

**Environmental Monitoring Report
For
November -2025**

**Project: Balanda OCP
Area: Jagannath
Coalfield: Talcher**



Mahanadi Coalfields Limited



सीएमपीडीआई
मिनी प्लान
cmpdi
MINI PLANING

Central Mine Planning & Design Institute Ltd.
(A Subsidiary of Coal India Ltd.)

Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)
[Assistance from Environment Division, CMPDI(HQs), Ranchi]

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Test Report



सीएमपीडीआई
 CMPDI
 MAHARASHTRA

AMBIENT AIR QUALITY DATA

Area :

Jagannath

(Compliance Station)

Project :

Balanda OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO ₂	NO _x	CO <small>(mg/m³)</small>	Dust Generating Source(DGS)	Distance from DGS
01-Nov-25	Near NBVL Station (Reported)	280	159	64	15.62	25.05	-	CHP, CT Road	About 600m
21-Nov-25	Near NBVL Station (Reported)	305	186	78	19.58	28.36	-	CHP, CT Road	About 600m

Fattawalk
 Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Jagannath

MoEF Standards Notification dated 25th
 September, 2000

600	300		120	120	62/8 Hours)
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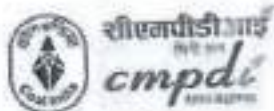


TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Jagannath

PROJECT :

Balanda OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
13-Nov-25	Near NBVL Station (Reported only)	65.3	55.6
27-Nov-25	Near NBVL Station (Reported only)	63.4	49.2

MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 75dB(A) (Industrial)	10.00 PM - 6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 55dB(A) (Residential)	10.00 PM - 6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 65dB(A) (Commercial)	10.00 PM - 6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM - 6.00 AM Leq 40dB(A) (Silence Zone)

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Drinking Water Quality Data Jagannath Area

Project / OCP	Balanda OCP	Indian Drinking Standards (IS-10500):2012	
		Acceptable	Permissible
Monitoring Station	Balanda Colony (Reported Only)		
Date of Sampling	15-Nov-2025		
Colour(Hazen)	3	5	15
Odour	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	1	5
pH	7.65	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	54.62	200	600
Chloride(mg/L)	25.25	250	1000
Sulphate(mg/L)	120.78	200	400
Nitrate(mg/L)	3.50	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	149.03	200	600
Calcium(mg/L)	42.44	75	200
Fluoride(mg/L)	0.56	1	1.5
Total Dissolve Solid(mg/L)	260	500	2000
Copper(mg/L)	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	0.1	0.3
Iron(mg/L)	<0.1	1.0	No relaxation
Zinc(mg/L)	0.05	5	15
Lead(mg/L)	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	0.5	2.4

Jasanti

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निगी प्लन
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Drinking Water Quality Data Jagannath Area

Project / OCP	Balanda OCP	Indian Drinking Standards (IS-10500):2012	
	Balanda Colony (Reported Only)	Acceptable	Permissible
Monitoring Station			
Date of Sampling	15-Nov-2025		
Selenium(mg/L)	<0.005	0.01	No relaxation
Sodium(mg/L)	16.46		
Potassium(mg/L)	7.26		
Phenolics(mg/L)	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	-	-

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farrukh

**Environmental Monitoring Report
For
November -2025**

**Project: Jagannath OCP
Area: Jagannath
Coalfield: Talcher**



Mahanadi Coalfields Limited



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Mini Ratna

Central Mine Planning & Design Institute Ltd.
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Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)
[Assistance from Environment Division, CMPDI(HQs), Ranchi]

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Test Report


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 CMPDI
 RI-VII

AMBIENT AIR QUALITY DATA

Area :

Jagannath

(Compliance Station)

Project :

Jagannath OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO ₂	NO _x	CO (mg/m ³)	Dust Generating Source(DGS)	Distance from DGS
01-Nov-25	Near MDTP	263	142	58	11.26	21.37	-	Railway Siding CHP	About 800m
01-Nov-25	Near NBVL Station	280	159	64	15.62	25.05	-	CHP, CT Road	About 600m
21-Nov-25	Near MDTP	299	163	73	20.17	29.33	-	Railway Siding CHP	About 800m
21-Nov-25	Near NBVL Station	305	186	78	19.58	28.36	-	CHP, CT Road	About 600m


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 CMPDI, RI-VII, LAB
 BHUBANESWAR


 Jagannath

MoEF Standards Notification dated 23rd September, 2009	500	250		120	120	02/8 Hours
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Test Report



सीएमपीडीआई
CMPDI
भुवनेश्वर

AMBIENT AIR QUALITY DATA

Area :

Jagannath

(Reference Station)

Project :

Jagannath OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
05-Nov-25	CWS Colony, Meeti	214	89	42	13.81	25.05	Mining Activity	About 1500 m
05-Nov-25	Kurihan Village	219	83	46	18.65	37.82	Mining Activities	About 500m
05-Nov-25	Central Nursery (Reported Only)	190	75	35	11.63	26.52	Open-Cast Mine	Less than 500m
06-Nov-25	Central Nursery (Reported Only)	182	70	33	15.59	24.31	Open-Cast Mine	Less than 500m
06-Nov-25	CWS Colony, Meeti	196	79	41	13.81	29.47	Mining Activity	About 1500 m
06-Nov-25	Kurihan Village	201	75	34	15.57	32.42	Mining Activities	About 500m
12-Nov-25	Kurihan Village	180	79	38	13.46	34.12	Mining Activities	About 500m
12-Nov-25	Central Nursery (Reported Only)	226	86	44	19.77	21.33	Open-Cast Mine	Less than 500m
12-Nov-25	CWS Colony, Meeti	231	91	45	15.62	36.10	Mining Activity	About 1500 m
13-Nov-25	Central Nursery (Reported Only)	174	71	38	12.18	25.47	Open-Cast Mine	Less than 500m
13-Nov-25	CWS Colony, Meeti	213	87	40	10.17	18.42	Mining Activity	About 1500 m
13-Nov-25	Kurihan Village	186	76	41	18.89	23.58	Mining Activities	About 500m
19-Nov-25	CWS Colony, Meeti	219	81	43	16.79	22.69	Mining Activity	About 1500 m
19-Nov-25	Kurihan Village	213	77	41	12.56	25.47	Mining Activities	About 500m
19-Nov-25	Central Nursery (Reported Only)	216	79	41	9.45	16.95	Open-Cast Mine	Less than 500m
20-Nov-25	Central Nursery (Reported Only)	185	73	38	13.81	22.84	Open-Cast Mine	Less than 500m
20-Nov-25	CWS Colony, Meeti	176	68	37	14.39	23.50	Mining Activity	About 1500 m
20-Nov-25	Kurihan Village	246	82	44	9.14	20.07	Mining Activities	About 500m
26-Nov-25	Central Nursery (Reported Only)	230	90	46	9.81	31.68	Open-Cast Mine	Less than 500m
26-Nov-25	CWS Colony, Meeti	210	79	41	15.62	24.31	Mining Activity	About 1500 m
26-Nov-25	Kurihan Village	206	74	40	12.88	22.51	Mining Activities	About 500m
27-Nov-25	Kurihan Village	214	77	41	19.98	27.55	Mining Activities	About 500m
27-Nov-25	Central Nursery (Reported Only)	167	74	36	18.89	32.42	Open-Cast Mine	Less than 500m
27-Nov-25	CWS Colony, Meeti	245	93	46	12.56	19.30	Mining Activity	About 1500 m

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Jamali

*NAAQS, 2009

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Test Report

AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area :

Jagannath

Project :

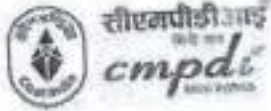
Jagannath OCP

Date of Sampling	Monitoring Station	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo(a)Pyrene	Benzene
		(µg/m ³)	(µg/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)
05-Nov-25	CWS Colony, Meeti	<20.0	24.85	<0.1	<1.0	<1.0	0.8	BQL(QL)=0.7)	BQL
05-Nov-25	Kurihan Village	<20.0	22.33	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
05-Nov-25	Central Nursery (Reported Only)	<20.0	22.79	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7)	BQL
06-Nov-25	Central Nursery (Reported Only)	<20.0	19.82	<0.1	<1.0	<1.0	0.7	BQL(QL)=0.7)	BQL
06-Nov-25	CWS Colony, Meeti	<20.0	17.93	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
06-Nov-25	Kurihan Village	<20.0	18.57	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
12-Nov-25	Kurihan Village	<20.0	20.77	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
12-Nov-25	Central Nursery (Reported Only)	<20.0	26.43	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
12-Nov-25	CWS Colony, Meeti	<20.0	13.53	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7)	BQL
13-Nov-25	Central Nursery (Reported Only)	<20.0	21.08	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
13-Nov-25	CWS Colony, Meeti	<20.0	17.62	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
13-Nov-25	Kurihan Village	<20.0	17.93	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7)	BQL
19-Nov-25	CWS Colony, Meeti	<20.0	21.72	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7)	BQL
19-Nov-25	Kurihan Village	<20.0	25.17	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
19-Nov-25	Central Nursery (Reported Only)	<20.0	18.88	<0.1	<1.0	<1.0	0.8	BQL(QL)=0.7)	BQL
20-Nov-25	Central Nursery (Reported Only)	<20.0	28.00	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
20-Nov-25	CWS Colony, Meeti	<20.0	22.65	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7)	BQL
20-Nov-25	Kurihan Village	<20.0	15.10	<0.1	<1.0	<1.0	0.8	BQL(QL)=0.7)	BQL
26-Nov-25	Central Nursery (Reported Only)	<20.0	25.80	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
26-Nov-25	CWS Colony, Meeti	<20.0	22.97	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
26-Nov-25	Kurihan Village	<20.0	20.13	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7)	BQL
27-Nov-25	Kurihan Village	<20.0	26.43	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7)	BQL
27-Nov-25	Central Nursery (Reported Only)	<20.0	24.85	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7)	BQL
27-Nov-25	CWS Colony, Meeti	<20.0	23.92	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL

Standard	400(24hrs)	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)	04(1hours)	01(annual)	05(annual)
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Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

[Signature]

**TABLE--****NOISE LEVEL MONITORING DATA**

AREA :

Jagannath

PROJECT :

Jagannath OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
13-Nov-25	Near NBVL Station	65.3	55.6
13-Nov-25	Near MDTP	63.1	53.7
13-Nov-25	CWS Colony, MEETI	48.3	41.3
13-Nov-25	Central Nursery (Reported only)	61.3	52.3
27-Nov-25	Near NBVL Station	63.4	49.2
27-Nov-25	Near MDTP	66.2	50.8
27-Nov-25	CWS Colony, MEETI	48.7	36.9
27-Nov-25	Central Nursery (Reported only)	61.4	47.7

MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 75dB(A) (Industrial)	10.00 PM -6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 55dB(A) (Residential)	10.00 PM -6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 65dB(A) (Commercial)	10.00 PM -6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM -6.00 AM Leq 40dB(A) (Silence Zone)


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BHUBANESWAR



EFFLUENT QUALITY DATA

Area :

Jagannath

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Jagannath OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	MPN/100mL
15-Nov-25	Face Sump	3.52	<4.0	18	20	-	
15-Nov-25	O & G Trap Inlet	7.77	<4.0	34	32	-	
15-Nov-25	O & G Trap Outlet	7.91	<4.0	22	12	-	
29-Nov-25	O & G Trap Inlet	6.57	<4.0	42	40	-	
29-Nov-25	O & G Trap Outlet	6.82	<4.0	30	20	-	


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G.S.R. 1265(E) Effluent discharge standards (applicable to all mode of disposal), Sewage Treatment Plants (STPs)

6.5-9.0

-

<100

-

30

<1000



EFFLUENT QUALITY DATA

Area :

Jagannath

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Jagannath OCP1

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	MPN/100mL
15-Nov-25	STP INLET	7.81	-	30	-	3.5	170
15-Nov-25	STP OUTLET	7.65	-	22	-	2.6	120
29-Nov-25	STP INLET	6.79	-	32	-	4.3	170
29-Nov-25	STP OUTLET	6.81	-	18	-	3.1	150


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G.S.R. 1265(E) Effluent discharge standards (applicable to all mode of disposal), Sewage Treatment Plants (STPs)

6.5-9.0 - <100 - 30 <1000



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Drinking Water Quality Data Jagannath Area

Project / OCP	Jagannath OCP			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Jagannath Colony	Rakas Village Well Water	Balanda Colony	Acceptable
Date of Sampling	15-Nov-2025	15-Nov-2025	15-Nov-2025	5	15
Colour(Hazen)	4	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	2	2	1	5
pH	7.93	7.72	7.65	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	96.64	88.24	54.62	200	600
Chloride(mg/L)	23.31	19.43	25.25	250	1000
Sulphate(mg/L)	145.60	105.74	120.78	200	400
Nitrate(mg/L)	5.46	0.65	3.50	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	196.10	137.27	149.03	200	600
Calcium(mg/L)	59.73	39.30	42.44	75	200
Fluoride(mg/L)	0.63	0.45	0.56	1	1.5
Total Dissolve Solid(mg/L)	321	243	260	500	2000
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.12	<0.04	<0.04	0.1	0.3
Iron(mg/L)	<0.1	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	<0.04	<0.04	0.05	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	2.4

Tatavak
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BHUBANESWAR

Jasmati



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Mini Ratna

Drinking Water Quality Data Jagannath Area

Project / OCP	Jagannath OCP			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Jagannath Colony	Rakas Village Well Water	Balanda Colony	
Date of Sampling	15-Nov-2025	15-Nov-2025	15-Nov-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	10.26	9.56	16.46		
Potassium(mg/L)	6.30	5.32	7.26		
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	Not Detected	-	-

K. K. K. K.
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Jasmati



Kurihan village

Jagannath OCP

Legend
Wardong Station

Near MDTP

Central Nursery

Near NBVL Station

SWS Colony, MEETI

Google Earth

**Environmental Monitoring Report
For
November -2025**

**Project: Ananta OCP
Area: Jagannath
Coalfield: Talcher**



Mahanadi Coalfields Limited



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मिनी रॉल
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Mini Rolna

Central Mine Planning & Design Institute Ltd.
(A Subsidiary of Coal India Ltd.)

Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)
[Assistance from Environment Division, CMPDI(HQs), Ranchi]

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Test Report



सौरभपीडीआई
MOEF
CMPDI
भुवनेश्वर

AMBIENT AIR QUALITY DATA

Area :

Jagannath

(Compliance Station)

Project :

Ananta OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	CO (mg/m ³)	Dust Generating Source(DGS)	Distance from DGS
01-Nov-25	North East of Mine	251	157	64	19.03	20.07	0.9	Open-Cast Mine	Less than 500m
01-Nov-25	Near NBVL Station (Reported)	280	159	64	15.62	25.05	-	CHP, CT Road	About 600m
21-Nov-25	North East of Mine	297	142	68	17.80	22.84	0.8	Open-Cast Mine	Less than 500m
21-Nov-25	Near NBVL Station (Reported)	305	186	78	19.58	28.36	-	CHP, CT Road	About 600m

K. Talwar
Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESHWAR

Janaki

MoEF Standards Notification dated 25th
September, 2000

000	250		120	120	02(8 Hours)
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Test Report



AMBIENT AIR QUALITY DATA

Area :

Jagannath

(Reference Station)

Project :

Ananta OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PMT10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
05-Nov-25	Guthasahi Village	241	90	43	13.32	24.70	Mining Activities	About 3km
05-Nov-25	Asanabahali Village	232	84	45	15.61	37.05	Domestic and Mining Activities	About 4km
05-Nov-25	Sibarampur Village	217	75	40	11.99	23.58	Domestic and Mining Activities	About 4km
05-Nov-25	Central Nursery	190	75	35	11.63	26.52	Open-Cast Mine	Less than 500m
06-Nov-25	Sibarampur Village	227	79	43	17.99	30.80	Domestic and Mining Activities	About 4km
06-Nov-25	Guthasahi Village	170	74	31	13.46	37.54	Mining Activities	About 3km
06-Nov-25	Central Nursery	182	70	33	15.59	24.31	Open-Cast Mine	Less than 500m
06-Nov-25	Asanabahali Village	208	91	40	12.56	29.33	Domestic and Mining Activities	About 4km
12-Nov-25	Central Nursery	226	86	44	19.77	21.33	Open-Cast Mine	Less than 500m
12-Nov-25	Sibarampur Village	240	86	48	18.27	19.30	Domestic and Mining Activities	About 4km
12-Nov-25	Guthasahi Village	208	82	37	13.44	28.73	Mining Activities	About 3km
12-Nov-25	Asanabahali Village	195	79	41	20.78	33.23	Domestic and Mining Activities	About 4km
13-Nov-25	Sibarampur Village	235	81	39	13.19	20.26	Domestic and Mining Activities	About 4km
13-Nov-25	Guthasahi Village	180	69	34	14.90	21.37	Mining Activities	About 3km
13-Nov-25	Asanabahali Village	200	81	34	10.17	28.00	Domestic and Mining Activities	About 4km
13-Nov-25	Central Nursery	174	71	38	12.18	25.47	Open-Cast Mine	Less than 500m
19-Nov-25	Guthasahi Village	241	85	47	19.54	34.22	Mining Activities	About 3km
19-Nov-25	Sibarampur Village	166	67	35	11.59	27.55	Domestic and Mining Activities	About 4km
19-Nov-25	Asanabahali Village	215	84	44	15.99	25.59	Domestic and Mining Activities	About 4km
19-Nov-25	Central Nursery	216	79	41	9.45	16.95	Open-Cast Mine	Less than 500m
20-Nov-25	Sibarampur Village	193	70	38	15.61	20.84	Domestic and Mining Activities	About 4km
20-Nov-25	Guthasahi Village	183	63	34	17.19	39.71	Mining Activities	About 3km
20-Nov-25	Central Nursery	185	73	38	13.81	22.84	Open-Cast Mine	Less than 500m
20-Nov-25	Asanabahali Village	202	78	40	11.63	32.42	Domestic and Mining Activities	About 4km
26-Nov-25	Central Nursery	230	90	46	9.81	31.68	Open-Cast Mine	Less than 500m

*N44QS,2009

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Authorized Signatory
CMPDI, RI-VII, LAP 5
BILGAWSWAR.

Jagannath

Project :

Ananta OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
26-Nov-25	Guthasahi Village	195	74	39	16.83	38.39	Mining Activities	About 3km
26-Nov-25	Asanabahali Village	178	63	34	15.15	34.12	Domestic and Mining Activities	About 4km
26-Nov-25	Sibarampur Village	220	78	41	17.59	25.12	Domestic and Mining Activities	About 4km
27-Nov-25	Sibarampur Village	257	90	45	18.17	25.79	Domestic and Mining Activities	About 4km
27-Nov-25	Asanabahali Village	194	75	39	13.19	28.36	Domestic and Mining Activities	About 4km
27-Nov-25	Guthasahi Village	246	88	49	17.89	27.01	Mining Activities	About 3km
27-Nov-25	Central Nursery	167	74	36	18.89	32.42	Open-Cast Mine	Less than 500m

T. Jeyanath
Authorized Signatory
CMPDI, RI-VII, LAB²
BHUBANESWAR

Jasmit

*NAAQS, 2009		100	60	80	80
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Test Report



AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area :

Jagannath

Project :

Ananta OCP

Date of Sampling	Monitoring Station	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo(a)Pyrene	Benzene
		(µg/m ³)	(µg/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(µg/m ³)	(µg/m ³)
05-Nov-25	Asanabahali Village	<20.0	14.47	<0.1	<1.0	<1.0	0.7	BQL(QL)=0.7	BQL
05-Nov-25	Central Nursery	<20.0	22.79	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7	BQL
05-Nov-25	Sibarampur Village	<20.0	22.97	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7	BQL
05-Nov-25	Guthasahi Village	<20.0	23.28	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7	BQL
06-Nov-25	Guthasahi Village	<20.0	26.43	<0.1	<1.0	<1.0	0.8	BQL(QL)=0.7	BQL
06-Nov-25	Sibarampur Village	<20.0	19.50	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
06-Nov-25	Asanabahali Village	<20.0	24.23	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
06-Nov-25	Central Nursery	<20.0	19.82	<0.1	<1.0	<1.0	0.7	BQL(QL)=0.7	BQL
12-Nov-25	Sibarampur Village	<20.0	18.88	<0.1	<1.0	<1.0	0.8	BQL(QL)=0.7	BQL
12-Nov-25	Guthasahi Village	<20.0	14.47	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
12-Nov-25	Central Nursery	<20.0	26.43	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7	BQL
12-Nov-25	Asanabahali Village	<20.0	13.22	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7	BQL
13-Nov-25	Central Nursery	<20.0	21.08	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7	BQL
13-Nov-25	Asanabahali Village	<20.0	15.73	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7	BQL
13-Nov-25	Guthasahi Village	<20.0	19.20	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7	BQL
13-Nov-25	Sibarampur Village	<20.0	26.43	<0.1	<1.0	<1.0	0.8	BQL(QL)=0.7	BQL
19-Nov-25	Central Nursery	<20.0	18.88	<0.1	<1.0	<1.0	0.8	BQL(QL)=0.7	BQL
19-Nov-25	Sibarampur Village	<20.0	13.53	<0.1	<1.0	<1.0	0.7	BQL(QL)=0.7	BQL
19-Nov-25	Asanabahali Village	<20.0	24.55	<0.1	<1.0	<1.0	0.7	BQL(QL)=0.7	BQL
19-Nov-25	Guthasahi Village	<20.0	15.10	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
20-Nov-25	Guthasahi Village	<20.0	13.85	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7	BQL
20-Nov-25	Central Nursery	<20.0	28.00	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
20-Nov-25	Sibarampur Village	<20.0	22.65	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7	BQL
20-Nov-25	Asanabahali Village	<20.0	27.07	<0.1	<1.0	<1.0	0.8	BQL(QL)=0.7	BQL

Standard	400(24 hours)	180(hours)	1.0(24 hours)	6.0(Annual)	20(Annual)	0.2(8 hours)	01(annual)	05(annual)
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Authorised Signatory
CMPDI, RI-VII, LAE
GURDANG SINGH

Jagannath

Project :

Ananta OCP

Date of Sampling	Monitoring Station	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo(a)Pyrene	Benzene
		(µg/m ³)	(µg/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)
26-Nov-25	Asanabahali Village	<20.0	15.10	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
26-Nov-25	Central Nursery	<20.0	25.80	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
26-Nov-25	Guthasahi Village	<20.0	13.53	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
26-Nov-25	Sibarampur Village	<20.0	27.07	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
27-Nov-25	Central Nursery	<20.0	24.85	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7)	BQL
27-Nov-25	Guthasahi Village	<20.0	21.72	<0.1	<1.0	<1.0	0.8	BQL(QL)=0.7)	BQL
27-Nov-25	Sibarampur Village	<20.0	26.43	<0.1	<1.0	<1.0	0.7	BQL(QL)=0.7)	BQL
27-Nov-25	Asanabahali Village	<20.0	13.53	<0.1	<1.0	<1.0	0.8	BQL(QL)=0.7)	BQL

Jatavali
Authorized Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Jamali

Standard	400(24 hours)	180(hourly)	1.0(24 hours)	6.0(Annual)	20(Annual)	04(1 hours)	01(annual)	05(annual)
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सीएमपीडीआई
CMPDI
भारत सरकार

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Jagannath

PROJECT :

Ananta OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
13-Nov-25	Near NBVL Station (Reported only)	65.3	55.6
13-Nov-25	North East of the Mine	66.7	57.8
13-Nov-25	Guthasahi Village	47.8	39.7
13-Nov-25	Central Nursery	61.3	52.3
27-Nov-25	Near NBVL Station (Reported only)	63.4	49.2
27-Nov-25	North East of the Mine	65.8	52.3
27-Nov-25	Guthasahi Village	48.1	36.2
27-Nov-25	Central Nursery	61.4	47.7

MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 75dB(A) (Industrial)	10.00 PM -6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 55dB(A) (Residential)	10.00 PM -6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 65dB(A) (Commercial)	10.00 PM -6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM -6.00 AM Leq 40dB(A) (Silence Zone)

J. K. Saini
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Jagannath


EFFLUENT QUALITY DATA

Area :

Jagannath

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Ananta OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
15-Nov-25	Mine Sump Water	7.53	<4.0	24	20	-	
15-Nov-25	O & G Trap Inlet	7.80	<4.0	22	24	-	
15-Nov-25	O & G Trap Outlet	7.09	<4.0	16	12	-	
29-Nov-25	O & G Trap Inlet	6.66	<4.0	26	36	-	
29-Nov-25	O & G Trap Outlet	6.74	<4.0	20	16	-	

 Fathawati
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 CMPDI, RI-VII, LAE

Jannati

 MoEF Standard Notification dated 25th September, 2000
 and MoEF Schedule VI, General standard for discharge
 of Environmental Pollutants Part A: Effluents

5.5-9.0	10	100	250	30
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EFFLUENT QUALITY DATA

Area :

Jagannath

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Ananta OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	MPN/100mL
15-Nov-25	STP INLET	7.50	-	36	-	4.2	210
15-Nov-25	STP OUTLET	7.60	-	34	-	3.4	150
29-Nov-25	STP INLET	8.47	-	30	-	4.0	140
29-Nov-25	STP OUTLET	6.18	-	26	-	2.8	110

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Jagannath

G.S.R. 1265(E) Effluent discharge standards (applicable to all mode of disposal), Sewage Treatment Plants (STPs)

6.5-9.0	-	<100	-	30	<1000
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मिनी लैब
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Mini Lab

Drinking Water Quality Data Jagannath Area

Project / OCP	Ananta OCP		Indian Drinking Standards (IS-10500):2012	
	Ananta Colony	Dera Village Tube Well Water		
Monitoring Station				
Date of Sampling	15-Nov-2025	15-Nov-2025	Acceptable	Permissible
Colour(Hazen)	1	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	4	1	5
pH	7.82	7.43	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	63.03	96.64	200	600
Chloride(mg/L)	13.60	46.63	250	1000
Sulphate(mg/L)	52.56	68.32	200	400
Nitrate(mg/L)	<0.5	22.34	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	62.75	149.03	200	600
Calcium(mg/L)	15.72	48.73	75	200
Fluoride(mg/L)	0.32	0.70	1	1.5
Total Dissolve Solid(mg/L)	140	298	500	2000
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	0.1	0.3
Iron(mg/L)	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	<0.04	0.05	5	15
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	0.5	2.4

Katouail
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Jasmat



सीएमपीडीआई
मिनी रातन
cmpdi
Mini Ratna

Drinking Water Quality Data Jagannath Area

Project / OCP	Ananta OCP		Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Ananta Colony		
Date of Sampling	15-Nov-2025	15-Nov-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	10.67	12.56	-	-
Potassium(mg/L)	2.87	6.36	-	-
Phenolics(mg/L)	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	-	-

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Jasmati

Ananta OCP

Legend
Monitoring Station

Sibarampur Village

Asanabahali Village

North East of Mige

Guthasahi Village

Central Nursery Near NBVL Station

Google Earth



**Environmental Monitoring Report
For
November -2025**

**Project: Bhubaneswari OCP
Area: Bhubaneswari
Coalfield: Talcher**



Mahanadi Coalfields Limited



सीएमपीडीआई
मिनी रातन
cmpdi
Mini Ratna

Central Mine Planning & Design Institute Ltd.
(A Subsidiary of Coal India Ltd.)

Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)
[Assistance from Environment Division, CMPDI(HQs), Ranchi]

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Test Report

AMBIENT AIR QUALITY DATA



Area :

Bhubaneswari

(Compliance Station)

Project :

Bhubaneswari OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	CO (mg/m^3)	Dust Generating Source(DGS)	Distance from DGS
01-Nov-25	B.C.M.L. Workshop	274	147	62	12.88	25.21	-	Mining activities, O.B Dump yard	About 400 to 500m
01-Nov-25	Silo Substation Office	278	172	67	15.26	19.16	-	Mining Activities	About 200m
21-Nov-25	B.C.M.L. Workshop	275	133	64	18.78	36.47	-	Mining activities, O.B Dump yard	About 400 to 500m
21-Nov-25	Silo Substation Office	303	166	74	10.17	25.79	-	Mining Activities	About 200m

Jattarain
 Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Jattarain

MoEF Standards Notification dated 25th September, 2000	600	300		120	150	03/08 Hours)
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AMBIENT AIR QUALITY DATA

Area :

Bhubaneswari

(Reference Station)

Project :

Bhubaneswari OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
05-Nov-25	Naraharipur Village	212	83	45	15.62	33.15	Mining Activity	About 1km
05-Nov-25	Kandhal Village (Reported Only)	178	74	36	13.59	39.71	Transportation	About 1500m
06-Nov-25	Kandhal Village (Reported Only)	196	83	42	15.15	23.89	Transportation	About 1500m
06-Nov-25	Naraharipur Village	197	82	38	13.19	31.61	Mining Activity	About 1km
12-Nov-25	Naraharipur Village	216	78	42	14.85	37.05	Mining Activity	About 1km
12-Nov-25	Kandhal Village (Reported Only)	187	84	40	10.79	38.09	Transportation	About 1500m
13-Nov-25	Kandhal Village (Reported Only)	180	77	38	12.62	23.03	Transportation	About 1500m
13-Nov-25	Naraharipur Village	188	71	37	14.79	40.52	Mining Activity	About 1km
19-Nov-25	Naraharipur Village	156	68	33	21.04	32.42	Mining Activity	About 1km
19-Nov-25	Kandhal Village (Reported Only)	178	68	37	9.19	30.80	Transportation	About 1500m
20-Nov-25	Kandhal Village (Reported Only)	230	90	44	15.54	41.42	Transportation	About 1500m
20-Nov-25	Naraharipur Village	265	90	46	12.18	30.10	Mining Activity	About 1km
26-Nov-25	Naraharipur Village	189	73	38	13.70	18.52	Mining Activity	About 1km
26-Nov-25	Kandhal Village (Reported Only)	247	92	49	19.35	29.00	Transportation	About 1500m
27-Nov-25	Kandhal Village (Reported Only)	223	83	42	17.67	43.51	Transportation	About 1500m
27-Nov-25	Naraharipur Village	216	77	41	8.75	27.01	Mining Activity	About 1km


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 CMPDI, RI-VII, LAB
 BHUBANESWAR



Test Report


AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area :

Bhubaneswari

Project :

Bhubaneswari OCP

Date of Sampling	Monitoring Station	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo(a)Pyrene	Benzene
		(µg/m ³)	(µg/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)
05-Nov-25	Naraharipur Village	<20.0	16.05	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7	BQL
05-Nov-25	Kandhal Village (Reported Only)	<20.0	19.82	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7	BQL
06-Nov-25	Naraharipur Village	<20.0	15.10	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7	BQL
06-Nov-25	Kandhal Village (Reported Only)	<20.0	15.10	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7	BQL
12-Nov-25	Naraharipur Village	<20.0	27.07	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7	BQL
12-Nov-25	Kandhal Village (Reported Only)	<20.0	26.75	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7	BQL
13-Nov-25	Naraharipur Village	<20.0	22.33	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7	BQL
13-Nov-25	Kandhal Village (Reported Only)	<20.0	15.10	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7	BQL
19-Nov-25	Naraharipur Village	<20.0	14.17	<0.1	<1.0	<1.0	1.8	BQL(QL)=0.7	BQL
20-Nov-25	Naraharipur Village	<20.0	27.37	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7	BQL
26-Nov-25	Naraharipur Village	<20.0	15.10	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7	BQL
27-Nov-25	Naraharipur Village	<20.0	21.08	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7	BQL

Intanik
Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Janat

Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(3 hours)	01(annual)	05(annual)
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सीएमपीडीआई
RI-VII, LAB
BHUANESWAR

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Bhubaneswari

PROJECT :

Bhubaneswari OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
13-Nov-25	Kandhal Village (Reported)	47.3	39.7
13-Nov-25	Naraharipur Village	48.7	40.3
13-Nov-25	Silo Substaion Office	67.8	58.7
13-Nov-25	BCML Workshop	70.9	60.9
27-Nov-25	Kandhal Village (Reported)	50.2	35.9
27-Nov-25	Naraharipur Village	44.8	37.1
27-Nov-25	Silo Substaion Office	68.6	55.1
27-Nov-25	BCML Workshop	69.5	54.3

MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 75dB(A) (Industrial)	10.00 PM - 6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 55dB(A) (Residential)	10.00 PM - 6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 65dB(A) (Commercial)	10.00 PM - 6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM - 6.00 AM Leq 40dB(A) (Silence Zone)

J. Pattanayak
Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

J. Pattanayak

EFFLUENT QUALITY DATA

Area :

Bhubaneswar

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Bhubaneswar OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
15-Nov-25	Mine Sump Water	7.53	<4.0	18	24	-	
15-Nov-25	O & G Trap Inlet	6.88	<4.0	28	32	-	
15-Nov-25	O & G Trap Outlet	6.32	<4.0	26	20	-	
29-Nov-25	O & G Trap Inlet	6.44	<4.0	38	44	-	
29-Nov-25	O & G Trap Outlet	6.45	<4.0	30	24	-	

J. Pattnaik
 Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

J. Pattnaik

MoEF Standard Notification dated 25th September, 2000
 and MoEF Schedule VI, General standard for discharge
 of Environmental Pollutants Part A: Effluents

5.5-9.0	10	100	250	30
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सीएमपीडीआई
रि-वी
cmpdi
Mini Ratna

Drinking Water Quality Data Bhubaneswari Area

Project / OCP	Bhubaneswari OCP			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Workshop BCML	Deulbera Office, BCML		
Date of Sampling	15-Nov-2025	15-Nov-2025	15-Nov-2025	Acceptable	Permissible
Colour(Hazen)	3	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	4	4	1	5
pH	7.82	7.89	7.66	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	126.06	147.07	92.44	200	600
Chloride(mg/L)	42.74	29.14	29.14	250	1000
Sulphate(mg/L)	125.36	175.88	44.58	200	400
Nitrate(mg/L)	10.35	12.89	2.36	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	294.15	352.98	117.66	200	600
Calcium(mg/L)	64.45	59.73	31.44	75	200
Fluoride(mg/L)	0.78	0.65	0.36	1	1.5
Total Dissolve Solid(mg/L)	401	469	189	500	2000
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	0.15	<0.04	0.1	0.3
Iron(mg/L)	<0.1	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	0.05	<0.04	0.11	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	2.4

Signature
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Signature



सीएमपीडीआई
मिनी रोल
cmpdi
Mini Roll

Drinking Water Quality Data Bhubaneswari Area

Project / OCP	Bhubaneswari OCP			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Workshop BCML	Deulbera Office, BCML	Time Office BBSRI,OCP	
Date of Sampling	15-Nov-2025	15-Nov-2025	15-Nov-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	7.98	6.82	10.23		
Potassium(mg/L)	4.25	2.56	5.31		
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	Not Detected		

Jitendra
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Jaswant

Bhubaneswar OCP

Legend
Air Monitoring Locations



Naraharipur Village

Kandhal Village

BCML Workshop

Silo Sub Station Office

Google Earth

**Environmental Monitoring Report
For
November -2025**

**Project: Bharatpur OCP
Area: Bharatpur
Coalfield: Talcher**



Mahanadi Coalfields Limited



**सीएमपीडीआई
मिनी प्लान
cmpdi
Mini Ratna**

Central Mine Planning & Design Institute Ltd.
(A Subsidiary of Coal India Ltd.)

Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)
[Assistance from Environment Division, CMPDI(HQs), Ranchi]

The test report shall not be reproduced in part or full without written approval of the competent authority

Test Report



AMBIENT AIR QUALITY DATA

Area :

Bharatpur

(Compliance Station)

Project :

Bharatpur OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	CO (ppm)	Dust Generating Source(DGS)	Distance from DGS
01-Nov-25	Near Regional Store	283	166	67	16.75	19.30	-	Mining Activities	About 500m
01-Nov-25	North-West Point of the Mine	244	152	60	17.19	22.69	-	Domestic & Mining Activities	About 500m
01-Nov-25	Near ETP/Workshop	272	156	68	18.78	36.47	-	Mining Activities & Coal Stock	Above 500m
21-Nov-25	Near Regional Store	306	171	78	9.59	21.88	-	Mining Activities	About 500m
21-Nov-25	North-West Point of the Mine	295	125	66	10.79	30.80	-	Domestic & Mining Activities	About 500m
21-Nov-25	Near ETP/Workshop	217	167	71	15.62	33.89	-	Mining Activities & Coal Stock	Above 500m

T. Tharank
 Authorised Signatory
 CMPOI, RI-VII, LAB
 BHUBANESWAR

J. Sankar

MoEF Standards Notification dated 25th September, 2000	600	300		120	120	02/08 Hours)
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AMBIENT AIR QUALITY DATA

Area :

Bharatpur

(Reference Station)

Project :

Bharatpur OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
03-Nov-25	East of the Mine, Natedi Village (Reported Only)	205	74	33	18.65	27.01	Coal Transportation Road	About 2km
04-Nov-25	East of the Mine, Natedi Village (Reported Only)	178	79	38	12.39	25.93	Coal Transportation Road	About 2km
05-Nov-25	Kalinga Colony	185	65	31	11.99	36.10	Mining allied activities	About 500m
05-Nov-25	Karnapur Village	234	79	48	14.90	29.47	Anthropogenic Activities, Local	About 2km
05-Nov-25	Near Joragdia Village	195	67	38	18.27	23.93	Transportation, Domestic Cooking	About 1km
05-Nov-25	Khajuria Village	215	77	41	15.62	31.68	Mining Activities	About 1 KM
06-Nov-25	Karnapur Village	210	80	36	15.59	21.88	Anthropogenic Activities, Local	About 2km
06-Nov-25	Kalinga Colony	214	83	40	15.99	23.58	Mining allied activities	About 500m
06-Nov-25	Near Joragdia Village	201	82	40	19.79	19.30	Transportation, Domestic Cooking	About 1km
06-Nov-25	Khajuria Village	218	74	37	12.39	37.28	Mining Activities	About 1 KM
10-Nov-25	East of the Mine, Natedi Village (Reported Only)	183	73	36	12.20	24.74	Coal Transportation Road	About 2km
11-Nov-25	East of the Mine, Natedi Village (Reported Only)	214	93	46	15.99	25.93	Coal Transportation Road	About 2km
12-Nov-25	Near Joragdia Village	219	88	43	19.03	24.70	Transportation, Domestic Cooking	About 1km
12-Nov-25	Khajuria Village	228	80	41	12.39	24.31	Mining Activities	About 1 KM
12-Nov-25	Karnapur Village	182	86	42	13.44	35.36	Anthropogenic Activities, Local	About 2km
12-Nov-25	Kalinga Colony	229	92	48	16.35	33.89	Mining allied activities	About 500m
13-Nov-25	Khajuria Village	233	96	51	16.35	33.15	Mining Activities	About 1 KM
13-Nov-25	Near Joragdia Village	237	90	47	10.79	23.50	Transportation, Domestic Cooking	About 1km
13-Nov-25	Kalinga Colony	196	77	38	11.04	33.19	Mining allied activities	About 500m
13-Nov-25	Karnapur Village	220	89	45	19.98	39.71	Anthropogenic Activities, Local	About 2km
17-Nov-25	East of the Mine, Natedi Village (Reported Only)	216	86	43	8.75	32.42	Coal Transportation Road	About 2km
18-Nov-25	East of the Mine, Natedi Village (Reported Only)	233	91	46	20.19	37.54	Coal Transportation Road	About 2km
19-Nov-25	Karnapur Village	245	90	44	8.75	30.87	Anthropogenic Activities, Local	About 2km
19-Nov-25	Near Joragdia Village	157	59	33	15.99	37.82	Transportation, Domestic Cooking	About 1km
19-Nov-25	Khajuria Village	196	74	39	10.90	25.05	Mining Activities	About 1 KM

*NAAQS, 2009

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 Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR



Project :

Bharatpur OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
19-Nov-25	Kalinga Colony	215	81	43	16.39	41.33	Mining allied activities	About 500m
20-Nov-25	Near Joragdia Village	197	83	39	10.79	36.47	Transportation, Domestic Cooking	About 1km
20-Nov-25	Khajuria Village	254	89	45	15.23	35.50	Mining Activities	About 1 KM
20-Nov-25	Karnapur Village	277	85	48	22.20	31.52	Anthropogenic Activities, Local	About 2km
20-Nov-25	Kalinga Colony	205	77	40	10.66	33.19	Mining allied activities	About 500m
24-Nov-25	East of the Mine, Natedi Village (Reported Only)	177	68	37	16.35	22.84	Coal Transportation Road	About 2km
25-Nov-25	East of the Mine, Natedi Village (Reported Only)	222	83	42	11.42	34.73	Coal Transportation Road	About 2km
26-Nov-25	Kalinga Colony	236	84	48	8.75	25.47	Mining allied activities	About 500m
26-Nov-25	Khajuria Village	225	80	42	12.94	31.64	Mining Activities	About 1 KM
26-Nov-25	Near Joragdia Village	226	81	42	12.79	32.42	Transportation, Domestic Cooking	About 1km
26-Nov-25	Karnapur Village	187	71	38	9.99	31.61	Anthropogenic Activities, Local	About 2km
27-Nov-25	Kalinga Colony	245	93	51	10.39	32.42	Mining allied activities	About 500m
27-Nov-25	Near Joragdia Village	286	94	50	19.58	27.55	Transportation, Domestic Cooking	About 1km
27-Nov-25	Karnapur Village	224	83	42	13.46	24.74	Anthropogenic Activities, Local	About 2km
27-Nov-25	Khajuria Village	264	83	46	13.44	22.84	Mining Activities	About 1 KM
28-Nov-25	East of the Mine, Natedi Village (Reported Only)	237	94	48	15.23	25.47	Coal Transportation Road	About 2km
29-Nov-25	East of the Mine, Natedi Village (Reported Only)	195	74	39	10.52	30.71	Coal Transportation Road	About 2km

Attomik
Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Jamati

*N14Q5,2009

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Test Report



AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area :

Bharatpur

Project :

Bharatpur OCP

Date of Sampling	Monitoring Station	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo(a)Pyrene	Benzene
		(µg/m ³)	(µg/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)
03-Nov-25	East of the Mine, Natedi Village (Reported Only)	<20.0	24.85	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7	BQL
04-Nov-25	East of the Mine, Natedi Village (Reported Only)	<20.0	14.78	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7	BQL
05-Nov-25	Kalinga Colony	<20.0	22.65	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7	BQL
05-Nov-25	Karnapur Village	<20.0	19.50	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7	BQL
05-Nov-25	Near Joragdia Village	<20.0	27.68	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
05-Nov-25	Khajuria Village	<20.0	15.73	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7	BQL
06-Nov-25	Karnapur Village	<20.0	26.12	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7	BQL
06-Nov-25	Kalinga Colony	<20.0	19.82	<0.1	<1.0	<1.0	0.8	BQL(QL)=0.7	BQL
06-Nov-25	Near Joragdia Village	<20.0	21.40	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
06-Nov-25	Khajuria Village	<20.0	24.85	<0.1	<1.0	<1.0	0.8	BQL(QL)=0.7	BQL
10-Nov-25	East of the Mine, Natedi Village (Reported Only)	<20.0	26.75	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7	BQL
11-Nov-25	East of the Mine, Natedi Village (Reported Only)	<20.0	15.73	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7	BQL
12-Nov-25	Near Joragdia Village	<20.0	23.28	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7	BQL
12-Nov-25	Khajuria Village	<20.0	15.73	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
12-Nov-25	Karnapur Village	<20.0	17.62	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7	BQL
12-Nov-25	Kalinga Colony	<20.0	17.93	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7	BQL
13-Nov-25	Khajuria Village	<20.0	23.60	<0.1	<1.0	<1.0	0.8	BQL(QL)=0.7	BQL
13-Nov-25	Near Joragdia Village	<20.0	19.50	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7	BQL
13-Nov-25	Kalinga Colony	<20.0	17.93	<0.1	<1.0	<1.0	0.8	BQL(QL)=0.7	BQL
13-Nov-25	Karnapur Village	<20.0	22.65	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7	BQL
17-Nov-25	East of the Mine, Natedi Village (Reported Only)	<20.0	22.33	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
18-Nov-25	East of the Mine, Natedi Village (Reported Only)	<20.0	18.88	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7	BQL
19-Nov-25	Karnapur Village	<20.0	19.20	<0.1	<1.0	<1.0	0.8	BQL(QL)=0.7	BQL
19-Nov-25	Near Joragdia Village	<20.0	21.40	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL

Standard	400(24 hours)	180(hours)	1.0(24 hours)	6.0(Annual)	20(Annual)	0.25(hours)	01(annual)	05(annual)
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Authorized Signatory
CMPDI, RI-VII, LAB

Signature

Project :**Bharatpur OCP**

Date of Sampling	Monitoring Station	Ammonia(NH ₃)	Ozone(O ₃)	Lead(Pb)	Arsenic(As)	Nickel(Ni)	CO	Benzo(a)Pyrene	Benzene
		(µg/m ³)	(µg/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)
19-Nov-25	Khajuria Village	<20.0	19.20	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
19-Nov-25	Kalinga Colony	<20.0	14.78	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
20-Nov-25	Near Joragdia Village	<20.0	12.90	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
20-Nov-25	Khajuria Village	<20.0	14.17	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
20-Nov-25	Karnapur Village	<20.0	12.90	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
20-Nov-25	Kalinga Colony	<20.0	19.50	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
24-Nov-25	East of the Mine, Natedi Village (Reported Only)	<20.0	20.45	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7)	BQL
25-Nov-25	East of the Mine, Natedi Village (Reported Only)	<20.0	12.90	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
26-Nov-25	Kalinga Colony	<20.0	19.20	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7)	BQL
26-Nov-25	Khajuria Village	<20.0	21.40	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
26-Nov-25	Near Joragdia Village	<20.0	22.02	<0.1	<1.0	<1.0	0.8	BQL(QL)=0.7)	BQL
26-Nov-25	Karnapur Village	<20.0	25.17	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7)	BQL
27-Nov-25	Kalinga Colony	<20.0	17.30	<0.1	<1.0	<1.0	0.8	BQL(QL)=0.7)	BQL
27-Nov-25	Near Joragdia Village	<20.0	24.23	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
27-Nov-25	Karnapur Village	<20.0	16.68	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
27-Nov-25	Khajuria Village	<20.0	17.30	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7)	BQL
28-Nov-25	East of the Mine, Natedi Village (Reported Only)	<20.0	15.42	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
29-Nov-25	East of the Mine, Natedi Village (Reported Only)	<20.0	15.10	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL

Atanik
Authorized Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Jasmit

Standard	400(24 hours)	180(hours)	1.0(24 hours)	6.0(Annual)	20(Annual)	0.9(8 hours)	01(annual)	05(annual)
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सीएमपीडीआई
 CMPDI
 MINING

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Bharatpur

PROJECT :

Bharatpur OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
13-Nov-25	North West Point of the Mine	63.1	55.9
13-Nov-25	Near Regional Store	65.7	54.2
13-Nov-25	Near Wokshop	65.9	56.7
13-Nov-25	Kalinga Colony	48.7	39.9
14-Nov-25	Natedi Village (Reported)	49.3	37.4
27-Nov-25	North West Point of the Mine	64.7	49.8
27-Nov-25	Near Regional Store	63.6	48.9
27-Nov-25	Near Wokshop	67.3	53.3
27-Nov-25	Kalinga Colony	44.8	36.4
28-Nov-25	Natedi Village (Reported)	47.8	33.6

MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 75dB(A) (Industrial)	10.00 PM -6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 55dB(A) (Residential)	10.00 PM -6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 65dB(A) (Commercial)	10.00 PM -6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM -6.00 AM Leq 40dB(A) (Silence Zone)

K. Jaisankar
 Authorized Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Jaisankar


EFFLUENT QUALITY DATA

Area :

Bharatpur

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Bharatpur OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
15-Nov-25	Mine Sump Water - Main Sump	4.89	<4.0	22	16	-	
15-Nov-25	Mine Sump Water - Old Quarry Sump	7.20	-	-	-	-	
15-Nov-25	Rakas Quarry Sump	4.20	-	-	-	-	
15-Nov-25	Workshop ETP Clear Water Tank	7.94	<4.0	42	48	-	
15-Nov-25	Workshop Inlet	7.95	<4.0	38	44	-	
29-Nov-25	Workshop ETP Clear Water Tank	7.30	<4.0	34	40	-	
29-Nov-25	Workshop Inlet	6.99	<4.0	32	36	-	

Jatanaik
Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Jamali

MoEF Standard Notification dated 25th September, 2000
 and MoEF Schedule VI, General standard for discharge
 of Environmental Pollutants Part A: Effluents

5.5-9.0

10

100

250

30


EFFLUENT QUALITY DATA

Area :

Bharatpur

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Bharatpur OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	MPN/100mL
15-Nov-25	STP INLET	8.31	-	36	-	4.3	170
15-Nov-25	STP Outlet (PH,TSS,MPN,BOD)	7.84	-	30	-	3.1	110
29-Nov-25	STP INLET	7.56	-	42	-	4.0	210
29-Nov-25	STP Outlet (PH,TSS,MPN,BOD)	7.15	-	34	-	2.6	170

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January

G.S.R. 1265(E) Effluent discharge standards (applicable to all mode of disposa), Sewage Treatment Plants (STPs)	6.5-9.0	-	<100	-	30	<1000
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Drinking Water Quality Data Bharatpur Area

Project / OCP	Bharatpur OCP			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Tap water in Nehru Satabdi Nagar A Type Quarters	Tap water in Nehru Satabdi Nagar B Type Quarters		
Date of Sampling	15-Nov-2025	15-Nov-2025	15-Nov-2025	Acceptable	Permissible
Colour(Hazen)	2	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	4	2	1	5
pH	7.56	8.15	8.09	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	205.89	226.90	50.42	200	600
Chloride(mg/L)	29.14	48.57	15.54	250	1000
Sulphate(mg/L)	58.68	85.26	62.76	200	400
Nitrate(mg/L)	5.69	7.85	6.54	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	192.17	196.10	109.81	200	600
Calcium(mg/L)	72.31	72.31	26.72	75	200
Fluoride(mg/L)	0.52	0.46	0.40	1	1.5
Total Dissolve Solid(mg/L)	372	196	163	500	2000
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.28	1.11	<0.04	0.1	0.3
Iron(mg/L)	<0.1	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	0.42	2.40	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	2.4

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Drinking Water Quality Data Bharatpur Area

Project / OCP	Bharatpur OCP			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Tap water in Nehru Satabdi Nagar A Type Quarters	Tap water in Nehru Satabdi Nagar B Type Quarters		
Date of Sampling	15-Nov-2025	15-Nov-2025	15-Nov-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	9.95	10.48	7.37	-	-
Potassium(mg/L)	5.45	6.00	2.88	-	-
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	Not Detected	-	-

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Drinking Water Quality Data Bharatpur Area

Project / OCP	Bharatpur OCP				Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Tap water in Nehru Satabdi Nagar Transit House	Taleipasi Village Open Well	Joragadia Village Open Well		
Date of Sampling	15-Nov-2025	15-Nov-2025	15-Nov-2025	15-Nov-2025	Acceptable	Permissible
Colour(Hazen)	2	3	2	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	2	1	3	1	5
pH	7.97	8.30	8.31	7.59	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	67.23	466.42	184.88	29.41	200	600
Chloride(mg/L)	13.60	89.57	19.43	29.14	250	1000
Sulphate(mg/L)	50.26	70.72	88.68	74.68	200	400
Nitrate(mg/L)	5.32	3.36	1.56	5.96	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	74.51	337.29	152.95	78.44	200	600
Calcium(mg/L)	19.29	40.87	39.20	25.15	75	200
Fluoride(mg/L)	0.37	0.89	0.39	0.44	1	1.5
Total Dissolve Solid(mg/L)	144	558	292	176	500	2000
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	0.31	0.1	0.3
Iron(mg/L)	<0.1	<0.1	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	0.07	2.47	<0.04	0.22	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	2.4


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Drinking Water Quality Data Bharatpur Area

Project / OCP	Bharatpur OCP				Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Tap water in Nehru Satabdi Nagar Transit House	Taleipasi Village Open Well	Joragadia Village Open Well	Time Office,BOCP	Acceptable	Permissible
Date of Sampling	15-Nov-2025	15-Nov-2025	15-Nov-2025	15-Nov-2025	0.01	No relaxation
Selenium(mg/L)	<0.005	<0.005	<0.005	<0.005		
Sodium(mg/L)	6.98	6.45	15.84	13.44		
Potassium(mg/L)	1.46	3.27	1.49	7.59		
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	Not Detected	Not Detected	-	-

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Legend
Monitoring Station

Bharatpur OCP

Google Earth

**Environmental Monitoring Report
For
November -2025**

**Project: Lingaraj OCP
Area: Lingaraj
Coalfield: Talcher**



Mahanadi Coalfields Limited



Central Mine Planning & Design Institute Ltd.
(A Subsidiary of Coal India Ltd.)

Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)
[Assistance from Environment Division, CMPDI(HQs), Ranchi]

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Test Report



AMBIENT AIR QUALITY DATA

Area : **Lingaraj** (Compliance Station)

Project :

Lingaraj OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO ₂	NO _x	CO ($\mu\text{g}/\text{m}^3$)	Dust Generating Source(DGS)	Distance from DGS
01-Nov-25	Near Silo Conveyor Belt	245	151	61	10.79	31.61	1.1	Mining Operations	About 200m
07-Nov-25	GM Office Lingraj	288	159	70	19.03	30.87	1.2	Transportation	About 500m
21-Nov-25	GM Office Lingraj	249	142	64	15.62	26.52	1.3	Transportation	About 500m
21-Nov-25	Near Silo Conveyor Belt	294	130	64	12.35	17.68	1.2	Mining Operations	About 200m

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MoEF Standards Notification dated 25th September, 2009	500	250		120	120	02/8 Hours
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AMBIENT AIR QUALITY DATA

Area :

Lingaraj

(Reference Station)

Project :

Lingaraj OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
05-Nov-25	Kandhal Village	178	74	36	13.59	39.71	Transportation	About 1500m
05-Nov-25	Lingaraj Township	228	87	45	12.35	19.89	Mining Activities, Transportation	About 500m
05-Nov-25	Balunga Khamar Village	213	86	42	14.17	19.16	Mining Activities, Transportation	About 500m
06-Nov-25	Balunga Khamar Village	230	93	45	17.89	23.93	Mining Activities, Transportation	About 500m
06-Nov-25	Kandhal Village	196	83	42	15.15	23.89	Transportation	About 1500m
06-Nov-25	Lingaraj Township	205	82	43	19.18	22.69	Mining Activities, Transportation	About 500m
12-Nov-25	Lingaraj Township	198	69	35	15.99	22.10	Mining Activities, Transportation	About 500m
12-Nov-25	Balunga Khamar Village	198	81	39	14.85	35.50	Mining Activities, Transportation	About 500m
12-Nov-25	Kandhal Village	187	84	40	10.79	38.09	Transportation	About 1500m
13-Nov-25	Balunga Khamar Village	185	75	36	19.35	42.65	Mining Activities, Transportation	About 500m
13-Nov-25	Kandhal Village	180	77	38	12.62	23.03	Transportation	About 1500m
13-Nov-25	Lingaraj Township	175	86	47	10.79	34.04	Mining Activities, Transportation	About 500m
19-Nov-25	Kandhal Village	178	68	37	9.19	30.80	Transportation	About 1500m
19-Nov-25	Lingaraj Township	155	58	33	10.54	29.47	Mining Activities, Transportation	About 500m
19-Nov-25	Balunga Khamar Village	184	67	37	19.54	26.11	Mining Activities, Transportation	About 500m
20-Nov-25	Balunga Khamar Village	214	80	43	19.41	33.19	Mining Activities, Transportation	About 500m
20-Nov-25	Kandhal Village	230	90	44	15.54	41.42	Transportation	About 1500m
20-Nov-25	Lingaraj Township	179	66	37	17.99	28.36	Mining Activities, Transportation	About 500m
26-Nov-25	Balunga Khamar Village	231	92	48	11.19	23.50	Mining Activities, Transportation	About 500m
26-Nov-25	Kandhal Village	247	92	49	19.35	29.00	Transportation	About 1500m
26-Nov-25	Lingaraj Township	247	87	44	13.81	31.68	Mining Activities, Transportation	About 500m
27-Nov-25	Lingaraj Township	188	69	38	15.99	38.09	Mining Activities, Transportation	About 500m
27-Nov-25	Balunga Khamar Village	224	87	46	20.19	32.42	Mining Activities, Transportation	About 500m
27-Nov-25	Kandhal Village	223	83	42	17.67	43.51	Transportation	About 1500m


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*N.A.Q.S. 2009

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Test Report



AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area :

Lingaraj

Project :

Lingaraj OCP

Date of Sampling	Monitoring Station	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo(a)Pyrene	Benzene
		(µg/m ³)	(µg/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)
03-Nov-25	Lingaraj Township	<20.0	27.37	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
04-Nov-25	Lingaraj Township	<20.0	23.92	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7	BQL
05-Nov-25	Kandhal Village	<20.0	19.82	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7	BQL
05-Nov-25	Balunga Khamar Village	<20.0	23.92	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7	BQL
06-Nov-25	Balunga Khamar Village	<20.0	23.92	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7	BQL
06-Nov-25	Kandhal Village	<20.0	15.10	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7	BQL
12-Nov-25	Kandhal Village	<20.0	26.75	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7	BQL
12-Nov-25	Balunga Khamar Village	<20.0	21.72	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
12-Nov-25	Lingaraj Township	<20.0	16.98	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7	BQL
13-Nov-25	Balunga Khamar Village	<20.0	26.43	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7	BQL
13-Nov-25	Lingaraj Township	<20.0	21.08	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7	BQL
13-Nov-25	Kandhal Village	<20.0	15.10	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7	BQL
19-Nov-25	Kandhal Village	<20.0	20.13	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7	BQL
19-Nov-25	Lingaraj Township	<20.0	28.00	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
19-Nov-25	Balunga Khamar Village	<20.0	15.10	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
20-Nov-25	Balunga Khamar Village	<20.0	20.13	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7	BQL
20-Nov-25	Kandhal Village	<20.0	26.43	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7	BQL
20-Nov-25	Lingaraj Township	<20.0	27.68	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7	BQL
26-Nov-25	Balunga Khamar Village	<20.0	24.23	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
26-Nov-25	Kandhal Village	<20.0	15.42	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7	BQL
26-Nov-25	Lingaraj Township	<20.0	27.07	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7	BQL
27-Nov-25	Lingaraj Township	<20.0	19.82	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7	BQL
27-Nov-25	Balunga Khamar Village	<20.0	13.85	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7	BQL
27-Nov-25	Kandhal Village	<20.0	16.05	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7	BQL

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Standard	400(24 hours)	180(hours)	1.0(24 hours)	6.0(Annual)	20(Annual)	0.2(8 hours)	01(annual)	05(annual)
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TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Lingaraj

PROJECT :

Lingaraj OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
13-Nov-25	Lingaraj Township	49.7	42.0
13-Nov-25	Balunga Khamar Village	47.2	38.7
13-Nov-25	Kandhal Village	47.3	39.7
13-Nov-25	Near Silo Conveyor Belt	69.7	57.9
27-Nov-25	Lingaraj Township	46.8	34.8
27-Nov-25	Balunga Khamar Village	48.9	36.6
27-Nov-25	Kandhal Village	50.2	35.9
27-Nov-25	Near Silo Conveyor Belt	68.3	53.7

MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 75dB(A) (Industrial)	10.00 PM - 6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 55dB(A) (Residential)	10.00 PM - 6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 65dB(A) (Commercial)	10.00 PM - 6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM - 6.00 AM Leq 40dB(A) (Silence Zone)

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EFFLUENT QUALITY DATA

Area :

Lingaraj

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Lingaraj OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
15-Nov-25	Clear Water Reservoir of ETP Near Dumper Parking	6.46	<4.0	20	28	-	
15-Nov-25	Clear Water Reservoir of MDTP near Stock No. 17	8.27	<4.0	22	36	-	
15-Nov-25	Clear Water Reservoir of Sedimentation Pond Complex	8.28	<4.0	22	32	-	
15-Nov-25	Clear Water Tank of Sedimentation Pond Complex	8.25	<4.0	34	40	-	
15-Nov-25	Filter Outlet of Workshop ETP	6.75	<4.0	20	32	-	
15-Nov-25	Inlet of ETP Near Dumper Parking	7.09	<4.0	24	36	-	
15-Nov-25	Inlet of MDTP near Stock No. 17	8.19	<4.0	26	40	-	
15-Nov-25	Inlet of Sedimentation Pond Complex near Lingraj Siding	8.24	<4.0	24	32	-	
15-Nov-25	Inlet of Sedimentation Pond Complex near Project Office	8.11	<4.0	26	20	-	
15-Nov-25	Inlet of Workshop ETP	6.77	<4.0	26	36	-	
15-Nov-25	Mine Sump Water	8.09	<4.0	28	36	-	
29-Nov-25	Clear Water Reservoir of ETP Near Dumper Parking	6.90	<4.0	22	24	-	
29-Nov-25	Filter Outlet of Workshop ETP	6.20	<4.0	18	28	-	
29-Nov-25	Inlet of ETP Near Dumper Parking	6.65	<4.0	26	32	-	
29-Nov-25	Inlet of Workshop ETP	6.55	<4.0	24	32	-	

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MoEF Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents

5.5-9.0	10	100	250	30
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Drinking Water Quality Data Lingraj Area

Project / OCP	Lingraj OCP		Indian Drinking Standards (IS-10500):2012	
	GM Office, Lingraj Area	Balunga Khamar Village Well	Acceptable	Permissible
Monitoring Station	GM Office, Lingraj Area	Balunga Khamar Village Well		
Date of Sampling	15-Nov-2025	15-Nov-2025	Acceptable	Permissible
Colour(Hazen)	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	2	1	5
pH	7.76	7.36	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	54.62	25.21	200	600
Chloride(mg/L)	11.65	44.68	250	1000
Sulphate(mg/L)	65.66	35.68	200	400
Nitrate(mg/L)	<0.5	<0.5	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	86.28	66.67	200	600
Calcium(mg/L)	29.86	20.43	75	200
Fluoride(mg/L)	0.31	0.35	1	1.5
Total Dissolve Solid(mg/L)	150	139	500	2000
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	0.11	0.1	0.3
Iron(mg/L)	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	0.17	0.31	5	15
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	0.5	2.4

T. Jaiswal
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Drinking Water Quality Data Lingraj Area

Project / OCP	Lingraj OCP		Indian Drinking Standards (IS-10500):2012	
	GM Office, Lingraj Area	Balunga Khamar Village Well	Acceptable	Permissible
Monitoring Station				
Date of Sampling	15-Nov-2025	15-Nov-2025		
Selenium(mg/L)	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	5.25	13.85		
Potassium(mg/L)	0.83	3.97		
Phenolics(mg/L)	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	-	-

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Drinking Water Quality Data Lingraj Area

Project / OCP	Lingraj OCP			Indian Drinking Standards (IS-10500):2012	
	Deulbera Village Well	Talabera Village Well	Kankilli Village Well	Acceptable	Permissible
Date of Sampling	15-Nov-2025	16-Nov-2025	15-Nov-2025	Acceptable	Permissible
Colour(Hazen)	2	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	2	3	1	5
pH	7.42	8.64	8.68	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	37.81	525.25	365.57	200	600
Chloride(mg/L)	29.14	44.68	71.89	250	1000
Sulphate(mg/L)	34.12	40.56	70.34	200	400
Nitrate(mg/L)	2.36	5.25	11.60	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	62.75	274.54	274.94	200	600
Calcium(mg/L)	17.29	28.29	58.16	75	200
Fluoride(mg/L)	0.32	0.77	0.64	1	1.5
Total Dissolve Solid(mg/L)	124	507	484	500	2000
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	0.05	0.07	0.1	0.3
Iron(mg/L)	<0.1	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	0.04	1.52	0.81	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	2.4

T. T. T. T.
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

J. J. J. J.



सीएमपीडीआई
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cmpdi
Mini Royal

Drinking Water Quality Data Lingraj Area

Project / OCP	Lingraj OCP			Indian Drinking Standards (IS-10500):2012	
	Deulbera Village Well	Talabera Village Well	Kankili Village Well	Acceptable	Permissible
Monitoring Station					
Date of Sampling	15-Nov-2025	16-Nov-2025	15-Nov-2025		
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	10.34	14.37	12.46		
Potassium(mg/L)	2.80	2.28	4.26		
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	Not Detected	-	-

Fattawail
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Jasmati



Legend
Air Monitoring Locations

Kandhal Village

Baijunga village

GM Office, Lingraj

Near Conveyor belt

Lingraj Township

Lingraj OCP

Google Earth

**Environmental Monitoring Report
For
November -2025**

**Project: Kaniha OCP
Area: Kaniha
Coalfield: Talcher**



Mahanadi Coalfields Limited



सीएमपीडीआई
मिनी रत्न
cmpdi
Mini Ratna

Central Mine Planning & Design Institute Ltd.
(A Subsidiary of Coal India Ltd.)

Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)
[Assistance from Environment Division, CMPDI(HQs), Ranchi]

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Test Report



AMBIENT AIR QUALITY DATA

Area :

Kaniha

(Compliance Station)

Project :

Kaniha OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO ₂	NO _x	CO ($\mu\text{g}/\text{m}^3$)	Dust Generating Source(DGS)	Distance from DGS
01-Nov-25	New Time Office (Near Z-Patch)	288	186	72	13.08	35.36	1.3	Mining Activities	About 500m
01-Nov-25	Near Project Office	270	135	57	17.51	38.59	1.3	Mining Activities	About 500m
07-Nov-25	Near External OB Dump, Jamania	287	167	73	10.28	33.19	1.2	Mining Activities	About 500m
22-Nov-25	Near External OB Dump, Jamania	237	156	68	12.72	25.79	1.4	Mining Activities	About 500m
22-Nov-25	New Time Office (Near Z-Patch)	301	166	73	9.14	27.79	1.1	Mining Activities	About 500m
22-Nov-25	Near Project Office	300	142	73	18.65	23.93	1.4	Mining Activities	About 500m

Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Jamania

MoEF Standards Notification dated 25th
September, 2009

600	300		120	120	02/8 Hours
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AMBIENT AIR QUALITY DATA

Area :

Kaniha

(Reference Station)

Project :

Kaniha OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
03-Nov-25	Guiland, South West of Mine	176	77	32	15.99	21.88	Mining Activities	About 750m
03-Nov-25	South Of Proposed Quarry Limit of KOCP	220	79	40	17.19	29.17	Mining Activities	About 500m
03-Nov-25	Gandaberna	218	84	43	11.19	33.23	Coal Transportation Road	About 500m
03-Nov-25	Kansamunda Village (West of the mine)	178	74	33	15.62	25.05	Mining Activities	About 500m
04-Nov-25	Guiland, South West of Mine	210	84	37	15.26	30.94	Mining Activities	About 750m
04-Nov-25	Gandaberna	180	74	35	21.04	32.42	Coal Transportation Road	About 500m
04-Nov-25	Kansamunda Village (West of the mine)	196	86	42	11.80	19.30	Mining Activities	About 500m
04-Nov-25	South Of Proposed Quarry Limit of KOCP	239	93	45	15.61	30.10	Mining Activities	About 500m
05-Nov-25	Near Harichandanpur	236	83	44	19.18	38.90	Mining Activities	About 2km
05-Nov-25	Kaniha (North of the Mine)	175	67	29	16.35	33.15	Mining Activities	About 500m
06-Nov-25	Near Harichandanpur	180	74	32	20.62	37.54	Mining Activities	About 2km
06-Nov-25	Kaniha (North of the Mine)	208	93	47	14.08	34.73	Mining Activities	About 500m
10-Nov-25	Kansamunda Village (West of the mine)	172	67	28	10.28	26.24	Mining Activities	About 500m
10-Nov-25	South Of Proposed Quarry Limit of KOCP	203	71	38	14.90	33.89	Mining Activities	About 500m
10-Nov-25	Gandaberna	205	87	41	10.28	20.84	Coal Transportation Road	About 500m
10-Nov-25	Guiland, South West of Mine	215	87	39	16.71	22.84	Mining Activities	About 750m
11-Nov-25	Guiland, South West of Mine	234	95	48	11.63	36.84	Mining Activities	About 750m
11-Nov-25	South Of Proposed Quarry Limit of KOCP	236	82	43	9.81	35.36	Mining Activities	About 500m
11-Nov-25	Gandaberna	223	93	45	20.78	20.26	Coal Transportation Road	About 500m
11-Nov-25	Kansamunda Village (West of the mine)	188	83	38	16.37	27.79	Mining Activities	About 500m
12-Nov-25	Kaniha (North of the Mine)	202	90	45	15.23	35.50	Mining Activities	About 500m
12-Nov-25	Near Harichandanpur	204	77	41	10.28	20.84	Mining Activities	About 2km
13-Nov-25	Near Harichandanpur	188	80	36	17.08	24.31	Mining Activities	About 2km
13-Nov-25	Kaniha (North of the Mine)	195	86	42	18.89	35.36	Mining Activities	About 500m
17-Nov-25	Gandaberna	241	87	49	9.81	31.68	Coal Transportation Road	About 500m

*NAAQS,2009

	100	60	80	80
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Authorized Signatory
C&P E&S LAB

Janak

Project :

Kaniha OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
17-Nov-25	Guiland, South West of Mine	221	91	49	17.51	36.28	Mining Activities	About 750m
17-Nov-25	South Of Proposed Quarry Limit of KOCP	227	80	42	11.99	22.69	Mining Activities	About 500m
17-Nov-25	Kansamunda Village (West of the mine)	179	86	42	16.28	27.56	Mining Activities	About 500m
18-Nov-25	South Of Proposed Quarry Limit of KOCP	251	85	44	18.17	28.00	Mining Activities	About 500m
18-Nov-25	Gandaberna	217	83	44	8.72	34.63	Coal Transportation Road	About 500m
18-Nov-25	Kansamunda Village (West of the mine)	263	90	46	12.94	29.33	Mining Activities	About 500m
18-Nov-25	Guiland, South West of Mine	211	79	41	13.32	24.70	Mining Activities	About 750m
19-Nov-25	Kaniha (North of the Mine)	173	69	36	9.19	27.55	Mining Activities	About 500m
19-Nov-25	Near Harichandanpur	207	75	40	19.98	27.55	Mining Activities	About 2km
20-Nov-25	Kaniha (North of the Mine)	211	81	44	13.08	25.79	Mining Activities	About 500m
20-Nov-25	Near Harichandanpur	191	70	38	19.98	33.23	Mining Activities	About 2km
24-Nov-25	Guiland, South West of Mine	224	93	45	14.39	39.71	Mining Activities	About 750m
24-Nov-25	Gandaberna	204	77	40	11.04	33.96	Coal Transportation Road	About 500m
24-Nov-25	South Of Proposed Quarry Limit of KOCP	290	95	51	11.19	27.55	Mining Activities	About 500m
24-Nov-25	Kansamunda Village (West of the mine)	153	65	33	20.62	29.00	Mining Activities	About 500m
25-Nov-25	Kansamunda Village (West of the mine)	269	93	47	13.77	24.31	Mining Activities	About 500m
25-Nov-25	South Of Proposed Quarry Limit of KOCP	164	61	34	10.79	24.31	Mining Activities	About 500m
25-Nov-25	Guiland, South West of Mine	231	93	48	20.78	29.99	Mining Activities	About 750m
25-Nov-25	Gandaberna	215	80	43	19.77	41.80	Coal Transportation Road	About 500m
26-Nov-25	Near Harichandanpur	249	86	44	19.58	25.93	Mining Activities	About 2km
26-Nov-25	Kaniha (North of the Mine)	228	85	46	17.80	38.31	Mining Activities	About 500m
27-Nov-25	Near Harichandanpur	218	78	41	17.99	29.99	Mining Activities	About 2km
27-Nov-25	Kaniha (North of the Mine)	230	91	50	10.90	19.89	Mining Activities	About 500m
28-Nov-25	Gandaberna	186	71	38	11.80	37.05	Coal Transportation Road	About 500m
28-Nov-25	Guiland, South West of Mine	217	89	44	18.39	36.47	Mining Activities	About 750m
28-Nov-25	South Of Proposed Quarry Limit of KOCP	201	77	39	17.08	25.05	Mining Activities	About 500m
28-Nov-25	Kansamunda Village (West of the mine)	169	69	36	9.52	28.56	Mining Activities	About 500m
29-Nov-25	Guiland, South West of Mine	245	96	49	14.08	37.05	Mining Activities	About 750m
29-Nov-25	Kansamunda Village (West of the mine)	154	68	33	15.99	39.62	Mining Activities	About 500m

*NAAQS, 2009

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CMPDI, RI-VII, LAB
DURGAMCHERU



Project :

Kaniha OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
29-Nov-25	Gandaberna	225	82	45	10.79	17.83	Coal Transportation Road	About 500m
29-Nov-25	South Of Proposed Quarry Limit of KOCP	284	94	49	20.78	28.36	Mining Activities	About 500m

Tatnaik
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Jamal

*NAAQS, 2009

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Test Report

AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area :

Kaniha

Project :

Kaniha OCP

Date of Sampling	Monitoring Station	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo(a)Pyrene	Benzene
		(µg/m ³)	(µg/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)
03-Nov-25	Guiland, South West of Mine	<20.0	18.88	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
03-Nov-25	South Of Proposed Quarry Limit of KOCP	<20.0	23.92	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7	BQL
03-Nov-25	Gandaberma	<20.0	16.37	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7	BQL
03-Nov-25	Kansamunda Village (West of the mine)	<20.0	28.00	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7	BQL
04-Nov-25	Guiland, South West of Mine	<20.0	19.82	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7	BQL
04-Nov-25	Gandaberma	<20.0	23.92	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7	BQL
04-Nov-25	Kansamunda Village (West of the mine)	<20.0	20.45	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7	BQL
04-Nov-25	South Of Proposed Quarry Limit of KOCP	<20.0	27.07	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7	BQL
05-Nov-25	Near Harichandanpur	<20.0	19.82	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7	BQL
05-Nov-25	Kaniha (North of the Mine)	<20.0	20.13	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
06-Nov-25	Near Harichandanpur	<20.0	22.02	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7	BQL
06-Nov-25	Kaniha (North of the Mine)	<20.0	27.37	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7	BQL
10-Nov-25	Kansamunda Village (West of the mine)	<20.0	24.55	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
10-Nov-25	South Of Proposed Quarry Limit of KOCP	<20.0	28.00	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7	BQL
10-Nov-25	Guiland, South West of Mine	<20.0	16.68	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7	BQL
10-Nov-25	Gandaberma	<20.0	15.42	<0.1	<1.0	<1.0	1.8	BQL(QL)=0.7	BQL
10-Nov-25	South Of Proposed Quarry Limit of KOCP	<20.0	23.92	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7	BQL
11-Nov-25	Gandaberma	<20.0	28.00	<0.1	<1.0	<1.0	1.7	BQL(QL)=0.7	BQL
11-Nov-25	Kansamunda Village (West of the mine)	<20.0	26.12	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7	BQL
11-Nov-25	Guiland, South West of Mine	<20.0	23.28	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7	BQL
12-Nov-25	Kaniha (North of the Mine)	<20.0	17.93	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7	BQL
12-Nov-25	Near Harichandanpur	<20.0	26.43	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7	BQL
13-Nov-25	Near Harichandanpur	<20.0	14.78	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7	BQL
13-Nov-25	Kaniha (North of the Mine)	<20.0	15.42	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7	BQL

Standard	400(24 hours)	180(hours)	1.0(24 hours)	6.0(Annual)	20(Annual)	04(1 hours)	01(annual)	05(annual)
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Authorised Signatory
CMPDI, RI-VII, LAB
GUILANDSWAR

Janaki

Project :

Kaniha OCP

Date of Sampling	Monitoring Station	Ammonia(NH ₃)	Ozone(O ₃)	Lead(Pb)	Arsenic(As)	Nickel(Ni)	CO	Benzo(a)Pyrene	Benzene
		(µg/m ³)	(µg/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)
17-Nov-25	Gandaberna	<20.0	13.85	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
17-Nov-25	Guiland, South West of Mine	<20.0	21.08	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7)	BQL
17-Nov-25	South Of Proposed Quarry Limit of KOCP	<20.0	22.02	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
17-Nov-25	Kansamunda Village (West of the mine)	<20.0	23.02	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7)	BQL
18-Nov-25	South Of Proposed Quarry Limit of KOCP	<20.0	24.85	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
18-Nov-25	Gandaberna	<20.0	20.13	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7)	BQL
18-Nov-25	Guiland, South West of Mine	<20.0	21.72	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7)	BQL
18-Nov-25	Kansamunda Village (West of the mine)	<20.0	21.40	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7)	BQL
19-Nov-25	Kaniha (North of the Mine)	<20.0	13.85	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
19-Nov-25	Near Harichandanpur	<20.0	15.42	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7)	BQL
20-Nov-25	Kaniha (North of the Mine)	<20.0	16.68	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7)	BQL
20-Nov-25	Near Harichandanpur	<20.0	19.20	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7)	BQL
24-Nov-25	Guiland, South West of Mine	<20.0	18.57	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
24-Nov-25	Kansamunda Village (West of the mine)	<20.0	26.12	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7)	BQL
24-Nov-25	Gandaberna	<20.0	27.37	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
24-Nov-25	South Of Proposed Quarry Limit of KOCP	<20.0	13.22	<0.1	<1.0	<1.0	1.7	BQL(QL)=0.7)	BQL
25-Nov-25	Kansamunda Village (West of the mine)	<20.0	23.60	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7)	BQL
25-Nov-25	South Of Proposed Quarry Limit of KOCP	<20.0	28.00	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
25-Nov-25	Guiland, South West of Mine	<20.0	21.72	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
25-Nov-25	Gandaberna	<20.0	13.85	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7)	BQL
26-Nov-25	Near Harichandanpur	<20.0	26.75	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7)	BQL
26-Nov-25	Kaniha (North of the Mine)	<20.0	19.50	<0.1	<1.0	<1.0	1.8	BQL(QL)=0.7)	BQL
27-Nov-25	Near Harichandanpur	<20.0	16.68	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
27-Nov-25	Kaniha (North of the Mine)	<20.0	15.42	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7)	BQL
28-Nov-25	Gandaberna	<20.0	26.43	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7)	BQL
28-Nov-25	Guiland, South West of Mine	<20.0	18.25	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7)	BQL
28-Nov-25	South Of Proposed Quarry Limit of KOCP	<20.0	19.82	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7)	BQL
28-Nov-25	Kansamunda Village (West of the mine)	<20.0	21.08	<0.1	<1.0	<1.0	1.7	BQL(QL)=0.7)	BQL
Standard		400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	04(1 hours)	01(annual)	05(annual)

Auth. Head Signatory
CAPDI, RI-VII, LAB
BHIRANESWAR

Januati

Project :

Kaniha OCP

Date of Sampling	Monitoring Station	Ammonia(NH3)	Ozone(O3)	Lead(Pb)	Arsenic(As)	Nickel(Ni)	CO	Benzo(a)Pyrene	Benzene
		(µg/m3)	(µg/m3)	(µg/m3)	(ng/m3)	(ng/m3)	(mg/m3)	(ng/m3)	(µg/m3)
29-Nov-25	Gailand, South West of Mine	<20.0	25.48	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7)	BQL
29-Nov-25	Kansamunda Village (West of the mine)	<20.0	12.90	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
29-Nov-25	Gandaberna	<20.0	16.05	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7)	BQL
29-Nov-25	South Of Proposed Quarry Limit of KOCP	<20.0	12.90	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL

J. K. Das
Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

J. K. Das

Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	04(Thousands)	01(annual)	05(annual)
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राष्ट्रीय प्रदूषण नियंत्रण बोर्ड
CMPDI
भारत सरकार

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Kaniha

PROJECT :

Kaniha OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
14-Nov-25	Kansamunda Village (West of the Mine)	49.7	39.1
14-Nov-25	Near External OB Dump, Jamania	63.7	51.9
14-Nov-25	Near Time Office (Near Z-Patch)	66.9	54.4
14-Nov-25	Near Project Office	65.4	55.3
28-Nov-25	Kansamunda Village (West of the Mine)	50.6	37.7
28-Nov-25	Near External OB Dump, Jamania	63.2	50.3
28-Nov-25	Near Time Office (Near Z-Patch)	64.8	48.7
28-Nov-25	Near Project Office	65.8	49.5

MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 75dB(A) (Industrial)	10.00 PM - 6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 55dB(A) (Residential)	10.00 PM - 6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 65dB(A) (Commercial)	10.00 PM - 6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM - 6.00 AM Leq 40dB(A) (Silence Zone)

Authorised Signatory
CMPDI, RI-VII, LAE,
BHUBANESWAR

Janak


EFFLUENT QUALITY DATA

Area :

Kaniha

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Kaniha OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
15-Nov-25	Clear Water Pond	7.94	<4.0	28	36	-	
15-Nov-25	Kansamunda Sump	7.88	<4.0	26	32	-	
15-Nov-25	Pre Sedimentation Pond	7.17	<4.0	24	20	-	
15-Nov-25	Z-Patch Sump	7.07	<4.0	20	24	-	
29-Nov-25	Clear Water Pond	7.28	<4.0	26	16	-	
29-Nov-25	Pre Sedimentation Pond	7.20	<4.0	32	28	-	

 Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

J. S. Jena

 MoEF Standard Notification dated 25th September, 2009
 and MoEF Schedule VI, General standard for discharge
 of Environmental Pollutants Part A: Effluents

5.5-9.0 10 100 250 30



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Mini Ratna

Drinking Water Quality Data Kaniha Area

Project / OCP	Kaniha		Indian Drinking Standards (IS-10500):2012	
	Telisinga Well Water	Jarda Village Well Water	Acceptable	Permissible
Monitoring Station				
Date of Sampling	15-Nov-2025	15-Nov-2025		
Colour(Hazen)	1	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	3	1	5
pH	8.11	8.40	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	109.25	218.50	200	600
Chloride(mg/L)	17.48	60.23	250	1000
Sulphate(mg/L)	45.26	85.61	200	400
Nitrate(mg/L)	3.50	4.50	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	86.28	200.02	200	600
Calcium(mg/L)	26.72	53.44	75	200
Fluoride(mg/L)	0.47	0.44	1	1.5
Total Dissolve Solid(mg/L)	175	368	500	2000
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	0.18	0.1	0.3
Iron(mg/L)	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	<0.04	0.50	5	15
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	0.5	2.4

Kottanark
Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Jasrat



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मिथी रत्न
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Mini Ratna

Drinking Water Quality Data Kaniha Area

Project / OCP	Kaniha		Indian Drinking Standards (IS-10500):2012	
	Telisinga Well Water	Jarda Village Well Water	Acceptable	Permissible
Monitoring Station				
Date of Sampling	15-Nov-2025	15-Nov-2025		
Selenium(mg/L)	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	7.86	12.93		
Potassium(mg/L)	2.36	1.25		
Phenolics(mg/L)	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	-	-

Tattanaik
Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Jamato

Kaniha OCP

Legend
Mysore Station

Kaniha (North of the mine)

New Mine Office (Near Z-Patch)

Kansamunda (West of the mine)

Near Project Office

Gulland

Near External OB dump

Gandaberna

South of Proposed Quarry Limit of KOC

Near Harichandampur

Google Earth



**Environmental Monitoring Report
For
November -2025**

**Project: Hingula OCP
Area: Hingula
Coalfield: Talcher**



Mahanadi Coalfields Limited



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मिनी रात्रा
cmpdi
Mini Ratna

Central Mine Planning & Design Institute Ltd.
(A Subsidiary of Coal India Ltd.)

Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)
[Assistance from Environment Division, CMPDI(HQs), Ranchi]

The test report shall not be reproduced in part or full without written approval of the competent authority

Test Report



AMBIENT AIR QUALITY DATA

Area :

Hingula

(Compliance Station)

Project :

Hingula OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO ₂	NO _x	CO	Dust Generating Source(DGS)	Distance from DGS
07-Nov-25	Time Office	268	143	59	17.08	29.47	1.3	Mining Operations and Haul Road	About 200m
07-Nov-25	South West Side of the Mine	275	158	64	13.59	20.26	1.2	Mining Operations	About 300m
22-Nov-25	Time Office	304	170	77	17.19	30.80	1.2	Mining Operations and Haul Road	About 200m
22-Nov-25	South West Side of the Mine	296	148	67	19.03	26.24	1.0	Mining Operations	About 300m

Tattarai
 Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Janak

MoEF Standards Notification dated 25th September, 2009	500	260		150	150	62/8 Hours)
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सीएमपीडी आई
CMPDI
भुवनेश्वर

Test Report

AMBIENT AIR QUALITY DATA

Area :

Hingula

(Reference Station)

Project :

Hingula OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
03-Nov-25	Solda Village	230	83	41	17.99	34.04	Coal Transportation Road	About 2km
03-Nov-25	Kankarei Village	184	79	33	15.54	37.82	Mining Activities	About 1500 m
03-Nov-25	Sanamahitala Village	175	71	34	20.19	35.83	Transportation road	About 1 KM
03-Nov-25	Balichandrapur Village	178	65	30	16.71	28.73	Mining Activities	About 1 KM
03-Nov-25	Banabaspur Village	188	80	37	14.53	36.10	Mining Activities	About 1500 m
04-Nov-25	Kankarei Village	188	83	36	19.35	29.00	Mining Activities	About 1500 m
04-Nov-25	Banabaspur Village	171	74	33	19.10	45.02	Mining Activities	About 1500 m
04-Nov-25	Solda Village	223	77	40	17.32	32.42	Coal Transportation Road	About 2km
04-Nov-25	Sanamahitala Village	193	77	38	12.20	26.45	Transportation road	About 1 KM
04-Nov-25	Balichandrapur Village	202	81	40	14.30	23.03	Mining Activities	About 1 KM
10-Nov-25	Banabaspur Village	196	85	41	19.41	26.24	Mining Activities	About 1500 m
10-Nov-25	Balichandrapur Village	217	96	44	12.79	20.26	Mining Activities	About 1 KM
10-Nov-25	Sanamahitala Village	192	75	35	19.35	27.30	Transportation road	About 1 KM
10-Nov-25	Kankarei Village	197	87	41	18.39	29.17	Mining Activities	About 1500 m
11-Nov-25	Banabaspur Village	227	95	47	10.17	19.89	Mining Activities	About 1500 m
11-Nov-25	Solda Village	235	86	44	14.65	36.02	Coal Transportation Road	About 2km
11-Nov-25	Sanamahitala Village	178	65	32	13.04	21.33	Transportation road	About 1 KM
11-Nov-25	Kankarei Village	190	84	37	14.53	30.21	Mining Activities	About 1500 m
11-Nov-25	Solda Village	197	75	32	16.79	33.23	Coal Transportation Road	About 2km
11-Nov-25	Balichandrapur Village	204	86	39	19.58	38.09	Mining Activities	About 1 KM
17-Nov-25	Balichandrapur Village	183	70	38	8.36	31.68	Mining Activities	About 1 KM
17-Nov-25	Solda Village	221	79	41	18.53	27.26	Coal Transportation Road	About 2km
17-Nov-25	Sanamahitala Village	172	74	36	9.45	27.26	Transportation road	About 1 KM
17-Nov-25	Kankarei Village	227	83	43	15.23	26.24	Mining Activities	About 1500 m
17-Nov-25	Banabaspur Village	209	78	41	18.65	28.56	Mining Activities	About 1500 m

*N-4QS,2009

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Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Jaswant

Project :**Hingula OCP****(conc. in µg/cu.m.)**

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
18-Nov-25	Kankarei Village	198	69	37	11.63	30.94	Mining Activities	About 1500 m
18-Nov-25	Solda Village	257	90	45	16.79	29.99	Coal Transportation Road	About 2km
18-Nov-25	Sanamahitala Village	239	84	43	9.14	19.30	Transportation road	About 1 KM
18-Nov-25	Banabaspur Village	175	67	37	11.42	34.73	Mining Activities	About 1500 m
18-Nov-25	Balichandrapur Village	171	62	34	19.18	26.74	Mining Activities	About 1 KM
24-Nov-25	Banabaspur Village	160	62	34	9.14	36.92	Mining Activities	About 1500 m
24-Nov-25	Solda Village	182	73	37	13.88	20.47	Coal Transportation Road	About 2km
24-Nov-25	Sanamahitala Village	219	80	41	18.89	25.05	Transportation road	About 1 KM
24-Nov-25	Balichandrapur Village	214	85	43	10.54	28.00	Mining Activities	About 1 KM
24-Nov-25	Kankarei Village	183	63	34	15.99	43.22	Mining Activities	About 1500 m
25-Nov-25	Balichandrapur Village	202	76	40	9.59	32.42	Mining Activities	About 1 KM
25-Nov-25	Banabaspur Village	241	89	44	15.99	33.23	Mining Activities	About 1500 m
25-Nov-25	Kankarei Village	237	87	49	11.10	37.82	Mining Activities	About 1500 m
25-Nov-25	Solda Village	164	61	34	18.27	25.47	Coal Transportation Road	About 2km
25-Nov-25	Sanamahitala Village	200	72	39	15.19	21.88	Transportation road	About 1 KM
28-Nov-25	Balichandrapur Village	183	64	35	19.58	36.47	Mining Activities	About 1 KM
28-Nov-25	Banabaspur Village	203	77	40	15.99	39.36	Mining Activities	About 1500 m
28-Nov-25	Kankarei Village	152	64	33	18.09	32.42	Mining Activities	About 1500 m
28-Nov-25	Sanamahitala Village	272	91	47	16.88	30.62	Transportation road	About 1 KM
28-Nov-25	Solda Village	173	67	36	13.19	28.36	Coal Transportation Road	About 2km
29-Nov-25	Solda Village	267	87	46	9.90	22.38	Coal Transportation Road	About 2km
29-Nov-25	Banabaspur Village	184	70	38	9.99	30.10	Mining Activities	About 1500 m
29-Nov-25	Kankarei Village	187	71	38	10.94	37.54	Mining Activities	About 1500 m
29-Nov-25	Sanamahitala Village	181	79	37	17.25	29.86	Transportation road	About 1 KM
29-Nov-25	Balichandrapur Village	208	78	41	19.18	38.90	Mining Activities	About 1 KM

Tattanak
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESHWAR

Janaki

*N-44QS,2009

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area :

Hingula

Project :

Hingula OCP

Date of Sampling	Monitoring Station	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo(a)Pyrene	Benzene
		(µg/m ³)	(µg/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)
03-Nov-25	Solda Village	<20.0	27.07	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
03-Nov-25	Kankarei Village	<20.0	23.28	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
03-Nov-25	Sanamahitala Village	<20.0	23.28	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
03-Nov-25	Balichandrapur Village	<20.0	18.88	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
03-Nov-25	Banabaspur Village	<20.0	17.93	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
04-Nov-25	Kankarei Village	<20.0	18.88	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
04-Nov-25	Banabaspur Village	<20.0	24.85	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7)	BQL
04-Nov-25	Solda Village	<20.0	13.85	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
04-Nov-25	Sanamahitala Village	<20.0	14.47	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
04-Nov-25	Balichandrapur Village	<20.0	25.17	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
10-Nov-25	Banabaspur Village	<20.0	27.68	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7)	BQL
10-Nov-25	Balichandrapur Village	<20.0	17.30	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7)	BQL
10-Nov-25	Sanamahitala Village	<20.0	23.28	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7)	BQL
10-Nov-25	Kankarei Village	<20.0	13.85	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7)	BQL
10-Nov-25	Solda Village	<20.0	24.85	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
11-Nov-25	Banabaspur Village	<20.0	13.53	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
11-Nov-25	Solda Village	<20.0	15.73	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
11-Nov-25	Sanamahitala Village	<20.0	14.47	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7)	BQL
11-Nov-25	Kankarei Village	<20.0	22.65	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7)	BQL
11-Nov-25	Balichandrapur Village	<20.0	23.92	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7)	BQL
17-Nov-25	Balichandrapur Village	<20.0	14.78	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
17-Nov-25	Solda Village	<20.0	20.45	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7)	BQL
17-Nov-25	Sanamahitala Village	<20.0	25.80	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7)	BQL
17-Nov-25	Kankarei Village	<20.0	20.45	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
17-Nov-25	Banabaspur Village	<20.0	14.17	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7)	BQL
18-Nov-25	Banabaspur Village	<20.0	22.65	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7)	BQL
18-Nov-25	Kankarei Village	<20.0	20.13	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7)	BQL
18-Nov-25	Solda Village	<20.0	23.28	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL

Standard	400(24 hours)	180(hours)	1.0(24 hours)	6.0(Annual)	20(Annual)	0.3(8 hours)	01(annual)	05(annual)
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Project :

Hingula OCP

Date of Sampling	Monitoring Station	Ammonia(NH ₃)	Ozone(O ₃)	Lead(Pb)	Arsenic(As)	Nickel(Ni)	CO	Benzo(a)Pyrene	Benzene
		(µg/m ³)	(µg/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)
18-Nov-25	Sanamahitala Village	<20.0	13.85	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7)	BQL
18-Nov-25	Balichandrapur Village	<20.0	15.73	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7)	BQL
24-Nov-25	Solda Village	<20.0	28.00	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
24-Nov-25	Sanamahitala Village	<20.0	18.88	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7)	BQL
24-Nov-25	Banabaspur Village	<20.0	23.60	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7)	BQL
24-Nov-25	Balichandrapur Village	<20.0	23.92	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
24-Nov-25	Kankarei Village	<20.0	13.85	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
25-Nov-25	Balichandrapur Village	<20.0	16.98	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7)	BQL
25-Nov-25	Banabaspur Village	<20.0	15.10	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7)	BQL
25-Nov-25	Kankarei Village	<20.0	21.08	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
25-Nov-25	Solda Village	<20.0	18.88	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
25-Nov-25	Sanamahitala Village	<20.0	22.02	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
28-Nov-25	Balichandrapur Village	<20.0	25.48	<0.1	<1.0	<1.0	1.6	BQL(QL)=0.7)	BQL
28-Nov-25	Banabaspur Village	<20.0	14.78	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7)	BQL
28-Nov-25	Kankarei Village	<20.0	27.07	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
28-Nov-25	Sanamahitala Village	<20.0	18.57	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
28-Nov-25	Solda Village	<20.0	18.57	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
29-Nov-25	Solda Village	<20.0	16.98	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
29-Nov-25	Banabaspur Village	<20.0	18.25	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
29-Nov-25	Kankarei Village	<20.0	22.65	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7)	BQL
29-Nov-25	Sanamahitala Village	<20.0	20.45	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
29-Nov-25	Balichandrapur Village	<20.0	15.3	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7)	BQL

J. J. Tanik
 Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

J. J. Tanik

Standard	400(24 hours)	180(hours)	1.0(24 hours)	6.0(Annual)	20(Annual)	0.2(9 hours)	01(annual)	05(annual)
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शीएलपीडीआई
सर्वोच्च
cmpdi
1986-2016

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Hingula

PROJECT :

Hingula OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
14-Nov-25	South West Side of the Mine	65.9	54.3
14-Nov-25	Solda Village	49.2	41.7
14-Nov-25	Kankarei Village	47.1	38.1
14-Nov-25	Time Office	69.7	57.8
28-Nov-25	South West Side of the Mine	68.2	50.6
28-Nov-25	Solda Village	50.1	36.3
28-Nov-25	Kankarei Village	49.7	35.4
28-Nov-25	Time Office	67.3	53.8

MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 75dB(A) (Industrial)	10.00 PM -6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 55dB(A) (Residential)	10.00 PM -6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 65dB(A) (Commercial)	10.00 PM -6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM -6.00 AM Leq 40dB(A) (Silence Zone)

T. Pattanayak
Authorised Signatory
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BHUBANESWAR

J. S. S. S.

EFFLUENT QUALITY DATA

Area :

Hingula

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Hingula OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
15-Nov-25	Inlet of O & G Trap	8.10	<4.0	36	40	-	
15-Nov-25	Mine Sump Water	8.15	<4.0	20	24	-	
15-Nov-25	Outlet of O & G Trap	8.18	<4.0	32	36	-	
29-Nov-25	Inlet of O & G Trap	7.40	<4.0	42	44	-	
29-Nov-25	Outlet of O & G Trap	6.90	<4.0	28	24	-	

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format

MoEF Standard Notification dated 25th September, 2000
 and MoEF Schedule VI, General standard for discharge
 of Environmental Pollutants Part A: Effluents

5.5-9.0 10 100 250 30



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Drinking Water Quality Data Hingula Area

Project / OCP	Hingula OCP			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Time Office Water	Gopalprasad Village Bore Well Water	Kumunda Village Bore Well Water	
Date of Sampling	15-Nov-2025	15-Nov-2025	15-Nov-2025	Acceptable	Permissible
Colour(Hazen)	3	1	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	3	4	1	5
pH	8.24	8.60	6.80	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	147.07	294.14	466.42	200	600
Chloride(mg/L)	48.57	48.57	91.32	250	1000
Sulphate(mg/L)	135.22	45.26	122.26	200	400
Nitrate(mg/L)	7.50	<0.5	15.68	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	235.32	200.02	403.96	200	600
Calcium(mg/L)	42.44	39.20	55.59	75	200
Fluoride(mg/L)	0.52	0.65	0.76	1	1.5
Total Dissolve Solid(mg/L)	366	346	644	500	2000
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.15	0.06	0.33	0.1	0.3
Iron(mg/L)	<0.1	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	0.15	0.43	0.86	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	2.4

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Drinking Water Quality Data Hingula Area

Project / OCP	Hingula OCP			Indian Drinking Standards (IS-10500):2012	
	Time Office Water	Gopalprasad Village Bore Well Water	Kumunda Village Bore Well Water	Acceptable	Permissible
Monitoring Station					
Date of Sampling	15-Nov-2025	15-Nov-2025	15-Nov-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	7.71	5.78	5.91		
Potassium(mg/L)	3.45	2.19	2.67		
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	Not Detected	-	-

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CMPDI, RI-VII, LAB
BHUBANESWAR

Signature

Hingula OCP

Legend
Monitoring Station

Banabaspur Village

Solada Village

Kankar Village

Time Office

Balichandrapur Village

South West Side of the Mine

Sanamahitola Village

Google Earth



**Environmental Monitoring Report
For
November -2025**

**Project: Balaram OCP
Area: Hingula
Coalfield: Talcher**



Mahanadi Coalfields Limited



Central Mine Planning & Design Institute Ltd.
(A Subsidiary of Coal India Ltd.)

Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)
[Assistance from Environment Division, CMPDI(HQs), Ranchi]

The test report shall not be reproduced in part or full without written approval of the competent authority

AMBIENT AIR QUALITY DATA

Area :

Hingula

(Reference Station)

Project :

Balram OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
03-Nov-25	East of the Mine, Natedi Village	205	74	33	18.65	27.01	Coal Transportation Road	About 2km
03-Nov-25	Natada Village	231	85	43	10.17	31.68	Anthropogenic Activities, Local	About 2km
03-Nov-25	Solda Village (Reported Only)	230	83	41	17.99	34.04	Coal Transportation Road	About 2km
03-Nov-25	Purunasahi Village	212	86	39	11.26	30.21	Mining Activities, Transportation	About 500m
04-Nov-25	East of the Mine, Natedi Village	178	79	38	12.39	25.93	Coal Transportation Road	About 2km
04-Nov-25	Purunasahi Village	238	93	42	15.61	23.93	Mining Activities, Transportation	About 500m
04-Nov-25	Solda Village (Reported Only)	223	77	40	17.32	32.42	Coal Transportation Road	About 2km
04-Nov-25	Natada Village	217	77	40	13.44	29.47	Anthropogenic Activities, Local	About 2km
05-Nov-25	Kurihan Village (Reported Only)	219	83	46	18.65	37.82	Mining Activities	About 500m
05-Nov-25	Khajuria Village (Reported Only)	215	77	41	15.62	31.68	Mining Activities	About 1 KM
06-Nov-25	Kurihan Village (Reported Only)	201	75	34	15.57	32.42	Mining Activities	About 500m
06-Nov-25	Khajuria Village (Reported Only)	218	74	37	12.39	37.28	Mining Activities	About 1 KM
10-Nov-25	Purunasahi Village	192	78	35	11.19	22.69	Mining Activities, Transportation	About 500m
10-Nov-25	Natada Village	187	63	34	11.36	23.03	Anthropogenic Activities, Local	About 2km
10-Nov-25	East of the Mine, Natedi Village	183	73	36	12.20	24.74	Coal Transportation Road	About 2km
11-Nov-25	East of the Mine, Natedi Village	214	93	46	15.99	25.93	Coal Transportation Road	About 2km
11-Nov-25	Natada Village	197	72	38	11.78	39.24	Anthropogenic Activities, Local	About 2km
11-Nov-25	Solda Village (Reported Only)	235	86	44	14.65	36.02	Coal Transportation Road	About 2km
11-Nov-25	Solda Village (Reported Only)	197	75	32	16.79	33.23	Coal Transportation Road	About 2km
11-Nov-25	Purunasahi Village	213	83	40	11.59	34.85	Mining Activities, Transportation	About 500m
12-Nov-25	Kurihan Village (Reported Only)	180	79	38	13.46	34.12	Mining Activities	About 500m
12-Nov-25	Khajuria Village (Reported Only)	228	80	41	12.39	24.31	Mining Activities	About 1 KM
13-Nov-25	Kurihan Village (Reported Only)	186	76	41	18.89	23.58	Mining Activities	About 500m
13-Nov-25	Khajuria Village (Reported Only)	233	96	51	16.35	33.15	Mining Activities	About 1 KM
17-Nov-25	East of the Mine, Natedi Village	216	86	43	8.75	32.42	Coal Transportation Road	About 2km

*NAAQS, 2009

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Jaswant

Project :**Balram OCP****(conc. in µg/cu.m.)**

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
17-Nov-25	Natada Village	235	84	43	16.35	28.00	Anthropogenic Activities, Local	About 2km
17-Nov-25	Purunasahi Village	171	67	36	13.44	21.37	Mining Activities, Transportation	About 500m
17-Nov-25	Solda Village (Reported Only)	221	79	41	18.53	27.26	Coal Transportation Road	About 2km
18-Nov-25	Purunasahi Village	238	84	43	9.68	25.59	Mining Activities, Transportation	About 500m
18-Nov-25	Solda Village (Reported Only)	257	90	45	16.79	29.99	Coal Transportation Road	About 2km
18-Nov-25	East of the Mine, Natedi Village	233	91	46	20.19	37.54	Coal Transportation Road	About 2km
18-Nov-25	Natada Village	156	64	33	12.39	32.42	Anthropogenic Activities, Local	About 2km
19-Nov-25	Khajuria Village (Reported Only)	196	74	39	10.90	25.05	Mining Activities	About 1 KM
19-Nov-25	Kurihan Village (Reported Only)	213	77	41	12.56	27.37	Mining Activities	About 500m
20-Nov-25	Khajuria Village (Reported Only)	254	89	45	15.23	35.50	Mining Activities	About 1 KM
20-Nov-25	Kurihan Village (Reported Only)	246	82	44	9.14	27.66	Mining Activities	About 500m
24-Nov-25	East of the Mine, Natedi Village	177	68	37	16.35	22.84	Coal Transportation Road	About 2km
24-Nov-25	Natada Village	236	84	43	12.56	27.79	Anthropogenic Activities, Local	About 2km
24-Nov-25	Purunasahi Village	199	72	39	18.78	29.99	Mining Activities, Transportation	About 500m
24-Nov-25	Solda Village (Reported Only)	182	73	37	13.88	20.47	Coal Transportation Road	About 2km
25-Nov-25	Natada Village	190	73	38	9.59	32.42	Anthropogenic Activities, Local	About 2km
25-Nov-25	Solda Village (Reported Only)	164	61	34	18.27	25.47	Coal Transportation Road	About 2km
25-Nov-25	East of the Mine, Natedi Village	222	83	42	11.42	34.73	Coal Transportation Road	About 2km
25-Nov-25	Purunasahi Village	278	92	48	11.78	23.89	Mining Activities, Transportation	About 500m
26-Nov-25	Khajuria Village (Reported Only)	225	80	42	12.94	31.64	Mining Activities	About 1 KM
26-Nov-25	Kurihan Village (Reported Only)	206	74	40	12.88	21.79	Mining Activities	About 500m
27-Nov-25	Khajuria Village (Reported Only)	264	83	46	13.44	22.84	Mining Activities	About 1 KM
27-Nov-25	Kurihan Village (Reported Only)	214	77	41	19.98	19.82	Mining Activities	About 500m
28-Nov-25	Solda Village (Reported Only)	173	67	36	13.19	28.36	Coal Transportation Road	About 2km
28-Nov-25	Purunasahi Village	192	74	38	9.19	23.50	Mining Activities, Transportation	About 500m
28-Nov-25	East of the Mine, Natedi Village	237	94	48	15.23	25.47	Coal Transportation Road	About 2km
28-Nov-25	Natada Village	270	91	47	12.39	25.93	Anthropogenic Activities, Local	About 2km
29-Nov-25	Purunasahi Village	256	89	45	18.93	27.30	Mining Activities, Transportation	About 500m
29-Nov-25	East of the Mine, Natedi Village	195	74	39	10.52	30.71	Coal Transportation Road	About 2km

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Janaki

Project :

Balram OCP

(conc. in $\mu\text{g}/\text{cu.m.}$)

<i>Date of Sampling</i>	<i>Monitoring Station</i>	<i>SPM</i>	<i>PM10</i>	<i>PM2.5</i>	<i>SO2</i>	<i>NOx</i>	<i>Dust Generating Source(DGS)</i>	<i>Distance from DGS</i>
29-Nov-25	Solda Village (Reported Only)	267	87	46	9.90	22.38	Coal Transportation Road	About 2km
29-Nov-25	Natada Village	248	87	44	17.99	25.95	Anthropogenic Activities, Local	About 2km

R. Pattanaik
**Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR**

J. Prasad

*NAAQS,2009

100 80 80 80

Test Report



AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area :

Hingula

Project :

Balram OCP

Date of Sampling	Monitoring Station	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo(a)Pyrene	Benzene
		(µg/m ³)	(µg/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)
03-Nov-25	Solda Village (Reported Only)	<20.0	27.07	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7	BQL
03-Nov-25	Purunasahi Village	<20.0	17.30	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7	BQL
03-Nov-25	Purunasahi Village	<20.0	16.05	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7	BQL
03-Nov-25	East of the Mine, Natedi Village	<20.0	24.85	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7	BQL
03-Nov-25	Natada Village	<20.0	21.08	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7	BQL
04-Nov-25	East of the Mine, Natedi Village	<20.0	14.78	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7	BQL
04-Nov-25	Solda Village (Reported Only)	<20.0	13.85	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7	BQL
04-Nov-25	Natada Village	<20.0	23.28	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7	BQL
05-Nov-25	Khajuria Village (Reported Only)	<20.0	15.73	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7	BQL
06-Nov-25	Khajuria Village (Reported Only)	<20.0	24.85	<0.1	<1.0	<1.0	0.8	BQL(QL)=0.7	BQL
10-Nov-25	Solda Village (Reported Only)	<20.0	24.85	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7	BQL
10-Nov-25	East of the Mine, Natedi Village	<20.0	26.75	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7	BQL
10-Nov-25	Natada Village	<20.0	15.42	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7	BQL
10-Nov-25	Purunasahi Village	<20.0	28.00	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7	BQL
11-Nov-25	Natada Village	<20.0	24.23	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
11-Nov-25	Solda Village (Reported Only)	<20.0	15.73	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
11-Nov-25	East of the Mine, Natedi Village	<20.0	15.73	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7	BQL
11-Nov-25	Purunasahi Village	<20.0	14.47	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
12-Nov-25	Khajuria Village (Reported Only)	<20.0	15.73	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
13-Nov-25	Khajuria Village (Reported Only)	<20.0	23.60	<0.1	<1.0	<1.0	0.8	BQL(QL)=0.7	BQL
17-Nov-25	East of the Mine, Natedi Village	<20.0	22.33	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7	BQL
17-Nov-25	Natada Village	<20.0	14.47	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7	BQL
17-Nov-25	Purunasahi Village	<20.0	23.92	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7	BQL
17-Nov-25	Solda Village (Reported Only)	<20.0	20.45	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7	BQL

Standard	400(24 hours)	180(hours)	1.0(24 hours)	6.0(Annual)	20(Annual)	04(1hours)	01(annual)	05(annual)
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CMPDI, RI-VII, LAB
MUMBAI

Janani

Project :

Balram OCP

Date of Sampling	Monitoring Station	Ammonia(NH ₃)	Ozone(O ₃)	Lead(Pb)	Arsenic(As)	Nickel(Ni)	CO	Benzo(a)Pyrene	Benzene
		(µg/m ³)	(µg/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)
18-Nov-25	East of the Mine, Natedi Village	<20.0	18.88	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7)	BQL
18-Nov-25	Purunasahi Village	<20.0	16.37	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7)	BQL
18-Nov-25	Solda Village (Reported Only)	<20.0	23.28	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
18-Nov-25	Natada Village	<20.0	22.33	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7)	BQL
19-Nov-25	Khajuria Village (Reported Only)	<20.0	19.20	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
20-Nov-25	Khajuria Village (Reported Only)	<20.0	14.17	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
24-Nov-25	East of the Mine, Natedi Village	<20.0	20.45	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7)	BQL
24-Nov-25	Natada Village	<20.0	13.82	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
24-Nov-25	Purunasahi Village	<20.0	14.47	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
24-Nov-25	Solda Village (Reported Only)	<20.0	28.00	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
25-Nov-25	East of the Mine, Natedi Village	<20.0	12.90	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
25-Nov-25	Natada Village	<20.0	18.57	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7)	BQL
25-Nov-25	Purunasahi Village	<20.0	13.22	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7)	BQL
25-Nov-25	Solda Village (Reported Only)	<20.0	18.88	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
26-Nov-25	Khajuria Village (Reported Only)	<20.0	21.40	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
27-Nov-25	Khajuria Village (Reported Only)	<20.0	17.30	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7)	BQL
28-Nov-25	Natada Village	<20.0	17.30	<0.1	<1.0	<1.0	1.5	BQL(QL)=0.7)	BQL
28-Nov-25	Purunasahi Village	<20.0	20.13	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
28-Nov-25	Solda Village (Reported Only)	<20.0	18.57	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
28-Nov-25	East of the Mine, Natedi Village	<20.0	15.42	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
29-Nov-25	Solda Village (Reported Only)	<20.0	16.98	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
29-Nov-25	East of the Mine, Natedi Village	<20.0	15.10	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
29-Nov-25	Natada Village	<20.0	16.68	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7)	BQL
29-Nov-25	Purunasahi Village	<20.0	22.97	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7)	BQL

T. Jaiswal
 Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Jaiswal

Standard	400(24 hours)	180(hours)	1.0(24 hours)	6.0(Annual)	20(Annual)	04(1 hours)	01(annual)	05(annual)
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सीएमपीडी आईडी
 WITH THE
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 BUREAU

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Hingula

PROJECT :

Balarum OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
14-Nov-25	Natada Village	50.1	37.9
14-Nov-25	Solada Village (Reported only)	49.2	41.7
14-Nov-25	Near Natedi Village	49.3	37.4
14-Nov-25	Pump House Near Outsourcing Working Patch	67.1	55.3
14-Nov-25	Near Project Office Balram OCP	69.3	56.7
28-Nov-25	Natada Village	48.2	34.7
28-Nov-25	Solada Village (Reported only)	50.1	36.3
28-Nov-25	Near Natedi Village	47.8	33.6
28-Nov-25	Pump House Near Outsourcing Working Patch	65.4	50.2
28-Nov-25	Near Project Office Balram OCP	66.8	49.9

MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 75dB(A) (Industrial)	10.00 PM -6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 55dB(A) (Residential)	10.00 PM -6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 65dB(A) (Commercial)	10.00 PM -6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM -6.00 AM Leq 40dB(A) (Silence Zone)

Intarawati
 Authorized Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Jaswant



सिंहमपीडीआई
भुवनेश्वर
cmpdi

TABLE--

EFFLUENT QUALITY DATA

Area :

Hingula

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Balram OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
15-Nov-25	Gandhisagar (Mine Sump)	7.83	<4.0	34	20	-	
15-Nov-25	Inlet of O & G Trap	8.13	<4.0	34	36	-	
15-Nov-25	Outlet of O & G Trap	7.87	<4.0	26	24	-	
29-Nov-25	Inlet of O & G Trap	7.55	<4.0	26	32	-	
29-Nov-25	Outlet of O & G Trap	7.15	<4.0	32	28	-	

Katwaik
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Janaki

MoEF Standard Notification dated 25th September, 2009
and MoEF Schedule VI, General standard for discharge
of Environmental Pollutants Part A: Effluents

5.5-9.0	10	100	250	30
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EFFLUENT QUALITY DATA

Area :

Hingula

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Balram OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	MPN/100mL
15-Nov-25	STP Inlet of Balram Colony	7.63	-	34		4.4	170
15-Nov-25	STP Outlet of Balram Colony	7.49	-	30	-	2.8	94
29-Nov-25	STP Inlet of Balram Colony	7.45	-	40	-	4.0	220
29-Nov-25	STP Outlet of Balram Colony	7.69	-	26	-	3.2	140

 J. Pattnaik
 Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

J. Pattnaik

G.S.R. 1265(E) Effluent discharge standards (applicable to all mode of disposal), Sewage Treatment Plants (STPs)

6.5-9.0

-

<100

-

30

<1000



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Drinking Water Quality Data Hingula Area

Project / OCP	Balaram OCP			Indian Drinking Standards (IS-10500):2012	
	Danara Village Borewell Water	Balaram Colony	Nakeipasi Village Bore Well Water		
Date of Sampling	15-Nov-2025	15-Nov-2025	15-Nov-2025	Acceptable	Permissible
Colour(Hazen)	1	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	2	4	1	5
pH	6.78	7.01	6.90	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	96.64	294.14	58.82	200	600
Chloride(mg/L)	33.03	29.14	62.17	250	1000
Sulphate(mg/L)	98.84	152.84	145.32	200	400
Nitrate(mg/L)	15.96	8.50	16.52	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	156.88	231.39	168.64	200	600
Calcium(mg/L)	44.04	48.73	47.16	75	200
Fluoride(mg/L)	0.34	0.46	0.54	1	1.5
Total Dissolve Solid(mg/L)	283	332	483	500	2000
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	0.07	0.1	0.3
Iron(mg/L)	<0.1	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	0.19	0.19	0.95	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	2.4

Tattwaik
Authorized Signatory
CMPDI, RI-VII, LAB
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Jaswant



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Drinking Water Quality Data Hingula Area

Project / OCP	Balaram OCP			Indian Drinking Standards (IS-10500):2012	
	Danara Village Borewell Water	Balaram Colony	Nakeipasi Village Bore Well Water	Acceptable	Permissible
Monitoring Station					
Date of Sampling	15-Nov-2025	15-Nov-2025	15-Nov-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	10.90	4.41	10.26		
Potassium(mg/L)	9.67	2.75	8.84		
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	Not Detected	-	-

Antwarik
Authorised Signatory
CMPDI, RI-VII, LAB,
BHUBANESWAR

Jamati



Balram OCP

Legend
Monitoring Station

Google Earth

**Environmental Monitoring Report
For
November -2025**

**Project: Talcher Colliery
Area: Talcher
Coalfield: Talcher**



Mahanadi Coalfields Limited



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निर्मि रत्ना
cmpdi
Nirmir Ratna

Central Mine Planning & Design Institute Ltd.
(A Subsidiary of Coal India Ltd.)

Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)
[Assistance from Environment Division, CMPDI(HQs), Ranchi]

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ODISHA
OMPDI
Bhubaneswar

Test Report

AMBIENT AIR QUALITY DATA

Area :

Talcher

(Compliance Station)

Project :

Talcher Colliery

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	CO ($\mu\text{g}/\text{m}^3$)	Dust Generating Source(DGS)	Distance from DGS
07-Nov-25	Near Canteen Talcher Colliery	267	139	61	15.23	36.28	-	Local Transportation	About 500m
07-Nov-25	Officer Club, Talcher Area	310	187	78	13.81	22.10	-	Mining Activities, Ananta, Lingaraj	About 1000m
22-Nov-25	Near Canteen Talcher Colliery	292	131	62	14.17	36.10	-	Local Transportation	About 500m
22-Nov-25	Officer Club, Talcher Area	298	134	70	18.65	28.56	-	Mining Activities, Ananta, Lingaraj	About 1000m

Tattanaik
Authorized Signatory
OMPDI, RI-VII, LAB
BHUBANESWAR

Jasanti

MoEF Standards Notification dated 25th
September, 2000

600	300		120	120	02(8 Hours)
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Lab and
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TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Talcher

PROJECT :

Talcher Colliery

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
13-Nov-25	Officers Club, Talcher Area	57.3	47.3
13-Nov-25	Near Canteen, Talcher Colliery	59.7	49.1
27-Nov-25	Officers Club, Talcher Area	59.4	44.7
27-Nov-25	Near Canteen, Talcher Colliery	61.5	47.9

MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 75dB(A) (Industrial)	10.00 PM -6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 55dB(A) (Residential)	10.00 PM -6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 65dB(A) (Commercial)	10.00 PM -6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM -6.00 AM Leq 40dB(A) (Silence Zone)

fatwala
Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR.

fatwala



राष्ट्रीय पर्यावरण
अनुसंधान संस्थान
CMPDI
भुवनेश्वर

TABLE--

EFFLUENT QUALITY DATA

Area :

Talcher

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Talcher Colliery

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
15-Nov-25	Talcher Colliery Sedimentation Tank Discharge	6.85	<4.0	26	28	-	
29-Nov-25	Talcher Colliery Sedimentation Tank Discharge	6.65	<4.0	34	32	-	

T. K. Sahoo
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

J. S. Sahoo

MoEF Standard Notification dated 25th September, 2000
and MoEF Schedule VI, General standard for discharge
of Environmental Pollutants Part A: Effluents

5.5-9.0	10	100	250	30
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Drinking Water Quality Data Talcher Area

Project / OCP	Talcher U/G		Indian Drinking Standards (IS-10500):2012	
	Canteen Water, GM Office	Canteen , Talcher Colliery		
Monitoring Station				
Date of Sampling	15-Nov-2025	15-Nov-2025	Acceptable	Permissible
Colour(Hazen)	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	3	1	5
pH	7.18	6.78	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	58.82	84.04	200	600
Chloride(mg/L)	13.60	25.25	250	1000
Sulphate(mg/L)	32.26	88.16	200	400
Nitrate(mg/L)	<0.5	2.32	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	58.83	129.42	200	600
Calcium(mg/L)	15.72	20.43	75	200
Fluoride(mg/L)	0.39	0.45	1	1.5
Total Dissolve Solid(mg/L)	108	220	500	2000
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	0.65	0.1	0.3
Iron(mg/L)	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	0.05	0.08	5	15
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	0.5	2.4

Kattawalk
Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR.

Janak



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Drinking Water Quality Data Talcher Area

Project / OCP	Talcher U/G		Indian Drinking Standards (IS-10500):2012	
	Canteen Water, GM Office	Canteen, Talcher Colliery	Acceptable	Permissible
Monitoring Station				
Date of Sampling	15-Nov-2025	15-Nov-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	5.13	8.18	-	-
Potassium(mg/L)	0.62	4.77	-	-
Phenolics(mg/L)	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	-	-

Tapuwaik
Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Jana

Talcher Air Stations

Talcher Air monitoring stations



Google Earth

Image © 2021, Map data © 2021, Google

**Environmental Monitoring Report
For
November -2025**

**Project: Nandira Colliery
Area: Talcher
Coalfield: Talcher**



Mahanadi Coalfields Limited



Central Mine Planning & Design Institute Ltd.
(A Subsidiary of Coal India Ltd.)

Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)
[Assistance from Environment Division, CMPDI(HQs), Ranchi]

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 CMPDI
 AMBIENT AIR QUALITY DATA

Test Report

AMBIENT AIR QUALITY DATA

Area :

Talcher

(Compliance Station)

Project :

Nandira Colliery

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	CO (mg/m^3)	Dust Generating Source(DGS)	Distance from DGS
07-Nov-25	Project Office	296	180	72	17.13	33.19	-	Mining Activities, Transportation, CHP	About 500m
07-Nov-25	Sub-station	291	175	69	13.08	32.42	-	Transportation & Railway Sidings of BOCP	About 500m
22-Nov-25	Project Office	303	154	76	16.83	22.18	-	Mining Activities, Transportation, CHP	About 500m
22-Nov-25	Sub-station	302	162	73	19.03	28.56	-	Transportation & Railway Sidings of BOCP	About 500m

Pratibha
 Authorized Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Janak

MoEF Standards Notification dated 25th
 September, 2009

600	300		120	120	82(8 Hours)
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संरक्षणपीडीआई
 cmpdi
 AMBIENT AIR QUALITY DATA

Test Report

AMBIENT AIR QUALITY DATA

Area :

Talcher

(Reference Station)

Project :

Nandira Colliery

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
03-Nov-25	Nandira Colony	214	83	41	16.35	30.21	Local Transportation,	About 500m
03-Nov-25	East of the Mine, Natedi Village (Reported Only)	205	74	33	18.65	27.01	Coal Transportation Road	About 2km
04-Nov-25	East of the Mine, Natedi Village (Reported Only)	178	79	38	12.39	25.93	Coal Transportation Road	About 2km
04-Nov-25	Nandira Colony	233	92	49	18.65	30.87	Local Transportation,	About 500m
10-Nov-25	East of the Mine, Natedi Village (Reported Only)	183	73	36	12.20	24.74	Coal Transportation Road	About 2km
10-Nov-25	Nandira Colony	207	86	43	12.56	36.28	Local Transportation,	About 500m
11-Nov-25	East of the Mine, Natedi Village (Reported Only)	214	93	46	15.99	25.93	Coal Transportation Road	About 2km
11-Nov-25	Nandira Colony	221	90	47	12.35	22.10	Local Transportation,	About 500m
17-Nov-25	East of the Mine, Natedi Village (Reported Only)	216	86	43	8.75	32.42	Coal Transportation Road	About 2km
17-Nov-25	Nandira Colony	215	77	41	17.44	25.79	Local Transportation,	About 500m
18-Nov-25	East of the Mine, Natedi Village (Reported Only)	233	91	46	20.19	37.54	Coal Transportation Road	About 2km
18-Nov-25	Nandira Colony	170	70	36	9.45	36.84	Local Transportation,	About 500m
24-Nov-25	Nandira Colony	288	93	51	16.35	25.79	Local Transportation,	About 500m
24-Nov-25	East of the Mine, Natedi Village (Reported Only)	177	68	37	16.35	22.84	Coal Transportation Road	About 2km
25-Nov-25	East of the Mine, Natedi Village (Reported Only)	222	83	42	11.42	34.73	Coal Transportation Road	About 2km
25-Nov-25	Nandira Colony	180	70	37	17.25	29.00	Local Transportation,	About 500m
28-Nov-25	East of the Mine, Natedi Village (Reported Only)	237	94	48	15.23	25.47	Coal Transportation Road	About 2km
28-Nov-25	Nandira Colony	234	80	43	17.80	32.42	Local Transportation,	About 500m
29-Nov-25	Nandira Colony	264	88	46	17.44	22.84	Local Transportation,	About 500m
29-Nov-25	East of the Mine, Natedi Village (Reported Only)	195	74	39	10.52	30.71	Coal Transportation Road	About 2km

In Tanuik
 Authorized Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Jaswant

*N.4.4QS.2009

100	80	80	80
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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area :

Talcher

Project :

Nandira Colliery

Date of Sampling	Monitoring Station	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo(a)Pyrene	Benzene
		(µg/m ³)	(µg/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)
03-Nov-25	Nandira Colony	<20.0	27.37	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
03-Nov-25	East of the Mine, Natedi Village (Reported Only)	<20.0	24.85	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7)	BQL
04-Nov-25	East of the Mine, Natedi Village (Reported Only)	<20.0	14.78	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7)	BQL
04-Nov-25	Nandira Colony	<20.0	19.82	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
10-Nov-25	East of the Mine, Natedi Village (Reported Only)	<20.0	26.75	<0.1	<1.0	<1.0	1.0	BQL(QL)=0.7)	BQL
10-Nov-25	Nandira Colony	<20.0	21.08	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7)	BQL
11-Nov-25	East of the Mine, Natedi Village (Reported Only)	<20.0	15.73	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7)	BQL
11-Nov-25	Nandira Colony	<20.0	25.80	<0.1	<1.0	<1.0	0.7	BQL(QL)=0.7)	BQL
17-Nov-25	East of the Mine, Natedi Village (Reported Only)	<20.0	22.33	<0.1	<1.0	<1.0	1.1	BQL(QL)=0.7)	BQL
17-Nov-25	Nandira Colony	<20.0	20.45	<0.1	<1.0	<1.0	0.8	BQL(QL)=0.7)	BQL
18-Nov-25	East of the Mine, Natedi Village (Reported Only)	<20.0	18.88	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7)	BQL
18-Nov-25	Nandira Colony	<20.0	13.22	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7)	BQL
24-Nov-25	Nandira Colony	<20.0	23.60	<0.1	<1.0	<1.0	1.4	BQL(QL)=0.7)	BQL
24-Nov-25	East of the Mine, Natedi Village (Reported Only)	<20.0	20.45	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7)	BQL
25-Nov-25	East of the Mine, Natedi Village (Reported Only)	<20.0	12.90	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
25-Nov-25	Nandira Colony	<20.0	27.37	<0.1	<1.0	<1.0	0.9	BQL(QL)=0.7)	BQL
28-Nov-25	East of the Mine, Natedi Village (Reported Only)	<20.0	15.42	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
28-Nov-25	Nandira Colony	<20.0	21.40	<0.1	<1.0	<1.0	1.3	BQL(QL)=0.7)	BQL
29-Nov-25	Nandira Colony	<20.0	19.82	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL
29-Nov-25	East of the Mine, Natedi Village (Reported Only)	<20.0	15.10	<0.1	<1.0	<1.0	1.2	BQL(QL)=0.7)	BQL

Katwaik
Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Jasmati

Standard	400(24 hours)	180(hours)	1.0(24 hours)	6.0(Annual)	20(Annual)	0.23(hours)	01(annual)	05(annual)
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सीएनपीडी
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cmpdi
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TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Talcher

PROJECT :

Nandira Colliery

DATE OF SAMPLING	STATION	Noise Level Measurement in Log dB(A)	
		DAY	NIGHT
13-Nov-25	Project Office	60.0	47.2
13-Nov-25	Sub Station, Nandira Colliery	62.1	51.9
27-Nov-25	Project Office	62.2	48.1
27-Nov-25	Sub Station, Nandira Colliery	64.4	50.9

MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 75dB(A) (Industrial)	10.00 PM -6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 55dB(A) (Residential)	10.00 PM -6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 65dB(A) (Commercial)	10.00 PM -6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM -6.00 AM Leq 40dB(A) (Silence Zone)


Authorised Signatory
CMPDI, RI-VII, LAB
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EFFLUENT QUALITY DATA

Area :

Talcher

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Nandira Colliery

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
15-Nov-25	Nandira Colliery Sedimentation Tank Discharge	7.48	<4.0	34	32	-	
29-Nov-25	Nandira Colliery Sedimentation Tank Discharge	6.41	<4.0	40	36	-	

K. Pattnaik
 Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Janant

MoEF Standard Notification dated 25th September, 2009
 and MoEF Schedule VI, General standard for discharge
 of Environmental Pollutants Part A: Effluents

5.5-9.0	10	100	250	30
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मिनी रत्न
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Mini Ratna

Drinking Water Quality Data Talcher Area

Project / OCP	Nandira U/G		Indian Drinking Standards (IS-10500):2012	
	Canteen , Nandira Colliery	Pit Top, Nandira Colliery	Acceptable	Permissible
Monitoring Station	15-Nov-2025	15-Nov-2025		
Date of Sampling	15-Nov-2025	15-Nov-2025	Acceptable	Permissible
Colour(Hazen)	1	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	1	1	5
pH	6.70	6.56	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	142.86	147.07	200	600
Chloride(mg/L)	48.57	52.46	250	1000
Sulphate(mg/L)	120.1	110.5	200	400
Nitrate(mg/L)	6.58	<0.5	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	203.94	196.10	200	600
Calcium(mg/L)	25.15	22	75	200
Fluoride(mg/L)	0.56	0.40	1	1.5
Total Dissolve Solid(mg/L)	343	328	500	2000
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.17	0.28	0.1	0.3
Iron(mg/L)	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	0.28	0.22	5	15
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	0.5	2.4


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Drinking Water Quality Data Talcher Area

Project / OCP	Nandira U/G		Indian Drinking Standards (IS-10500):2012	
	Canteen , Nandira Colliery	Pit Top, Nandira Colliery	Acceptable	Permissible
Monitoring Station				
Date of Sampling	15-Nov-2025	15-Nov-2025		
Selenium(mg/L)	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	12.48	9.91		
Potassium(mg/L)	8.35	8.09		
Phenolics(mg/L)	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	-	-

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Prasath

Nandira Air Stations

Nandira Air monitoring stations



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**Environmental Monitoring Report
For
November -2025**

**Project: Deulbera Colliery
Area: Talcher
Coalfield: Talcher**



Mahanadi Coalfields Limited



Central Mine Planning & Design Institute Ltd.
(A Subsidiary of Coal India Ltd.)

Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)
[Assistance from Environment Division, CMPDI(HQs), Ranchi]

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TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Talcher

PROJECT :

Deulbera Colliery

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
13-Nov-25	Manager's Office	63.7	52.1
27-Nov-25	Manager's Office	61.1	47.5

MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 75dB(A) (Industrial)	10.00 PM -6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 55dB(A) (Residential)	10.00 PM -6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 65dB(A) (Commercial)	10.00 PM -6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM -6.00 AM Leq 40dB(A) (Silence Zone)

J. Jaisankar
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Jaisankar



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Drinking Water Quality Data Talcher Area

Project / OCP	Deulbera U/G			Indian Drinking Standards (IS-10500):2012	
	Deulbera Colliery Mine Discharge at Pit Top	Rani Park Submersible Pump	Deulbera Manager Office Tap Water		
Monitoring Station				Acceptable	Permissible
Date of Sampling	15-Nov-2025	15-Nov-2025	15-Nov-2025	5	15
Colour(Hazen)	2	3	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	4	2	1	5
pH	6.83	7.15	7.10	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	163.87	58.82	67.23	200	600
Chloride(mg/L)	54.40	17.48	14.43	250	1000
Sulphate(mg/L)	135.6	38.23	20.19	200	400
Nitrate(mg/L)	9.20	8.52	2.62	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	247.08	70.59	50.98	200	600
Calcium(mg/L)	50.30	15.72	12.57	75	200
Fluoride(mg/L)	0.66	0.32	0.39	1	1.5
Total Dissolve Solid(mg/L)	416	132	111	500	2000
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.09	<0.04	<0.04	0.1	0.3
Iron(mg/L)	<0.1	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	0.11	0.06	0.16	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	2.4

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Drinking Water Quality Data Talcher Area

Project / OCP	Deulbera U/G			Indian Drinking Standards (IS-10500):2012	
	Deulbera Colliery Mine Discharge at Pit Top	Rani Park Submersible Pump	Deulbera Manager Office Tap Water		
Date of Sampling	15-Nov-2025	15-Nov-2025	15-Nov-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	24.98	6.43	8.01		
Potassium(mg/L)	11.53	2.35	2.45		
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	Not Detected	-	-

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Deulbera Air Stations

Deulbera Air monitoring stations



Google Earth

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**Environmental Monitoring Report
For
November -2025**

**Project: Handhidhua Colliery
Area: Talcher
Coalfield: Talcher**



Mahanadi Coalfields Limited



Central Mine Planning & Design Institute Ltd.
(A Subsidiary of Coal India Ltd.)

Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)
[Assistance from Environment Division, CMPDI(HQs), Ranchi]

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INDIA

Test Report

AMBIENT AIR QUALITY DATA

Area :

Talcher

(Compliance Station)

Project :

Handhidhua Colliery

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	CO (ppm)	Dust Generating Source(DGS)	Distance from DGS
07-Nov-25	Manager's Office	253	145	66	10.28	29.33	-	Local Transportation, CHP	About 500m
22-Nov-25	Manager's Office	291	148	62	18.65	33.19	-	Local Transportation, CHP	About 500m

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MoEF Standards Notification dated 25th September, 2000

600	300	*	120	120	828 (Hours)
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Drinking Water Quality Data Talcher Area

Project / OCP	Handhidhua Colliery			Indian Drinking Standards (IS-10500):2012	
	19X Cut Road Bore Hole Point	Pit Top Water	RWSS (Pit Top Water)		
Date of Sampling	15-Nov-2025	15-Nov-2025	15-Nov-2025	Acceptable	Permissible
Colour(Hazen)	2	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	2	3	1	5
pH	6.63	6.75	6.85	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	84.04	75.63	88.24	200	600
Chloride(mg/L)	36.91	31.08	50.51	250	1000
Sulphate(mg/L)	145.6	111.1	105.6	200	400
Nitrate(mg/L)	10.94	7.80	8.66	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	196.10	196.10	219.63	200	600
Calcium(mg/L)	55.02	39.30	40.87	75	200
Fluoride(mg/L)	0.43	0.40	0.52	1	1.5
Total Dissolve Solid(mg/L)	345	281	308	500	2000
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.35	0.24	0.31	0.1	0.3
Iron(mg/L)	<0.1	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	0.14	0.09	0.08	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	2.4

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Drinking Water Quality Data Talcher Area

Project / OCP	Handhidhua Colliery			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	19X Cut Road Bore Hole Point	Pit Top Water	RWSS (Pit Top Water)	
Date of Sampling	15-Nov-2025	15-Nov-2025	15-Nov-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	19.29	16.85	16.86		
Potassium(mg/L)	11.20	4.63	3.11		
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	Not Detected	-	-

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**Environmental Monitoring Report
For
November -2025**

**Project: Mandapal Sand Mine
Area: Talcher
Coalfield: Talcher**



Mahanadi Coalfields Limited



Central Mine Planning & Design Institute Ltd.
(A Subsidiary of Coal India Ltd.)

Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)
[Assistance from Environment Division, CMPDI(HQs), Ranchi]

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AMBIENT AIR QUALITY DATA

Area :

Talcher

(Reference Station)

Project :

Mandapal Sand Mine

(conc. in $\mu\text{g}/\text{cu.m.}$)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
03-Nov-25	Near Pachismeshwar Temple	183	63	29	18.09	40.95	Mining Activity	Less than 500m
03-Nov-25	Near Mandapal Chowk	191	65	31	12.35	24.31	Mining Activity	Less than 500m
04-Nov-25	Near Mandapal Chowk	209	67	34	17.44	18.42	Mining Activity	Less than 500m
04-Nov-25	Near Pachismeshwar Temple	225	80	41	18.53	34.63	Mining Activity	Less than 500m
10-Nov-25	Near Mandapal Chowk	173	64	26	11.63	29.47	Mining Activity	Less than 500m
10-Nov-25	Near Pachismeshwar Temple	206	72	38	21.46	28.15	Mining Activity	Less than 500m
11-Nov-25	Near Mandapal Chowk	208	85	39	19.79	37.05	Mining Activity	Less than 500m
11-Nov-25	Near Pachismeshwar Temple	188	66	34	15.19	22.69	Mining Activity	Less than 500m
17-Nov-25	Near Mandapal Chowk	163	67	34	11.80	34.73	Mining Activity	Less than 500m
17-Nov-25	Near Pachismeshwar Temple	272	84	47	13.88	27.30	Mining Activity	Less than 500m
18-Nov-25	Near Mandapal Chowk	218	78	41	17.89	27.01	Mining Activity	Less than 500m
18-Nov-25	Near Pachismeshwar Temple	171	73	36	13.19	21.88	Mining Activity	Less than 500m
24-Nov-25	Near Pachismeshwar Temple	266	93	46	11.78	20.47	Mining Activity	Less than 500m
24-Nov-25	Near Mandapal Chowk	271	90	47	19.98	25.12	Mining Activity	Less than 500m
25-Nov-25	Near Mandapal Chowk	255	83	45	16.43	33.32	Mining Activity	Less than 500m
25-Nov-25	Near Pachismeshwar Temple	198	75	39	20.19	29.00	Mining Activity	Less than 500m
28-Nov-25	Near Mandapal Chowk	288	92	51	16.39	22.69	Mining Activity	Less than 500m
28-Nov-25	Near Pachismeshwar Temple	289	90	51	12.94	23.15	Mining Activity	Less than 500m
29-Nov-25	Near Pachismeshwar Temple	226	86	42	10.90	19.16	Mining Activity	Less than 500m
20-Nov-25	Near Mandapal Chowk	250	83	44	9.59	27.55	Mining Activity	Less than 500m

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TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Talcher

PROJECT :

Mandapal Sand Mine

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
13-Nov-25	Near Gopinathpur Village	44.1	36.7
27-Nov-25	Near Gopinathpur Village	46.6	33.9

MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 75dB(A) (Industrial)	10.00 PM -6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 55dB(A) (Residential)	10.00 PM -6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 65dB(A) (Commercial)	10.00 PM -6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM -6.00 AM Leq 40dB(A) (Silence Zone)

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Mandapal sand mine Air Stations

Mandapal sand mine Air monitoring stations



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