effluent/ Ambient Air/
Stack/ Soil and Hazardous Waste)

8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024

9. If uncertainty is desired by Customer : No

10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits*		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW /284
					18 MLD Intake Pump House at Panposh
					Results
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 rd Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 rd Edn., 2017	23
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 rd Edn., 2017	23

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
If Yes,
(a) Date of Sampling : (b) Method Used* :
(c) Name of Sampler with Designation :

-----End of Test Report-----

Nishprava
20/02/2024
Authorised Signatory
(Biological)
(Mrs. Nishprava Pattanaik, AES)

Usharani
20-2-2024
Authorised Signatory
(Water/wastewater)
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

Niranjan
Board Analyst
(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

- (i) The results stated above relate only to the items tested.
(ii) This report shall not be reproduced in-full or in part without written approval from the In-charge of the Central Laboratory.
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TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail: paribesh@ospcbboard.org, Website : www.ospcbboard.org



OSPCB/CNL/F0718

CENTRAL LABORATORY
STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
Bhubaneswar - 751 024

E-mail: centrallab@ospboard.org



TEST REPORT

Page 1 of 1

1. ULR No. : TC12740240000022F
 2 (i). Report No. : OS/131/02/2024
 3 (i) Date : 20.02.2024
 4. Sample Submitted By : Sri A. Sahoo, JSA,
(Name and address) Regional Office, SPCB, Odisha, Rourkela
 5. Reference Letter No. : 616 dt.13.02.2024
 6. Date of sample receipt : 13.02.2024
 7. Sample Description :

- (i) Discipline : Chemical Testing
(Biological Testing, Chemical testing)
 (ii) Group : Water
(Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
 (iii) Sub Group : Drinking water
(Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)

8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024

9. If uncertainty is desired by Customer : No

10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/285
					25 MLD Intake Pump House at Panposh
					Results
1.	pH	6.5-8.5	No relaxation	4500-H ⁻ -B, APHA, 23 rd Edn., 2017	6.8
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 rd Edn., 2017	17.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 rd Edn., 2017	112.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 rd Edn., 2017	9.0
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 ^o C), mg/L	-	-	IS 3025: Part 44	1.2
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 rd Edn., 2017	7.8
7.	Nitrate as N (NO ₃ ⁻ -N), mg/L	-	-	4500 - NO ₃ ⁻ -E, APHA, 23 rd Edn., 2017	0.305
8.	Fluoride (F ⁻) mg/L	1.0	1.5	4500-F-C, APHA, 23 rd Edn., 2017	0.15

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
 If Yes,

- (a) Date of Sampling : (b) Method Used* :
 (c) Name of Sampler with Designation :

-----End of Test Report-----

Usharani Patnaik
20.2.2024

Authorised Signatory
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

N. Mallick

Board Analyst
(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
Bhubaneswar - 751 024
E-mail: centrallab@ospboard.org

TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/132/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :

(i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)	(ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)	(iii) Sub Group : Drinking water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
--	--	--
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits*		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW /285
					25 MLD Intake Pump House at Panposh
					Results
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 rd Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 rd Edn., 2017	23
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 rd Edn., 2017	23

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
If Yes,
- (a) Date of Sampling :
- (b) Method Used* :
- (c) Name of Sampler with Designation :

-----End of Test Report-----

Pattanaik
20/02/2024
Authorised Signatory
(Biological)
(Mrs. Nishiprava Pattanaik, AES)

Usharani
20.2.2024
Authorised Signatory
(Water/wastewater)
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

N. Mallick
Board Analyst
(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : paribesh1@ospboard.org Website : www.ospboard.org



OSPCB/CNL/F0718

CENTRAL LABORATORY
STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
Bhubaneswar - 751 024

E-mail: centrallab@ospboard.org



TEST REPORT

Page 1 of 1

1. ULR No. : TC127402400000023F
2 (i). Report No. : OS/133/02/2024
3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
(i) Discipline : Chemical Testing
(Biological Testing, Chemical testing)
(ii) Group : Water
(Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
(iii) Sub Group : Drinking water
(Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/286
1.	pH	6.5-8.5	No relaxation	4500-H* -B, APHA, 23 rd Edn., 2017	43 MLD Supply Water at Panposh Results 7.1
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 rd Edn., 2017	13.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 rd Edn., 2017	180.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 rd Edn., 2017	9.1
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 ^o C), mg/L	-	-	IS 3025: Part 44	1.6
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 rd Edn., 2017	12.0
7.	Nitrate as N (NO ₃ ⁻ -N), mg/L	-	-	4500 - NO ₃ ⁻ -E, APHA, 23 rd Edn., 2017	0.307
8.	Fluoride (F ⁻) mg/L	1.0	1.5	4500-F-C, APHA, 23 rd Edn., 2017	0.15

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
If Yes,
(a) Date of Sampling : _____ (b) Method Used* : _____
(c) Name of Sampler with Designation : _____

-----End of Test Report-----

Usharani Patnaik
20.2.2024
Authorized Signatory
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

Niranjan Mallick
Board Analyst
(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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TEL: 2564033/2563294 EPABX : 2561909/2562847. E-mail: paribeshi@ospboard.org Website: www.ospboard.org



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Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
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E-mail: centrallab@ospcbboard.org

TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/134/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
 - (i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)
 - (ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
 - (iii) Sub Group : Drinking water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits*		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW /286
					43 MLD Supply Water at Panposh
					Results
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 rd Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 rd Edn., 2017	23
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 rd Edn., 2017	<1.8 (Absent)

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
If Yes,
- (a) Date of Sampling : (b) Method Used* :
- (c) Name of Sampler with Designation :

-----End of Test Report-----

A. Pattnaik
20/02/2024
Authorised Signatory
(Biological)
(Mrs. Nishprava Pattanaik, AES)

U. Pattnaik
20.2.2024
Authorised Signatory
(Water/wastewater)
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

M. Niranjan Mallick
20/2/24
Board Analyst
(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : paribesh1@ospcbboard.org Website : www.ospcbboard.org



CENTRAL LABORATORY
STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
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E-mail: centrallab@ospcbboard.org



TC-12740

TEST REPORT

Page 1 of 1

1. ULR No. : TC12740240000026F
 2 (i). Report No. : OS/139/02/2024
 3 (i) Date : 20.02.2024
 4. Sample Submitted By : Sri A. Sahoo, JSA,
 (Name and address) Regional Office, SPCB, Odisha, Rourkela
 5. Reference Letter No. : 616 dt.13.02.2024
 6. Date of sample receipt : 13.02.2024
 7. Sample Description :
 (i) Discipline : Chemical Testing
 (Biological Testing,
 Chemical testing)
 (ii) Group : Water
 (Water/ Pollution and Environment
 / Atmospheric Pollution/ Soil and
 Hazardous Waste)
 (iii) Sub Group : Surface water
 (Surface water/ Ground water/ Drinking
 water / Wastewater/ Effluent/ Ambient Air/
 Stack/ Soil and Hazardous Waste)
 8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
 9. If uncertainty is desired by Customer : No
 10. Analysis Results :
 (Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits * (IS : 2296-1982)	Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
				Others/ Feb - 24/SW/289 Vedvyas Water Intake of WATCO Plant Results
1.	pH	6.5-8.5	4500-H* -B, APHA, 23 rd Edn., 2017	7.1
2.	Total Suspended Solids (TSS), mg/L	-	2540 D, APHA, 23 rd Edn., 2017	20.0
3.	Total Dissolved Solids (TDS), mg/L	1500, max	2540 C, APHA, 23 rd Edn., 2017	124.0
4.	Dissolved Oxygen (DO), mg/L	4, min	4500-O-C, APHA, 23 rd Edn., 2017	9.5
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 ^o C), mg/L	3, max	IS 3025: Part 44	1.4
6.	Chemical Oxygen Demand (COD), mg/L	-	5220 B, APHA, 23 rd Edn., 2017	7.8
7.	Nitrate as N (NO ₃ ⁻ -N), mg/L	-	4500 - NO ₃ ⁻ -E, APHA, 23 rd Edn., 2017	0.389
8.	Fluoride (F) mg/L	1.5	4500-F-C, APHA, 23 rd Edn., 2017	0.17

* Tolerance limit for inland surface water subject to pollution (IS : 2296-1982), for Class 'C'
(Drinking source with conventional treatment and disinfection)

11. Deviation from Test Method, if any :
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
 If Yes,
 (a) Date of Sampling : _____ (b) Method Used* : _____
 (c) Name of Sampler with Designation : _____

-----End of Test Report-----

Usharani Patnaik
 20-2-2024
 Authorised Signatory
 (Water/wastewater)
 (Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

M. Niranjan Mallick
 20/2/24
 Board Analyst
 (Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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 TEL: 2564033/2563294 EPABX : 2561909/2562847. E-mail: paribesh1@ospcbboard.org; Website: www.ospcbboard.org



CENTRAL LABORATORY
STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
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OSPCB/CNL/F0718



TEST REPORT

Page 1 of 1

1. ULR No. : TC127402400000027F
- 2 (i). Report No. : OS/141/02/2024
- 3 (i) Date : 20.02.2024
- 2(ii). Amendment No : ---
- 3(ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Sahoo, JSA,
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
 - (i) Discipline : Chemical Testing
(Biological Testing,
Chemical testing)
 - (ii) Group : Water
(Water/ Pollution and Environment
/ Atmospheric Pollution/ Soil and
Hazardous Waste)
 - (iii) Sub Group : Drinking water
(Surface water/ Ground water/ Drinking
water / Wastewater/ Effluent/ Ambient Air/
Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/290
					Results
1.	pH	6.5-8.5	No relaxation	4500-H ⁺ -B, APHA, 23 rd Edn., 2017	7.1
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 rd Edn., 2017	11.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 rd Edn., 2017	132.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 rd Edn., 2017	8.6
5.	Biochemical Oxygen Demand (BOD, 3 days at 27° C), mg/L	-	-	IS 3025: Part 44	1.2
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 rd Edn., 2017	16.0
7.	Nitrate as N (NO ₃ ⁻ -N), mg/L	-	-	4500 - NO ₃ ⁻ -E, APHA, 23 rd Edn., 2017	0.328
8.	Fluoride (F) mg/L	1.0	1.5	4500-F-C, APHA, 23 rd Edn., 2017	0.16

* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
If Yes,
 - (a) Date of Sampling :
 - (b) Method Used* :
 - (c) Name of Sampler with Designation :

-----End of Test Report-----

Usharani Patnaik
20.2.2024
Authorised Signatory
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

Niranjan Mallick
20/2/24
Board Analyst
(Mr. Niranjan Mallick, Chief Env. Scientist)

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TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail: paribesh1@ospcbboard.org; Website : www.ospcbboard.org

