



CIN - U73100OR1995PTC003889



GSTIN : 21AAACE6224D1ZE

Environmental Research and Services (India) Pvt. Ltd.

(OSPCB 'A' Category Empanelled Laboratory and ISO 9001: 2015 Certified Company)

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha
Tel: +91-9437021932, +91-9937690329, E-mail: ersibbsr@gmail.com

Ref. No. ERSIPL/ ES & GA/SML-KIOM-R&B/2022-10-01/ 224

Date..... 01 Oct 2022.....

To
The Mines Manager,
M/s Khandbandh Iron Ore Mines of M/s Sree Metaliks Limited,
Khandbandh, Joda,
Keonjhar-758034

Sub. : Environmental parameters monitoring on regular basis for the year 2022-23.
Report for the Month of Sept-2022.
Ref. : Work Order No- SML/BBL/KIOM-ENV-WO-084/2022-23 Dated 08/06/2022

Dear Sir,

With reference to the above we are enclosing here with the following documents to you regarding Monthly Monitoring for your kind reference and need full action please.

- Ambient Air Quality Monitoring and Analysis Report for the month of Sept-2022(08 locations).
- Fugitive Emission Monitoring and Analysis Report for the month of Sept-2022(06 locations).
- Drinking Water Sample Analysis Report for the month of Sept-2022 (02 samples).
- Ground Water Sample Analysis Report for the month of Sept-2022 (03 samples).
- Surface Water Sample Analysis Report for the month of Sept-2022(04 samples).
- Surface Water Run-off Sample Analysis Report for the month of Sept-2022(01 samples)
- Ground Water Level Report for the month of Sept-2022 (04 locations).
- Surface Water Flow Rate Report for the month of Sept-2022(04 locations).
- Effluent Water Sample Analysis Report for the month of Sept-2022 (02 samples)
- Noise Level Measurement Report for the month of Sept-2022(08 locations).

Please note that water level measurement & water sample collection of Bore well village Khandbandh, Near OMC Colony could not carried out due to technical/logistical issues during visit of our technical staff to the site.

Thanking you,

Yours truly,

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

Arendhati Singh

(Managing Director)

Encl: As above

d/c



Environmental Research and Services (India) Pvt. Ltd.

(An ISO/IEC 17025 : 2017 (NABL) Accredited Laboratory, OSPCB Empanelled Laboratory and ISO 9001 : 2015 Certified Company)



Certificate No.: TC-7440

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha
Tel: +91-9437021932, +91-9937690329, E-mail: ersibbsr@gmail.com

ULR-TC744022000000367F

Test Report Format No.: ERSIPL/FM/37

TEST REPORT (AMBIENT AIR)

Pg No: 1 of 1

Date: 27 Sept 2022

Test Report No: ERSIPL/TR/AA/138

Name and Address of the Customer : Khandbandh Iron Ore Mines of M/s Sree Metaliks Ltd
Khandbandh, Joda, Keonjhar-758034

Sample Collected by : Representative of ERS (I) Pvt. Ltd.

Sample Collected in presence of : Representative of Customer.

Date of Sampling/Monitoring : 03-04.09.2022

Sample Received on : 06.09.2022

Analysis Started on : 07.09.2022

Analysis Completed on : 14.09.2022

Method of Sampling : ERSIPL/MSP/06

Quantity of Sample : 01 sample for each parameter

Environment Condition : Sunny

Sample ID. No.

1. ERSIPL/AA/526
2. ERSIPL/AA/527
3. ERSIPL/AA/528
4. ERSIPL/AA/529

Locations (Core Zone)

1. Near Mines Office
2. Near Pillar No- F1
3. Near Work Shop, Pillar No. B
4. Near Pillar No.C2

TEST FINDINGS:

Sl. No	Test Parameters	Test method	Unit	Permissible Limit as per NAAQ Standards CPCB Nov 2009	Results			
					ERSIPL/AA/526	ERSIPL/AA/527	ERSIPL/AA/528	ERSIPL/AA/529
1	Particulate Matter (size less than 10 µm) or PM 10	IS 5182(Part 23): 2006, Reaffirmed-2017, Gravimetric Method	µg/m ³	100.0	60.40	67.97	61.25	68.06
2	Particulate Matter (size less than 2.5 µm) or PM 2.5	IS 5182 (Part 24): 2019, Gravimetric Method	µg/m ³	60.0	30.44	29.23	25.52	30.90
3	Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, Reaffirmed-2017, Improved West & Gaeke Method	µg/m ³	80.0	7.41	7.74	8.68	8.22
4	Oxides of Nitrogen (NO _x)	IS 5182 (Part 6): 2006, Reaffirmed -2017	µg/m ³	80.0	11.36	10.04	10.55	11.31


(Authorized Signatory)

S.P.Pattanayak
Tech. Manager



Environmental Research and Services (India) Pvt. Ltd.

(OSPCB 'A' Category Empanelled Laboratory and ISO 9001 : 2015 Certified Company)

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha
Tel: +91-9437021932, +91-9937690329, E-mail: ersibbsr@gmail.com

Test Report Format No.: ERSIPL/FM/37 TEST REPORT (AMBIENT AIR)

Pg No: 1 of 1

Date: 27 Sept 2022**Test Report No: ERSIPL/TR/AA/T-138**

Name and Address of the Customer : Khandbandh Iron Ore Mines of M/s Sree Metaliks Ltd
Khandbandh, Joda, Keonjhar-758034

Sample Collected by : Representative of ERS (I) Pvt. Ltd.

Sample Collected in presence of : Representative of Customer.

Date of Sampling/Monitoring : 03-04.09.2022

Sample Received on : 06.09.2022

Analysis Started on : 07.09.2022

Analysis Completed on : 14.09.2022

Method of Sampling : As per guidelines for sampling & measurement of notified
AAQ parameters (NAAQS 2009)-CPCB

Quantity of Sample : 01 sample for each parameter

Environment Condition : Sunny

Sample ID. No.

1. ERSIPL/AA/526
2. ERSIPL/AA/527
3. ERSIPL/AA/528
4. ERSIPL/AA/529

Locations (Core Zone)

1. Near Mines Office
2. Near Pillar No- F1
3. Near Work Shop, Pillar No. B
4. Near Pillar No.C2

TEST FINDINGS:

Sl. No	Test Parameters	Test method	Unit	Permissible Limit	Results			
					ERSIPL / AA/ 526	ERSIPL / AA/ 527	ERSIPL / AA/ 528	ERSIPL / AA/ 529
1	Ozone (O ₃) 8 Hrly	As per Guidelines for the measurement of Ambient Air Pollutants, Vol - I, CPCB, May 2011	µg/m ³	100.0	20.4	20.6	27.2	20.4
2	Lead (Pb)		µg/m ³	1.0	ND	ND	ND	ND
3	Arsenic (As)		ng/m ³	6.0	ND	ND	ND	ND
4	Nickel (Ni)		ng/m ³	20.0	ND	ND	ND	ND
5	Ammonia (NH ₃),		µg/m ³	400.0	ND	ND	ND	ND
6	Benzene (C ₆ H ₆),		µg/m ³	5.0	ND	ND	ND	ND
7	Benzo(a)Pyrene (BaP) Particulate phase only		ng/m ³	1.0	ND	ND	ND	ND
8	Carbon Monoxide (CO)	By CO Monitor	mg/m ³	2.0	<1.14	<1.14	<1.14	<1.14


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

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



Environmental Research and Services (India) Pvt. Ltd.

(An ISO/IEC 17025 : 2017 (NABL) Accredited Laboratory, OSPCB Empanelled Laboratory and ISO 9001 : 2015 Certified Company)

Certificate No.: TC-7440

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha
Tel: +91-9437021932, +91-9937690329, E-mail: ersibbsr@gmail.com

ULR-TC744022000000368F

Test Report Format No.: ERSIPL/FM/37

TEST REPORT (AMBIENT AIR)

Date: 27 Sept 2022

Test Report No: ERSIPL/TR/AA/139

Name and Address of the Customer : Khandbandh Iron Ore Mines of M/s Sree Metaliks Ltd
Khandbandh, Joda, Keonjhar-758034

Sample Collected by : Representative of ERS (I) Pvt. Ltd.

Sample Collected in presence of : Representative of Customer.

Date of Sampling/Monitoring : 03-04.09.2022

Sample Received on : 06.09.2022

Analysis Started on : 07.09.2022

Analysis Completed on : 14.09.2022

Method of Sampling : ERSIPL/MSP/06

Quantity of Sample : 01 sample for each parameter

Environment Condition : Sunny

Sample ID. No.

1. ERSIPL/AA/530
2. ERSIPL/AA/531
3. ERSIPL/AA/532
4. ERSIPL/AA/533

Locations (Buffer Zone)

1. Near Village Jalahuri
2. Near village Bichhakhund
3. Near village Ganua
4. Near village Khandbandha

TEST FINDINGS:

Sl. No	Test Parameters	Test method	Unit	Permissible Limit as per NAAQ Standards CPCB Nov- 2009	Results			
					ERSIPL/ AA/ 530	ERSIPL/ AA/ 531	ERSIPL/ AA/ 532	ERSIPL/ AA/ 533
1	Particulate Matter (size less than 10 μm) or PM 10	IS 5182 (Part 23): 2006, Reaffirmed-2017, Gravimetric Method	$\mu\text{g}/\text{m}^3$	100.0	60.20	61.05	69.18	68.81
2	Particulate Matter (size less than 2.5 μm) or PM 2.5	IS 5182 (Part 24): 2019, Gravimetric Method	$\mu\text{g}/\text{m}^3$	60.0	27.42	28.90	27.62	28.93
3	Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, Reaffirmed-2017, Improved West & Gaeke Method	$\mu\text{g}/\text{m}^3$	80.0	7.71	9.31	7.87	8.19
4	Oxides of Nitrogen (NO _x)	IS 5182 (Part 6): 2006, Reaffirmed -2017	$\mu\text{g}/\text{m}^3$	80.0	10.67	12.22	11.83	12.71


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

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



CIN - U73100OR1995PTC003889



GSTIN : 21AAACE6224D1ZE

Environmental Research and Services (India) Pvt. Ltd.

(OSPCB 'A' Category Empanelled Laboratory and ISO 9001 : 2015 Certified Company)

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha
Tel: +91-9437021932, +91-9937690329 , E-mail: ersibbsr@gmail.com

Test Report Format No.: ERSIPL/FM/37

TEST REPORT (AMBIENT AIR)

Date: 27 Sept 2022

Test Report No: ERSIPL/TR/AA/T-139

Name and Address of the Customer : Khandbandh Iron Ore Mines of M/s Sree Metaliks Ltd
Khandbandh, Joda, Keonjhar-758034

Sample Collected by : Representative of ERS (I) Pvt. Ltd.

Sample Collected in presence of : Representative of Customer.

Date of Sampling/Monitoring : 03-04.09.2022

Sample Received on : 06.09.2022

Analysis Started on : 07.09.2022

Analysis Completed on : 14.09.2022

Method of Sampling : As per guidelines for sampling & measurement of notified AAQ parameters (NAAQS 2009)-CPCB

Quantity of Sample : 01 sample for each parameter

Environment Condition : Sunny

Sample ID. No.

1. ERSIPL/AA/530
2. ERSIPL/AA/531
3. ERSIPL/AA/532
4. ERSIPL/AA/533

Locations (Buffere Zone)

1. Near Village Jalahuri
2. Near village Bichhakhund
3. Near village Ganua
4. Near village Khandbandha

TEST FINDINGS:

Sl. No	Test Parameters	Test method	Unit	Permissible Limit	Results			
					ERSIPL / AA/ 530	ERSIPL / AA/ 531	ERSIPL / AA/ 532	ERSIPL / AA/ 533
1	Ozone (O ₃) 8 Hrly	As per Guideline s for the measure ment of Ambient Air Pollutants , Vol - I, CPCB, May 2011	µg/m ³	100.0	31.2	27.4	29.4	28.6
2	Lead (Pb)		µg/m ³	1.0	ND	ND	ND	ND
3	Arsenic (As)		ng/m ³	6.0	ND	ND	ND	ND
4	Nickel (Ni)		ng/m ³	20.0	ND	ND	ND	ND
5	Ammonia (NH ₃),		µg/m ³	400.0	ND	ND	ND	ND
6	Benzene (C ₆ H ₆),		µg/m ³	5.0	ND	ND	ND	ND
7	Benzo(a)Pyrene (BaP) Particulate phase only		ng/m ³	1.0	ND	ND	ND	ND
8	Carbon Monoxide (CO)	By CO Monitor	mg/m ³	2.0	<1.14	<1.14	<1.14	<1.14


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

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



Environmental Research and Services (India) Pvt. Ltd.

(An ISO/IEC 17025: 2017 (NABL) Accredited Laboratory, OSPCB Empanelled Laboratory and ISO 9001 : 2015 Certified Company) Certificate No.: TC-7440

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha
Tel: +91-9437021932, +91-9937690329, E-mail: ersibbsr@gmail.com

ULR-TC744022000000369F

Test Report Format No.: ERSIPL/FM/37

TEST REPORT (AMBIENT AIR) - Fugitive Emission

Pg No: 1 of 1

Date: 27 Sept 2022

Test Report No: ERSIPL/TR/AA/140

Name and Address of the Customer : Khandbandh Iron Ore Mines of M/s Sree Metaliks Ltd
Khandbandh, Joda, Keonjhar-758034.

Sample Collected by : Representative of ERS (I) Pvt. Ltd.

Sample Collected in presence of : Representative of Customer.

Date of Sampling/Monitoring : 03-04.09.2022

Sample Received on : 06.09.2022

Analysis Started on : 07.09.2022

Analysis Completed on : 14.09.2022

Method of Sampling : ERSIPL/MSP/06

Quantity of Sample : 01 sample for each parameter

Environment Condition : Sunny

Test Findings

Sl. No	Monitoring Stations	Sample Id	Date of Monitoring	Analysis Result in $\mu\text{g}/\text{m}^3$
				PM (Particulate Matter)
				IS: 5182 (Part 4) - 1999, Reaffirmed 2019, Gravimetric Method
1	Near Mines Bench	534	03.09.2022	134.49
2	Near Haul Roads (inside lease)	535	04.09.2022	128.20
3	Near Crushing Point	536	04.09.2022	135.35
4	Near Screening Plant	537	04.09.2022	135.97
5	Near Ore storage and loading	538	04.09.2022	146.67
6	Near Waste Dump	539	03.09.2022	143.09
Permissible Limits				1200.0

Note-*Monitoring carried out with control measures


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

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



Environmental Research and Services (India) Pvt. Ltd.

(An ISO/IEC 17025 : 2017 (NABL) Accredited Laboratory, OSPCB Empanelled Laboratory and ISO 9001 : 2015 Certified Company) Certificate No.: TC-7440

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha
Tel: +91-9437021932, +91-9937690329, E-mail: ersibbsr@gmail.com

ULR-TC744022000000370F

Test Report Format No.: ERSIPL/FM/40

TEST REPORT (Water/ ~~Waste Water~~) - Ground Water

Pg No: 1 of 1

Date: 27 Sept 2022

Test Report No: ERSIPL/TR/WA/203

Name and Address of the Customer : Khandbandh Iron Ore Mines of M/s Sree Metaliks Ltd
Khandbandh, Joda, Keonjhar-758034

Date of Sampling : 03.09.2022

Sample Collected by : Representative of ERS (I) Pvt. Ltd.

Sample Collected in presence of : Representative of Customer.

Sample Received on : 06.09.2022

Analysis Started on : 06.09.2022

Analysis Completed on : 16.09.2022

Method of Sampling : IS 3025: Part 1: 1987, Reaffirmed 2019

Quantity of Sample : 2ltrs

Type of Container : Glass Bottle & HDPE Bottle

Environment Condition : All Tests carried out in Room Temperature

Sample ID. No.

1. ERSIPL/WA/462
2. ERSIPL/WA/463
3. ERSIPL/WA/464

Locations

1. Open well in Village Jajanga
2. Open well in Village Khandbandh
3. Open well in Village Jalahuri

Sl	Parameters Analysed	Test Method	Unit	Permissible Limit as per IS:10500, 2012	Result		
					ERSIPL/WA/462	ERSIPL/WA/463	ERSIPL/WA/464
01	pH Value	IS 3025:Part 11: 1983 Reaffirmed-2017	--	6.5 to 8.5	6.71	6.45	6.82
02	Turbidity	IS 3025:Part 10: 1984 Reaffirmed-2017	NTU	1.0	1.0	1.0	0.9
03	Total Hardness as CaCO ₃	IS 3025:Part 21: 2009 Reaffirmed-2019	mg/L	200.0	44.0	64.0	120.0
04	Total Iron	IS 3025:Part 53: 2003 Reaffirmed-2019	mg/L	0.3	0.07	0.08	0.08
05	Chloride	IS 3025:Part 32: 1988 Reaffirmed 2019	mg/L	250.0	16.75	25.62	32.52
06	Total Dissolved Solids	IS 3025:Part 16: 1984 Reaffirmed-2019	mg/L	500.0	168.8	136.4	237.0
07	Calcium as Ca	IS 3025:Part 40: 1991 Reaffirmed-2019	mg/L	75.0	10.42	15.23	30.46
08	Sulphate as SO ₄	IS 3025:Part 24: 1986 Reaffirmed-2019	mg/L	200.0	8.33	1.92	18.33
09	Fluoride	IS 3025:Part 60: 2008 Reaffirmed-2013	mg/L	1.0	<0.1	<0.1	<0.1
10	Total Alkalinity as CaCO ₃	IS 3025:Part 23: 1986 Reaffirmed-2019	mg/L	200.0	186.0	130.0	180.0

(Authorized Signatory)

S.P.Pattanayak
Tech. Manager

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



Environmental Research and Services (India) Pvt. Ltd.

(OSPCB 'A' Category Empanelled Laboratory and ISO 9001 : 2015 Certified Company)

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha
Tel: +91-9437021932, +91-9937690329, E-mail: ersibbsr@gmail.com

Test Report Format No.: ERSIPL/FM/40

TEST REPORT (Water/ Waste Water)-Ground Water

Pg No: 1 of 2

Date: 27 Sept 2022

Test Report No: ERSIPL/TR/WA/T-203

Name and Address of the Customer

: Khandbandh Iron Ore Mines of M/s Sree Metaliks Ltd
Khandbandh, Joda, Keonjhar-758034

Date of Sampling

: 03.09.2022

Sample Collected by

: Representative of ERS (I) Pvt. Ltd.

Sample Collected in presence of

: Representative of Customer.

Sample Received on

: 06.09.2022

Analysis Started on

: 06.09.2022

Analysis Completed on

: 16.09.2022

Method of Sampling

: IS 3025: Part 1: 1987, Reaffirmed 2019

Quantity of Sample

: 2ltrs

Type of Container

: Glass Bottle & HDPE Bottle

Environment Condition

: All Tests carried out in Room Temperature

Sample ID. No.

Locations

1. ERSIPL/WA/462
2. ERSIPL/WA/463
3. ERSIPL/WA/464

1. Open well in Village Jajanga
2. Open well in Village Khandbandh
3. Open well in Village Jalahuri

Sl	Parameters Analysed	Test Method	Unit	Permissible Limit as per IS:10500, 2012	Result		
					ERSIPL/WA/462	ERSIPL/WA/463	ERSIPL/WA/464
01	Colour	IS 3025:Part 04: 1983 Reaffirmed-2017	Hazen	5.0	<5.0	<5.0	<5.0
02	Odour	IS 3025:Part 05: 1983 Reaffirmed-2017	--	Agreeable (A)	A	A	A
03	Taste	IS 3025:Part 07,08: 1984 Reaffirmed-2017	--	Agreeable (A)	A	A	A
04	Residual Free Chlorine	IS 3025:Part 26: 1986 Reaffirmed-2019	mg/L	0.2 (min)	Nil	Nil	Nil
05	Copper	IS 3025:Part 42: 1992 Reaffirmed-2019	mg/L	0.05	<0.02	<0.02	<0.02
06	Manganese	IS 3025:Part 59: 2006 Reaffirmed-2017	mg/L	0.1	<0.01	<0.01	<0.01
07	Nitrate as NO ₃	IS 3025:Part 34: 1983 Reaffirmed-2019	mg/L	45.0	<5.0	<5.0	<5.0
08	Phenolic Compound	IS 3025:Part 43: 1992 Reaffirmed-2019	mg/L	0.001	ND	ND	ND
09	Mercury	IS 3025:Part 48: 1994 Reaffirmed-2019	mg/L	0.001	ND	ND	ND
10	Cadmium	IS 3025:Part 41: 1992 Reaffirmed-2019	mg/L	0.003	ND	ND	ND
11	Selenium	IS 3025:Part 56: 2003 Reaffirmed-2019	mg/L	0.01	ND	ND	ND



Environmental Research and Services (India) Pvt. Ltd.

(OSPCB 'A' Category Empanelled Laboratory and ISO 9001 : 2015 Certified Company)

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha
Tel: +91-9437021932, +91-9937690329 , E-mail: ersibbsr@gmail.com

Page 2 of 2

12	Total Arsenic	IS 3025:Part 37: 1988 Reaffirmed-2019	mg/L	0.01	ND	ND	ND
13	Cyanide	IS 3025:Part 27: 1986 Reaffirmed-2019	mg/L	0.05	ND	ND	ND
14	Lead	IS 3025:Part 47: 1994 Reaffirmed-2019	mg/L	0.01	ND	ND	ND
15	Zinc	IS 3025:Part 49: 1994 Reaffirmed-2019	mg/L	5.0	<0.1	<0.1	<0.1
16	Anionicdetergents	IS 13428 :2005 Reaffirmed-2019	mg/L	0.2	ND	ND	ND
17	Total Chromium	IS 3025:Part 52: 2003 Reaffirmed-2019	mg/L	0.05	ND	ND	ND
18	Polynuclear aromatic hydrocarbons	APHA 6440	mg/L	0.0001	ND	ND	ND
19	Mineral Oil	IS 3025:Part 39: 1991 Reaffirmed-2019	mg/L	0.5	ND	ND	ND
20	Pesticides	USEPA gas-liquid chromatography	mg/L	---	ND	ND	ND
21	Aluminium	IS 3025:Part 55: 2003 Reaffirmed-2019	mg/L	0.03	ND	ND	ND
22	Boron	IS 3025:Part 57: 2005 Reaffirmed-2019	mg/L	0.5	ND	ND	ND
23	Nickel	IS 3025:Part 54: 2003 Reaffirmed-2019	mg/L	0.02	ND	ND	ND

ND

Not Detected


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

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



Environmental Research and Services (India) Pvt. Ltd.

(An ISO/IEC 17025 : 2017 (NABL) Accredited Laboratory, OSPCB Empanelled Laboratory and ISO 9001 : 2015 Certified Company)



Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha
Tel: +91-9437021932, +91-9937690329, E-mail: ersibbsr@gmail.com

ULR-TC744022000000371F

Test Report Format No.: ERSIPL/FM/40

TEST REPORT (Water / ~~Waste Water~~)-Drinking Water

Pg No: 1 of 1

Date: 27 Sept 2022

Test Report No: ERSIPL/TR/WA/204

Name and Address of the Customer

: Khandbandh Iron Ore Mines of M/s Sree Metaliks Ltd
Khandbandh, Joda, Keonjhar-758034

Date of Sampling

: 03.09.2022

Sample Collected by

: Representative of ERS (I) Pvt. Ltd.

Sample Collected in presence of

: Representative of Customer.

Sample Received on

: 06.09.2022

Analysis Started on

: 06.09.2022

Analysis Completed on

: 16.09.2022

Method of Sampling

: IS 3025: Part 1: 1987, Reaffirmed 2019

Quantity of Sample

: 2ltrs

Type of Container

: Glass Bottle & HDPE Bottle

Environment Condition

: All Tests carried out in Room Temperature

Sample ID. No.

1. ERSIPL/WA/460
2. ERSIPL/WA/461

Locations

1. Bore well in Mines Office
2. Bore well Near Workshop, Mines Lease Area

Sl	Parameters Analysed	Test Method	Unit	Permissible Limit as per IS:10500, 2012	Result	
					ERSIPL/WA/460	ERSIPL/WA/461
01	pH Value	IS 3025:Part 11: 1983 Reaffirmed-2017	--	6.5 to 8.5	6.73	6.80
02	Turbidity	IS 3025:Part 10: 1984 Reaffirmed 2017	NTU	1.0	0.5	0.4
03	Total Hardness as CaCO ₃	IS 3025:Part 21: 2009 Reaffirmed 2019	mg/L	200.0	62.0	58.0
04	Total Iron	IS 3025:Part 53: 2003 Reaffirmed-2019	mg/L	0.3	0.07	0.08
05	Chloride	IS 3025:Part 32: 1988 Reaffirmed 2019	mg/L	250.0	20.70	22.67
06	Total Dissolved Solids	IS 3025:Part 16: 1984 Reaffirmed 2019	mg/L	500.0	117.5	115.6
07	Calcium as Ca	IS 3025:Part 40: 1991 Reaffirmed-2019	mg/L	75.0	12.02	12.02
08	Sulphate as SO ₄	IS 3025:Part 24: 1986 Reaffirmed-2019	mg/L	200.0	3.21	2.69
09	Fluoride	IS 3025:Part 60: 2008 Reaffirmed-2013	mg/L	1.0	<0.1	<0.1
10	Total Alkalinity as CaCO ₃	IS 3025:Part 23: 1986 Reaffirmed-2019	mg/L	200.0	80.0	80.0

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



Environmental Research and Services (India) Pvt. Ltd.

(OSPCB 'A' Category Empanelled Laboratory and ISO 9001 : 2015 Certified Company)

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha
Tel: +91-9437021932, +91-9937690329, E-mail: ersibbsr@gmail.com

Test Report Format No.: ERSIPL/FM/40

TEST REPORT (Water / Waste Water)-Drinking Water

Pg No: 1 of 2

Date: 27 Sept 2022

Test Report No: ERSIPL/TR/WA/T-204

Name and Address of the Customer

: Khandbandh Iron Ore Mines of M/s Sree Metaliks Ltd
Khandbandh, Joda, Keonjhar-758034

Date of Sampling

: 03.09.2022

Sample Collected by

: Representative of ERS (I) Pvt. Ltd.

Sample Collected in presence of

: Representative of Customer.

Sample Received on

: 06.09.2022

Analysis Started on

: 06.09.2022

Analysis Completed on

: 16.09.2022

Method of Sampling

: IS 3025: Part 1: 1987, Reaffirmed 2019

Quantity of Sample

: 2ltrs

Type of Container

: Glass Bottle & HDPE Bottle

Environment Condition

: All Tests carried out in Room Temperature

Sample ID. No.

1. ERSIPL/WA/460
2. ERSIPL/WA/461

Locations

1. Bore well in Mines Office
2. Bore well Near Workshop, Mines Lease Area

Sl	Parameters Analysed	Test Method	Unit	Permissible Limit as per IS:10500, 2012	Result	
					ERSIPL/WA/460	ERSIPL/WA/461
01	Colour	IS 3025:Part 04: 1983 Reaffirmed-2017	Hazen	5.0	<5.0	<5.0
02	Odour	IS 3025:Part 05: 1983 Reaffirmed-2017	--	Agreeable (A)	A	A
03	Taste	IS 3025:Part 07,08: 1984 Reaffirmed-2017	--	Agreeable (A)	A	A
04	Residual Free Chlorine	IS 3025:Part 26: 1986 Reaffirmed-2019	mg/L	0.2 (min)	Nil	Nil
05	Copper	IS 3025:Part 42: 1992 Reaffirmed-2019	mg/L	0.05	<0.02	<0.02
06	Manganese	IS 3025:Part 59: 2006 Reaffirmed-2017	mg/L	0.1	<0.01	<0.01
07	Nitrate as NO ₃	IS 3025:Part 34: 1983 Reaffirmed-2019	mg/L	45.0	<5.0	<5.0
08	Phenolic Compound	IS 3025:Part 43: 1992 Reaffirmed-2019	mg/L	0.001	ND	ND
09	Mercury	IS 3025:Part 48: 1994 Reaffirmed-2019	mg/L	0.001	ND	ND
10	Cadmium	IS 3025:Part 41: 1992 Reaffirmed-2019	mg/L	0.003	ND	ND
11	Selenium	IS 3025:Part 56: 2003 Reaffirmed-2019	mg/L	0.01	ND	ND



Environmental Research and Services (India) Pvt. Ltd.

(OSPCB 'A' Category Empanelled Laboratory and ISO 9001 : 2015 Certified Company)

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha
Tel: +91-9437021932, +91-9937690329, E-mail: ersibbsr@gmail.com

Page 2 of 2

12	Total Arsenic	IS 3025:Part 37: 1988 Reaffirmed-2019	mg/L	0.01	ND	ND
13	Cyanide	IS 3025:Part 27: 1986 Reaffirmed-2019	mg/L	0.05	ND	ND
14	Lead	IS 3025:Part 47: 1994 Reaffirmed-2019	mg/L	0.01	ND	ND
15	Zinc	IS 3025:Part 49: 1994 Reaffirmed-2019	mg/L	5.0	<0.1	<0.1
16	Anionicdetergents	IS 13428 :2005 Reaffirmed-2019	mg/L	0.2	ND	ND
17	Total Chromium	IS 3025:Part 52: 2003 Reaffirmed-2019	mg/L	0.05	ND	ND
18	Polynuclear aromatic hydrocarbons	APHA 6440	mg/L	0.0001	ND	ND
19	Mineral Oil	IS 3025:Part 39: 1991 Reaffirmed-2019	mg/L	0.5	ND	ND
20	Pesticides	USEPA gas-liquid chromatography	mg/L	---	ND	ND
21	Aluminium	IS 3025:Part 55: 2003 Reaffirmed-2019	mg/L	0.03	ND	ND
22	Boron	IS 3025:Part 57: 2005 Reaffirmed-2019	mg/L	0.5	ND	ND
23	Nickel	IS 3025:Part 54: 2003 Reaffirmed-2019	mg/L	0.02	ND	ND

ND

Not Detected


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

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



Environmental Research and Services (India) Pvt. Ltd.

(An ISO/IEC 17025:2017 (NABL) Accredited Laboratory, OSPCB Empanelled Laboratory and ISO 9001:2015 Certified Company)

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha
Tel: +91-9437021932, +91-9937690329, E-mail: ersibbsr@gmail.com

ULR-TC744022000000372F

Test Report Format No.: ERSIPL/FM/40

TEST REPORT (WATER/WASTE WATER)

Pg No: 1 of 1

Date: 27 Sept 2022

Test Report No: ERSIPL/TR/WA/205

Name and Address of the Customer : Khandbandh Iron Ore Mines of M/s Sree Metaliks Ltd
Khandbandh, Joda, Keonjhar-758034

Date of Sampling : 03.09.2022

Sample Collected by : Representative of ERS (I) Pvt. Ltd.

Sample Collected in presence of : Representative of Customer.

Sample Received on : 06.09.2022

Analysis Started on : 06.09.2022

Analysis Completed on : 16.09.2022

Method of Sampling : IS 3025: Part 1: 1987, Reaffirmed 2019

Quantity of Sample : 2ltrs

Type of Container : Glass Bottle & HDPE Bottle

Environment Condition : All Tests carried out in Room Temperature

Sample ID. No.

1. ERSIPL/WA/465 (Surface Water)
2. ERSIPL/WA/466 (Surface Water)
3. ERSIPL/WA/467 (Surface Water)
4. ERSIPL/WA/468 (Surface Water)

Location

1. Water from river Baitarani, near village Jalahuri
2. Water from Dalco Nala Near TATA Pump House No.07
3. Water From Suna Nadi (up stream of Mines Lease Area)
4. Water From Suna Nadi (down-stream of Mines Lease Area)

S. No.	Test Parameters	Test Method	Unit	Result				Surface water quality standard as per IS :2296 (Class - B)*
				ERSIPL/WA/465	ERSIPL/WA/466	ERSIPL/WA/467	ERSIPL/WA/468	
1	pH Value	IS 3025: Part 11:1983, Reaffirmed 2017	--	6.79	6.65	6.70	6.91	6.5 - 8.5
2	Dissolved Oxygen	IS 3025: Part 38:1991, Reaffirmed 2019	mg/L	7.7	7.8	7.9	7.9	5.0 (min)
3	BOD (3 days at 27 ⁰ C)	IS:3025:Part 44:1993 Reaffirmed 2019, 27 ⁰ C 3 days	mg/L	3.4	3.3	3.8	2.9	3.0
4	Fluoride (as F)	IS 3025: Part 60:2008, Reaffirmed 2019	mg/L	<0.1	<0.1	<0.1	<0.1	1.5
5	Hexavalent Chromium (as Cr ⁺⁶)	IS 3025: Part 52:2003, Reaffirmed 2019	mg/L	ND	ND	ND	ND	0.05

ND - Not Detected,

* - Class - B - Water for outdoor bathing

(Authorized Signatory)

S.P.Pattanayak
Tech. Manager



Environmental Research and Services (India) Pvt. Ltd.

(OSPCB 'A' Category Empanelled Laboratory and ISO 9001 : 2015 Certified Company)

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha
Tel: +91-9437021932, +91-9937690329, E-mail: ersibbsr@gmail.com

Test Report Format No.: ERSIPL/FM/40

TEST REPORT (WATER/WASTE WATER)

Pg No: 1 of 1

Date: 27 Sept 2022

Test Report No: ERSIPL/TR/WA/T-205

Name and Address of the Customer : Khandbandh Iron Ore Mines of M/s Sree Metaliks Ltd
Khandbandh, Joda, Keonjhar-758034

Date of Sampling : 03.09.2022

Sample Collected by : Representative of ERS (I) Pvt. Ltd.

Sample Collected in presence of : Representative of Customer.

Sample Received on : 06.09.2022

Analysis Started on : 06.09.2022

Analysis Completed on : 16.09.2022

Method of Sampling : IS 3025: Part 1: 1987, Reaffirmed 2019

Quantity of Sample : 2ltrs

Type of Container : Glass Bottle & HDPE Bottle

Environment Condition : All Tests carried out in Room Temperature

Sample ID. No.

1. ERSIPL/WA/465 (Surface Water)
2. ERSIPL/WA/466 (Surface Water)
3. ERSIPL/WA/467 (Surface Water)
4. ERSIPL/WA/468 (Surface Water)

Location

1. Water from river Baitarani, near village Jalahuri
2. Water from Dalco Nala Near TATA Pump House No.07
3. Water from Suna Nadi (up-stream of Mines Lease Area)
4. Water from Suna Nadi (down-stream of Mines Lease Area)

S. No.	Test Parameters	Test Method	Unit	Result				Surface water quality standard as per IS :2296 (Class - B)*
				ERSIPL/WA/465	ERSIPL/WA/466	ERSIPL/WA/467	ERSIPL/WA/468	
1	Phenolic Compounds	IS 3025: Part 43:1992, Reaffirmed 2019	mg/L	ND	ND	ND	ND	0.005
2	Colour	IS 3025: Part 04:1983, Reaffirmed 2017	Hazen	11.0	8.0	15.0	16.0	300
3	Total Coliform	IS 1622:1981, Reaffirmed 2019	MPN/100 ml	8.0	20.0	8.0	9.0	500.0
4	Arsenic (as As)	IS 3025: Part 37:1988, Reaffirmed 2019	mg/L	ND	ND	ND	ND	0.2

ND-Not Detected,

* - Class - B - Water for outdoor bathing

(Authorized Signatory)

S.P.Pattanayak
Tech. Manager

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



Environmental Research and Services (India) Pvt. Ltd.

(An ISO/IEC 17025 : 2017 (NABL) Accredited Laboratory, OSPCB Empanelled Laboratory and ISO 9001 : 2015 Certified Company)

Certificate No.: TC-7440

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha
Tel: +91-9437021932, +91-9937690329, E-mail: ersibbsr@gmail.com

ULR-TC74402200000373F

Test Report Format No.:ERSIPL/FM/40

TEST REPORT (WATER/WASTEWATER)

Pg No: 1 of 1

Date: 27 Sept 2022

Test Report No: ERSIPL/TR/WA/206

Name and Address of the Customer : Khandbandh Iron Ore Mines of M/s Sree Metaliks Ltd
Khandbandh, Joda, Keonjhar-758034

Date of Sampling : 03.09.2022

Sample Collected by : Representative of ERS (I) Pvt. Ltd.

Sample Collected in presence of : Representative of Customer.

Sample Received on : 06.09.2022

Analysis Started on : 06.09.2022

Analysis Completed on : 16.09.2022

Method of Sampling : IS 3025: Part 1: 1987, Reaffirmed2019

Quantity of Sample : 2ltrs

Type of Container : Glass Bottle & HDPE Bottle

Environment Condition : All Tests carried out in Room Temperature

Sample ID.No.

1. ERSIPL/WA/469 (Effluent Water)
2. ERSIPL/WA/470 (Effluent Water)

Location

1. Inlet water of ETP
2. Outlet water of ETP

S. No.	Test Parameters	Test Method	Unit	Result		Permissible Limit as per CTO
				ERSIPL/WA/469	ERSIPL/WA/470	
1	pH	IS 3025: Part 11:1983, Reaffirmed 2017	No	6.82	6.92	5.5-9.0
2	Oil & Grease	IS 3025: Part 39:1991, Reaffirmed 2019	mg/L	5.03	2.09	10.0
3	Total Suspended Solids	IS 3025: Part 17:1984, Reaffirmed 2017	mg/L	29.1	4.6	100.0/50.0 (Rainy Day/ Non-Rainy Day)

*Sample collected during Non-Rainy Day

(Authorized Signatory)

S.P.Pattanayak
Tech. Manager

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



Environmental Research and Services (India) Pvt. Ltd.

(An ISO/IEC 17025 : 2017 (NABL) Accredited Laboratory, OSPCB Empanelled Laboratory and ISO 9001 : 2015 Certified Company)

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha
Tel: +91-9437021932, +91-9937690329, E-mail: ersibbsr@gmail.com

ULR-TC744022000000374F

Test Report Format No.: ERSIPL/FM/40

TEST REPORT (WATER/WASTE WATER)

Pg No: 1 of 1

Date: 27 Sept 2022

Test Report No: ERSIPL/TR/WA/207

Name and Address of the Customer : Khandbandh Iron Ore Mines of M/s Sree Metaliks Ltd
Khandbandh, Joda, Keonjhar-758034

Date of Sampling : 03.09.2022

Sample Collected by : Representative of ERS (I) Pvt. Ltd.

Sample Collected in presence of : Representative of Customer.

Sample Received on : 06.09.2022

Analysis Started on : 06.09.2022

Analysis Completed on : 16.09.2022

Method of Sampling : IS 3025: Part 1: 1987, Reaffirmed 2019

Quantity of Sample : 2ltrs

Type of Container : Glass Bottle & HDPE Bottle

Environment Condition : All Tests carried out in Room Temperature

Sample ID. No.

Location

1. ERSIPL/WA/471 (Surface Runoff Water)

1. Surface Runoff Water from Mines Leasehold

S. No.	Test Parameters	Test Method	Unit	Result	Permissible Limit as per CTO
				ERSIPL/WA/471	
1	pH	IS 3025: Part 11:1983, Reaffirmed 2017	No	6.60	5.5-9.0
2	Oil & Grease	IS 3025: Part 39:1991, Reaffirmed 2019	mg/L	1.98	10.0
3	Total Suspended Solids	IS 3025: Part 17:1984, Reaffirmed 2017	mg/L	5.2*	100.0/50.0 (Rainy Day/ Non-Rainy Day)

*Sample collected during Non-Rainy Day

(Authorized Signatory)

S.P.Pattanayak
Tech. Manager

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



CIN - U73100OR1995PTC003889



GSTIN : 21AAACE6224D1ZE

Environmental Research and Services (India) Pvt. Ltd.

(OSPCB 'A' Category Empanelled Laboratory and ISO 9001 : 2015 Certified Company)

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha
Tel: +91-9437021932, +91-9937690329, E-mail: ersibbsr@gmail.com

AMBIENT NOISE LEVEL MEASUREMENT REPORT

Date: 27 Sept 2022

Name and Address of the Customer : Khandbandh Iron Ore Mines of M/s Sree Metaliks Ltd
Khandbandh, Joda, Keonjhar-758034

Date of Reading : 04.09.2022

Sample Collected by : Representative of ERS (I) Pvt. Ltd.

Sample Collected in presence of : Representative of the Customer

Sl. No.	Location	Result in dB(A) Leq	
		Day time (6.00AM – 10.00 PM)	Night time (10.00PM – 6.00AM)
01	Mines Office (Core)	55.2	41.4
02	Near Pillar No. F1 (Core)	46.4	36.1
03	Near Work Shop, Pillar No. B (Core)	48.6	42.3
04	Near Pillar No. C2, (Core)	47.5	34.8
05	Near village Jalahuri (Buffer)	48.9	32.9
06	Near village Bichhakhundi (Buffer)	46.5	31.6
07	Near village Ganua (Buffer)	47.1	31.3
08	Near village Khandbandha (Buffer)	46.7	30.8
	PERMISSION		
	Industrial Area	75.0	70.0
	Residential Area	55.0	45.0

(Authorized Signatory)

S.P.Pattanayak
Tech.Manager

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



CIN - U73100OR1995PTC003889



GSTIN : 21AAACE6224D1ZE

Environmental Research and Services (India) Pvt. Ltd.

(OSPCB 'A' Category Empanelled Laboratory and ISO 9001 : 2015 Certified Company)

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha
Tel: +91-9437021932, +91-9937690329 , E-mail: ersibbsr@gmail.com

DEPTH OF GROUND WATER TABLE

Date: 27 Sept 2022


Name and Address of the Customer : Khandbandh Iron Ore Mines of M/s Sree Metaliks Ltd
Khandbandh, Joda, Keonjhar-758034

Date of Measurement : 03.09.2022

Measurement taken by : Representative of ERS (I) Pvt. Ltd.

Measurement taken in presence of : Representative of the Customer

Sl. No.	Location	Depth (Below surface level in meter)
01	Open Well village Jajanga	1.37
02	Open well Near Village Jalahuri	0.91
03	Open Well Near Village Khandbandh	1.10
04	Open Well Near Village Jurudi	2.26


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

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



CIN - U73100OR1995PTC003889



GSTIN : 21AAACE6224D1ZE

Environmental Research and Services (India) Pvt. Ltd.

(OSPCB 'A' Category Empanelled Laboratory and ISO 9001 : 2015 Certified Company)

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha
Tel: +91-9437021932, +91-9937690329, E-mail: ersibbsr@gmail.com

FLOW RATE OF SURFACE WATER

Date: 27 Sept 2022

Name and Address of the Customer : Khandbandh Iron Ore Mines of M/s Sree Metaliks Ltd
Khandbandh, Joda, Keonjhar-758034

Surface Water Flow Rate Measured by : Representative of ERS (I) Pvt. Ltd.
Surface Water Flow Rate Measured in the presence of : Representative of the Customer

Sl. No.	Name of the Water Bodies	Date of Measurement	Flow Rate (Velocity) in Meter/Sec.
01	River Baitarani, near village Jalahuri	03.09.2022	0.605
02	Dalco Nala Near TATA Pump House No.07	03.09.2022	0.215
03	Suna Nadi (up-stream of Mines Lease Area)	03.09.2022	0.358
04	Suna Nadi (down-stream of Mines Lease Area)	03.09.2022	0.365

(Authorized Signatory)

S.P.Pattanayak
Tech. Manager

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