

Format No. EME/LAB/Format 7.8/TR

**Quarter January February March 2023**

**Test Report**

Report Number : MITCON/2022-23/March/3226

Issue Date:06/03/2023

Client's Name & Address M/s MOIL LIMITED,  Ulwa Manganese Mines L3=48.974 Ha Site, Dist:- Balaghat (M.P)	Reference No.	MITCON/2022-23/March/3226/5
	Date of Monitoring	25/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Near Chindi Tola Village
	Monitoring Done By	MITCON
	Date of Analysis	27/02/2023

**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
32	32	17	10	1440	0.0	5.63 km/hrs.(Avg)	WNW

**RESULT**

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	µg/M <sup>3</sup>	11.0	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO <sub>2</sub> )	µg/M <sup>3</sup>	15.2	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM <sub>10</sub> micron	µg/M <sup>3</sup>	58.7	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM <sub>2.5</sub> micron	µg/M <sup>3</sup>	27.9	≤ 60	USEPA 40 CFRCH
05	Ozone (O <sub>3</sub> )	µg/M <sup>3</sup>	3.2	≤ 100	IS 5182
06	Lead (Pb)	µg/M <sup>3</sup>	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M <sup>3</sup>	0.314	≤ 2.0	IS 5182
08	Ammonia (NH <sub>3</sub> )	µg/M <sup>3</sup>	3.4	≤ 400	APHA - 401
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/M <sup>3</sup>	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M <sup>3</sup>	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M <sup>3</sup>	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M <sup>3</sup>	BDL	≤ 20	APHA - AAS

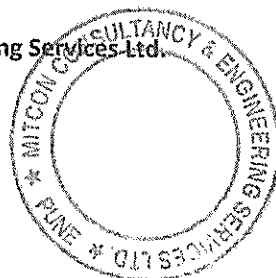
**REMARKS/OBSERVATIONS:**

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

For MITCON Consultancy & Engineering Services Ltd.

*Kadambari*  
Checked By

(Mrs.Kadambari Deshmukh)



*JD*

Authorized Signatory

Dr. Sandeep Jadhav

Senior vice president

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Format No. EME/LAB/Format 7.8/TR

**Quarter January February March 2023**

**Test Report**

Report Number : MITCON/2022-23/March/3226

Issue Date:06/03/2023

Client's Name & Address M/s MOIL LIMITED,  Ukwa Manganese Mines L3=48.974 Ha Site, Dist:- Balaghat (M.P)	Reference No.	MITCON/2022-23/March/3226/6
	Date of Monitoring	25/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Near Haul Road
	Monitoring Done By	MITCON
	Date of Analysis	27/02/2023

**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
32	32	17	10	1440	0.0	5.63 km/ hrs.(Avg)	WNW

**RESULT**

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	µg/M <sup>3</sup>	12.7	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO <sub>2</sub> )	µg/M <sup>3</sup>	17.2	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM <sub>10</sub> micron	µg/M <sup>3</sup>	65.0	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM <sub>2.5</sub> micron	µg/M <sup>3</sup>	34.5	≤ 60	USEPA 40 CFRCH
05	Ozone (O <sub>3</sub> )	µg/M <sup>3</sup>	5.0	≤ 100	IS 5182
06	Lead (Pb)	µg/M <sup>3</sup>	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M <sup>3</sup>	0.426	≤ 2.0	IS 5182
08	Ammonia (NH <sub>3</sub> )	µg/M <sup>3</sup>	5.2	≤ 400	APHA - 401
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/M <sup>3</sup>	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M <sup>3</sup>	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M <sup>3</sup>	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M <sup>3</sup>	BDL	≤ 20	APHA - AAS

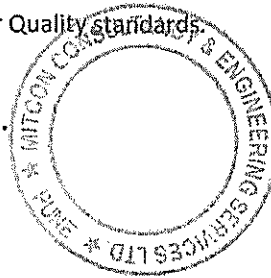
**REMARKS/OBSERVATIONS:**

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

For MITCON Consultancy & Engineering Services Ltd.

*Kadambari*  
Checked By

(Mrs.Kadambari Deshmukh)



*Sandeep Jadhav*

Authorized Signatory  
Dr. Sandeep Jadhav  
Senior vice president

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**Quarter January February March 2023**

**Test Report**

Report Number : MITCON/2022-23/March/3226

Issue Date:06/03/2023

Client's Name & Address M/s MOIL LIMITED,  Ukwa Manganese Mines L3=48.974 Ha Site, Dist:- Balaghat (M.P)	Reference No.	MITCON/2022-23/March/3226/7
	Date of Monitoring	25/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Sand Bunker
	Monitoring Done By	MITCON
	Date of Analysis	27/02/2023

**OBSERVATION**

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity hrs.(Avg)	Wind Direction
32	32	17	10	1440	0.0	5.63 km/hrs.(Avg)	WNW

**RESULT**

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	µg/M <sup>3</sup>	12.4	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO <sub>2</sub> )	µg/M <sup>3</sup>	16.8	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM <sub>10</sub> micron	µg/M <sup>3</sup>	61.3	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM <sub>2.5</sub> micron	µg/M <sup>3</sup>	30.1	≤ 60	USEPA 40 CFRCH
05	Ozone (O <sub>3</sub> )	µg/M <sup>3</sup>	4.2	≤ 100	IS 5182
06	Lead (Pb)	µg/M <sup>3</sup>	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M <sup>3</sup>	0.320	≤ 2.0	IS 5182
08	Ammonia (NH <sub>3</sub> )	µg/M <sup>3</sup>	4.8	≤ 400	APHA - 401
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/M <sup>3</sup>	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M <sup>3</sup>	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M <sup>3</sup>	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M <sup>3</sup>	BDL	≤ 20	APHA - AAS

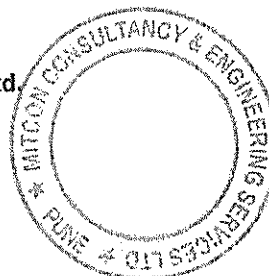
**REMARKS/OBSERVATIONS:**

- 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

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**Quarter January February March 2023**

**Test Report**

Report Number : MITCON/2022-23/March/3226

Issue Date:06/03/2023

Client's Name & Address <b>M/s MOIL LIMITED,</b>  Ukwa Manganese Mines L3=48.974 Ha Site, Dist:- Balaghat (M.P)	Reference No.	MITCON/2022-23/March/3226/8
	Date of Monitoring	25/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Near Explosive Magazine
	Monitoring Done By	MITCON
	Date of Analysis	27/02/2023

**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
32	32	17	10	1440	0.0	5.63 km/hrs.(Avg)	WNW

**RESULT**

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	µg/M <sup>3</sup>	11.5	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO <sub>2</sub> )	µg/M <sup>3</sup>	17.0	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM <sub>10</sub> micron	µg/M <sup>3</sup>	58.9	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM <sub>2.5</sub> micron	µg/M <sup>3</sup>	28.4	≤ 60	USEPA 40 CFRCH
05	Ozone (O <sub>3</sub> )	µg/M <sup>3</sup>	3.4	≤ 100	IS 5182
06	Lead (Pb)	µg/M <sup>3</sup>	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M <sup>3</sup>	0.318	≤ 2.0	IS 5182
08	Ammonia (NH <sub>3</sub> )	µg/M <sup>3</sup>	3.6	≤ 400	APHA - 401
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/M <sup>3</sup>	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M <sup>3</sup>	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M <sup>3</sup>	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M <sup>3</sup>	BDL	≤ 20	APHA - AAS

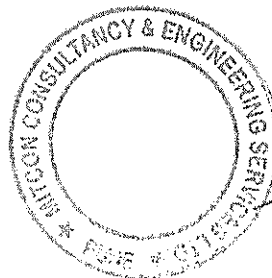
**REMARKS/OBSERVATIONS:**

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

For MITCON Consultancy & Engineering Services Ltd.

*Kadambari*  
Checked By

(Mrs.Kadambari Deshmukh)



*JJ*

Authorized Signatory  
Dr. Sandeep Jadhav  
Senior vice president

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Quarter January February March 2023

Test Report

Report Number : MITCON/2022-23/March/3226

Issue Date:06/03/2023

Client's Name & Address	Reference No.	MITCON/2022-23/March/3226/9
M/s MOIL LIMITED,  Ukwa Manganese Mines L3=48.974 Ha Site, Dist:- Balaghat (M.P)	Date of Monitoring	25/02/2023
	Type of Monitoring	Ambient Noise
	Monitoring Done By	MITCON

READINGS

Sr. No.	Test Location	Unit	Readings
01	Near Chindhi Tola Village	dB(A)	52.8
02	Near Pit office II Vertical shaft	dB(A)	59.2
03	Vertical Fan	dB(A)	68.2
04	Haul Road	dB(A)	59.2

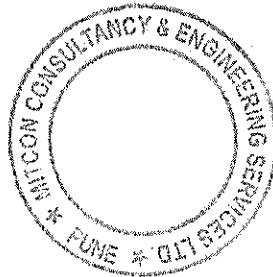
**REMARKS / OBSERVATIONS:**

Limits: The Madhya Pradesh 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)

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**Test Report**

Report Number : MITCON/2022-23/March/3226

Issue Date:06/03/2023

Client's Name & Address	Sample Details	
M/s MOIL LIMITED,  Ukwa Manganese Mines L3=48.974 Ha Site, Dist:- Balaghat (M.P)	Sample Code	MITCON/2022-23/March/3226/1
	Name of Sample	Ground Water
	Sample Details	Chindhi Tola Village Open Dugwell
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	25/02/2023
	Date of Sample Receipt	27/02/2023
	Analysis Start Date	27/02/2023
	End Date of Analysis	06/03/2023

**ANALYSIS RESULTS**

Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7.20	-	6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	<5	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	223.4	mg/l	≤ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO3	110.28	mg/l	≤200	APHA 2340 C, 2-48 to 2-50, 23rd Ed 2017
06	Calcium as Ca	24.32	mg/l	≤ 75	APHA 3500 Ca B, 3-69 to 3-70, 23rd Ed. 2017
07	Magnesium as Mg	12.25	mg/l	≤ 30	APHA 3500 Mg B, 3-86, 23rd Ed. 2017
08	Manganese as mn	< 0.1	mg/l	< 0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as CaCO3	108.25	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 4-91 23rd Ed 2017
11	Chloride as Cl	15.74	mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as SO4	19.95	mg/l	≤ 200	APHA 4500 -SO4- E, 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	7.12	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	Agreeable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

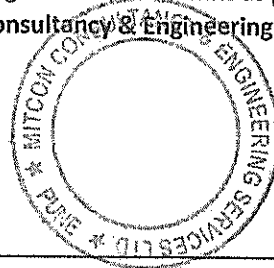
**REMARKS / OBSERVATIONS:**


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

Checked By  


(Mrs. Kadambari Deshmukh)

For MITCON Consultancy & Engineering Services Ltd.



Authorized Signatory  
  
 (Dr. Sandeep Jadhav)  
 Senior Vice President

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Report Number : MITCON/2022-23/March/3226

Issue Date:06/03/2023

Client's Name & Address	Sample Details	
M/s MOIL LIMITED,  Ukwa Manganese Mines L3=48.974 Ha Site, Dist- Balaghat (M.P)	Sample Code	MITCON/2022-23/March/3226/2
	Name of Sample	Ground Water
	Sample Details	Dugwell Near Pit office
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	25/02/2023
	Date of Sample Receipt	27/02/2023
	Analysis Start Date	27/02/2023
	End Date of Analysis	06/03/2023

**ANALYSIS RESULTS**

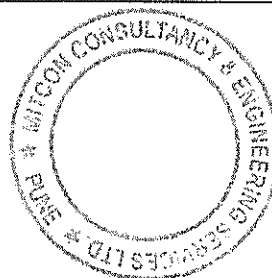
Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7.23	-	6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	< 5	mg/l	N.S	APHA 2540 D, 2-70 to 2-71 23rd ed 2017
03	Turbidity	< 1	NTU	≤ 1	IS: 3025 Part-10 (R.A : 2002)
04	Total Dissolved Solids	264.3	mg/l	≤ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO3	130.24	mg/l	≤ 200	APHA 2340 C, 2-48 to 2-50, 23rd Ed 2017
06	Calcium as Ca	40.12	mg/l	≤ 75	APHA 3500 Ca B, 3-69 to 3-70, 23rd Ed. 2017
07	Magnesium as Mg	12.27	mg/l	≤ 30	APHA 3500 Mg B, 3-86, 23rd Ed. 2017
08	Manganese as mn	< 0.1	mg/l	< 0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as CaCO3	104.18	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 4-91 23rd Ed 2017
11	Chloride as Cl	25.69	mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as SO4	18.70	mg/l	≤ 200	APHA 4500 -SO4- -, 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	8.25	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	Agreeable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

**REMARKS / OBSERVATIONS:**

For MITCON Consultancy & Engineering Services Ltd.

*Kadambari*  
Checked By

(Mrs. Kadambari Deshmukh)



*Dr. Sandeep*  
Authorized Signatory

(Dr. Sandeep Jadhav)  
Senior Vice President

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Report Number : MITCON/2022-23/March/3226

Issue Date:06/03/2023

Client's Name & Address	Sample Details	
M/s MOIL LIMITED,  Ukwa Manganese Mines L3=48.974 Ha Site, Dist:- Balaghat (M.P)	Sample Code	MITCON/2022-23/March/3226/3
	Name of Sample	Ground water
	Sample Details	Dugwell Near Haul road II
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	25/02/2023
	Date of Sample Receipt	27/02/2023
	Analysis Start Date	27/02/2023
	End Date of Analysis	06/03/2023

**ANALYSIS RESULTS**

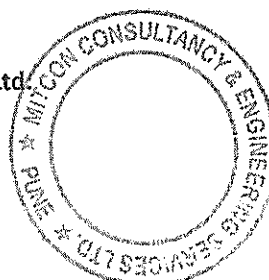
Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7.29	-	6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	< 5	mg/l	N.S	APHA 2540 D, 2-70 to 2-71 23rd ed 2017
03	Turbidity	< 1	NTU	≤ 1	IS: 3025 Part-10 (R.A : 2002)
04	Total Dissolved Solids	302.1	mg/l	≤ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO3	145.26	mg/l	≤ 200	APHA 2340 C, 2-48 to 2-50, 23rd Ed 2017
06	Calcium as Ca	42.25	mg/l	≤ 75	APHA 3500 Ca B, 3-69 to 3-70, 23rd Ed. 2017
07	Magnesium as Mg	12.24	mg/l	≤ 30	APHA 3500 Mg B, 3-86, 23rd Ed. 2017
08	Manganese as mn	< 0.1	mg/l	< 0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as CaCO3	134.68	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 4-91 23rd Ed 2017
11	Chloride as Cl	16.52	mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as SO4	10.97	mg/l	≤ 200	APHA 4500 -SO4- -E, 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	5.75	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	Agreeable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

**REMARKS / OBSERVATIONS:**

For MITCON Consultancy & Engineering Services Ltd.

*Kadambari*  
 Checked By

(Mrs. Kadambari Deshmukh)



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

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Issue Date:06/03/2023

Client's Name & Address	Sample Details	
M/s MOIL LIMITED,  Ukwa Manganese Mines L3=48.974 Ha Site, Dist:- Balaghat (M.P)	Sample Code	MITCON/2022-23/March/3226/4
	Name of Sample	Waste Water
	Sample Details	Near Mine seepage II Vertical
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	25/02/2023
	Date of Sample Receipt	27/02/2023
	Analysis Start Date	27/02/2023
End Date of Analysis	06/03/2023	

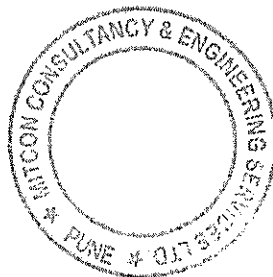
**ANALYSIS RESULTS**

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	3.2	mg/l	--	IS: 3025 Part 38
03	Chemical Oxygen Demand	49.3	mg/l	250	APHA 5220 C,5-20 to 5-21 23rd Ed 2017
04	Biochemical Oxygen	17.1	mg/l	30	IS :3025 (Part 44)
05	Total suspended solids	22.3	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	0.30	mg/l	2	APHA 3111 B,3-18 to 3-21 23rd Ed 2017

REMARKS / OBSERVATIONS:

For MITCON Consultancy & Engineering Services Ltd.

Kadambari  
Checked By  
(Mrs. Kadambari Deshmukh)



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

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**Quarter January February March 2023**

**Test Report**

Report Number : MITCON/2022-23/March/3225

Issue Date:06/03/2022

Client's Name & Address	Reference No.	MITCON/2022-23/March/3225/6
M/s MOIL LIMITED,  Ukwa Manganese Mines L2=69.581 Ha Site, Dist:- Balaghat (M.P)	Date of Monitoring	25/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Near Vertical Shaft II
	Monitoring Done By	MITCON
	Date of Analysis	27/02/2023

**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
32	32	17	10	1440	0.0	5.63 km/hrs.(Avg)	WNW

**RESULT**

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	µg/M <sup>3</sup>	12.4	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO <sub>2</sub> )	µg/M <sup>3</sup>	15.9	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM <sub>10</sub> micron	µg/M <sup>3</sup>	64.9	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM <sub>2.5</sub> micron	µg/M <sup>3</sup>	29.3	≤ 60	USEPA 40 CFRCH
05	Ozone (O <sub>3</sub> )	µg/M <sup>3</sup>	4.4	≤ 100	IS 5182
06	Lead (Pb)	µg/M <sup>3</sup>	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M <sup>3</sup>	0.332	≤ 2.0	IS 5182
08	Ammonia (NH <sub>3</sub> )	µg/M <sup>3</sup>	4.5	≤ 400	APHA - 401
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/M <sup>3</sup>	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M <sup>3</sup>	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M <sup>3</sup>	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M <sup>3</sup>	BDL	≤ 20	APHA - AAS

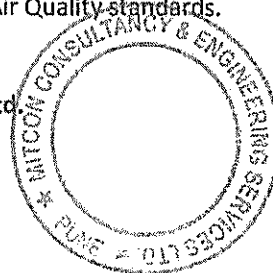
**REMARKS/OBSERVATIONS:**

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

For MITCON Consultancy & Engineering Services Ltd

*Kadambari*  
Checked By

(Mrs.Kadambari Deshmukh)



*Sandeep Jadhav*

Authorized Signatory  
Dr. Sandeep Jadhav  
Senior vice president

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## Quarter January February March 2023

### Test Report

Report Number : MITCON/2022-23/March/3225

Issue Date:06/03/2022

<b>Client's Name &amp; Address</b> M/s MOIL LIMITED,  Ukwa Manganese Mines L2=69.581 Ha Site, Dist:- Balaghat (M.P)	<b>Reference No.</b>	MITCON/2022-23/March/3225/7
	<b>Date of Monitoring</b>	25/02/2023
	<b>Type of Monitoring</b>	Ambient Air
	<b>Test Location</b>	Near Substation
	<b>Monitoring Done By</b>	MITCON
	<b>Date of Analysis</b>	27/02/2023

#### 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
32	32	17	10	1440	0.0	5.63 km/ hrs.(Avg)	WNW

#### RESULT

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	µg/M <sup>3</sup>	11.4	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO <sub>2</sub> )	µg/M <sup>3</sup>	14.7	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM <sub>10</sub> micron	µg/M <sup>3</sup>	60.5	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM <sub>2.5</sub> micron	µg/M <sup>3</sup>	27.2	≤ 60	USEPA 40 CFRCH
05	Ozone (O <sub>3</sub> )	µg/M <sup>3</sup>	4.0	≤ 100	IS 5182
06	Lead (Pb)	µg/M <sup>3</sup>	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M <sup>3</sup>	0.316	≤ 2.0	IS 5182
08	Ammonia (NH <sub>3</sub> )	µg/M <sup>3</sup>	4.5	≤ 400	APHA - 401
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/M <sup>3</sup>	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M <sup>3</sup>	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M <sup>3</sup>	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M <sup>3</sup>	BDL	≤ 20	APHA - AAS

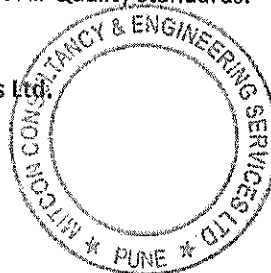
**REMARKS/OBSERVATIONS:**

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

For MITCON Consultancy & Engineering Services Ltd.

*Kadambari*  
Checked By

(Mrs.Kadambari Deshmukh)



*Dr. Sandeep Jadhav*

Authorized Signatory  
Dr. Sandeep Jadhav  
Senior vice president

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Quarter January February March 2023

**Test Report**

Report Number : MITCON/2022-23/March/3225

Issue Date:06/03/2022

Client's Name & Address	Reference No.	MITCON/2022-23/March/3225/8
M/s MOIL LIMITED,  Ukwa Manganese Mines L2=69.581 Ha Site, Dist:- Balaghat (M.P)	Date of Monitoring	25/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Near Admin Building
	Monitoring Done By	MITCON
	Date of Analysis	27/02/2023

**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
32	32	17	10	1440	0.0	5.63 km/ hrs.(Avg)	WNW

**RESULT**

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	µg/M <sup>3</sup>	11.0	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO <sub>2</sub> )	µg/M <sup>3</sup>	13.9	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM <sub>10</sub> micron	µg/M <sup>3</sup>	59.3	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM <sub>2.5</sub> micron	µg/M <sup>3</sup>	26.8	≤ 60	USEPA 40 CFRCH
05	Ozone (O <sub>3</sub> )	µg/M <sup>3</sup>	3.2	≤ 100	IS 5182
06	Lead (Pb)	µg/M <sup>3</sup>	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M <sup>3</sup>	0.320	≤ 2.0	IS 5182
08	Ammonia (NH <sub>3</sub> )	µg/M <sup>3</sup>	3.4	≤ 400	APHA - 401
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/M <sup>3</sup>	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M <sup>3</sup>	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M <sup>3</sup>	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M <sup>3</sup>	BDL	≤ 20	APHA - AAS

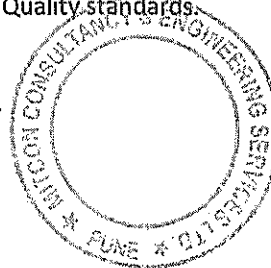
**REMARKS/OBSERVATIONS:**

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

For MITCON Consultancy & Engineering Services Ltd.

*Kadambari*  
Checked By

(Mrs.Kadambari Deshmukh)



*Sandeep*

Authorized Signatory

Dr. Sandeep Jadhav

Senior vice president

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**Quarter January February March 2023**

**Test Report**

Report Number : MITCON/2022-23/March/3225

Issue Date:06/03/2022

<b>Client's Name &amp; Address</b> M/s MOIL LIMITED,  Ukwa Manganese Mines L2=69.581 Ha Site, Dist:- Balaghat (M.P)	<b>Reference No.</b>	MITCON/2022-23/March/3225/9
	<b>Date of Monitoring</b>	25/02/2023
	<b>Type of Monitoring</b>	Ambient Air
	<b>Test Location</b>	Near Weigh Bridge
	<b>Monitoring Done By</b>	MITCON
	<b>Date of Analysis</b>	27/02/2023

**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
32	32	17	10	1440	0.0	5.63 km/ hrs.(Avg)	WNW

**RESULT**

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	µg/M <sup>3</sup>	13.7	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO <sub>2</sub> )	µg/M <sup>3</sup>	17.8	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM <sub>10</sub> micron	µg/M <sup>3</sup>	62.9	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM <sub>2.5</sub> micron	µg/M <sup>3</sup>	32.6	≤ 60	USEPA 40 CFRCH
05	Ozone (O <sub>3</sub> )	µg/M <sup>3</sup>	4.6	≤ 100	IS 5182
06	Lead (Pb)	µg/M <sup>3</sup>	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M <sup>3</sup>	0.340	≤ 2.0	IS 5182
08	Ammonia (NH <sub>3</sub> )	µg/M <sup>3</sup>	4.9	≤ 400	APHA - 401
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/M <sup>3</sup>	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M <sup>3</sup>	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M <sup>3</sup>	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M <sup>3</sup>	BDL	≤ 20	APHA - AAS

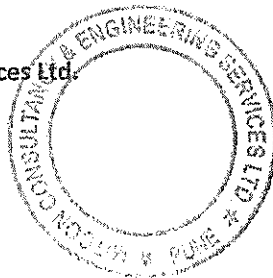
**REMARKS/OBSERVATIONS:**

- 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

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**Quarter January February March 2023**

**Test Report**

Report Number : MITCON/2022-23/March/3225

Issue Date:06/03/2022

Client's Name & Address	Sample Details	
M/s MOIL LIMITED,  Ukwa Manganese Mines L2-69.581 Ha Site, Dist:- Balaghat (M.P)	Sample Code	MITCON/2022-23/March/3225/1
	Name of Sample	Waste Water (Mine Seepage water)
	Sample Details	Mine Seepage water
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	25/02/2023
	Date of Sample Receipt	27/02/2023
	Analysis Start Date	27/02/2023
	End Date of Analysis	06/03/2023

**ANALYSIS RESULTS**

Sr. No.	Characteristic	Results	Unit	Permissible Limit as per Consent Condition	Test Methods
01	pH at 25°C	7.21	-	5.5 to 9.0	APHA 4500 H+ A, 4-95, 23rd Ed. 2017
02	Dissolved Oxygen	4.2	mg/l	--	IS: 3025 Part 38
03	Chemical Oxygen Demand	44.3	mg/l	250	APHA 5220 C,5-20 to 5-21 23rd Ed 2017
04	Biochemical Oxygen	17.3	mg/l	30	IS :3025 (Part 44)
05	Total suspended solids	25.3	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	0.42	mg/l	2	APHA 3111 B,3-18 to 3-21 23rd Ed 2017

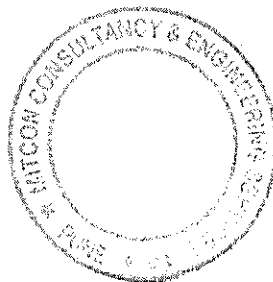
REMARKS / OBSERVATIONS:

For MITCON Consultancy & Engineering Services Ltd.



Checked By

(Mrs. Kadambari Deshmukh)





Authorized Signatory

(Dr. Sandeep Jadhav)

Senior Vice President

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**Quarter January February March 2023**

**Test Report**

Report Number : MITCON/2022-23/March/3225

Issue Date:06/03/2022

Client's Name & Address	Sample Details	
M/s MOIL LIMITED,  Ukwa Manganese Mines L2=69.581 Ha Site, Dist:- Balaghat (M.P)	Sample Code	MITCON/2022-23/March/3225/2
	Name of Sample	Waste Water
	Sample Details	STP Outlet
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	25/02/2023
	Date of Sample Receipt	27/02/2023
	Analysis Start Date	27/02/2023
	End Date of Analysis	06/03/2023

**ANALYSIS RESULTS**

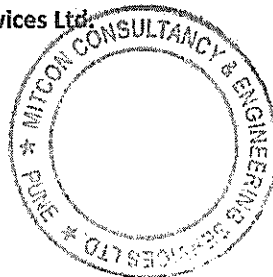
Sr. No.	Characteristic	Results	Unit	Permissible Limit as per Consent Condition	Test Methods
01	pH at 25°C	7.20	-	5.5 to 9.0	APHA 4500 H+ A, 4-95, 23rd Ed. 2017
02	Dissolved Oxygen	3.9	mg/l	--	IS: 3025 Part 38
03	Chemical Oxygen Demand	62.4	mg/l	250	APHA 5220 C,5-20 to 5-21 23rd Ed 2017
04	Biochemical Oxygen	19.2	mg/l	30	IS :3025 (Part 44)
05	Total suspended solids	18.0	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	0.21	mg/l	2	APHA 3111 B,3-18 to 3-21 23rd Ed 2017

REMARKS / OBSERVATIONS:

For MITCON Consultancy & Engineering Services Ltd.

*Kadambari*  
 Checked By

(Mrs. Kadambari Deshmukh)



*Dr. Sandeep*

Authorized Signatory

(Dr. Sandeep Jadhav)  
 Senior Vice President

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**Quarter January February March 2023**

**Test Report**

Report Number : MITCON/2022-23/March/3225

Issue Date:06/03/2022

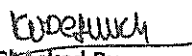
Client's Name & Address	Sample Details	
M/s MOIL LIMITED,  Ukwa Manganese Mines L2=69.581 Ha Site, Dist:- Balaghat (M.P)	Sample Code	MITCON/2022-23/March/3225/3
	Name of Sample	Waste Water
	Sample Details	ETP Outlet
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	25/02/2023
	Date of Sample Receipt	27/02/2023
	Analysis Start Date	27/02/2023
	End Date of Analysis	06/03/2023

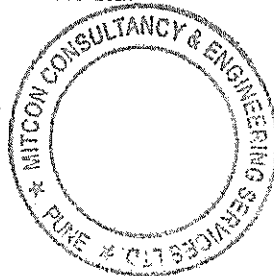
**ANALYSIS RESULTS**


Sr. No.	Characteristic	Results	Unit	Permissible Limit as per Consent Condition	Test Methods
01	pH at 25°C	7.32	-	5.5 to 9.0	APHA 4500 H+ A, 4-95, 23rd Ed. 2017
02	Dissolved Oxygen	2.8	mg/l	--	IS: 3025 Part 38
03	Chemical Oxygen Demand	81.7	mg/l	250	APHA 5220 C,5-20 to 5-21 23rd Ed 2017
04	Biochemical Oxygen	21.9	mg/l	30	IS :3025 (Part 44)
05	Total suspended solids	23.8	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	0.44	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

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**Quarter January February March 2023**

**Test Report**

Report Number : MITCON/2022-23/March/3225

Issue Date:06/03/2022

Client's Name & Address	Sample Details	
M/s MOIL LIMITED,  Ukwa Manganese Mines L2=69.581 Ha Site, Dist:- Balaghat (M.P)	Sample Code	MITCON/2022-23/March/3225/4
	Name of Sample	Ground Water
	Sample Details	Lugma Village open Dugwell No. I
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	25/02/2023
	Date of Sample Receipt	27/02/2023
	Analysis Start Date	27/02/2023
	End Date of Analysis	06/03/2023

**ANALYSIS RESULTS**

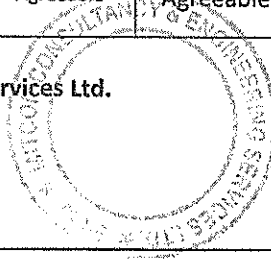
Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 250C	7.28	-	6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	< 5	mg/l	N.S	APHA 2540 D, 2-70 to 2-71 23rd ed 2017
03	Turbidity	< 1	NTU	≤ 1	IS: 3025 Part-10 (R.A : 2002)
04	Total Dissolved Solids	267.3	mg/l	≤ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO3	128.25	mg/l	≤ 200	APHA 2340 C, 2-48 to 2-50, 23rd Ed 2017
06	Calcium as Ca	34.25	mg/l	≤ 75	APHA 3500 Ca B, 3-69 to 3-70, 23rd Ed. 2017
07	Magnesium as Mg	16.25	mg/l	≤ 30	APHA 3500 Mg B, 3-86, 23rd Ed. 2017
08	Manganese as mn	< 0.1	mg/l	< 0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as CaCO3	104.08	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 4-91 23rd Ed 2017
11	Chloride as Cl	25.12	mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as SO4	18.33	mg/l	≤ 200	APHA 4500-SO4 -E, 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	2.32	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	Agreeable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

**REMARKS / OBSERVATIONS:**

For MITCON Consultancy & Engineering Services Ltd.

*Kadambari*  
Checked By

(Mrs. Kadambari Deshmukh)



*(Signature)*

Authorized Signatory

(Dr.Sandeep Jadhav)  
Senior Vice President

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**Quarter January February March 2023**

**Test Report**

Report Number : MITCON/2022-23/March/3225

Issue Date:06/03/2022

Client's Name & Address	Sample Details	
M/s MOIL LIMITED,  Ukwa Manganese Mines L2=69.581 Ha Site, Dist:- Balaghat (M.P)	Sample Code	MITCON/2022-23/March/3225/5
	Name of Sample	Drinking water
	Sample Details	2 <sup>nd</sup> Vertical shop open dugwell
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	25/02/2023
	Date of Sample Receipt	27/02/2023
	Analysis Start Date	27/02/2023
	End Date of Analysis	06/03/2023

**ANALYSIS RESULTS**

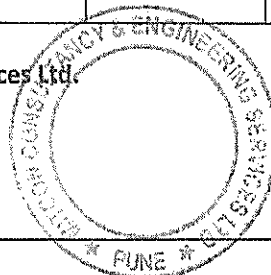
Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 250C	7.27	-	6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	< 5	mg/l	N.S	APHA 2540 D, 2-70 to 2-71 23rd ed 2017
03	Turbidity	< 1	NTU	≤ 1	IS: 3025 Part-10 (R.A : 2002)
04	Total Dissolved Solids	231.2	mg/l	≤ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO <sub>3</sub>	115.28	mg/l	≤ 200	APHA 2340 C, 2-48 to 2-50, 23rd Ed 2017
06	Calcium as Ca	28.13	mg/l	≤ 75	APHA 3500 Ca B, 3-69 to 3-70, 23rd Ed. 2017
07	Magnesium as Mg	12.45	mg/l	≤ 30	APHA 3500 Mg B, 3-86, 23rd Ed. 2017
08	Manganese as mn	< 0.1	mg/l	< 0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as CaCO <sub>3</sub>	104.12	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 4-91 23rd Ed 2017
11	Chloride as Cl	52.12	mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as SO <sub>4</sub>	12.24	mg/l	≤ 200	APHA 4500-SO <sub>4</sub> - E, 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 NO <sub>3</sub>	4.27	mg/l	≤ 45	APHA 4500 NO <sub>3</sub> -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	Agreeable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

**REMARKS / OBSERVATIONS:**

For MITCON Consultancy & Engineering Services Ltd.

*Kadambari*  
 Checked By

(Mrs. Kadambari Deshmukh)



*(Signature)*

Authorized Signatory

(Dr. Sandeep Jadhav)  
 Senior Vice President

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Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/ March/3915

Issue Date: 06/03/2023

Client's Name & Address M/s MOIL LIMITED,  Ukwa Manganese Mines L1=199.067 Ha Site, Dist:- Balaghat (M.P)	Reference No.	MITCON/2022-23/March/3915/5
	Date of Monitoring	25/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Near Nagra Plant
	Monitoring Done By	MITCON
	Date of Analysis	27/02/2023

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
32	32	17	10	1440	0.0	5.63 km/hrs.(Avg)	WNW

RESULT

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	µg/M <sup>3</sup>	11.5	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO <sub>2</sub> )	µg/M <sup>3</sup>	16.2	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM <sub>10</sub> micron	µg/M <sup>3</sup>	64.9	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM <sub>2.5</sub> micron	µg/M <sup>3</sup>	29.3	≤ 60	USEPA 40 CFRCH
05	Ozone (O <sub>3</sub> )	µg/M <sup>3</sup>	4.4	≤ 100	IS 5182
06	Lead (Pb)	µg/M <sup>3</sup>	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M <sup>3</sup>	0.332	≤ 2.0	IS 5182
08	Ammonia (NH <sub>3</sub> )	µg/M <sup>3</sup>	4.5	≤ 400	APHA - 401
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/M <sup>3</sup>	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M <sup>3</sup>	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M <sup>3</sup>	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M <sup>3</sup>	BDL	≤ 20	APHA - AAS

REMARKS/OBSERVATIONS:

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

For MITCON Consultancy &amp; Engineering Services Ltd.

*Kadambari*  
Checked By  
(Mrs.Kadambari Deshmukh)



*Dr. Sandeep Jadhav*  
Authorized Signatory  
Dr. Sandeep Jadhav  
Senior vice president

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**Quarter January- February- March 2023**

**Test Report**

Report Number : MITCON/2022-23/ March/3915

Issue Date: 06/03/2023

<b>Client's Name &amp; Address</b>	<b>Reference No.</b>	MITCON/2022-23/March/3915/6
M/s MOIL LIMITED,  Ukwa Manganese Mines L1=199.067 Ha Site, Dist:- Balaghat (M.P)	<b>Date of Monitoring</b>	25/02/2023
	<b>Type of Monitoring</b>	Ambient Air
	<b>Test Location</b>	Near Ukwa Village
	<b>Monitoring Done By</b>	MITCON
	<b>Date of Analysis</b>	27/02/2023

**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
32	32	17	10	1440	0.0	5.63 km/ hrs.(Avg)	WNW


**RESULT**

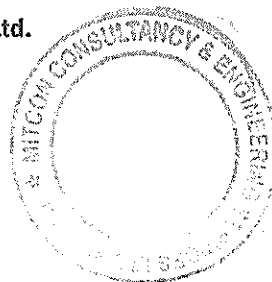
Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	µg/M <sup>3</sup>	11.0	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO <sub>2</sub> )	µg/M <sup>3</sup>	15.8	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM <sub>10</sub> micron	µg/M <sup>3</sup>	57.9	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM <sub>2.5</sub> micron	µg/M <sup>3</sup>	28.0	≤ 60	USEPA 40 CFRCH
05	Ozone (O <sub>3</sub> )	µg/M <sup>3</sup>	3.7	≤ 100	IS 5182
06	Lead (Pb)	µg/M <sup>3</sup>	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M <sup>3</sup>	0.240	≤ 2.0	IS 5182
08	Ammonia (NH <sub>3</sub> )	µg/M <sup>3</sup>	4.0	≤ 400	APHA - 401
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/M <sup>3</sup>	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M <sup>3</sup>	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M <sup>3</sup>	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M <sup>3</sup>	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

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**Quarter January- February- March 2023**

**Test Report**

Report Number : MITCON/2022-23/ March/3915

Issue Date: 06/03/2023

<b>Client's Name &amp; Address</b>	<b>Reference No.</b>	MITCON/2022-23/March/3915/7
M/s MOIL LIMITED,  Ukwa Manganese Mines L1=199.067 Ha Site, Dist-Balaghat (M.P)	<b>Date of Monitoring</b>	25/02/2023
	<b>Type of Monitoring</b>	Ambient Air
	<b>Test Location</b>	Near Vertical
	<b>Monitoring Done By</b>	MITCON
	<b>Date of Analysis</b>	27/02/2023

**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
32	32	17	10	1440	0.0	5.63 km/ hrs.(Avg)	WNW

**RESULT**

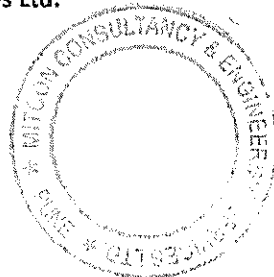
Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	µg/M <sup>3</sup>	12.4	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO <sub>2</sub> )	µg/M <sup>3</sup>	17.0	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM <sub>10</sub> micron	µg/M <sup>3</sup>	68.4	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM <sub>2.5</sub> micron	µg/M <sup>3</sup>	32.6	≤ 60	USEPA 40 CFRCH
05	Ozone (O <sub>3</sub> )	µg/M <sup>3</sup>	4.5	≤ 100	IS 5182
06	Lead (Pb)	µg/M <sup>3</sup>	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M <sup>3</sup>	0.376	≤ 2.0	IS 5182
08	Ammonia (NH <sub>3</sub> )	µg/M <sup>3</sup>	4.7	≤ 400	APHA - 401
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/M <sup>3</sup>	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M <sup>3</sup>	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M <sup>3</sup>	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M <sup>3</sup>	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

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## Quarter January- February- March 2023

### Test Report

Report Number : MITCON/2022-23/ March/3915

Issue Date: 06/03/2023

Client's Name & Address <b>M/s MOIL LIMITED,</b>  Ukwa Manganese Mines L1=199.067 Ha Site, Dist- Balaghat (M.P)	Reference No.	MITCON/2022-23/March/3915/8
	Date of Monitoring	25/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Near Work Shop
	Monitoring Done By	MITCON
	Date of Analysis	27/02/2023

### 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
32	32	17	10	1440	0.0	5.63 km/hrs.(Avg)	WNW

### RESULT

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO <sub>2</sub> )	µg/M <sup>3</sup>	13.6	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO <sub>2</sub> )	µg/M <sup>3</sup>	18.4	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM <sub>10</sub> micron	µg/M <sup>3</sup>	69.6	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM <sub>2.5</sub> micron	µg/M <sup>3</sup>	36.8	≤ 60	USEPA 40 CFRCH
05	Ozone (O <sub>3</sub> )	µg/M <sup>3</sup>	4.9	≤ 100	IS 5182
06	Lead (Pb)	µg/M <sup>3</sup>	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/M <sup>3</sup>	5.3	≤ 400	APHA - 401
09	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/M <sup>3</sup>	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M <sup>3</sup>	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M <sup>3</sup>	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M <sup>3</sup>	BDL	≤ 20	APHA - AAS

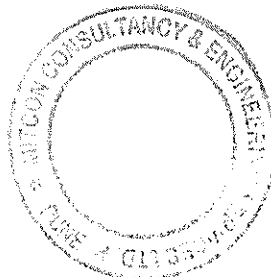
### REMARKS/OBSERVATIONS:

- > 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

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Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/ March/3915

Issue Date: 06/03/2023

Client's Name & Address	Reference No.	MITCON/2022-23/March/3915/9
M/s MOIL LIMITED,  Ukwa Manganese Mines L1=199.067 Ha Site, Dist:- Balaghat (M.P)	Date of Monitoring	25/02/2023
	Type of Monitoring	Ambient Noise
	Monitoring Done By	MITCON


READINGS

Sr. No.	Test Location	Unit	Readings
01	Jack Hammer Drill	dB(A)	71.2
02	Dumper Loaded	dB(A)	69.9
03	Ventilation Fan	dB(A)	68.3
04	Compressor House 1	dB(A)	68.2


**REMARKS / OBSERVATIONS:**

Limits: The Madhya Pradesh 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)

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**Quarter January- February- March 2023**

**Test Report**

Report Number : MITCON/2022-23/ March/3915

Issue Date: 06/03/2023

Client's Name & Address	Sample Details	
<b>M/s MOIL LIMITED,</b>  Ukwa Manganese Mines L1=199.067 Ha Site, Dist:- Balaghat (M.P)	Sample Code	MITCON/2022-23/March/3915/1
	Name of Sample	Ground Water
	Sample Details	Mine office drinking water
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	25/02/2023
	Date of Sample Receipt	27/02/2023
	Analysis Start Date	27/02/2023
End Date of Analysis	06/03/2023	

**ANALYSIS RESULTS**

Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7.23	-	6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	< 5	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	240.3	mg/l	≤ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO3	115.40	mg/l	≤ 200	APHA 2340 C, 2-48 to 2-50, 23rd Ed 2017
06	Calcium as Ca	45.2	mg/l	≤ 75	APHA 3500 Ca B, 3-69 to 3-70, 23rd Ed. 2017
07	Magnesium as Mg	23.1	mg/l	≤ 30	APHA 3500 Mg B, 3-86, 23rd Ed. 2017
08	Manganese as mn	< 0.1	mg/l	< 0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as CaCO3	98.5	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 4-91 23rd Ed 2017
11	Chloride as Cl	23.10	mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as SO4	10.25	mg/l	≤ 200	APHA 4500 -SO4- -E, 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	2.73	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	Agreeable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

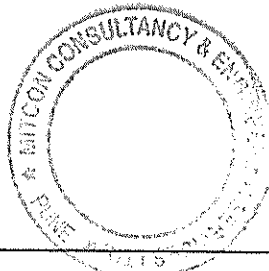
**REMARKS / OBSERVATIONS:**

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

For MITCON Consultancy & Engineering Services Ltd.

*Kadambari*  
Checked By

(Mrs. Kadambari Deshmukh)



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

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Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/ March/3915

Issue Date: 06/03/2023

Client's Name & Address	Sample Details	
M/s MOIL LIMITED,  Ukwa Manganese Mines L1=199.067 Ha Site, Dist:- Balaghat (M.P)	Sample Code	MITCON/2022-23/March/3915/2
	Name of Sample	Ground Water
	Sample Details	Ukwa Village Open Dug well
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	25/02/2023
	Date of Sample Receipt	27/02/2023
	Analysis Start Date	27/02/2023
	End Date of Analysis	06/03/2023

ANALYSIS RESULTS

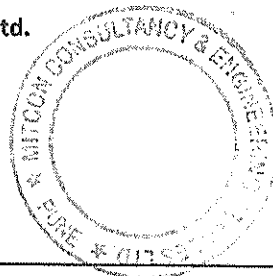
Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7.21	-	6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	<5	mg/l	N.S	APHA 2540 D, 2-70 to 2-71 23rd ed 2017
03	Turbidity	< 1	NTU	≤ 1	IS: 3025 Part-10 (R.A : 2002)
04	Total Dissolved Solids	245.2	mg/l	≤ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO <sub>3</sub>	122.21	mg/l	≤ 200	APHA 2340 C, 2-48 to 2-50, 23rd Ed 2017
06	Calcium as Ca	32.02	mg/l	≤ 75	APHA 3500 Ca B, 3-69 to 3-70, 23rd Ed. 2017
07	Magnesium as Mg	10.36	mg/l	≤ 30	APHA 3500 Mg B, 3-86, 23rd Ed. 2017
08	Manganese as mn	< 0.1	mg/l	< 0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as CaCO <sub>3</sub>	102.32	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 4-91 23rd Ed 2017
11	Chloride as Cl	45.23	mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as SO <sub>4</sub>	18.20	mg/l	≤ 200	APHA 4500 -SO <sub>4</sub> - E, 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 NO <sub>3</sub>	5.25	mg/l	≤ 45	APHA 4500 NO <sub>3</sub> -B, 4-127 23rd Ed 2017
15	E.coli	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
16	Total Collform	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
17	colour	< 5	HZ	≤ 5	IS: 3025 Part-4 (Rev.1, RA 2012)
18	odour	Agreeable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

REMARKS / OBSERVATIONS:

For MITCON Consultancy &amp; Engineering Services Ltd.

Checked By

(Mrs. Kadambari Deshmukh)



Authorized Signatory

(Dr. Sandeep Jadhav)

Senior Vice President

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**Quarter January- February- March 2023**

**Test Report**

Report Number : MITCON/2022-23/ March/3915

Issue Date: 06/03/2023

Client's Name & Address	Sample Details	
M/s MOIL LIMITED,  Ukwa Manganese Mines L1=199.067 Ha Site, Dist:- Balaghat (M.P)	Sample Code	MITCON/2022-23/March/3915/3
	Name of Sample	Ground water
	Sample Details	Gudma Camp Open Dug well
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	25/02/2023
	Date of Sample Receipt	27/02/2023
	Analysis Start Date	27/02/2023
	End Date of Analysis	06/03/2023

**ANALYSIS RESULTS**

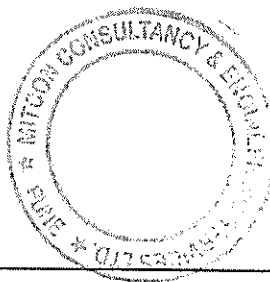
Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7.21	-	6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	< 5	mg/l	N.S	APHA 2540 D, 2-70 to 2-71 23rd ed 2017
03	Turbidity	< 1	NTU	≤ 1	IS: 3025 Part-10 (R.A : 2002)
04	Total Dissolved Solids	224.0	mg/l	≤ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO3	109.25	mg/l	≤ 200	APHA 2340 C, 2-48 to 2-50, 23rd Ed 2017
06	Calcium as Ca	35.14	mg/l	≤ 75	APHA 3500 Ca B, 3-69 to 3-70, 23rd Ed. 2017
07	Magnesium as Mg	27.12	mg/l	≤ 30	APHA 3500 Mg B, 3-86, 23rd Ed. 2017
08	Manganese as mn	< 0.1	mg/l	< 0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as CaCO3	95.28	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 4-91 23rd Ed 2017
11	Chloride as Cl	23.12	mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as SO4	10.25	mg/l	≤ 200	APHA 4500 -SO4- -E, 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	10.21	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	Agreeable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

**REMARKS / OBSERVATIONS:**

For MITCON Consultancy & Engineering Services Ltd.

*Kadambari*  
 Checked By

(Mrs. Kadambari Deshmukh)



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

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Format No. EME/LAB/Format 7.8/TR

**Quarter January- February- March 2023**

**Test Report**

Report Number : MITCON/2022-23/ March/3915

Issue Date: 06/03/2023

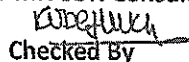
Client's Name & Address	Sample Details	
M/s MOIL LIMITED,  Ukwa Manganese Mines L1=199.067 Ha Site, Dist:- Balaghat (M.P)	Sample Code	MITCON/2022-23/March/3915/4
	Name of Sample	Ground Water
	Sample Details	New Mine colony Hand pump
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	25/02/2023
	Date of Sample Receipt	27/02/2023
	Analysis Start Date	27/02/2023
End Date of Analysis	06/03/2023	

**ANALYSIS RESULTS**

Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7.29		6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	< 5	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	230.3	mg/l	≤ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO3	112.23	mg/l	≤ 200	APHA 2340 C, 2-48 to 2-50, 23rd Ed 2017
06	Calcium as Ca	35.25	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	Manganese as mn	< 0.1	mg/l	< 0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as CaCO3	85.21	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 4-91 23rd Ed 2017
11	Chloride as Cl	19.25	mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as SO4	13.67	mg/l	≤ 200	APHA 4500 -SO4- -E, 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	4.20	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	Agreeable	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

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**Quarter January February March 2023****Test Report**

Report Number : MITCON/2022-23/March/3225

Issue Date:06/03/2022

Client's Name & Address	Reference No.	MITCON/2022-23/March/3225/10
M/s MOIL LIMITED,  Ukwa Manganese Mines L2=69.581 Ha Site, Dist:- Balaghat (M.P)	Date of Monitoring	25/02/2023
	Type of Monitoring	Ambient Noise
	Monitoring Done By	MITCON

**READINGS**

Sr. No.	Test Location	Unit	Readings
01	Jack Hammer Drill (1650 level)	dB(A)	71.3
02	Dumper Loaded at workshop	dB(A)	67.5
03	Near Vertical shaft	dB(A)	69.5
04	Compressor House II	dB(A)	69.3

**REMARKS / OBSERVATIONS:**

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

For MITCON Consultancy &amp; Engineering Services Ltd.

  
Checked By

(Mrs. Kadambari Deshmukh)



Authorized Signatory

Dr. Sandeep Jadhav  
(Senior Vice President)

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