# **Environment Management and Engineering Division** (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

• ISO 45001:2018 (OHSAS) Certified Laboratory.

· Recognized by MoEF & CC

Format No. EME/LAB/Format 7.8/TR



**Quarter January- February- March 2023** 

# **Test Report**

Report Number: MITCON/2022-23/February/2805

Issue Date:27/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2805/2
M/s MOIL LIMITED,	Date of Monitoring	17/02/2023
	Type of Monitoring	Ambient Air
Munsar Manganese Mines L4=0.970 Ha Site, Dist:- Nagpur (M.S)	Test Location	Wahi Tola Village
	Monitoring Done By	MITCON
	Date of Analysis	20/02/2023

### **OBSERVATION**

Ambient Temp. °C	Dry Bulb Temp. ℃	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	20	18	1440	0.0	10.2 km/ hrs.(Avg)	SE

### **RESULT**

A Physical	น กรัสกร เพื่อนเลยที่ย์สูตร เรื่องกระบบ	03	and the second s	and the second	* CONTROL   1
Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO₂)	μg/M³	10.6		IS 5182(Part 2)
02	Oxides of Nitrogen (NO <sub>2</sub> )	μg/M³	16.0	≤80	IS 5182(Part 6)
03	Particulate Matter PM <sub>10 micron</sub>	μg/M³	60.2	≤100	IS 5182 (Part 23)
04	Particulate Matter PM2.5 micron	μg/M³	26.6	≤ 60	USEPA 40 CFRCH
05	Ozone (O <sub>3</sub> )	μg/M³	3.2	≤ 100	IS 5182
. 06	Lead (Pb)	μg/M³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M³	0.324	≤ 2.0	IS 5182
08	Ammonia (NH <sub>3</sub> )	μg/M³	3.5	≤ 400	APHA - 401
09	Benzene (C₅H₅)	μg/M³	BDL	≤5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M <sup>3</sup>	BDL	<u>≤1</u>	IS 5182
11	Arsenic (As)	ng/ M³	BDL	≤6	APHA - AAS
12	Nickel (Ni)	ng/ M³	BDL	≤ 20	APHA - AAS

# **REMARKS/OBSERVATIONS:**

> All above results are within National Ambient Air Quality standards.

> BDL: - Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd.

Checked By

(Mrs.Kadambari Deshmukh)

Dr. Sandeep Jadhav Senior vice president

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

Environment Management and Engineering Division (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

- ISO 45001:2018 (OHSAS)Certified Laboratory.
- Recognized by MoEF & CC



Format No. EME/LAB/Format 7.8/TR

# Quarter January- February- March 2023

# **Test Report**

Report Number: MITCON/2022-23/February/2805

Issue Date:27/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2805/3
M/s MOIL LIMITED,	Date of Monitoring	17/02/2023
	Type of Monitoring	Ambient Noise
Munsar Manganese Mines L4=0.970 Ha Site, Dist:-Nagpur (M.S)	Monitoring Done By	MITCON

#### READINGS

		<del></del>	
Sr. No.	Test Location	Unit	Readings
01	Wahi Tola Village	dB(A)	52.9

### **REMARKS / OBSERVATIONS:**

Limits: The Maharashtra Pollution Control Board has prescribe 75 dB (A) as an upper limit of Noise Level during daytime.

For MITCON Consultancy & Engineering Services Ltd.

Checked By Mrs. Kadambari Dochmu

(Mrs. Kadambari Deshmukh)



Authorized Signatory

Dr. Sandeep Jadhav
(Senior Vice President)

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

**Environment Management and Engineering Division** 

(Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mítconindia.com

· ISO 45001:2018 (OHSAS)Certified Laboratory.

· Recognized by MoEF & CC

Format No. EME/LAB/Format 7.8/TR

# Quarter January- February- March 2023

Solutions for Sustainable Tomorrow

### **Test Report**

Report Number: MITCON/2022-23/February/2805

Issue Date:27/02/2023

Client's Name & Address		Sample Details		
M/s MOIL LIMITED,	Sample Code	MITCON/2022-23/February/2805/1		
	Name of Sample	Ground Water		
	Sample Details	VT Centre Borewell water		
	Container Details	1 lit plastic can		
Munsar Manganese Mines L4=0.970 Ha Site, Dist:-Nagpur (M.S)	Sample Collected By	MITCON		
	Method of sampling	IS 3025(Part I)		
	Sample Collected On	17/02/2023		
	Date of Sample Receipt	20/02/2023		
	Analysis Start Date	20/02/2023		
	End Date of Analysis	27/02/2023		

# **ANALYSIS RESULTS**

Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7.21	_	6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	10.0	mg/l	N.S	APHA 2540 D,2-70 to 2-71 23rd ed 2017
03	Turbidity	< 1	NTU	≤1	IS: 3025 Part-10 (R.A : 2002)
04	Total Dissolved Solids	242.4	mg/l	≤ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO3	122.05	mg/l	≤200	APHA 2340 C , 2-48 to 2-50,23rd Ed 2017
06	Calcium as Ca	42.12	mg/l	≤75	APHA 3500 Ca B , 3-69 to 3-70 , 23rd Ed. 2017
07	Magnesium as Mg	27.52	mg/l	≤30	APHA 3500 Mg B, 3-86 , 23rd Ed. 2017
08	Mangnese as mn	< 0.1	mg/l	₹0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as Caco3	105.42	Mg/I	<200	APHA 2320 B ,2-37 to 2-39 23rd Ed 2017
-10	Fluoride as F	< 0.1	Mg/I	<1	APHA 4500 F- D 4-90 to 4-9123rd Ed 2017
11	Chloride as Cl	28.52	mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as \$04	15.47	mg/l	≤ 200	APHA 4500 –SO4E, 4-199 TO 4-200, 23rd Ed 2017
13	Iron as Fe	< 0.05	mg/l	≤ 0,3	APHA 3111 B, 3-18 TO 3-21, 23rd Ed 2017 (using AAS)
14	Nitrate as NO3	10.25	mg/l	≤45	APHA 4500 NO3-B,4-127 23rd Ed 2017
15	E.coli	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
16	Total Coliform	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
17	colour	< 5	HZ	≤ 5	IS: 3025 Part-4 (Rev.1, RA 2012)
18	odour	Aggreable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

**REMARKS / OBSERVATIONS:** 

The above water sample is complying with required limits as per IS 10500:2012.

Checked By

For MITCON Consultancy & Engineering Services Ltd.

(Mrs. Kadambari Deshmukh)

**Authorized Signatory** (Dr.Sandeep Jadhav) Senior Vice President

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

Environment Management and Engineering Division (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

- ISO 45001:2018 (OHSAS) Certified Laboratory.
- Recognized by MoEF & CC



Format No. EME/LAB/Format 7.8/TR

# Quarter January- February- March 2023

# **Test Report**

Report Number: MITCON/2022-23/February/2563

Issue Date:27/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2563/2
M/s MOIL LIMITED,	Date of Monitoring	17/02/2023
	Type of Monitoring	Ambient Air
Munsar Manganese Mines L2=5.740 Ha Site, Dist:-Nagpur (M.S)	Test Location	Old OCF
	Monitoring Done By	MITCON
	Date of Analysis	20/02/2023

#### **OBSERVATION**

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	20	18	1440	0.0	10.2 km/	SE
	<u> </u>	1				hrs.(Avg)	

### **RESULT**

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	μg/M³	12.4	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO <sub>2</sub> )	μg/M³	17.8	≤80	IS 5182(Part 6)
03	Particulate Matter PM10 micron	μg/M³	68.0	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM2.5 micron	μg/M³	31.4	≤ 60	USEPA 40 CFRCH
05	Ozone (O <sub>3</sub> )	μg/M³	4.0	≤ 100	IS 5182
06	Lead (Pb)	μg/M³	BDL	≤1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M³	0.364	≤ 2.0	IS 5182
08	Ammonia (NH₃)	μg/M³	4.5	≤ 400	APHA - 401
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	μg/M³	BDL	≤5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M³	BDL	<u> </u>	**
11	Arsenic (As)	ng/ M³	BDL	<u>31</u> ≤6	IS 5182
12	Nickel (NI)	ng/ M³	BDL	≤ 20	APHA - AAS APHA - AAS

### **REMARKS/OBSERVATIONS:**

- > All above results are within National Ambient Air Quality standards.
- BDL: Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd.

proetury

Checked By

(Mrs.Kadambari Deshmukh)



Authorized Signatory
Dr. Sandeep Jadhav
Senior vice president

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

**Environment Management and Engineering Division** (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

- . ISO 45001:2018 (OHSAS) Certified Laboratory.
- Recognized by MoEF & CC



Format No. EME/LAB/Format 7.8/TR

# Quarter January- February- March 2023

# **Test Report**

Report Number: MITCON/2022-23/February/2563

Issue Date:27/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2563/3
M/s MOIL LIMITED,	Date of Monitoring	17/02/2023
	Type of Monitoring	Ambient Noise
	Monitoring Done By	MITCON
Munsar Manganese Mines L2=5.740 Ha Site, Dist:-Nagpur (M.S)		

### **READINGS**

Sr. No.	Test Location	Unit	Readings
01	Old OCF	dB(A)	68.4

### **REMARKS / OBSERVATIONS:**

Limits: The Maharashtra Pollution Control Board has prescribe 75 dB (A) as an upper limit of Noise Level during daytime.

For MITCON Consultancy & Engineering Services Ltd.

corpetition Checked By

(Mrs. Kadambari Deshmukh)



orized Signatory Dr. Sandeep Jadhav (Senior Vice President)

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

Environment Management and Engineering Division (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

ISO 45001:2018 (OHSAS)Certified Laboratory.

Recognized by MoEF & CC



Format No. EME/LAB/Format 7.8/TR

# **Quarter January- February- March 2023**

# **Test Report**

Report Number: MITCON/2022-23/February/2563

Issue Date:27/02/2023

Client's Name & Address	Sample Details			
M/s MOIL LIMITED,	Sample Code	MITCON/2022-23/February/2563/1		
	Name of Sample	Ground Water		
	Sample Details	Old Durga Pit Water		
•	Container Details	1 lit plastic can MITCON		
Munsar Manganese Mines L2=5.740 Ha	Sample Collected By			
Site, Dist:-Nagpur (M.S)	Method of sampling	IS 3025(Part I)		
	Sample Collected On	17/02/2023		
	Date of Sample Receipt	20/02/2023		
	Analysis Start Date	20/02/2023		
	End Date of Analysis	27/02/2023		

# **ANALYSIS RESULTS**

Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7.24	-	6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	7.6	mg/i	N.S	APHA 2540 D,2-70 to 2-71 23rd ed 2017
03	Turbidity	<1	NTU	≤1	IS: 3025 Part-10 (R.A : 2002)
04	Total Dissolved Solids	230.1	mg/l	≤ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO3	145.12	mg/l	≤200	APHA 2340 C ,2-48 to 2-50,23rd Ed 2017
06	Calcium as Ca	52.18	mg/l	≤ 75	APHA 3500 Ca B , 3-69 to 3-70 , 23rd Ed. 2017
07	Magnesium as Mg	13.26	mg/l	≤30	APHA 3500 Mg B, 3-86 , 23rd Ed, 2017
08	Mangnese as mn	< 0.1	mg/l	<0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as Caco3	138.12	Mg/l	<200	APHA 2320 B ,2-37 to 2-39 23rd Ed 2017
10	Fluoride as F	< 0.1	Mg/l	<1	APHA 4500 F- D 4-90 to 4-9123rd Ed 2017
11	Chloride as CI	28.52	mg/l	≤ 250	
12	Sulphate as SO4	21.42	mg/l	≤ 200	APHA 4500 CI, B, 4-75 to 4-76, 23rd Ed 2017 APHA 4500 –SO4E, 4-199 TO 4-200, 23rd Ed 2017
13	Iron as Fe	< 0.05	mg/l	≤ 0.3	APHA 3111 B, 3-18 TO 3-21, 23rd Ed 2017 (using AAS)
14	Nitrate as NO3	2.10	mg/l	<u></u> ≤45	APHA 4500 NO3-B,4-127 23rd Ed 2017 (using AAS)
1.5	E.coli	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
16	Total Coliform	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
17	colour	<5	HZ	≤ 5	IS: 3025 Part-4 (Rev.1, RA 2012)
18	odour	Aggreabl e	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

REMARKS / OBSERVATIONS:

• The above water sample is complying with required limits as per IS 10500:2012.

For MITCON Consultancy & Engineering Services Ltd. KNDP LWCM

Checked By

(Mrs. Kadambari Deshmukh)

Authorized Signatory (Dr.Sandeep Jadhav) Senior Vice President

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

**Environment Management and Engineering Division** (Environmental Laboratory)

(Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

- ISO 45001:2018 (OHSAS) Certified Laboratory.
- · Recognized by MoEF & CC



Format No. EME/LAB/Format 7.8/TR

# Quarter January- February- March 2023

### **Test Report**

Report Number: MITCON/2022-23/February/2902

Issue Date:27/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2902/2	
M/s MOIL LIMITED,	Date of Monitoring	17/02/2023	
	Type of Monitoring	Ambient Air	
Munsar Manganese Mines L3=25.150 Ha Site, Dist:-	Test Location	Chargaon Village	
Nagpur (M.S)	Monitoring Done By	MITCON	
	Date of Analysis	20/02/2023	

### **OBSERVATION**

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	20	18	1440	0.0	10.2 km/ hrs.(Avg)	SE

#### RESULT

	A contract of the contract of	6 1 M VIII	Land Arras	5	A New York Constitution
Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO₂)	μg/M³	11.5	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO <sub>2</sub> )	μg/M³	16.0	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM10 micron	μg/M³	58.9	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM2.5 micron	μg/M³	29.4	≤ 60	USEPA 40 CFRCH
05	Ozone (O <sub>3</sub> )	μg/M³	3.4	≤ 100	IS 5182
06	Lead (Pb)	μg/M³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M³	0.268	≤ 2.0	IS 5182
08	Ammonia (NH₃)	μg/M³	3.6	≤ 400	APHA - 401
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	μg/M³	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M³	BDL	≤1	IS 5182
11	Arsenic (As)	ng/ M³	BDL	≤6	APHA - AAS
12	Nickel (Ni)	ng/ M³	BDL	≤ 20	APHA - AAS

### **REMARKS/OBSERVATIONS:**

All above results are within National Ambient Air Quality standards.

BDL: - Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd

Checked By

(Mrs.Kadambari Deshmukh)

Dr. Sandeep Jadhav Senior vice president

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / Judicial purpose.

Customer complaint register is available in the laboratory.

Environment Management and Engineering Division (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

- ISO 45001:2018 (OHSAS)Certified Laboratory.
- · Recognized by MoEF & CC



Format No. EME/LAB/Format 7.8/TR

Quarter January- February- March 2023

# **Test Report**

Report Number: MITCON/2022-23/February/2902

Issue Date:27/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2902/3
M/s MOIL LIMITED,	Date of Monitoring	17/02/2023
	Type of Monitoring	Ambient Noise
Munsar Manganese Mines L3=25.150 Ha Site, Dist:-Nagpur (M.S)	Monitoring Done By	MITCON

#### **READINGS**

	Sr. No.		Unit	Readings	
į	01	Chargaon Village	dB(A)	54.2	

### **REMARKS / OBSERVATIONS:**

Limits: The Maharashtra Pollution Control Board has prescribe 75 dB (A) as an upper limit of Noise Level during daytime.

For MITCON Consultancy & Engineering Services Ltd.

Checked By

(Mrs. Kadambari Deshmukh)



Authorized Signatory

Dr. Sandeep Jadhav
(Senior Vice President)

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

Environment Management and Engineering Division (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

· ISO 45001:2018 (OHSAS)Certified Laboratory.

· Recognized by MoEF & CC



Quarter January- February- March 2023

Format No. EME/LAB/Format 7.8/TR

# **Test Report**

Report Number: MITCON/2022-23/February/2902

Issue Date: 27/02/2023

Client's Name & Address	Sample Details			
M/s MOIL LIMITED,	Sample Code	MIpTCON/2022-23/February/2902/1		
	Name of Sample	Ground Water		
	Sample Details	Staff Colony Borewell water		
	Container Details	1 lit plastic can MITCON		
Munsar Manganese Mines L3=25.150 Ha Site,	Sample Collected By			
Dist:-Nagpur (M.S)	Method of sampling	IS 3025(Part I)		
	Sample Collected On	17/02/2023		
	Date of Sample Receipt	20/02/2023		
	Analysis Start Date	20/02/2023		
	End Date of Analysis	27/02/2023		

### **ANALYSIS RESULTS**

Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7.24	+	6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	10.0	mg/l	N.S	APHA 2540 D,2-70 to 2-71 23rd ed 2017
03	Turbidity	<1	NTU	≤1	IS: 3025 Part-10 (R.A : 2002)
04	Total Dissolved Solids	230.0	mg/l	≤500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO3	120.25	mg/l	≤200	APHA 2340 C ,2-48 to 2-50,23rd Ed 2017
06	Calcium as Ca	52.23	mg/l	≤75	APHA 3500 Ca B , 3-69 to 3-70 , 23rd Ed. 2017
07	Magnesium as Mg	18.35	mg/l	≤30	APHA 3500 Mg B, 3-86 , 23rd Ed: 2017
08	Mangnese as mn	< 0.1	mg/l	<0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as Caco3	125.14	Mg/I	<200	APHA 2320 B ,2-37 to 2-39 23rd Ed 2017
10	Fluoride as F	< 0.1	Mg/I	<1	APHA 4500 F- D 4-90 to 4-9123rd Ed 2017
11	Chloride as Cl	52,25	mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as SO4	18.52	mg/l	≤ 200	APHA 4500 -SO4E, 4-199 TO 4-200, 23rd Ed 2017
13	Iron as Fe	< 0.05	mg/l	≤ 0.3	APHA 3111 B, 3-18 TO 3-21, 23rd Ed 2017 (using AAS)
14	Nitrate as NO3	10.23	mg/l	≤45	APHA 4500 NO3-B,4-127 23rd Ed 2017
15	E.coli	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
16	Total Coliform	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
17	colour	< 5	HZ	≤5	IS: 3025 Part-4 (Rev.1, RA 2012)
18	odour	Aggreable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

**REMARKS / OBSERVATIONS:** 

• The above water sample is complying with required limits as per IS 10500:2012.

For MITCON Consultancy & Engineering Services Ltd.

Checked By

(Mrs. Kadambari Deshmukh)

(Dr.Sandeep Jadhav) Senior Vice President

W GIN

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

Environment Management and Engineering Division

(Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

- ISO 45001:2018 (OHSAS) Certified Laboratory.
- Recognized by MoEF & CC



Format No. EME/LAB/Format 7.8/TR

# Quarter January- February- March 2023

Solutions for Sustainable Tomorrow

# **Test Report**

Report Number: MITCON/2022-23/February/2509

Issue Date:27/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2509/5	
M/s MOIL LIMITED,	Date of Monitoring	17/02/2023	
	Type of Monitoring	Ambient Air	
Munsar Manganese Mines L1=108.630 Ha Site, Dist:-	Test Location	Admin building	
Nagpur (M.S)	Monitoring Done By	MITCON	
	Date of Analysis	20/02/2023	

#### **OBSERVATION**

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. ℃	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	20	18	1440	0.0	10.2 km/ hrs.(Avg)	SE

#### RESULT

42.5%	grafia Bredhwid Albert		Distrym	11791	Control of the Contro
Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	μg/M³	11.6	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO <sub>2</sub> )	μg/M³	16.8	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM10 micron	μg/M³	63.8	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM2.5 micron	μg/M³	38.8	<sup>1</sup> ≤ 60	USEPA 40 CFRCH
05	Ozone (O₃)	μg/M³	4.3	≤ 100	IS 5182
06	Lead (Pb)	μg/M³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M³	0.342	≤ 2.0	IS 5182
08	Ammonia (NH₃)	μg/M³	4.7	≤ 400	APHA - 401
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	μg/M³	BDL	≤5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/M³	BDL	≤1	IS 5182
11	Arsenic (As)	ng/M³	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M³	BDL	≤ 20	APHA - AAS

# **REMARKS/OBSERVATIONS:**

All above results are within National Ambient Air Quality standards.

> BDL: - Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd

Checked By

(Mrs.Kadambari Deshmukh)

Authorized Signatory
Dr. Sandeep Jadhav
Senior vice president

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

**Environment Management and Engineering Division** 

(Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

. ISO 45001:2018 (OHSAS)Certified Laboratory.

· Recognized by MoEF & CC

Format No. EME/LAB/Format 7.8/TR



# Quarter January- February- March 2023

# **Test Report**

Report Number: MITCON/2022-23/February/2509

Issue Date:27/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2509/6
M/s MOIL LIMITED,	Date of Monitoring	17/02/2023
•	Type of Monitoring	Ambient Air
	Test Location	Mine road( Near Work Shop)
	Monitoring Done By	MITCON
Munsar Manganese Mines L1=108.630 Ha Site, Dist:- Nagpur (M.S).	Date of Analysis	20/02/2023

#### **OBSERVATION**

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	20	. 18	1440	0.0	10.2 km/ hrs.(Avg)	SE

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	μg/M³	12.0	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO <sub>2</sub> )	μg/M³	17.4	≤80	IS 5182(Part 6)
03	Particulate Matter PM10 micron	μg/M³	67.4	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM <sub>2.5 micron</sub>	μg/M³	35.9	≤ 60	USEPA 40 CFRCH
05	Ozone (O <sub>3</sub> )	μg/M³	4.5	≤ 100	IS 5182
06	Lead (Pb)	μg/M³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M³	0.359	≤ 2,0	IS 5182
08	Ammonia (NH <sub>3</sub> )	μg/M³	5.0	≤ 400	APHA - 401
09	Benzene (C₀H₀)	μg/M³	BDL	≤5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M³	BDL	≤1	IS 5182
11	Arsenic (As)	ng/ M³	BDL	≤6	APHA - AAS
12	Nickel (Ni)	ng/ M³	BDL	≤ 20	APHA - AAS

### **REMARKS/OBSERVATIONS:**

> All above results are within National Ambient Air Quality standards.

BDL: - Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd

Knochull Checked By

(Mrs.Kadambari Deshmukh)



luthorized Signatory Dr. Sandeep Jadhav Senior vice president

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

**Environment Management and Engineering Division** (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

- ISO 45001:2018 (OHSAS)Certified Laboratory.



· Recognized by MoEF & CC

Format No. EME/LAB/Format 7.8/TR

# Quarter January- February- March 2023

# Test Report

Report Number: MITCON/2022-23/February/2509

Issue Date:27/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2509/7
M/s MOIL LIMITED,	Date of Monitoring	17/02/2023
	Type of Monitoring	Ambient Air
	Test Location	DSU Plant
Munsar Manganese Mines L1=108.630 Ha Site, Dist:-	Monitoring Done By	MITCON
Nagpur (M.S).	Date of Analysis	20/02/2023

# **OBSERVATION**

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	20	18	1440	0.0	10.2 km/ hrs.(Avg)	SE

RESULT

5r. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	μg/M³	12.4	<u>3. 00 3.0110210</u> ≤80	
02	Oxides of Nitrogen (NO <sub>2</sub> )	μg/M³	18.0	≤80	IS 5182(Part 2)
03	Particulate Matter PM10 micron	μg/M³	69.6	≤ 100	IS 5182(Part 6) IS 5182 (Part 23)
04	Particulate Matter PM2.5 micron	μg/M³	37.8	≤ 60	USEPA 40 CFRCH
05	Ozone (O <sub>3</sub> )	дg/M <sup>3</sup>	4.8	≤ 100	IO FADO
06	Lead (Pb)	μg/M³	BDL	≤ 1.0	IS 5182
07	Carbon Monoxide (CO)	mg/M <sup>3</sup>	0.378	<u> </u>	APHA - AAS
08	Ammonia (NH <sub>3</sub> )	μg/M³	5.2	≤ 2.0	IS 5182
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	μg/M³	BDL	≤ 400	APHA - 401
10	Benzo(a)Pyrene (BaP)			≤5	IS 5182
11	Arsenic (As)	ng/M³	BDL	≤1	IS 5182
		ng/ M³	BDL	≤6	APHA - AAS
12	Nickel (Ni) -	ng/ M³	BDL	≤ 20	APHA - AAS

# **REMARKS/OBSERVATIONS:**

- > All above results are within National Ambient Air Quality standards.
- > BDL: Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd.

MYTHINGTON

Checked By

(Mrs.Kadambari Deshmukh)

forized Signatory Dr. Sandeep Jadhav Senior vice president

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

**Environment Management and Engineering Division** 

(Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

• ISO 45001:2018 (OHSAS)Certified Laboratory.

· Recognized by MoEF & CC

Format No. EME/LAB/Format 7.8/TR



# Quarter January- February- March 2023

# **Test Report**

Report Number: MITCON/2022-23/February/2509

Issue Date: 27/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2509/8
M/s MOIL LIMITED,	Date of Monitoring	17/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Pit Top (Mine)
	Monitoring Done By	MITCON
Munsar Manganese Mines L1=108.630 Ha Site, Dist:-Nagpur (M.S).	Date of Analysis	20/02/2023

### **OBSERVATION**

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	20	18	1440	0.0	10.2 km/ hrs.(Avg)	SE

### RESULT

<u></u>			galagita,		gent file getjene en
Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	μg/M³	12.8	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO <sub>2</sub> )	μg/M³	19.2	≤80	IS 5182(Part 6)
03	Particulate Matter PM10 micron	μg/M³	70.4	≤100	IS 5182 (Part 23)
04	Particulate Matter PM2.5 micron	μg/M³	38.6	≤ 60	USEPA 40 CFRCH
05	Ozone (O <sub>3</sub> )	μg/M³	5.0	≤ 100	IS 5182
06	Lead (Pb)	μg/M³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M <sup>3</sup>	0.394	≤ 2.0	IS 5182
08	Ammonia (NH <sub>3</sub> )	μg/M³	5.4	≤ 400	APHA - 401
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	μg/M³	BDL	≤5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M³	BDL	<b>\$1</b>	IS 5182
11	Arsenic (As)	ng/ M <sup>3</sup>	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M³	BDL	≤ 20	APHA - AAS

### **REMARKS/OBSERVATIONS:**

- > All above results are within National Ambient Air Quality standards.
- > BDL: Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd. TANCE

Kinehull Checked By

(Mrs.Kadambari Deshmukh)

Morized Signatory Dr. Sandeep Jadhav Senior vice president

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

Environment Management and Engineering Division (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

- ISO 45001:2018 (OHSAS)Certified Laboratory.
- · Recognized by MoEF & CC



Format No. EME/LAB/Format 7.8/TR

# Quarter January- February- March 2023

### **Test Report**

Report Number: MITCON/2022-23/February/2509

Issue Date:27/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2509/9
M/s MOIL LIMITED,	Date of Monitoring	17/02/2023
	Type of Monitoring	Ambient Noise
Munsar Manganese Mines L1=108.630 Ha Site, Dist:-Nagpur (M.S).	Monitoring Done By	MITCON

#### **READINGS**

Sr. No.	Test Location		Unit		Readings	
01	Admin building		dB(A)		61.8	
02	Mine road( Near Work Shop)		dB(A)		63.7	
.03	DSU Plant	2000	dB(A)		65.4	
04	Pit Top (Mine)		dB(A)	a diag	68.0	_
an a safarinteen e	12 Mars 11 Company and 1 Company					

# **REMARKS / OBSERVATIONS:**

Limits The Maharashtra Pollution Control Board has prescribe 75 dB (A) as an upper limit of Noise Level during daytime.

For MITCON Consultancy & Engineering Services Ltd.

Checked By

(Mrs. Kadambari Deshmukh)



Authorized Signatory
Dr. Sandeep Jadhav
(Senior Vice President)

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

**Environment Management and Engineering Division** (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

- · ISO 45001:2018 (OHSAS)Certified Laboratory.
- Recognized by MoEF & CC



Format No. EME/LAB/Format 7.8/TR

# Quarter January- February- March 2023

# **Test Report**

Report Number: MITCON/2022-23/February/2509

Issue Date: 27/02/2023

Client's Name & Address	Sample Details		
M/s MOIL LIMITED,	Sample Code	MITCON/2022-23/February/2509/1	
	Name of Sample	Ground Water	
Munsar Manganese Mines L1=108.630 Ha Site, Dist:-Nagpur (M.S)	Sample Details	Near Office Borewell Water	
	Container Details	1 lit plastic can	
	Sample Collected By	MITCON	
	Method of sampling	IS 3025(Part I)	
	Sample Collected On	17/02/2023	
	Date of Sample Receipt	20/02/2023	
	Analysis Start Date	20/02/2023	
	End Date of Analysis	27/02/2023	

# **ANALYSIS RESULTS**

Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7.19	(35.76 \$2.76 ); ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	10.0	mg/l	N.S	APHA 2540 D,2-70 to 2-71 23rd ed 2017
03	Turbidity	<1	NTU	≤1	IS: 3025 Part-10 (R.A : 2002)
04	Total Dissolved Solids	246.5	mg/l	≤ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO3	125.32	mg/l	≤200	APHA 2340 C ,2-48 to 2-50,23rd Ed 2017
06	Calcium as Ca	42.12	mg/l	≤75	APHA 3500 Ca B , 3-69 to 3-70 , 23rd Ed. 2017
07	Magnesium as Mg	21.21	mg/l	≤30	APHA 3500 Mg B, 3-86 , 23rd Ed. 2017
08	Mangnese as mn	< 0.1	mg/f	< 0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as Caco3	119.36	Mg/l	<200	APHA 2320 B ,2-37 to 2-39 23rd Ed 2017
10	Fluoride as F	< 0.1	· Mg/l	<1	APHA 4500 F- D 4-90 to 4-9123rd Ed 2017
11	Chloride as Cl	42.12	mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as \$04	12.52	mg/l	≤ 200	APHA 4500 –SO4E, 4-199 TO 4-200, 23rd Ed 2017
13	Iron aș Fe	< 0.05	mg/l	≤0.3	APHA 3111 B, 3-18 TO 3-21, 23rd Ed 2017 (using AAS)
14	Nitrate as NO3	4.43	mg/l	≤45	APHA 4500 NO3-B,4-127 23rd Ed 2017
15	E.coli	Absent	MPN/100ml	Absent	IS: 1622 (R,A : 2014)
16	Total Coliform	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
17	colour	<5.	HZ	≤5	IS: 3025 Part-4 (Rev.1, RA 2012)
18	odour	Aggreable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

**REMARKS / OBSERVATIONS:** 

The above water sample is complying with required limits as per IS 10500:2012.

For MITCON Consultancy & Engineering Services Ltd & Min Onlife Line (1997)

Checked By

(Mrs. Kadambari Deshmukh)

thorized Signatory (Dr.Sandeep Jadhav) Senior Vice President

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

Environment Management and Engineering Division (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

• ISO 45001:2018 (OHSAS)Certified Laboratory.

· Recognized by MoEF & CC

Solutions for Sustainable Tomorrow

Format No. EME/LAB/Format 7.8/TR

# **Quarter January- February- March 2023**

# Test Report

Report Number: MITCON/2022-23/February/2509

Issue Date: 27/02/2023

Client's Name & Address	Sample Details			
M/s MOIL LIMITED,	Sample Code	MITCON/2022-23/February/2509/2		
	Name of Sample	Waste Water		
Munsar Manganese Mines L1=108.630 Ha Site,	Sample Details	Mine seepage water		
	Container Details	1 lit plastic can		
	Sample Collected By	MITCON		
Dist:-Nagpur (M.S)	Method of sampling	IS 3025(Part I)		
	Sample Collected On	17/02/2023		
	Date of Sample Receipt	20/02/2023		
	Analysis Start Date	20/02/2023		
•	End Date of Analysis	27/02/2023		

**ANALYSIS RESULTS** 

Sr. No.	Characteristic	Results	Unit	Permissible Limit as per Consent Condition	Test Methods
01	pH at 25°C	7.19		5.5 to 9.0	APHA 4500 H+ A, 4-95, 23rd Ed. 2017
02	Dissolved Oxygen	3.3	mg/l	-, A. M. M.	IS: 3025 Part 38
03	Chemical Oxygen Demand	72.4	mg/l	250	APHA 5220 C,5-20 to 5-21 23rd Ed 2017
04	Biochemical Oxygen	24.8	mg/l	30	IS :3025 (Part 44)
05	Total suspended solids	36.7	mg/l	100	APHA 2540 D,2-70 to 2-71 23rd Ed 2017
06	Oil and grease	< 5	mg/l	10	APHA 5520 B,5-42 to 5-43 23rd Ed 2017
07	Manganese	0.35	mg/l	2	APHA 3111 B,3-18 to 3-21 23rd Ed 2017

**REMARKS / OBSERVATIONS:** 

For MITCON Consultancy & Engineering Services Ltd.

Checked By

(Mrs. Kadambari Deshmukh)

es Ltd.

Authorized Signatory (Dr:Sandeep Jadhav) Senior Vice President

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

**Environment Management and Engineering Division** (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

ISO 45001:2018 (OHSAS)Certified Laboratory.

Recognized by MoEF & CC

Solutions for Sustainable Tamorrow

Format No. EME/LAB/Format 7.8/TR

# **Quarter January- February- March 2023**

# **Test Report**

Report Number: MITCON/2022-23/February/2509

Issue Date:27/02/2023

Client's Name & Address		Sample Details
M/s MOIL LIMITED,	Sample Code	MITCON/2022-23/February/2509/3
	Name of Sample	Waste water
Munsar Manganese Mines L1=108.630 Ha Site,	Sample Details	ETP outlet at workshop
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
Dist:-Nagpur (M.S)	Method of sampling	IS 3025(Part I)
	Sample Collected On	17/02/2023
	Date of Sample Receipt	20/02/2023
	Analysis Start Date	20/02/2023
	End Date of Analysis	27/02/2023

**ANALYSIS RESULTS** 

Sr. No.	Characteristic	Results	Unit	Permissible Limit as per Consent Condition	Test Methods
01	pH at 25°C	7.20	100 CO 4 4 V 27	5.5 to 9.0	APHA 4500 H+ A, 4-95, 23rd Ed. 2017
02	Dissolved Oxygen	3.1	mg/l	- A. C.	IS: 3025 Part 38
03	Chemical Oxygen Demand	54.0	mg/l	250	APHA 5220 C,5-20 to 5-21 23rd Ed 2017
04	Biochemical Oxygen	19.4	mg/l	30	IS :3025 (Part 44)
05	Total suspended solids	22.0	mg/l	100	APHA 2540 D,2-70 to 2-71 23rd Ed 2017
06	Oil and grease	6.0	mg/l	10	APHA 5520 B,5-42 to 5-43 23rd Ed 2017
07	Manganese	0.35	mg/l	2	APHA 3111 B,3-18 to 3-21 23rd Ed 2017

**REMARKS / OBSERVATIONS:** 

For MITCON Consultancy & Engineering Services Ltd.

Checked By

(Mrs. Kadambari Deshmukh)

Authorized Signatory (Dr. Sandeep Jadhav) Senior Vice President

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

Environment Management and Engineering Division (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

ISO 45001:2018 (OHSAS)Certified Laboratory.

Recognized by MoEF & CC

Format No. EME/LAB/Format 7.8/TR



# **Quarter January- February- March 2023**

# **Test Report**

Report Number: MITCON/2022-23/February/2509

Issue Date: 27/02/2023

Client's Name & Address		Sample Details	
M/s MOIL LIMITED,	Sample Code	MITCON/2022-23/February/2509/4	
	Name of Sample	Waste water STP Outlet (treated water) 1 lit plastic can	
Munsar Manganese Mines L1=108.630 Ha Site,	Sample Details		
	Container Details		
	Sample Collected By	MITCON	
Dist:-Nagpur (M.S)	Method of sampling	IS 3025(Part I)	
	Sample Collected On	17/02/2023	
	Date of Sample Receipt	20/02/2023	
	Analysis Start Date	20/02/2023	
	End Date of Analysis	27/02/2023	

**ANALYSIS RESULTS** 

Sr. No.	Characteristic	Results	Unit	Permissible Limit as per Consent Condition	Test Methods
01	pH at 25°C	7.22	ng tangan	5.5 to 9.0	APHA 4500 H+ A, 4-95, 23rd Ed. 2017
02	Dissolved Oxygen	3.6	mg/l	- 2000	IS: 3025 Part 38
03	Chemical Oxygen Demand	42.6	mg/l	250	APHA 5220 C,5-20 to 5-21 23rd Ed 2017
04	Biochemical Oxygen	17.0	mg/l	30	IS :3025 (Part 44)
05	Total suspended solids	21.6	mg/l	100	APHA 2540 D,2-70 to 2-71 23rd Ed 2017
06	Oil and grease	< 5	mg/l	10	APHA 5520 B,5-42 to 5-43 23rd Ed 2017
07	Manganese	0.27	mg/l	2	APHA 3111 B,3-18 to 3-21 23rd Ed 2017

**REMARKS / OBSERVATIONS:** 

For MITCON Consultancy & Engineering Services Ltd.

Checked By

(Mrs. Kadambari Deshmukh)

atd. Theorem and the state of t

(Dr.Sandeep Jadhav) Senior Vice President

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

**Environment Management and Engineering Division** 

(Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

ISO 45001: 2018 (OHSAS)Certified Laboratory.

Recognized by MoEF & CC



Solutions for Sustainable Tomorrow

Format No. EME/LAB/Format 7.8/TR

# Quarter January- February- March 2023

# **Test Report**

Report Number: MITCON/2022-23/February/2904

Issue Date: 27/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2904/3	
M/s MOIL LIMITED,	Date of Monitoring	17/02/2023	
	Type of Monitoring	Ambient Air	
Munsar Railway siding, Dist:-Nagpur (M.S)	Test Location	In front of weigh bridge	
	Monitoring Done By	MITCON	
	Date of Analysis	20/02/2023	

#### **OBSERVATION**

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	20	18	1440	0.0	10.2 km/	SE
		11				hrs.(Avg)	

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	μg/M³	11.8	\$ ≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO2)	μg/M³	17.0	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM10 micron	μg/M³	65.7	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM2.5 micron	μg/M³	31,1	≤ 60	USEPA 40 CFRCH
05	Ozone (O₃)	μg/M³	3,5	≤ 100	IS 5182
06	Lead (Pb)	μg/M³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M³	0.380	≤ 2.0	IS 5182
08	Ammonia (NH <sub>3</sub> )	μg/M³	3.9	≤ 400	APHA - 401
09	Benzene (C₅H₅)	μg/M³	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/M³	BDL	≤1	IS 5182
11	Arsenic (As)	ng/ M³	BDL	≤6	APHA - AAS
12	Nickel (Ni)	ng/ M³	BDL	≤ 20	APHA - AAS

### **REMARKS/OBSERVATIONS:**

> All above results are within National Ambient Air Quality standards.

▶ BDL: - Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd.

Checked By

(Mrs.Kadambari Deshmukh)

A thorized Signatory Tr. Sandeep Jadhav Senior vice president

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

**Environment Management and Engineering Division** 

(Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

- ISO 45001: 2018 (OHSAS)Certified Laboratory.
- Recognized by MoEF & CC



Solutions for Sustainable Tomorrow

Format No. EME/LAB/Format 7.8/TR

# Quarter January- February- March 2023

# **Test Report**

Report Number: MITCON/2022-23/February/2904

Issue Date:27/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2904/4
M/s MOIL LIMITED,	Date of Monitoring	17/02/2023
	Type of Monitoring	Ambient Air
	Test Location	End Point of Railway Siding
	Monitoring Done By	MITCON
Munsar Railway siding, Dist:-Nagpur (M.S).	Date of Analysis	20/02/2023

#### **OBSERVATION**

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	20	18	1440	0.0	10.2 km/ hrs.(Avg)	SE

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	μg/M³	12.8	≤80,	IS 5182(Part 2)
02	Oxides of Nitrogen (NO <sub>2</sub> )	μg/M³	18.3	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM10 micron	μg/M³	64.5	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM2,5 micron	μg/M³	25.9	≤ 60	USEPA 40 CFRCH
05	Ozone (O₃)	μg/M³	3.3	≤ 100	IS 5182
06	Lead (Pb)	μg/M³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M³	0.367	≤ 2.0	IS 5182
08	Ammonia (NH₃)	μg/M³	4.0	≤ 400	APHA - 401
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	μg/M³	BDL	≤5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/M³	BDL	≤1	IS 5182
11	Arsenic (As)	ng/M³	BDL	≤6	APHA - AAS
12	Nickel (Ni)	ng/ M³	BDL	≤ 20	APHA - AAS

# **REMARKS/OBSERVATIONS:**

- > All above results are within National Ambient Air Quality standards.
- > BDL: Below Detection Limit.

For MITCON Consultancy & Engineering Services Lide

hursturk Checked By

(Mrs.Kadambari Deshmukh)



thorized Signatory Dr. Sandeep Jadhav Senior vice president

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

**Environment Management and Engineering Division** 

(Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

- ISO 45001: 2018 (OHSAS)Certified Laboratory.
- Recognized by MoEF & CC



Format No. EME/LAB/Format 7.8/TR

# Quarter January- February- March 2023

# **Test Report**

Report Number: MITCON/2022-23/February/2904

Issue Date:27/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2904/5
M/s MOIL LIMITED,	Date of Monitoring	17/02/2023
	Type of Monitoring	Ambient Noise
	Monitoring Done By	MITCON
Munsar Railway siding, Dist:-Nagpur (M.S).		

### **READINGS**

Sr. No.	Test Location	Unit	Readings
01	In front of weigh bridge	dB(A)	61.2
02	End Point of Railway Siding	dB(A)	58.4

**REMARKS / OBSERVATIONS:** 

Limits: The Maharashtra Pollution Control Board has prescribe 75 dB (A) as an upper limit of Noise Level during

For MITCON Consultancy & Engineering Services Ltd.

Merukh Checked By

(Mrs. Kadambari Deshmukh)



**Authorized Signatory** Dr. Sandeep Jadhav (Senior Vice President)

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

**Environment Management and Engineering Division** 

(Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

- ISO 45001: 2018 (OHSAS) Certified Laboratory.
- Recognized by MoEF & CC



Format No. EME/LAB/Format 7.8/TR

# Quarter January- February- March 2023

# **Test Report**

Report Number: MITCON/2022-23/February/2904

Issue Date:27/02/2023

Client's Name & Address		Sample Details
M/s MOIL LIMITED,	Sample Code	MITCON/2022-23/February/2904/1
,	Name of Sample	Ground Water
	Sample Details	Railway siding at Bore well
	Container Details	1 lit plastic can
Munsar Railway siding, Dist:-Nagpur (M.S)	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	17/02/2023
	Date of Sample Receipt	20/02/2023
	Analysis Start Date	20/02/2023
	End Date of Analysis	27/02/2023

### **ANALYSIS RESULTS**

Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7.19	. <b>-</b>	6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	10.0	mg/l	N.S	APHA 2540 D,2-70 to 2-71 23rd ed 2017
03	Turbidity	<1	NTU	≤1	IS: 3025 Part-10 (R.A : 2002)
04	Total Dissolved Solids	280.0	mg/l	≲ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO3		mg/l	≤200	APHA 2340 C ,2-48 to 2-50,23rd Ed 2017
06	Calcium as Ca		mg/l	≤ 75	APHA 3500 Ca B , 3-69 to 3-70 , 23rd Ed. 2017
07	Magnesium as Mg	27 (19) 27 (19)	mg/l	≤ 30	APHA 3500 Mg B, 3-86 , 23rd Ed. 2017
08	Mangnese as mn	< 0.1	mg/l	< 0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as Caco3		Mg/I	<200	APHA 2320 B ,2-37 to 2-39 23rd Ed 2017
10	Fluoride as F	< 0.1	Mg/l	<1	APHA 4500 F- D 4-90 to 4-9123rd Ed 2017
11	Chloride as Cl		mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as SO4		mg/l	≤ 200	APHA 4500 –SO4E, 4-199 TO 4-200, 23rd Ed 2017
13	Iron as Fe	< 0.05	mg/l	≤0.3	APHA 3111 B, 3-18 TO 3-21, 23rd Ed 2017 (using AAS)
14	Nitrate as NO3		mg/l	≤45	APHA 4500 NO3-B,4-127 23rd Ed 2017
15	E.coli	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
16	Total Coliform	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
17	colour	<5	· HZ	≤5	IS: 3025 Part-4 (Rev.1, RA 2012)
18	odour	Aggreable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

### **REMARKS / OBSERVATIONS:**

The above water sample is complying with required limits as per IS 10500:2012.

For MITCON Consultancy & Engineering Services Ltd. Mosturch ON CO.

**Checked By** 

(Mrs. Kadambari Deshmukh)

Authorized Signatory (Dr.Sandeep Jadhav) Senior Vice President

- This Report should not be used for advertisement / judicial purpose.
- Customer complaint register is available in the laboratory.

PUNE 4

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

**Environment Management and Engineering Division** (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

• ISO 45001: 2018 (OHSAS)Certified Laboratory.

Recognized by MoEF & CC

Format No. EME/LAB/Format 7.8/TR



Quarter January- February- March 2023

# **Test Report**

Report Number: MITCON/2022-23/February/2904

Issue Date:27/02/2023

		13366 04(0:47) 02/2020	
Client's Name & Address		Sample Details	
M/s MOIL LIMITED,	Sample Code	MITCON/2022-23/February/2904/2	
,	Name of Sample	Ground water	
	Sample Details	Water sample collected from Near by Pit	
	Container Details	1 lit plastic can	
Munsar Railway siding, Dist:-Nagpur (M.S)	Sample Collected By	MITCON	
	Method of sampling	IS 3025(Part I)	
	Sample Collected On	17/02/2023	
	Date of Sample Receipt	20/02/2023	
	Analysis Start Date	20/02/2023	
	End Date of Analysis	27/02/2023	

# **ANALYSIS RESULTS**

Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7,20	4	6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	10.2	mg/l	N.S	APHA 2540 D,2-70 to 2-71 23rd ed 2017
03	Turbidity	<1	NTU 🌲	<b>S</b> 1	IS; 3025 Part-10 (R.A : 2002)
04	Total Dissolved Solids	278.5	mg/l	≤ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO3	139.52	mg/l	≤200	APHA 2340 C ,2-48 to 2-50,23rd Ed 2017
06	Calcium as Ca	51.23	mg/l	≤75	APHA 3500 Ca B , 3-69 to 3-70 , 23rd Ed. 2017
07	Magnesium as Mg	20.32	mg/l	≤30	APHA 3500 Mg B, 3-86 , 23rd Ed. 2017
08	Mangnese as mn	< 0.1	mg/l	< 0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as Caco3	120.23	· Mg/I	<200	APHA 2320 B ,2-37 to 2-39 23rd Ed 2017
10	Fluoride as F	< 0.1	Mg/I	<1	APHA 4500 F- D 4-90 to 4-9123rd Ed 2017
11	Chloride as Cl	18.56	mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as SO4	12.24	mg/l	≤ 200	APHA 4500 –SO4E, 4-199 TO 4-200, 23rd Ed 2017
13	Iron as Fe	< 0.05	mg/l	≤ 0.3	APHA 3111 B, 3-18 TO 3-21, 23rd Ed 2017 (using AAS)
14	Nitrate as NO3	9,54	mg/l	≤45	APHA 4500 NO3-B,4-127 23rd Ed 2017
15	E.coli	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
16	Total Coliform	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
17	colour	<5	HZ	≤5	IS: 3025 Part-4 (Rev.1, RA 2012)
18	odour	Aggreable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

**REMARKS / OBSERVATIONS:** 

For MITCON Consultancy & Engineering Services Ltd.

Checked By

(Mrs. Kadambari Deshmukh)

Authorized Signatory
(Dr. Sandeep Jadhav)

Senior Vice President

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

**Environment Management and Engineering Division** (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

· ISO 45001:2018 (OHSAS)Certified Laboratory.

· Recognized by MoEF & CC



Format No. EME/LAB/Format 7.8/TR

# Quarter January- February- March 2023

# **Test Report**

Report Number :MITCON/2022-23/February/2802

Issue Date:27/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2802/5
M/s MOIL LIMITED,	Date of Monitoring	17/02/2023
•	Type of Monitoring	Ambient Air
Parsoda Manganese Mines L1=53.750 Ha Site, Dist:-	Test Location	Parsoda Village
Nagpur (M.S)	Date of Monitoring 17/02/2023 Type of Monitoring Ambient Air	MITCON
	Date of Analysis	20/02/2023

#### **OBSERVATION**

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	20	18	1440	0.0	10.2 km/ hrs.(Avg)	SE

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	μg/M³	12.3	standard ≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO2)	μg/M³	17.6	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM10 micron	μg/M³	64.8	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM2,5 micron	μg/M³	32.5	≤ 60	USEPA 40 CFRCH
05	Ozone (O <sub>3</sub> )	μg/M³	3.0	≤ 100	IS 5182
06	Lead (Pb)	μg/M³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M³	0.362	≤ 2.0	IS 5182
80	Ammonia (NH <sub>3</sub> )	μg/M³	3.6	≤ 400	APHA - 401
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	μg/M³	BDL	≤5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M³	BDL	<u>≤1</u>	IS 5182
11	Arsenic (As)	ng/ M³	BDL	≤6	······································
12	Nickel (Ni)	ng/ M³	BDL	≤ 20	APHA - AAS APHA - AAS

# **REMARKS/OBSERVATIONS:**

> All above results are within National Ambient Air Quality standards.

BDL: - Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd.

Kynelluch Checked By

(Mrs.Kadambari Deshmukh)

Mathorized Signatory Dr. Sandeep Jadhav Senior vice president

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

Environment Management and Engineering Division (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

ISO 45001:2018 (OHSAS)Certified Laboratory.

Recognized by MoEF & CC



Format No. EME/LAB/Format 7.8/TR

# Quarter January- February- March 2023

# **Test Report**

Report Number :MITCON/2022-23/February/2802

Issue Date: 27/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2802/6
M/s MOIL LIMITED,	Date of Monitoring	17/02/2023
	Type of Monitoring	Ambient Air
	Test Location	West Dump site
Parcoda Managanas Managanas Tal Walling To	Monitoring Done By	MITCON
Parsoda Manganese Mines L1=53.750 Ha Site, Dist:- Nagpur (M.S).	Date of Analysis	20/02/2023

#### **OBSERVATION**

Ambient Temp. °C	Dry Bulb Temp. ℃	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	20 .	18	1440	0.0	10.2 km/ hrs.(Avg)	SE

#### RESULT

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	μg/M³	12.6	≤80	(CF102(D-140)
02	Oxides of Nitrogen (NO2)	μg/M³	18.0	≤80	IS 5182(Part 2)
03	Particulate Matter PM10 micron	μg/M³	68.9	≤ 100	IS 5182(Part 6) IS 5182 (Part 23)
04	Particulate Matter PM2.5 micron	μg/M³	34.7	≤ 60	USEPA 40 CFRCH
05	Ozone (O₃)	μg/M³	44.1	<100	
06	Lead (Pb)	μg/M³	BDL	≤ 100	IS 5182
07	Carbon Monoxide (CO)	mg/M <sup>3</sup>		≤ 1.0	APHA - AAS
08	Ammonia (NH <sub>3</sub> )		0.379	≤ 2.0	IS 5182
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	μg/M³	4.2	≤ 400	APHA - 401
10		μg/M³	BDL	≤5	IS 5182
	Benzo(a)Pyrene (BaP)	ng/ M³	BDL	≤1	IS 5182
11	Arsenic (As)	ng/M³	BDL	≤6	APHA - AAS
12	Nickel (Ni)	ng/ M³	BDL	≤ 20	APHA - AAS

# **REMARKS/OBSERVATIONS:**

> All above results are within National Ambient Air Quality standards.

➢ BDL: - Below Detection Limit.

For MITCON Consultancy & Engineering Services, Ltd.

KIDONULU Checked By

(Mrs.Kadambari Deshmukh)

Authorized Signatory
Dr. Sandeep Jadhav
Senior vice president

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

Environment Management and Engineering Division (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

ISO 45001:2018 (OHSAS) Certified Laboratory.

Recognized by MoEF & CC



Format No. EME/LAB/Format 7.8/TR

# Quarter January- February- March 2023

# **Test Report**

Report Number :MITCON/2022-23/February/2802

Issue Date:27/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2802/7
M/s MOIL LIMITED,	Date of Monitoring	17/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Near Mine Pit
Parsoda Manganese Mines L1=53.750 Ha Site, Dist:-	Monitoring Done By	MITCON
Nagpur (M.S).	Date of Analysis	20/02/2023

### **OBSERVATION**

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	20	18	1440	0.0	10.2 km/	SE
·····	<u> </u>					hrs.(Avg)	

RESULT

Sr. No.	Description	Unit	Results	CPCB standard	1
01	Sulphur Dioxide (SO <sub>2</sub> )	μg/M³	12.0	and the State of the Control of the	Test Method
02	Oxides of Nitrogen (NO <sub>2</sub> )			≤80	IS 5182(Part 2)
		µg/M³	20.2	≤80	IS 5182(Part 6)
03	Particulate Matter PM <sub>10 micron</sub>	μg/M³	71.3	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM <sub>2.5 micron</sub>	h <b>8</b> ∖W₃	38.9	≤ 60	USEPA 40 CFRCH
05	Ozone (O <sub>3</sub> )	μg/M³	4.4	≤ 100	7 (19 (19))
06	Lead (Pb)	μg/M³			IS 5182
07	Carbon Monoxide (CO)	· · · · · · · · · · · · · · · · · · ·	BDL	≤ 1.0	APHA - AAS
80	Ammonia (NH <sub>3</sub> )	mg/M³	0.410	≤ 2.0	IS 5182
		μg/M³	4.7	≤ 400	APHA - 401
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	μg/M³	BDL	≤5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M³	BDL	<del></del>	
11	Arsenic (As)	ng/ M³		· ≤1	IS 5182
12	Nickel (Ni)	······································	BDL	≤6	APHA - AAS
		ng/ M³	BDL	<u>≤</u> 20	APHA - AAS

# **REMARKS/OBSERVATIONS:**

- > All above results are within National Ambient Air Quality standards.
- BDL: Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd,

Checked By

(Mrs.Kadambari Deshmukh)



Dr. Sandeep Jadhav Senior vice president

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

Environment Management and Engineering Division (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

· ISO 45001:2018 (OHSAS) Certified Laboratory.

• Recognized by MoEF & CC

MITCON

Solutions for Sustainable Tomorrow

Format No. EME/LAB/Format 7.8/TR .

# Quarter January- February- March 2023

# **Test Report**

Report Number: MITCON/2022-23/February/2802

Issue Date:27/02/2023

Client's Name & Address ·	Reference No.	MITCON/2022-23/February/2802/8
M/s MOIL LIMITED,	Date of Monitoring	17/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Mine road (Near Kh. No. 19)
D 1 32	Monitoring Done By	MITCON
Parsoda Manganese Mines L1=53.750 Ha Site, Dist:- Nagpur (M.S).	Date of Analysis	20/02/2023

### **OBSERVATION**

Ambient Temp.	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	20	18	1440	0.0	10.2 km/ hrs.(Avg)	SE

#### **RESULT**

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	μg/M³	12.7	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO <sub>2</sub> )	μg/M³	17.9	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM10 micron	μg/M³	69.2	≤100	IS 5182 (Part 23)
04	Particulate Matter PM2.5 micron	µg/М³	36.2	≤ 60	USEPA 40 CFRCH
05	Ozone (O₃)	μg/M³	4.2	≤ 100	90 F400
06	Lead (Pb)	μg/M <sup>3</sup>	BDL	≤ 1.0	15 5182
07	Carbon Monoxide (CO)	mg/M <sup>3</sup>	0.346	≤ 2.0	APHA - AAS
. 08	Ammonia (NH <sub>3</sub> )	μg/M³	4.4	≤ 400	IS 5182
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	μg/M³	BDL		APHA - 401
10	Benzo(a)Pyrene (BaP)	ng/M³		≤5	IS 5182
11	Arsenic (As)	ng/ M <sup>3</sup>	BDL	<u> </u>	IS 5182
12	Nickel (Ni)	<del></del>	BDL.	≤6	APHA - AAS
	[	ng/M³	BDL	≤ 20	APHA - AAS

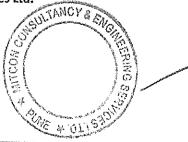
# **REMARKS/OBSERVATIONS:**

- > All above results are within National Ambient Air Quality standards.
- ➢ BDL: Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd.

Checked By

(Mrs.Kadambari Deshmukh)



Althorized Signatory Dr. Sandeep Jadhav Senior vice president

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

Environment Management and Engineering Division (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

· ISO 45001:2018 (OHSAS)Certified Laboratory.

Recognized by MoEF & CC



Format No. EME/LAB/Format 7.8/TR

# **Quarter January- February- March 2023**

# **Test Report**

Report Number: MITCON/2022-23/February/2802

Issue Date: 27/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2802/9
M/s MOIL LIMITED,	Date of Monitoring	17/02/2023
	Type of Monitoring	Ambient Noise
Parsoda Manganese Mines L1=53.750 Ha Site, Dist:-Nagpur (M.S).	Monitoring Done By	MITCON

#### **READINGS**

Sr. No.	Test Location	Unit	Readings
01	Parsoda Village	dB(A)	51.8
02	West Dump site	dB(A)	64.7
03	Near Mine Pit	dB(A)	67.9
04	Mine road (Near Kh. No. 19)	dB(A)	63.0
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	the state of the s		Control Contro

# **REMARKS / OBSERVATIONS:**

Limits: The Maharashtra Pollution Control Board has prescribe 75 dB (A) as an upper limit of Noise Level during daytime.

For MITCON Consultancy & Engineering Services Ltd.

Checked By

(Mrs. Kadambari Deshmukh)

(Mrs. Kadambari Deshmukh)



Dr. Sandeep Jadhav (Senior Vice President)

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

Environment Management and Engineering Division (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

ISO 45001:2018 (OHSAS)Certified Laboratory.

Recognized by MoEF & CC

Solutions for Sustainable Tomorray

Format No. EME/LAB/Format 7.8/TR

# Quarter January- February- March 2023

# **Test Report**

Report Number :MITCON/2022-23/February/2802

Issue Date: 27/02/2023

Client's Name & Address		Sample Details			
M/s MOIL LIMITED,	Sample Code	MITCON/2022-23/February/2802/1			
Parsoda Manganese Mines L1=53.750 Ha Site,	Name of Sample	Waste Water			
	Sample Details	Mine Pit Water			
	Container Details	1 lit plastic can			
	Sample Collected By	MITCON			
Dist:-Nagpur (M.S)	Method of sampling	IS 3025(Part I)			
	Sample Collected On	17/02/2023			
	Date of Sample Receipt	20/02/2023			
•	Analysis Start Date	20/02/2023			
	End Date of Analysis	27/02/2023			

**ANALYSIS RESULTS** 

Sr. No.	Characteristic	Results	Unit	Permissible Limit as per Consent Condition	Test Methods
01	pH at 25℃	7.20	CONTRACTOR	5.5 to 9.0	APHA 4500 H+ A, 4-95, 23rd Ed. 2017
02	Dissolved Oxygen	3,3	mg/l		IS: 3025 Part 38
03	Chemical Oxygen Demand	57.8	mg/l	250	APHA 5220 C,5-20 to 5-21 23rd Ed 2017
04	Biochemical Oxygen	22.2	mg/l	30	IS :3025 (Part 44)
05	Total suspended solids	24.4	mg/l	77 J. F. G. S. J. T. S.	「現代の表現を表現を表現を表現を表現を表現を表現を表現を表現を表現を表現を表現を表現を表
06	Oil and grease	< 5.0	mg/l	100	APHA 2540 D,2-70 to 2-71 23 <sup>rd</sup> Ed 2017
07	Manganese	0.36	mg/l	10	APHA 5520 B,5-42 to 5-43 23rd Ed 2017
MARI	KS / ORSERVATIONS.	0.36	1118/1	2	APHA 3111 B,3-18 to 3-21 23 <sup>rd</sup> Ed 2017

REMARKS / OBSERVATIONS:

For MITCON Consultancy & Engineering Services Ltd.

Checked By

(Mrs. Kadambari Deshmukh)



Anthorized Signatory (Dr.Sandeep Jadhav) Senior Vice President

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

**Environment Management and Engineering Division** (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

ISO 45001:2018 (OHSAS) Certified Laboratory.

Recognized by MoEF & CC

Solutions for Sustainable Tomorrow

Format No. EME/LAB/Format 7.8/TR

# Quarter January- February- March 2023

# **Test Report**

Report Number :MITCON/2022-23/February/2802

Issue Date:27/02/2023

Client's Name & Address	Sample Details			
M/s MOIL LIMITED,	Sample Code	MITCON/2022-23/February/2802/2		
	Name of Sample	Waste Water		
Parsoda Manganese Mines L1=53.750 Ha Site,	Sample Details	Sedimentation tank		
	Container Details	1 lit plastic can		
	Sample Collected By	MITCON		
Dist:-Nagpur (M.S)	Method of sampling	IS 3025(Part I)		
	Sample Collected On	17/02/2023		
	Date of Sample Receipt	20/02/2023		
	Analysis Start Date	20/02/2023		
	End Date of Analysis	27/02/2023		

**ANALYSIS RESULTS** 

Sr. No.	Characteristic	Results	Unit	Permissible Limit as per Consent Condition	Test Methods
01	pH at 25℃	7.22	4	5.5 to 9.0	APHA 4500 H+ A, 4-95, 23rd Ed. 2017
02	Dissolved Oxygen	2.6	mg/i		IS: 3025 Part 38
03	Chemical Oxygen Demand	62.3	mg/l	250	APHA 5220 C,5-20 to 5-21 23 <sup>rd</sup> Ed 2017
04	Biochemical Oxygen	22.0	mg/l	30	**************************************
05	Total suspended solids	20.5		120 5 120	IS :3025 (Part 44)
06	Oil and grease		mg/l	100	APHA 2540 D,2-70 to 2-71 23rd Ed 2017
·	12 mart 28 8 8 mart 28	< 5.0	mg/l	10	APHA 5520 B,5-42 to 5-43 23rd Ed 2017
07	Manganese KS / OBSERVATIONS:	0.35	mg/l	2 (20)	APHA 3111 B,3-18 to 3-21 23 <sup>rd</sup> Ed 2017

REMARKS / OBSERVATIONS:

For MITCON Consultancy & Engineering Services Ltd.

Cheeked By

(Mrs. Kadambari Deshmukh)



Anthorized Signatory (Dr.Sandeep Jadhav) Senior Vice President

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

Environment Management and Engineering Division (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

ISO 45001:2018 (OHSAS)Certified Laboratory.

Recognized by MoEF & CC



Solutions for Sustainable Tomorrow

Format No. EME/LAB/Format 7.8/TR

# Quarter January- February- March 2023

# Test Report

Report Number :MITCON/2022-23/February/2802

Issue Date:27/02/2023

Client's Name & Address	Sample Details		
M/s MOIL LIMITED,	Sample Code	MITCON/2022-23/February/2802/3	
	Name of Sample	Ground water	
	Sample Details	Open Dug well	
Daniel J. No.	Container Details	1 lit plastic can	
Parsoda Manganese Mines L1=53.750 Ha Site,	Sample Collected By	MITCON	
Dist:-Nagpur (M.S)	Method of sampling	IS 3025(Part I)	
	Sample Collected On	17/02/2023	
•	Date of Sample Receipt	20/02/2023	
	Analysis Start Date	20/02/2023	
	End Date of Analysis	27/02/2023	

# **ANALYSIS RESULTS**

Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7.21		6.5 to 8.5	ADDIA ATOMIT
02	Total suspended solids	6.5	mg/l	N.S	APHA 4500 H+, A, 4-95, 23rd Ed 2017 APHA 2540 D,2-70 to 2-71 23rd ed 2017
03 👙	Turbidity	<1	NTU	≤1	
04	Total Dissolved Solids	230.0	mg/l	≤500	IS: 3025 Part-10 (R.A : 2002)
05	Total Hardness as CaCO3	110.22	mg/l	≤200	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017 APHA 2340 C, 2-48 to 2-50,23rd Ed 2017
06	Calcium as Ca	35.15	mg/l	≤ 75	APHA 3500 Ca B , 3-69 to 3-70 , 23rd Ed. 2017
07	Magnesium as Mg	23.20	mg/l	≤30	APHA 3500 Mg B, 3-86 , 23rd Ed. 2017
80	Mangnese as mn	< 0.1	mg/l	< 0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as Caco3	109.14	, Mg/I	<200	APHA 2320 B ,2-37 to 2-39 23rd Ed 2017
10	Fluoride as F	< 0.1	Mg/l	<1	ADIIA ADOD TO TO TO THE STATE OF THE STATE O
11	Chloride as Cl	42.17	mg/i	≤ 250	APHA 4500 F- D 4-90 to 4-9123rd Ed 2017
12	Sulphate as SO4	18.27	mg/l	≤ 200	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
13	Iron as Fe	< 0.05	mg/l	≤0.3	APHA 4500 –SO4E, 4-199 TO 4-200, 23rd Ed 2017
14	Nitrate as NO3	3.29	mg/l	<u>30.5</u> ≤45	APHA 3111 B, 3-18 TO 3-21, 23rd Ed 2017 (using AAS)
15	E.coli	Absent	MPN/100ml	Absent	APHA 4500 NO3-B,4-127 23rd Ed 2017
16	Total Coliform	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
17	colour	<5	HZ	Absent ≤5	IS: 1622 (R.A : 2014) IS: 3025 Part-4 (Rev.1, RA 2012)
18	odour	Aggreable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

**REMARKS / OBSERVATIONS:** 

For MITCON Consultancy & Engineering Services Ltd.

Checked By

(Mrs. Kadambari Deshmukh)

Authorized Signatory (Dr. Sandeep Jadhav) Senior Vice President

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.

**Environment Management and Engineering Division** (Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005, Ph. No. 66289405/400, email: emelab@mitconindia.com

ISO 45001:2018 (OHSAS)Certified Laboratory.

· Recognized by MoEF & CC



Format No. EME/LAB/Format 7.8/TR

# Quarter January- February- March 2023

# **Test Report**

Report Number :MITCON/2022-23/February/2802

Issue Date:27/02/2023

Client's Name & Address	Sample Details		
M/s MOIL LIMITED,	Sample Code	MITCON/2022-23/February/2802/4	
Parsoda Manganese Mines L1=53.750 Ha Site, Dist:-Nagpur (M.S)	Name of Sample	Waste water	
	Sample Details	Old Pit 1 lit plastic can MITCON	
	Container Details		
	Sample Collected By		
	Method of sampling	IS 3025(Part I)	
	Sample Collected On	17/02/2023	
•	Date of Sample Receipt	20/02/2023	
	Analysis Start Date	20/02/2023	
	End Date of Analysis	27/02/2023	

**ANALYSIS RESULTS** 

Sr. No.	Characteristic	Results	Unit	Permissible Limit as per Consent Condition	Test Methods
01	pH at 25°C	7.20	vija 20 <b>:</b> 35/880	5.5 to 9.0	APHA 4500 H+ A, 4-95, 23rd Ed. 2017
02	Dissolved Oxygen	3.3	mg/l		IS: 3025 Part 38
03	Chemical Oxygen Demand	65.7	mg/l	250	APHA 5220 C,5-20 to 5-21 23 <sup>rd</sup> Ed 2017
04	Biochemical Oxygen	22.0	mg/l	30	IS :3025 (Part 44)
05	Total suspended solids	32.0	mg/l	100	APHA 2540 D,2-70 to 2-71 23rd Ed 2017
06	Oil and grease	< 5.0	mg/l	100	APHA 5520 B,5-42 to 5-43 23rd Ed 2017
07	Manganese	0.32	mg/l	2	APHA 3111 B,3-18 to 3-21 23rd Ed 2017

**REMARKS / OBSERVATIONS:** 

For MITCON Consultancy & Engineering Services Ltd.

KIDSHARK Checked By

(Mrs. Kadambari Deshmukh)

GREULTANO

Withorized Signatory (Dr.Sandeep Jadhav) Senior Vice President

This Report is valid for tested sample only.

This Report shall not be reproduced except in full & with written permission of MITCON.

This Report should not be used for advertisement / judicial purpose.

Customer complaint register is available in the laboratory.